Volumes 1 & 2

Encyclopedia of PSYCHOLOGY *&* LAW

Brian L. Cutler • Editor

Encyclopedia of PSYCHOLOGY *&* LAW

Encyclopedia of PSYCHOLOGY & LAW

Volumes 1 & 2

Brian L. Cutler - Editor
University of North Carolina at Charlotte

A SAGE Reference Publication
SAGE Publications
Los Angeles • London • New Delhi • Singapore

For information:

SAGE Publications, Inc.
2455 Teller Road
Thousand Oaks, California 91320
E-mail: order@sagepub.com

SAGE Publications Ltd.
1 Oliver's Yard
55 City Road
London EC1Y 1SP
United Kingdom

SAGE Publications India Pvt. Ltd.
B 1/I 1 Mohan Cooperative Industrial Area
Mathura Road, New Delhi 110 044
India

SAGE Publications Asia-Pacific Pte. Ltd.
33 Pekin Street #02-01
Far East Square
Singapore 048763

Printed in the United States of America.

Library of Congress Cataloging-in-Publication Data

Encyclopedia of psychology and law/editor, Brian L. Cutler.
p. cm.
Includes bibliographical references and index.
ISBN 978-1-4129-5189-0 (cloth)
1. Law—Psychological aspects—Encyclopedias. 2. Law—United States—Psychological aspects—Encyclopedias. 3. Forensic psychology—Encyclopedias. 4. Forensic psychology—United States—Encyclopedias. I. Cutler, Brian L.

K346.E53 2008
340′.19—dc22 2007029845

This book is printed on acid-free paper.

07 08 09 10 11 10 9 8 7 6 5 4 3 2 1

Publisher:	Rolf A. Janke
Acquisitions Editor:	Jim Brace-Thompson
Developmental Editor:	Diana E. Axelsen
Reference Systems Manager:	Leticia Gutierrez
Production Editor:	Kate Schroeder
Copy Editor:	QuADS Prepress (P) Ltd.
Typesetter:	C&M Digitals (P) Ltd.
Proofreaders:	Penny Sippel, Dennis Webb
Indexer:	Janet Perlman
Cover Designer:	Janet Foulger
Marketing Manager:	Amberlyn Erzinger

Contents

Editorial Board

Editor

Associate Editor

Managing Editor

Senior Advisory Board Members

List of Entries

Reader's Guide

This list is provided to assist readers in locating entries on related topics. Some entry titles appear in more than one category.

Criminal Competencies

Criminal Responsibility

Death Penalty

Divorce and Child Custody

Education and Professional Development

Eyewitness Memory

Forensic Assessment in Civil and Criminal Cases

Juvenile Offenders

Mental Health Law

Psychological and Forensic Assessment Instruments

Psychology of Criminal Behavior

Psychology of Policing and Investigations

Sentencing and Incarceration

Symptoms and Disorders Relevant to Forensic Assessment

Trial Processes

Victim Reactions to Crime

Violence Risk Assessment

About the Editors

General Editor

Brian L. Cutler, Ph.D., is Professor and Chair of the Department of Psychology at the University of North Carolina at Charlotte. He conducts research on eyewitness identification and the effectiveness of safeguards designed to protect defendants from erroneous conviction resulting from mistaken identification. He is the author of *Mistaken Identification: Eyewitnesses, Psychology, and the Law* (with Steven Penrod, 1995) and over 60 book chapters and articles on eyewitness memory and legal safeguards. He serves as Editor-in-Chief of *Law and Human Behavior*, the official journal of the American Psychology-Law Society. He also serves as an expert witness and testifies on the psychology of eyewitness memory. He received his doctoral degree in social psychology from the University of Wisconsin–Madison in 1987.

Associate Editor

Patricia A. Zapf, Ph.D., is currently Associate Professor in the Department of Psychology at John Jay College of Criminal Justice, the City University of New York. She is Associate Editor of *Law and Human Behavior* and was appointed Fellow of the American Psychological Association in 2006 for outstanding contributions to the field of law and psychology. She has published over 60 articles and chapters, mainly on the assessment of criminal competencies. In addition to her research, she serves as a consultant to various criminal justice and policy organizations and maintains a private practice in forensic assessment. She received her doctoral degree in clinical forensic psychology from Simon Fraser University in Canada in 1999.

Managing Editor

Sarah Greathouse, M.S., is currently working on her Ph.D. in psychology at the City University of New York. To date, her research has focused on issues relevant to jury decision making and eyewitness identification. She recently served as the editorial assistant for *Law and Human Behavior*, the official journal of the American Psychology-Law Society. She received her master's degree in legal psychology from Florida International University.

Contributors

Jeffrey Abracen
Correctional Service of Canada

Meera Adya
Syracuse University

Ani A. Aharonian
University of Nebraska–Lincoln

John J. B. Allen
University of Arizona

Scott W. Allen
Miami-Dade Police Department

Lia Amakawa
Fordham University

Paul S. Appelbaum
Columbia University

Elizabeth Arias
John Jay College of Criminal Justice, City University of New York

Julie E. Artis
DePaul University

Else-Marie Augusti
University of California, Davis

Stella Bain
Glasgow Caledonian University

Nancy Lynn Baker
Fielding Graduate University

Albert Bandura
Stanford University

Trevor H. Barese
Roger Williams University

D. David Barnard
Graduate Center, City University of New York

Patrick Bartel
Youth Forensic Psychiatric Services of British Columbia

Jennifer L. Beaudry
Queen's University

Michelle I. Bertrand
Queen's University

Peter Blanck
Syracuse University

Arthur W. Blume
University of North Carolina at Charlotte

Marcus T. Boccaccini
Sam Houston State University

Douglas P. Boer
University of Waikato

James Bopp
Rockland Psychiatric Center

Brian H. Bornstein
University of Nebraska–Lincoln

Randy Borum
University of South Florida

Robert K. Bothwell
University of Louisiana at Lafayette

Bette L. Bottoms
University of Illinois at Chicago

Neil Brewer
Flinders University

Jocelyn M. Brineman
University of North Carolina at Charlotte

Johann Brink
BC Mental Health & Addiction Services,
University of British Columbia

Jessica Broderick
University of British Columbia

Ray Bull
University of Leicester

Barry R. Burkhart
Auburn University

Tom Busey
Indiana University, Bloomington

Julia C. Busso
John Jay College of Criminal Justice,
City University of New York

Brooke Butler
University of South Florida Sarasota-Manatee

Lisa Callahan
Sage Colleges

Philip J. Candilis
University of Massachusetts Medical School

Nathalie Castano
Florida International University

Elizabeth Cauffman
University of California, Irvine

Yoojin Chae
University of California, Davis

Jared Chamberlain
University of Nevada, Reno

Steve D. Charman
Florida International University

H. Lyssette Chavez
University of Nevada, Reno

Nicola Cheyne
Griffith University

Makenzie Chilton
University of British Columbia

Jason M. Chin
University of British Columbia

M. Cherie Clark
Queens University of Charlotte

Steve E. Clark
University of California, Riverside

Jacqueline K. Coffman
California State University, Fullerton

Ellen S. Cohn
University of New Hampshire

Lois Oberlander Condie
Harvard Medical School

Mary Connell
Private Practice

Virginia G. Cooper
University of South Carolina,
South Carolina Dept. of Mental Health

Ryan W. Copple
John Jay College of Criminal Justice,
City University of New York

Mark Costanzo
Claremont McKenna College

Kellina M. Craig-Henderson
National Science Foundation

Caroline B. Crocker
John Jay College of Criminal Justice,
City University of New York

Mark Douglas Cunningham
Private Practice

Brian L. Cutler
University of North Carolina at Charlotte

Anne K. Cybenko
University of California, Riverside

Tarika Daftary
Graduate Center, City University of New York

Michael R. Davis
Monash University

Kenneth Allan Deffenbacher
University of Nebraska at Omaha

Melissa Y. De Jesus
University of Pennsylvania

George J. Demakis
University of North Carolina at Charlotte

Susan Dennison
Griffith University

Sarah L. Desmarais
Simon Fraser University

Jennifer L. Devenport
Western Washington University

Dennis J. Devine
Indiana University, Purdue University

Mandeep K. Dhami
University of Cambridge

Shari Seidman Diamond
Northwestern University

Bridget M. Doane
University of Alabama

Catherine M. Dodson
Southern Methodist University

Dennis M. Doren
Sand Ridge Secure Treatment Center

Kevin S. Douglas
Simon Fraser University

Amy Bradfield Douglass
Bates College

Eric York Drogin
Harvard Medical School, Franklin Pierce Law Center

Rachel Duros
Nova Southeastern University

G. Donald Dutton
University of British Columbia

Jennifer L. Dvoskin
Argosy University

Joel A. Dvoskin
University of Arizona

Jennifer E. Dysart
John Jay College of Criminal Justice, City University of New York

John F. Edens
Texas A&M University

Eric B. Elbogen
Duke University

Douglas L. Epperson
Iowa State University

Edna Erez
Kent State University

Caroline Everington
Winthrop University

David L. Faigman
University of California, Hastings College of the Law

Keith A. Findley
University of Wisconsin

Ronald Fisher
Florida International University

Heather D. Flowe
University of California, San Diego

Paul W. Foos
University of North Carolina at Charlotte

William E. Foote
University of New Mexico

Haley L. Ford
University of Alabama

Adelle E. Forth
Carleton University

Nicci Bowman Fowler
University of California, Irvine

Patricia A. Frazier
University of Minnesota

Richard I. Frederick
U.S. Medical Center for Federal Prisoners

Mary Ellen Fromuth
Middle Tennessee State University

I. Bruce Frumkin
Forensic and Clinical Psychology Associates, P.A.

Solomon M. Fulero
Sinclair College

Fiona Gabbert
University of Abertay, Dundee

Jennifer L. Gagné
Nova Southeastern University

Frank J. Gallo
Western New England College

Maryanne Garry
Victoria University

L. Beth Gaydon
University of Nevada, Reno

Simona Ghetti
University of California, Davis

Renée Gobeil
Carleton University

Stephen Golding
University of Utah

Naomi E. Sevin Goldstein
Drexel University

Gail S. Goodman
University of California, Davis

Pär Anders Granhag
Gothenburg University

Sarah Greathouse
John Jay College of Criminal Justice, City University of New York

Edith Greene
University of Colorado at Colorado Springs

Michael P. Griffin
University of Alabama

Timothy Griffin
University of Nevada, Reno

Ross D. Grimes
University of Alabama

Jennifer Groscup
John Jay College of Criminal Justice, City University of New York

John Louis Guidubaldi
Kent State University

Laura S. Guy
Simon Fraser University

Thomas L. Hafemeister
University of Virginia Law School

Craig Haney
University of California, Santa Cruz

Paula L. Hannaford-Agor
National Center for State Courts

David J. Hansen
University of Nebraska–Lincoln

Robert D. Hare
Darkstone Research Group, Ltd.

Andrew J. R. Harris
Forensic Assessment Group

Grant T. Harris
Mental Health Centre Penetanguishene

La Tonya Harris
University of California, Davis

Stephen D. Hart
Simon Fraser University

Lisa E. Hasel
Iowa State University

Katina R. Hebert
University of Alabama at Birmingham

Krystal Hedge
University of Denver

Marsha Anne Hedrick
Private Practice

Kirk Heilbrun
Drexel University

Larry Heuer
Barnard College, Columbia University

Virginia Aldigé Hiday
North Carolina State University

Charles Robert Honts
Boise State University

Irwin A. Horowitz
Oregon State University

Harmon M. Hosch
University of Texas at El Paso

Matthew T. Huss
Creighton University

Elizabeth L. Jeglic
John Jay College of Criminal Justice,
City University of New York

Alayna Jehle
University of Nevada, Reno

Nicole M. Johnson
University of Alabama

Kevin M. Jolly
University of Texas at El Paso

Rachel Kalbeitzer
Drexel University

Saul M. Kassin
Williams College

Patrick J. Kennealy
University of California, Irvine

Norbert L. Kerr
Michigan State University

Ryan P. Kilmer
University of North Carolina at Charlotte

Eva Kimonis
University of California, Irvine

Stuart M. Kirchner
John Jay College of Criminal Justice,
City University of New York

Lauren L. Kong
University of Arizona

David Kosson
Rosalind Franklin University of Medicine and Science

Margaret Bull Kovera
John Jay College of Criminal Justice,
City Universty of New York

L. Thomas Kucharski
John Jay College of Criminal Justice,
City Universty of New York

James Michael Lampinen
University of Arkansas

Edward E. Landis
Federal Medical Center

Jennifer Langhinrichsen-Rohling
University of South Alabama

Martin Langhinrichsen-Rohling
University of South Alabama

Daniel D. Langleben
University of Pennsylvania

Kimberly A. Larson
Drexel University, Villanova School of Law

G. Daniel Lassiter
Ohio University

Cindy Laub
University of Nebraska

Jennifer A. A. Lavoie
Simon Fraser University

Deah S. Lawson
University of Alabama, Huntsville

Sharon Leal
University of Portsmouth

Christie A. Ledbetter
University of Alabama

Zina Lee
University of Alabama

Jill S. Levenson
Lynn University

Lora M. Levett
University of Florida

Joel D. Lieberman
University of Nevada, Las Vegas

Scott O. Lilienfeld
Emory University

D. Stephen Lindsay
University of Victoria

R. C. L. Lindsay
Queen's University

Daniel Linz
University of California, Santa Barbara

Paul D. Lipsitt
Boston University

Thomas R. Litwack
John Jay College of Criminal Justice, City Universty of New York

Elizabeth F. Loftus
University of California, Irvine

Vivian B. Lord
University of North Carolina at Charlotte

Jennifer Eno Louden
University of California, Irvine

Ruth Luckasson
University of New Mexico

Arthur J. Lurigio
Loyola University Chicago

Robert J. MacCoun
University of California, Berkeley

Doris Layton MacKenzie
University of Maryland

Otto MacLin
University of Northern Iowa

Roy S. Malpass
University of Texas at El Paso

Sarah Manchak
University of California, Irvine

Samantha Mann
University of Portsmouth

Jamal K. Mansour
Queen's University

Jessica L. Marcon
University of Texas at El Paso

Diane Marsh
University of Pittsburgh at Greensburg

Dorothy F. Marsil
Kennesaw State University

Daniel C. Marson
University of Alabama at Birmingham

Mary-Lou Martin
McMaster University

Hunter A. McAllister
Southeastern Louisiana University

Richard D. McAnulty
University of North Carolina at Charlotte

Kathy McCloskey
University of Hartford

Kaitlyn McLachlan
Simon Fraser University

Christian A. Meissner
University of Texas at El Paso

Amina Memon
University of Aberdeen

Cynthia Calkins Mercado
John Jay College of Criminal Justice, City Universty of New York

Anna Mestitz
Research Institute on Judicial Systems

Richard Metzger
University of Tennessee at Chattanooga

Richard L. Michalski
Hollins University

Peter Miene
Winona State University

Holly A. Miller
Sam Houston State University

Monica K. Miller
University of Nevada, Reno

Joel S. Milner
Northern Illinois University

Kathryn L. Modecki
Arizona State University

John Monahan
University of Virginia

Gary Moran
Florida International University

Sarah Mordell
Simon Fraser University

Jessica Morgan
University of Alabama

Stephen J. Morse
University of Pennsylvania

Pam Mueller
Harvard University

Bryan Myers
University of North Carolina, Wilmington

Lavita Nadkarni
University of Denver

Cynthia J. Najdowski
University of Illinois at Chicago

Kamela K. Nelan
University of Virginia School of Law

Kally J. Nelson
University of California, Irvine

Jeffrey S. Neuschatz
University of Alabama at Huntsville

Eryn Newman
Victoria University of Wellington

Tonia L. Nicholls
British Columbia Mental Health & Addiction Services

Raymond W. Novaco
University of California, Irvine

Kevin M. O'Neil
Florida International University

Maureen O'Sullivan
University of San Francisco

James R. P. Ogloff
Monash University and Forensicare

J. Gregory Olley
University of North Carolina at Chapel Hill

Elizabeth A. Olson
University of Wisconsin–Whitewater

Randy K. Otto
University of South Florida

Barbara A. Oudekerk
University of Virginia

Ira K. Packer
University of Massachusetts Medical School

Douglas Paton
University of Tasmania

Pedro M. Paz-Alonso
University of California, Davis

Michael L. Perlin
New York Law School

John Petrila
University of South Florida

Kathy Pezdek
Claremont Graduate University

Amy Phenix
Private Practice

Janice Picheca
Correctional Service of Canada

Kerri L. Pickel
Ball State University

Lisa D. Piechowski
Private Practice

Gianni Pirelli
John Jay College of Criminal Justice, City University of New York

Judith Platania
Roger Williams University

Natalie H. Polvi
Regional Psychiatric Centre (Prairies)

Mina Popliger
McGill University

Norman G. Poythress
University of South Florida

Joanna D. Pozzulo
Carleton University

Jennifer Pryor
Hollins University

Ethel Quayle
University College Cork

Vernon L. Quinsey
Queen's University

Jennifer J. Ratcliff
Ohio University

J. Don Read
Simon Fraser University

Margaret C. Reardon
Florida International University

Allison D. Redlich
Policy Research Associates

Kim Reeves
Simon Fraser University

Alan Reifman
Texas Tech University

David Reitman
Nova Southeastern University

Michelle R. Resor
Uniersity of North Carolina at Charlotte

Marnie E. Rice
Mental Health Centre Penetanguishene

Jennifer K. Robbennolt
University of Illinois

Julian Roberts
Oxford University

Amanda L. Robinson
Cardiff University

Ronald Roesch
Simon Fraser University

Richard Rogers
University of North Texas

Barry Rosenfeld
Fordham University

J. Peter Rosenfeld
Northwestern University

David F. Ross
University of Tennessee at Chattanooga

David B. Rottman
National Center for State Courts

R. Barry Ruback
Pennsylvania State University

Melissa B. Russano
Roger Williams University

Michael J. Saks
Arizona State University

Karen L. Salekin
University of Alabama

Randall T. Salekin
University of Alabama

C. Gabrielle Salfati
John Jay College of Criminal Justice,
City University of New York

Larissa A. Schmersal
University of Texas at El Paso

Bethany Schneider
Indiana University–Bloomington

Jonathan W. Schooler
University of British Columbia

Regina A. Schuller
York University

Carolyn Semmler
Flinders University

Ralph C. Serin
Carleton University

Michael C. Seto
Centre for Addiction and Mental Health

John S. Shaw III
Lafayette College

Daniel W. Shuman
Southern Methodist University

Sarah L. Shurbert
Winona State University

Leigh Silverton
University of California, Los Angeles

Diane Sivasubramaniam
John Jay College of Criminal Justice,
City University of New York

Jennifer L. Skeem
University of California, Irvine

Candice A. Skrapec
California State University, Fresno

Amy E. Smith
San Francisco State University

Brian C. Smith
Graceland University

Brooke A. Smith
Univerity of Texas at El Paso

Samuel R. Sommers
Tufts University

F. Caitlin Sothmann
John Jay College of Criminal Justice, City University of New York

Loretta J. Stalans
Loyola University

Barbara Stanley
John Jay College of Criminal Justice, City University of New York; New York State Psychiatric Institute/Columbia University

Nancy K. Steblay
Augsburg College

Dennis J. Stevens
Sacred Heart University

Veronica Stinson
Saint Mary's University

Tania Stirpe
Correctional Service of Canada

Leif A. Strömwall
Göteborg University

Christina A. Studebaker
ThemeVision LLC

Alicia Summers
University of Nevada, Reno

Kyle J. Susa
University of Texas at El Paso

Jeffrey W. Swanson
Duke University

Marvin S. Swartz
Duke University

Victoria Talwar
McGill University

Tom N. Tombaugh
Carleton University

Allison Tome
Nova Southeastern University

Glenn Took
University of New South Wales

Joseph Toomey
John Jay College of Criminal Justice, City University of New York

Jennifer M. Torkildson
John Jay College of Criminal Justice, City University of New York

Colin G. Tredoux
University of Cape Town

John Turtle
Ryerson University

Lori Van Wallendael
University of North Carolina at Charlotte

John Vanderkolk
Indiana State Police Laboratory

Jose H. Vargas
University of Nevada, Reno

Sarah Vidal
University of California, Irvine

Jodi L. Viljoen
Simon Fraser University

Gina M. Vincent
University of Massachusetts

Aldert Vrij
University of Portsmouth

Lenore E. Walker
Nova Southeastern University

Glenn D. Walters
Federal Correctional Institution-Schuylkill

Lezlee J. Ware
Ohio University

Kelly A. Watt
University of Illinois at Urbana-Champaign

Christopher Webster
Simon Fraser University, University of Toronto

Rebecca A. Weiss
Fordham University

Gary L. Wells
Iowa State University

David B. Wexler
University of Arizona, University of Puerto Rico

Jennifer Wheeler
Private Practice

Karen E. Whittemore
Forensic Psychiatric Services

Michelle R. Widows
Psychological Assessment Resources, Inc.

Richard L. Wiener
University of Nebraska–Lincoln

Tisha R. A. Wiley
University of Illinois at Chicago

Kipling D. Williams
Purdue University

Kirk R. Williams
University of California, Riverside

Catherine M. Wilson
Simon Fraser University

Kathryn R. Wilson
University of Nebraska

Bruce J. Winick
University of Miami

Roselle L. Wissler
Arizona State University

Dan Yarmey
University of Guelph

Matt C. Zaitchik
Roger Williams University

Patricia A. Zapf
John Jay College of Criminal Justice, City University of New York

Heather Zelle
Drexel University

Philip G. Zimbardo
Stanford University

Laura A. Zimmerman
Klein Associates

Introduction

Why an Encyclopedia of Psychology and Law?

Psychology and law is a relatively young field of scholarship. Conceptualized broadly, the field encompasses diverse approaches to psychology. Each of the major psychological subdivisions has contributed to research on legal issues: cognitive (e.g., eyewitness testimony), developmental (e.g., children's testimony), social (e.g., jury behavior), clinical (e.g., assessment of competence), biological (e.g., the polygraph), and industrial-organizational psychology (e.g., sexual harassment in the workplace). Scholars from university settings, research institutions, and various government agencies in several continents have contributed substantially to the growth of empirical knowledge of psychology-law issues. Though young, the field shows clear signs of maturation. These signs include scientific journals devoted exclusively to psychology-law research; the publication of psychology-law research in highly prestigious psychology journals; professional associations devoted to psychology and law in the United States, Canada, Europe, and Australia; annual professional conferences; and hundreds of books on psychology and law topics.

Psychology and law is also a practice. Clinical psychologists who practice in forensic arenas provide assessment and treatment services in a wide variety of criminal and civil matters and in law enforcement. Social psychologists employ their knowledge of psychology and law as trial consultants, assisting attorneys with jury selection and trial preparation. Clinical and experimental psychologists serve as expert witnesses in criminal and civil trials. These are but a few examples of practice in psychology and law. Practitioners draw on the tools and knowledge supplied by the traditional domains of psychological inquiry and the specialized domains of psychology and law.

Psychology and law play a significant role in postgraduate education and professional development. Psychology-law courses are increasingly common in undergraduate psychology programs, and many such offerings are filled to capacity with undergraduate students weaned on justice- and crime-themed media and literature. Attracted by the compelling application of psychology to real-world criminal investigations and trials, undergraduate students frequently volunteer as research assistants in psychology and law laboratories. Master's and doctoral programs focusing on various aspects of psychology and law have been developed and provide the research and service industries with additional intellectual capital. Postdoctoral training and professional certification options in forensic psychology support the development of a profession that is uniquely qualified to address mental health issues in a wide variety of legal contexts.

The development of psychology and law as a field of scholarship, practice, and education has numerous societal benefits and is consistent with the trend toward interdisciplinary inquiry. Although welcome in these respects, the marriage between these two broad disciplines poses several boundary challenges. Psychology and law is interdisciplinary in that it encompasses the fields of psychology and law. It is also inter-subdisciplinary in that it encompasses all the traditional subdisciplines of psychology. Given the lack of "ownership" of this field by any one discipline or subdiscipline, the lack of comprehensive references sources (e.g., textbooks, handbooks, encyclopedias) is particularly acute. A comprehensive encyclopedia of psychology and law represents an attempt to help

fill this substantial gap in the holdings of academic, professional, and personal libraries. It is our hope that this resource will be of immense help for scholars, practitioners, and students of psychology and law.

Organization of the *Encyclopedia of Psychology and Law*

The *Encyclopedia of Psychology and Law* addresses the interface of the two named disciplines and draws from the related discipline of criminal justice. As is typical of encyclopedias, the entries in the *Encyclopedia of Psychology and Law* are listed in letter-by-letter order, in this case from the Ackerman-Schoendorf Parent Evaluation of Custody Test (ASPECT) to Wrongful Conviction (our efforts to identify key concepts in "X," "Y," or "Z," were unsuccessful). The enthusiastic reader who tackles this two-volume set from beginning to end will learn a great deal about the trees but little about the forest, for alphabetical order corresponds with no other meaningful organizing principle among these headwords.

Readers are strongly advised, therefore, to study or at least consult the Reader's Guide. The Reader's Guide organizes the headwords into meaningful themes as follows:

- Criminal Competencies
- Criminal Responsibility
- Death Penalty
- Divorce and Child Custody
- Education and Professional Development
- Eyewitness Memory
- Forensic Assessment in Civil and Criminal Cases
- Juvenile Offenders
- Mental Health Law
- Psychological and Forensic Assessment Instruments
- Psychology of Criminal Behavior
- Psychology of Policing and Investigations
- Sentencing and Incarceration
- Symptoms and Disorders Relevant to Forensic Assessment
- Trial Processes
- Victim Reactions to Crime
- Violence Risk Assessment

Each entry falls into at least one of the Reader's Guide categories, and many entries appear in multiple categories. The Reader's Guide itself provides one approach to partitioning the field of psychology and law. Although we make no claims that our list of headwords is exhaustive, the relative size of the Reader's Guide categories probably provides an estimate of the relative attention paid to these topics in the scholarly literature. For example, Eyewitness Memory is a very popular field of study and a very well-populated Reader's Guide category.

Brewing the *Encyclopedia*

Developing the list of headwords was a most unusual task. We used somewhat of an "hourglass" approach in developing the headword list. First, we developed the Reader's Guide—that is, the set of categories under which the entries would be classified. Guided by a variety of resources at our disposal (e.g., psychology and law textbooks, journals, library databases), we developed a set of categories that seemed to us to span the breadth of psychology and law. Using these categories, we developed several drafts of a headword list to the point at which we were ready to receive additional expert input.

To obtain such input, we assembled an advisory board consisting of 17 distinguished scholars and practitioners from the United States, Canada, Europe, and Australia. The scholarship and practice interests of this group are diverse and span the broad field of psychology and law. This distinguished group included previous and current editors of psychology and law journals, past presidents of professional organizations of psychology and law, authors of numerous books and articles on psychology and law topics, and experienced practitioners in the forensic arenas. Members of the advisory board were sent the draft list of headwords and asked to recommend additions, deletions, and modifications to the list and to nominate authors for the headword entries. Their responses were enormously helpful in refining the list of headwords and identifying experts as potential contributors. The advisory board played a very significant role in shaping the content of the *Encyclopedia of Psychology and Law*. Its members also demonstrated strong enthusiasm for the project as a whole, confirming my belief that this resource will be important and useful.

The suggestions provided by the advisory board were integrated, and a near-final draft of the headword

list was developed. We also developed our list of potential contributors. We sent contributors formal invitations to write entries, together with instructions and information on the *Encyclopedia of Psychology and Law*. Many contributors graciously accepted our invitations; others, for a variety of reasons, were unable to do so. Fortunately, the rich information provided by the members of the advisory board contained numerous backup options, and over time we obtained commitments from contributors for all the entries. During this phase, the contributors, who had access to the full list of headwords, made additional excellent suggestions for new headwords, and we made some additional revisions to the headword list.

The resulting list of contributors is impressive. The list includes distinguished scholars—individuals responsible for the first or most impressive scholarship on the topics about which they wrote. It also includes distinguished practitioners—psychologists and lawyers with extensive experience in these topics in actual cases. The list includes many junior and midcareer scholars and practitioners well on their way toward establishing distinguished careers in psychology and law. Finally, the list includes the very important voices of graduate students in psychology and law. The American Psychology-Law Society, a primary affiliation of many psychology and law scholars, has historically been warmly receptive and encouraging to graduate student members and continues to be so. Training the next generation of psychology and law scholars has been a very high priority for members of the Society. Many contributors to these volumes asked if their graduate students could be included as co-authors—sometimes as first authors—of their entries, and such requests were granted. We are delighted that the voices of graduate students are represented in this project.

Well before all the invitations were accepted and the headword list completed, we started to receive draft entries. The Editor read each entry as it was received, occasionally requesting peer review from the Associate Editor or other scholars with relevant expertise. Modifications were requested as necessary. Once the entries were accepted, they were forwarded to our Developmental Editor, Diana Axelsen, for her expert review and were eventually submitted for copyediting and publication. The quality of the entries is excellent. Contributors provided hundreds of well-organized, well-written, balanced descriptions of the numerous psychology and law topics covered in the *Encyclopedia*. Once the entries were complete we revisited the Reader's Guide and made some modifications based on full knowledge of the content received.

The end result is an outstanding collection of entries describing a very broad array of contemporary and historical psychology and law topics. It is our hope that these volumes will serve their intended purpose—that is, to inform scholars, practitioners, and students who share the interests of my editorial team, the advisory board, and the hundreds of contributors to this exciting field of scholarship and practice.

Acknowledgments

Several individuals are due recognition for their efforts on behalf of this project. Michael Carmichael and Rolf Janke of Sage were instrumental in launching this project. Diana Axelsen, Developmental Editor, provided immense expertise, collegiality, and social support from the project's inception to its completion. Sanford Robinson and Kate Schroeder lent their expertise as editors. Letitia Gutierrez, Reference Systems Manager at Sage, expertly managed the publication software that kept this project organized and on track.

The University of North Carolina at Charlotte and John Jay College of Criminal Justice, City University of New York, must be recognized for supporting the editorial team throughout this project. The Cutler, Zapf, and Greathouse families also supported the editorial team as they no doubt substituted family time for work time to pursue this project, and they deserve our gratitude. A special thanks is also due to Dr. Steven Rogelberg, a colleague and close friend, who as editor of the previously published *Encyclopedia of Industrial and Organizational Psychology* generously provided expertise and social support, which enhanced the quality and efficiency of our work.

Brian L. Cutler
Patricia A. Zapf
Sarah Greathouse

A

Ackerman-Schoendorf Parent Evaluation of Custody Test (ASPECT)

The Ackerman-Schoendorf Parent Evaluation of Custody Test (ASPECT) was among the first forensic assessment instruments developed specifically for use in the area of parenting disputes. Its design requires the user to develop multiple data sources. The ASPECT laid the foundation for further search for objective, data-intensive assessment in this highly complex area of forensic work.

Description of the Instrument

The ASPECT is designed specifically to assist the evaluator in gathering information to be used in court-related assessments. It was one of the first instruments to be developed for the complex purpose of assessing a family when parenting time and responsibility are in dispute. This instrument relies on multiple data sources, including some psychological measures with good psychometric properties. It provides a structured approach to data collection and assimilation, ensures that the same evaluative criteria are applied to both parents, and attempts to quantify the results in a way that allows for comparison of their parental competency. In its conception and design, some effort was made to ensure that it was a reliable and valid measure that would convert the highly subjective child custody evaluation process to a more objective, deliberate, and defensible forensic technique.

The ASPECT comprises 56 items to be answered by the evaluator after a series of interviews, observations, and tests have been completed. The tests include the Minnesota Multiphasic Personality Inventory–2 (MMPI–2), the Rorschach, the Thematic Apperception Test/Children's Apperception Test (TAT/CAT), projective questions, projective drawings, and intellectual and achievement testing. Parents also complete a 57-item Parent Questionnaire. Selected data from the tests comprise the answers to 15 of the 56 evaluator questions; the other 44 questions address material to be deduced from the Parent Questionnaires, interviews, and observations. There are 12 critical items that are said to be significant indicators of parenting deficits. The 56 items are, according to the authors, equally weighted based on a rational approach and are combined to form a Parental Custody Index (PCI) for each parent. The three subscales, the Observational Scale, the Social Scale, and the Cognitive-Emotional Scale, have not proven to be useful, according to the authors, and should not be used for interpretation.

The mean PCI is 78, and the standard deviation is 10. The authors suggest that if parents' PCI scores are within 10 points of one another, joint custody with substantially equal placement is recommended; if they are more than 20 points apart, the higher-scoring parent is substantially more fit to parent, and primary placement with the possibility of sole custody should be explored. When scores are between 10 and 20 points apart, the authors recommend more closely scrutinizing collateral information to determine the appropriate custody arrangement. The standardization demographic ($n = 200$) of the ASPECT was predominately white and relatively homogeneous.

The test manual for the ASPECT reports high levels of interrater reliability. As evidence of validity, the authors claim that in judicial dispositions of 118 of the 200 cases in the normative sample for which outcome data were available, there was a 91% hit rate of dispositions matching recommendations.

Limitations of the ASPECT

There are significant weaknesses in the basic conceptualization and the psychometric properties of the ASPECT, as its authors concede. Critics have noted that there was inadequate research to establish the constructs to be measured and their relevance to competent parenting. Instrument selection for its component parts was done without sufficient analysis to determine whether the data collected added incremental validity to the assessment of parenting strengths. Although a number of the factors to be considered by the user may seem to be logically associated with parenting, some clearly lack such inferential connectedness, and no empirical link is provided.

Further research is needed to support the cut score recommended by the authors, as well as to support the ideas that high PCI scorers are more effective parents, that sole custody is the best arrangement for children of parents who have disparate PCI scores, and that 20 points is sufficiently disparate for a recommendation of sole custody. Finally, further data are needed to support the implicit notion that the ASPECT takes into account all relevant data to be considered by the evaluator in formulating recommendations, if any, to be offered to the court for apportionment of parenting time and responsibility. The ASPECT's relevance and reliability have not been adequately demonstrated to justify its use for the court-referred assessments for which it was designed.

Mary Connell

See also Divorce and Child Custody

Further Readings

Ackerman, M. J. (2005). The Ackerman-Schoendorf Scales for Parent Evaluation of Custody (ASPECT): A review of research and update. *Journal of Child Custody, 2*(1/2), 179–193.

Connell, M. A. (2005). Review of "The Ackerman-Schoendorf Scales for Parent Evaluation of Custody" (ASPECT). *Journal of Child Custody, 2,* 195–209.

Heinze, M. C., & Grisso, T. (1996). Review of instruments assessing parenting competencies used in child custody evaluations. *Behavioral Sciences and the Law, 14,* 293–313.

Otto, R. K., & Edens, J. F. (2003). Parenting capacity. In T. Grisso (Ed.), *Evaluating competencies: Forensic assessments and instruments* (2nd ed., pp. 229–307). New York: Kluwer Academic/Plenum.

Adjudicative Competence of Youth

Although the early juvenile justice system did not require that adolescent defendants be able to understand and participate in their legal proceedings, courts have increasingly required that adolescent defendants, like adult criminal defendants, be competent to proceed to adjudication (competent to stand trial). This has raised a unique set of challenges for the courts and mental health clinicians. Research has indicated that young adolescents have high rates of deficits in competence-related legal capacities in comparison with adults. As described below, however, little is known about assessing and treating adjudicative incompetence in youth, and legal standards regarding youths' adjudicative competence remain unclear.

Legal Standards for Juvenile Competence

Since the 1700s, the legal system has required that adult defendants tried in criminal courts be competent to proceed to adjudication. More specifically, the law requires that criminal defendants be able to understand the nature of the legal proceedings, appreciate the significance and possible consequences of these proceedings, communicate with their attorney, and reason about relevant legal decisions, such as how to plead. If defendants lack these capacities, they can be found incompetent, in which case their adjudication is typically suspended, and they are treated in an effort to restore their competence.

The early juvenile justice system, which was developed in Illinois in 1904, did not require that *adolescent* defendants be competent to proceed to adjudication. Because early juvenile justice was designed to be rehabilitative rather than punitive, it was not considered necessary that youth be able to understand and participate

in their legal proceedings. However, during the 1990s, public concerns about youth violence rose to significant levels and drove a series of key legislative changes that allowed the transfer of adolescents to adult court to become easier and more common and for juveniles tried in juvenile court to be given harsher penalties.

Given the adultlike penalties that can now be given to youth, courts have increasingly required that adolescent defendants be competent to proceed to adjudication. At present, the specific nature of competence standards in juvenile courts remains unsettled. Although courts have generally required that adolescents have the same types of legal capacities as adults, some jurisdictions have held that lower levels of these capacities may suffice for adolescents in juvenile court.

Another issue that remains undetermined pertains to possible bases for findings of incompetence among adolescents. Although mental disorders and mental retardation are the most commonly recognized sources of incompetence, some adolescents may be incompetent owing to developmental immaturity rather than mental disorders or mental retardation. However, it is currently unclear whether jurisdictions will recognize developmental immaturity as a legitimate basis for a finding of incompetence.

Possible Sources of Adjudicative Incompetence in Youth

Legal deficits in youth may stem from very different sources. One possible cause of incompetence may be mental disorders. For instance, a young girl with a thought disorder may have a paranoid delusion that her attorney is conspiring against her and thus refuse to tell her attorney critical information regarding her case, a youth with symptoms of attention-deficit/hyperactivity disorder may have difficulty attending to court proceedings and managing his courtroom behavior, and a young girl with a depressive disorder may be unmotivated to adequately defend herself due to feelings of worthlessness.

A second possible cause of incompetence is mental retardation or severe cognitive deficits. Research has found that youth who have cognitive deficits are much more likely than other youth to demonstrate deficits in legal capacities relevant to adjudication. In addition to mental disorders and cognitive deficits, however, adolescents may also have impaired legal capacities simply due to normal developmental immaturity. Evidence for maturity-related legal deficits is provided by the MacArthur Juvenile Adjudicative Competence study. In this important study, Thomas Grisso and his colleagues examined the legal capacities of 927 adolescents and 466 adults from detained and community sites. Results indicated that young adolescents were more likely to demonstrate legal impairments than adults. Specifically, one third of youth aged 11 to 13 and one fifth of youth aged 14 to 15 demonstrated significant impairments in the understanding of legal proceedings and/or legal reasoning. In addition, young adolescents performed in a manner that suggested that they are less likely to recognize the risks and long-term consequences of legal judgments than older individuals.

While it is often assumed that experience with the legal system will mitigate any limitations in youths' legal capacities, this is not necessarily the case. Considerable research has indicated that simply having court experience does not equate to having adequate legal capacities.

The high rates of legal deficits in young adolescents may, in part, stem from the fact that youths' cognitive capacities may not yet have reached their adult potential. In addition, experts, including Elizabeth Scott, Lawrence Steinberg, and colleagues, have emphasized that psychosocial immaturity may also contribute to age-related impairments in competence-related legal capacities. Specifically, developmental psychology provides evidence that adolescents are more likely than adults to have difficulties in recognizing the consequences of their decisions, are more likely to be influenced by peers, and tend to act in an impulsive manner.

The research findings on youths' legal capacities raise a number of important issues for the legal system. While the legal system automatically assumes that adolescents, including young adolescents, are competent to stand trial unless proven otherwise, the high rate of legal impairments among young adolescents questions the appropriateness of this presumption. In addition, given that a high rate of young adolescents could show limited legal capacities, there is a considerable need for methods to assess adolescents who may be incompetent to proceed to adjudication and for strategies to remediate youths who are found incompetent.

Assessment of Youths' Adjudicative Competence

When an attorney or judge has concerns about a particular youth's adjudicative competence, the court will

order that the youth be evaluated by a mental health professional to assess the youth's competence. These assessments differ considerably from general mental health evaluations in that they focus on youths' competence-related capacities as opposed to general mental health issues. In addition, juvenile competence assessments require procedures that differ somewhat from adult competence assessments. Specifically, juvenile evaluations should carefully assess youths' developmental maturity and consider contextual issues that are unique to adolescents, including possible caretaker involvement in legal proceedings.

As described by the leading expert in this field, Thomas Grisso, a key goal of juvenile competence evaluations is to describe the youths' functional legal capacities. In particular, competence reports should describe youths' understanding of important aspects of legal proceedings (e.g., understanding of the role of judges and attorneys), appreciation of the significance of legal proceedings (e.g., appreciation of the possible penalties that could be applied to them if found guilty), ability to communicate with counsel (e.g., the ability to disclose important information about their cases to their attorneys), and legal reasoning (e.g., the ability to weigh various plea options).

In evaluating youths' functional legal abilities, evaluators should consider how a specific youth's legal capacities match with the nature of his or her particular case. A finding of incompetence occurs when there is a significant mismatch between a particular defendant's legal capacities and the demands created by his or her particular case. For instance, if a youth who is charged with aggravated assault is going to be tried in adult court, where he or she will likely have to testify for lengthy periods of time, it will be important that the youth have the capacity to testify relevantly, an understanding of the transfer process, and an appreciation of the types of penalties that may be given to him or her in adult court. In contrast, if this youth's case was being handled in juvenile court and he or she had decided to accept a plea bargain instead of standing trial, it would not be as critical that he or she have a high level of testifying capacities, but it would be essential that he or she have a good understanding of plea bargains.

If a youth is found to have significant legal deficits in one or more the relevant areas (e.g., understanding, appreciation, communication with counsel, reasoning), the evaluator should attempt to provide information on possible causes of these legal deficits, such as whether the legal deficits appear to stem from a particular mental disorder and/or developmental immaturity. In addition, if a youth is found to have legal deficits, evaluators should offer opinions and recommendations regarding possible interventions to address these legal deficits.

Until recently, there have been no tools specifically for assessing youths' legal capacities. However, in 2005, Grisso developed a guide, called the Juvenile Adjudicative Competency Interview, to help structure assessments of youths' competence. The Juvenile Adjudicative Competency Interview is not currently a standardized instrument but instead functions as a guide to help ensure that clinicians consider key developmental and legal issues in assessing juveniles' adjudicative competence.

While some instruments that have been developed for adult defendants may have relevance to juvenile competence evaluations, caution is needed in applying adult instruments to youth; instruments that have been found to be reliable and valid with adults cannot be assumed to be reliable and valid with adolescents. Research has provided some preliminary support for the psychometric properties of the Fitness Interview Test–Revised when used with adolescents. Also, a number of evaluators report using the Competence Assessment for Standing Trial for Defendants with Mental Retardation with adolescent defendants, because its format is thought to be easier for adolescents to understand. However, research has yet to examine the psychometric properties of this tool with adolescent defendants.

Interventions for Remediating Incompetent Youth

After a competence evaluation has been conducted, the court must decide whether to find a youth incompetent. If a youth is found incompetent and is believed to be remediable, the trial will be suspended until he or she is considered to be competent. If the youth is considered to be unremediable, then his or her charges may be dropped and/or he or she may be referred to alternative services, such as inpatient mental health treatment.

At the present time, very little is known about how to remediate youth who are found incompetent to stand trial. However, there is reason to believe that this process may be challenging, especially when youth are found incompetent on the basis of mental retardation and/or developmental immaturity. Some research, using data

from the MacArthur Juvenile Adjudicative Competence study, has found that young adolescents may be less likely than older individuals to benefit from brief teaching interventions targeted at improving their understanding of basic legal concepts, such as the role of judges and attorneys. It may be even more difficult to teach youth how to apply legal concepts to their own cases and how to reason about legal decisions. Given the high rates of legal deficits among young adolescents and the increasing numbers of adolescents who are being found incompetent, research in this area is greatly needed.

Jodi L. Viljoen

See also Capacity to Waive Rights; Juvenile Offenders; Mental Health Needs of Juvenile Offenders

Further Readings

Grisso, T. (2005). *Evaluating juveniles' adjudicative competence: A guide for clinical practice.* Sarasota, FL: Professional Resource Press.

Grisso, T., Steinberg, L., Woolard, J., Cauffman, E., Scott, E., Graham, S., et al. (2003). Juveniles' competence to stand trial: A comparison of adolescents' and adults' capacities as trial defendants. *Law and Human Behavior, 27,* 333–363.

Scott, E. S., Reppucci, N. D., & Woolard, J. L. (1995). Evaluating adolescent decision making in legal contexts. *Law and Human Behavior, 19,* 221–244.

Viljoen, J. L., & Grisso, T. (in press). Prospects for remediating juveniles' adjudicative incompetence. *Psychology, Public Policy, and the Law*.

Adult Attachment Interview (AAI)

The Adult Attachment Interview (AAI), developed by Mary Main and associates, has been identified as an effective, psychometrically sound instrument with which to measure an individual's internal working model or state of mind regarding childhood attachment. The potentially detrimental influences of poor recall, social desirability, and naive lying associated with self-report measures of childhood attachment are substantially bypassed with the AAI. The AAI does not make classifications based primarily on reported events in childhood but rather on the thoughtfulness and coherency with which the adult is able to describe and evaluate these childhood experiences and their effects.

The AAI is a structured, semiclinical 20-question interview designed to elicit the individual's account of his or her childhood attachment experiences, together with his or her evaluations of those experiences on present functioning. It explores the quality of these childhood relationships and the memories that might justify them. The AAI is transcribed verbatim, with all hesitations carefully recorded and with only the transcript used in the analysis of the interview.

The AAI results in five classifications of state of mind regarding childhood attachment, which parallel those derived from M. D. S. Ainsworth's system, which is based on the "Strange Situation." Briefly, this procedure entails having the child enter an unfamiliar laboratory setting with a stranger present, filled with toys, with his or her caregiver. The caregiver then leaves twice and returns twice over a 20-minute period. Based on their responses, individuals are classified into one of the five attachment categories described below. Individuals with a Secure state of mind regarding attachment value relationships and grow to desire intimacy with others. Individuals classified as Dismissing tend to be devaluing of relationships. Such individuals may idealize relationships from their past but are cut off from related feelings or dismiss their significance. They may also be derogating of attachment in that they demonstrate a contemptuous dismissal of attachment relationships. Individuals with a Preoccupied state of mind are described as confused and unobjective. They may seem passive, vague or angry, conflicted, and unconvincingly analytical. The Unresolved category deals specifically with loss and abuse, and the Cannot Classify category is used when an individual does not fit clearly into any of the other classifications. Individuals categorized into one of the two disorganized patterns (i.e., Unresolved or Cannot Classify) of attachment can always be assigned to a best-fitting organized (Secure, Dismissing, Preoccupied) classification as well. That is, all individuals are believed to have one overriding organized state of mind regarding childhood attachment.

Several studies have examined the psychometric properties of the AAI (see Marinus H. van Ijzendoorn and Marian J. Bakermans-Kranenburg, 1996, for a summary). The AAI state-of-mind classifications are stable across 5-year periods, within 77% to 90%. One study found that individuals' response to the Strange Situation at 1 year of age was highly correlated (80%) to their AAI classification 20 years later. The AAI has

been found to be unrelated to measures of intelligence, to both long- and short-term memory, to discourse patterns when individuals are interviewed on other topics, to interviewer effects, and to social desirability. Meta-analytic work has also supported the use of the AAI across several populations, including high-risk groups.

Tania Stirpe and colleagues employed the AAI with various groups of sexual offenders, examining five groups of subjects: extrafamilial child molesters (child molesters), intrafamilial child molesters (incest offenders), and sexual offenders against adult females (rapists) and two nonsexual offender comparison groups (violent and nonviolent). In addition, groups were compared with reference to normative data on the AAI. Results indicated that the majority of sexual offenders were insecure in their state of mind regarding attachment, representing a marked difference from normative samples. Although insecurity of attachment was common to all groups of offenders rather than specific to sexual offenders, there were important differences between groups with regard to the type of insecurity. Most notable were the child molesters, who were much more likely to be Preoccupied in their state of mind regarding attachment. Rapists, violent offenders, and, to a lesser degree, incest offenders, were more likely to have a Dismissing state of mind regarding attachment. Although still most likely to be judged Dismissing, nonviolent offenders were comparatively more likely than the other groups to be Secure. There were no differences between groups when Unresolved and Cannot Classify AAI classifications were considered. These findings provide evidence for the specificity of insecure attachment with regard to sexual offending, over and above its possibly more general influence on criminality.

Implications and Areas for Future Study

Research using the AAI has implications for the assessment and treatment of sexual offenders. Identifying the state of mind regarding attachment, together with its associated beliefs and interpersonal strategies, may provide valuable insight into the motivational strategies underlying offenses. As S. W. Smallbone and associates have argued, the intimacy problems faced by an individual whose offending is characterized by a devaluing of attachment are very different from those faced by one who fears rejection and offends in an attempt to cultivate a "relationship" with the victim.

Research suggests that early insecure attachment experiences may place some men at risk for later offending. More specifically, some have suggested that these early experiences may contribute to sexual offending within a particular interpersonal context. Further research is required; however, the current empirical literature represents an important step in incorporating attachment theory into the etiology of sexual offending and in acknowledging that sexual offending may be constructively understood in terms of the relationship context in which it takes place. The AAI is the "gold standard" in attachment research but has rarely been used with forensic populations.

Tania Stirpe, Jeffrey Abracen, and Janice Picheca

See also Parent-Child Relationship Inventory (PCRI); Sex Offender Assessment; Sex Offender Treatment

Further Readings

Main, M., & Goldwyn, R. (1998). *Adult attachment rating and classification systems: Adult attachment coding manual*. Unpublished scoring manual, Department of Psychology, University of California, Berkeley.

Smallbone, S., & Dadds, M. (1998). Childhood attachment and adult attachment in incarcerated adult male sex offenders. *Journal of Interpersonal Violence, 13*(5), 555–573.

Stirpe, T., Abracen, J., Stermac, L., & Wilson, R. (2006). Sexual offenders' state-of-mind regarding childhood attachment: A controlled investigation. *Sexual Abuse: A Journal of Research and Treatment, 18,* 289–302.

van Ijzendoorn, M. H., & Bakermans-Kranenburg, M. J. (1996). Attachment representations in mothers, fathers, adolescents, and clinical groups: A meta-analytic search for normative data. *Journal of Consulting and Clinical Psychology, 64*(1), 8–21.

Ward, T., Hudson, S., Marshall, W., & Siegert, R. (1995). Attachment style and intimacy deficits in sexual offenders: A theoretical framework. *Sexual Abuse: A Journal of Research and Treatment, 7*(4), 317–335.

Aggravating and Mitigating Circumstances, Evaluation of in Capital Cases

If a defendant is found guilty of a capital crime, the triers of fact are called on to weigh the significance of the aggravating and mitigating factors of the case and to

use such judgments to decide whether the defendant will receive the death penalty or a life sentence. During the sentencing phase, the prosecution presents the relevant aggravating factors of the case, while the defense is charged with the duty of providing mitigation factors. Although no standard model exists to offer procedures for the investigation of mitigating factors, scholars, clinicians, and researchers have offered recommendations concerning the common types of information needed and the appropriate ways to present it to the jury. In all cases, a mitigation evaluation is conducted with the goal of humanizing the defendant to the jury, in the hope that they will not recommend the death penalty.

During the penalty phase of a capital offense trial, the triers of fact (i.e., the judge or jury depending on the state) are presented with two types of information: (1) *aggravating factors* (i.e., facts from the case that make it especially serious or heinous) and (2) *mitigating factors* (i.e., facts from the case that may reduce the defendant's moral culpability). As set forth in *Ring v. Arizona* (2002), to come forward with a recommendation for death, the jury must first be convinced beyond a reasonable doubt that the state has met its burden of proof with respect to the presence of one or more aggravating factors. Once this has been done, the defense is required to present mitigating factors with the goal of convincing the trier of fact that this individual does not deserve the penalty of death. The driving force behind this practice is the U.S. Supreme Court's assertion in *Furman v. Georgia* (1972) that sentences in capital cases should be individualized and should not be disproportionate or inappropriate given the mitigating factors in the case.

Aggravating factors in a capital case are often readily apparent from the circumstances of the crime. Like other states, the state of Texas has statutory aggravating factors that are precisely defined. Three examples of the criteria set forth by the Texas Penal Code are (a) if the person murders more than one person during the same criminal transaction; (b) if the person murders an individual under 6 years of age; and (c) if the person intentionally commits a murder in the course of committing (or attempting to commit) kidnapping, burglary, robbery, aggravated sexual assault, arson, or obstruction or retaliation.

In contrast to aggravating factors, which are established by statute, mitigating factors can be anything the defense chooses to present that it believes may sway the trier of fact to determine that life without parole is the proper and just sentence in the particular case. The following list provides just a few examples of the most common mitigating factors that are brought forward in a capital trial: history of neglect and/or abuse during the formative years, the presence of a mental illness, youthfulness, and a limited history of involvement with the legal system. It was in *Lockett v. Ohio* (1978) that the U.S. Supreme Court decided that limiting the type and amount of mitigating factors that can be presented to the trier of fact is unconstitutional.

When deciding the sentence for a defendant who has been found guilty, jurors are asked to weigh the aggravating circumstances against the mitigating circumstances of the case. Each state has its own laws regarding how jurors are instructed to weigh aggravating and mitigating circumstances, but in all states, each individual juror must weigh the circumstances and decide whether the defendant is sentenced to death or life in prison. In many states, the death penalty can be imposed only if the jury returns a unanimous decision.

With respect to the process of conducting a mitigation evaluation, the onus is on the defense team to conduct a thorough investigation of all possible mitigating factors. To complete such an investigation, it is recommended that the defense team hire one or more professionals to carry out the various tasks required for the investigation and presentation of mitigating circumstances. In *Wiggins v. Smith* (2003), the U.S. Supreme Court ruled that failure on the part of the defense team to properly investigate and introduce mitigating evidence can result in a finding of ineffective assistance of counsel, leaving open the possibility that the verdict will be overturned on appeal.

Perhaps the most traditional form of investigation is that carried out by a professional known as a *mitigation specialist*. Although social workers often serve in this role, other professionals, such as paralegals, legal researchers, and attorneys, also work in this capacity. Regardless of the profession, the role of the mitigation specialist requires a commitment to uncover all possible mitigating factors, and to do this, it is imperative that he or she has a wide repertoire of knowledge and skills. For example, it is expected that the specialist be well versed in the field of human development and be skilled in the areas of data collection, interviewing, and putting together a person's life history. At a minimum, the mitigation specialist should request and receive records that are reflective of the defendant's life history (e.g., medical records, mental health records, and school records),

conduct interviews with a variety of individuals who are familiar with the defendant (e.g., parents, siblings, friends, employers, teachers, therapists), and conduct multiple interviews with the defendant. In many cases, it is also critical that the mitigation specialist investigate the life histories of the defendant's parents and other members of their immediate and extended family. Such information is important with respect to being able to evaluate both genetic and environmental influences on the defendant's development. Given the breadth of the investigation required, it is recommended that it be initiated long before the trial is set to begin.

The goal of the mitigation specialist is to compile information concerning the defendant's life history that will offer insight into how the defendant's life experiences have shaped his or her development. Presentation of such information is aimed at humanizing the individual to the degree that the trier of fact recommends a life sentence. It should be clear, however, that the goal of mitigation is not to excuse the defendant's behavior but instead to explain how an individual can become the type of person who could be in a position to commit a capital offense.

Depending on their credentials and the role that they have been asked to play, mitigation specialists may or may not testify as to the information gathered. In cases where they do not testify, the information they gather is provided to one or more appropriate professionals. These individuals not only will present the information to the court but also will be expected to present it in such a way that it is accessible to the jury. For example, a psychologist or a social worker may testify about the defendant's childhood development, the impact of childhood abuse, the impact of being raised without a father figure in the home, and any mental illness he or she may have experienced. A neuropsychologist may provide expert opinions regarding the influence of traumatic brain injury on the defendant's functioning, and an anthropologist or sociologist may testify to the effects of sociological or economic factors related to the defendant's neighborhood that may have influenced the defendant's developmental trajectory.

Regardless of who presents the mitigation information to the court, recent literature has recommended that the presentation of such information be structured on the concepts of risk factors, protective factors, and resiliency. In brief, risk factors can be described as events in an individual's life that have been scientifically linked to negative outcomes in functioning. Examples of common risk factors in capital defendants include childhood or adult trauma, childhood abuse or neglect, poverty, substance abuse, negative peer groups, cognitive impairment, and a diagnosis of conduct disorder in childhood or adolescence. Research has shown that individuals who have experienced multiple risk factors during their development are at a greater likelihood of exhibiting dysfunction in multiple domains. The individuals who are retained to testify about such risk factors have an obligation not only to deliver their findings to the court but also to illustrate how those risk factors influenced the development of this defendant.

To further the defense team's endeavor of obtaining a non–death sentence, the mitigation expert(s) should also discuss the relevant protective factors that the defendant has experienced. Protective factors can be described as those events or experiences in the defendant's life that may have lessened the likelihood that the defendant would have engaged in violent or dangerous behavior in the past. Examples of common protective factors include social support from family and friends, prior involvement in mental health treatments, and financial stability. It is quite typical for an expert to discuss how the absence of protective factors negatively affected the defendant's developmental trajectory and if protective factors were present, why they did not buffer the defendant against the negative influence of the risk factors.

The final dimension of mitigation presentation should include a discussion of the defendant's lack of resilience in the context of his or her experience with risk and protective factors. Resilience refers to the ability of individuals who have experienced great adversity to overcome such experiences and live a functional life in adulthood. Since only a small minority of individuals who face great adversity during their development actually go on to exhibit severe dysfunction in adulthood, it is important to convey to the jury how the defendant's unique combination of risk and protective factors, along with his or her response to them, led to the violent behavior for which the defendant has been convicted.

To date, research has not found any one strategy that is successful in all cases, nor has research identified any one mitigating factor that influences juror decision making in all cases. On the contrary, it is likely that the success of mitigation relates to the quality of the investigation and the presentation of information that is unique to the case. As such, it would be inappropriate for defense attorneys and other members of the defense team to think that there is a template that can be applied to these investigations. Finally, it should be noted that

even the most eloquent presentation of mitigation evidence can be insufficient to counteract the effects of intrinsic juror biases, impairments in understanding the concept of aggravating and mitigating factors, and misinterpretation of instructions to the jury regarding how to weigh the evidence presented to them.

Bridget M. Doane and Karen L. Salekin

See also Aggravating and Mitigating Circumstances in Capital Trials, Effects on Jurors; Death Penalty; Expert Psychological Testimony, Forms of; Mental Illness and the Death Penalty; Mental Retardation and the Death Penalty

Further Readings

Connell, M. A. (2003). A psychobiographical approach to the evaluation for sentence mitigation. *Journal of Psychiatry and Law, 31,* 319–354.

Fabian, J. M. (2003). Death penalty mitigation and the role of the forensic psychologist. *Law and Psychology Review, 27,* 73–120.

Furman v. Georgia, 408 U.S. 238 (1972).

Lockett v. Ohio, 438 U.S. 586 (1978).

Miller, J. (2003). The defense team in capital cases. *Hofstra Law Review, 31,* 1117–1141.

Ring v. Arizona, 536 U.S. 584 (2002).

Salekin, K. L. (2006). The importance of risk factors, protective factors, and the construct of resilience. In M. Costanzo, D. Krauss, & K. Pezdek (Eds.), *Expert psychological testimony for the courts*. Thousand Oaks, CA: Sage.

Schroeder, J., Guin, C. C., Pogue, R., & Bordelon, D. (2006). Mitigating circumstances in death penalty decisions: Using evidence-based research to inform social work practice in capital trials. *Social Work, 51,* 355–364.

Wiggins v. Smith, 539 U.S. 510 (2003).

Aggravating and Mitigating Circumstances in Capital Trials, Effects on Jurors

Aggravating factors are elements of the crime or the defendant's prior criminal record that not only make the defendant eligible for the death penalty but also serve to make the defendant more likely to receive the death penalty. *Mitigating factors* are elements of the crime or the defendant's character and background that could make the defendant less likely to receive the death penalty. Statutes across the United States list many aggravating and mitigating factors that could be presented at trial. The existing research in psychology and law shows that jurors are sensitive to some factors but not to others. Experimental research has compared hypothetical cases in which various aggravating and mitigating factors are either present or absent. Other research, especially the Capital Jury Project, has surveyed or interviewed jurors who served in a death penalty case about what factors they considered important when making their decision.

Aggravating Factors

Jurors are more likely to sentence to death defendants who have committed a heinous, brutal, or cruel murder. Such crimes include those involving a single victim who suffers a lot of pain before death and also crimes with multiple victims. The brutality of a murder triggers jurors' desire for retribution, or punishing someone for the harm that he or she has caused. Several lines of research show that jurors treat more severe crimes more harshly when assigning punishment in general, not just in death penalty cases. Jurors may not understand what the words heinous or atrocious mean, or they may believe that all murders are heinous. Thus, courts must instruct jurors that this aggravating factor is limited in some way, so that they are supposed to apply it only in cases involving torture, very serious physical abuse, or extreme depravity. However, even without such extreme case facts, jurors will sentence a defendant to death more often if the crime is more severe and causes more harm. Usually, in death penalty trials, a separate listed factor is included for murders with multiple victims, because heinousness is a specific legal term measuring how much suffering occurred before the victim's death.

Jurors also consider the future dangerousness of a defendant—whether he or she is likely to commit another serious crime. In some states, jurors are specifically asked to decide whether the defendant is likely to re-offend, but even when not asked, jurors often bring this issue up during deliberations. The more the jurors fear that the defendant could re-offend, or even be released on parole, the more likely they are to sentence the defendant to death. Similarly, if the defendant has a prior criminal record that includes violent crimes, he or she will be seen as more dangerous, and jurors are more likely to sentence that defendant to death than defendants with no prior record.

Jurors are also affected by victim characteristics and *victim impact statements*. If the victim is a public figure or a policeman, jurors are more likely to sentence the defendant to death. The murder of such a person causes more harm to the community and deserves a more severe punishment. Furthermore, jurors are allowed to consider whether the victim was particularly vulnerable—for instance, because of young or old age or disability. Some research supports an increase in death verdicts in cases of child victims, but little research exists on other aspects of victim vulnerability. Jurors can also consider the effect that the murder has on the victim's surviving family, friends, and the community. Several studies have found that jurors are more likely to give the death penalty when there is a large amount of suffering by the victim's family and the community. Courts and researchers debate whether these effects are the result of jurors' sensitivity to an increase in the amount of harm caused or instead an emotional reaction to the testimony.

Victim characteristics can be important even without victim impact statements. Some legal scholars and social scientists worry that jurors may be improperly considering the "worth" of the victim, or distinguishing between a good victim and a bad victim, which the law says they are not supposed to do. However, interviews with jurors suggest that jurors' verdicts are different not necessarily because of a distinction between a good victim and a bad one but rather because of the similarity between the victim and themselves. Jurors can identify or empathize more with a normal victim chosen at random than a victim who is part of the crime or involved in a risky situation. In fact, that the victim is the defendant's accomplice or otherwise part of the crime is often a mitigating factor. Overall, victim characteristics are weighed heavily a lot by jurors.

Many other aggravating factors exist in death penalty cases, such as committing the murder for financial gain, in the course of another felony, or after substantial planning. However, research has not yet addressed the effect of these aggravating factors on jurors' decisions.

Mitigating Factors

Although jurors have trouble understanding the legal definition of mitigating factors, there are some factors that affect their decisions. The factors that have the largest effect are, generally speaking, those that are out of the defendant's control, are more severe, and reduce the defendant's responsibility for the murder.

Mental illness is the most powerful mitigating factor, even if it is not enough to make the defendant legally insane. Recognizing this large effect, the American Bar Association has recently called for the exclusion of severely mentally ill defendants from eligibility for the death penalty. Jurors likewise believe that a mental disorder can make a defendant less responsible for his or her crime. However, all mental disorders are not the same. Severe and typical disorders, such as schizophrenia and delusional disorders, will reduce the likelihood of a death sentence. Most studies also show that low IQ and "borderline" mental retardation also reduce death sentences, and defendants who are legally mentally retarded are not eligible for the death penalty at all. Disorders such as depression, antisocial personality disorder, or bipolar disorder have less effect on jurors, if any. Not much research has addressed these types of mental illness.

Researchers and courts recognize the fact that some mental disorders can be aggravating factors. The fact that a defendant has an antisocial personality disorder or a low IQ may cause jurors to think that that the defendant is dangerous, so jurors may be *more* likely to impose the death sentence. Specific symptoms that may influence jurors are the defendant's inability to control violent impulses or to learn from mistakes. Not enough research currently exists to clarify when these disorders will be treated as aggravating and when they will be treated as mitigating.

Drug or alcohol addiction and intoxication are forms of mental disorder because drug use impairs the decision-making capacity of the defendant and can induce other disorders. In many states, voluntary intoxication cannot be used as a legal defense to a crime but can still be a mitigating factor. Two studies have shown that intoxication at the time of the crime can reduce the likelihood of the death penalty.

Having been abused as a child or having had a difficult childhood and background is also commonly presented as a mitigating factor, but again, this factor could produce mixed reactions in jurors. Very severe physical and verbal abuse reduces the likelihood of a death sentence, but less severe abuse or a troubled childhood may not affect verdicts. Some courts, legal scholars, and social scientists assert that a troubled childhood could also be seen as an aggravating factor if the defendant's background includes violent acts or previous arrests. This again suggests that jurors are more concerned about a defendant's dangerousness than about a defendant's mitigating evidence.

Because jurors are concerned about the defendant's dangerousness and likelihood to be violent, evidence that the defendant has been or will be a well-behaved and model prisoner can also reduce the likelihood of the death verdict. Only one (as yet unpublished) study has found this result, but this could be a very important mitigating factor. Likewise, the lack of a prior criminal record reduces jurors' perceptions of dangerousness and, therefore, also decreases jurors' likelihood of sentencing the defendant to death.

Interviews with jurors who have given a verdict of death penalty show that jurors will give the death penalty less often if the defendant expresses remorse for his or her crime. However, no experimental study has found an effect of remorse in death penalty trials. A defendant's silence, or even a statement that he or she is not remorseful, could have an aggravating effect, producing more death penalty verdicts. A defendant's remorse is often presented along with a religious plea, or testimony that the defendant has become more religious while in prison and is asking for forgiveness. At least one study suggests that a defendant's conversion to religion can affect jurors and sensitize them to other mitigating factors as well.

Little research has addressed the effect of a defendant's "good character," such as serving the community, going to church, or previous good acts. Jurors may have difficulty considering this evidence if there are serious aggravating factors. Research shows that, during their deliberations, jurors focus much more on the crime than on the defendant's character. Jurors also tend to focus on the circumstances that formed a defendant's character rather than examples of previous good acts.

In the case of *Roper v. Simmons* in 2005, the Supreme Court banned the execution of defendants who committed their crime before the age of 18. Research conducted before that decision found that jurors did give the death penalty less often to juvenile offenders. Research also suggests that an 18- or 19-year-old defendant will be sentenced to death less often, but the mitigating effect of being a youthful defendant declines quickly beyond the age of 20.

Interviews with death penalty jurors have also found that jurors give the death penalty less often if there is any lingering or residual doubt about the defendant's guilt, though in most cases, there is no such doubt. This type of evidence can be restricted in death penalty sentencing hearings, but jurors may carry over such doubt from the guilt phase of the trial.

Kevin M. O'Neil

See also Aggravating and Mitigating Circumstances, Evaluation of in Capital Cases; Death Penalty; Juries and Judges' Instructions; Jury Understanding of Judges' Instructions in Capital Cases; Juveniles and the Death Penalty; Mental Illness and the Death Penalty; Mental Retardation and the Death Penalty

Further Readings

Durham, A. M., Elrod, H. P., & Kinkade, P. T. (1996). Public support for the death penalty: Beyond Gallup. *Justice Quarterly, 13,* 705–736.

Garvey, S. P. (1998). Aggravation and mitigation in capital cases: What do jurors think? *Columbia Law Review, 98,* 1538–1575.

Roper v. Simmons, 543 U.S. 551 (2005).

Sundby, S. E. (2003). The capital jury and empathy: The problem of worthy and unworthy victims. *Cornell Law Review, 88,* 343–381.

Alcohol Intoxication

See Substance Abuse and Intimate Partner Violence; Substance Use Disorders

Alcohol Intoxication, Impact on Eyewitness Memory

Alcohol consumption has a significant effect on eyewitness identification abilities, including the accuracy of perpetrator descriptions and identification accuracy in showups (an identification procedure where only one individual is shown to the witness) and lineups (an identification procedure where several individuals, usually six in the United States, are shown to the eyewitness). Understanding the effects of alcohol consumption on memory is critical for the police, investigators, prosecutors, defense counsel, judges, and jurors to be able to judge the veracity of statements and evidence that are put forward in cases where alcohol consumption was present.

The research to date that has examined the effects of moderate levels of alcohol intoxication on eyewitness

memory and identification accuracy has found that intoxicated witnesses are less likely to be accurate in their descriptions of events and people but are just as likely as sober witnesses to make a correct identification decision. In addition, intoxicated witnesses may be more susceptible to suggestion and suggestive procedures than are sober witnesses. However, as research has suggested, this finding should not necessarily be taken to imply that intoxicated witnesses are always less reliable than their sober counterparts.

Ethyl alcohol, or ethanol, is a depressant that is produced by the fermentation of yeast, sugars, and starches and is most commonly found in beer, wine, and liquor. After it is ingested, alcohol is metabolized by enzymes in the liver. However, because the liver can only metabolize small amounts of alcohol at a time, the remaining alcohol is left to circulate through the body until it can be processed. Alcohol impairs judgment and coordination as well as attention level, and the more alcohol consumed, the greater the impairment. For example, in all states in the United States, the maximum level of blood-alcohol concentration (BAC) that is permitted to be under the "legal limit" for driving a motor vehicle is 0.08% (80 mg/dl). However, the effects of alcohol intoxication as described above are likely to be present at BACs much lower than is set by the legal limit.

Although scientists and researchers know that alcohol consumption causes reduced coordination and impaired judgment, the effects of alcohol intoxication on memory has received little attention from psychology and law researchers. One of the potential reasons for this is that previous research has focused on the effects of alcohol from a public safety perspective (i.e., setting legal limits for driving) and not from a victim or witness perspective. However, given that there are more than 450,000 violent crimes in bars and nightclubs every year in the United States (and therefore more than 450,000 victims/witnesses who are likely to have consumed at least some alcohol), research on this topic is extremely valuable. The general findings from the few research studies that have investigated the memory and identification abilities of intoxicated witnesses are described below after a brief review of alcohol decision-making theory and a description of the research methodologies that are used in this field of research.

Theoretical Review

Not long ago, researchers believed that alcohol acted as a general disinhibitor that resulted in risky decision making, best characterized by the phase "throwing caution to the wind." However, the *disinhibition hypothesis* was unable to account for the finding that in some situations an intoxicated individual would become aggressive, whereas at other times the same individual would become depressed or happy. In an attempt to account for these disparate reactions to alcohol consumption, *alcohol myopia theory* was proffered. According to this theory, intoxicated persons, due to their limited cognitive capacity as a result of their alcohol consumption, are able to attend only to the most salient aspect in their environment. For example, a sober person is capable of having a conversation with another person while attending to other events in the surroundings, such as a new person entering the room. An intoxicated person having the same conversation, however, is much less likely to notice peripheral details in the environment. Similarly, intoxicated persons are more likely than sober persons to take into account only the immediate cues in their environment and to have a limited capacity to consider or bring to awareness other information, such as the consequences of their behavior.

Alcohol Research Methodologies

Although the research literature on this topic is limited, a discussion of the types of research methodologies that are most common when investigating the effects of alcohol on eyewitness memory is warranted. Two of the most common techniques are laboratory research and field studies.

Laboratory Research

Laboratory research on this topic involves (a) prescreening participants for any factor that would make them ineligible for alcohol consumption research (e.g., underaged participant or pregnant female), (b) obtaining the consent to participate, and (c) administering alcohol. The amount of alcohol given is calculated on a participant-by-participant basis and takes into consideration the following factors: the desired BAC, the concentration of the alcohol being administered, and the participant's sex and weight. The alcohol is generally administered over a period of 30 to 45 minutes, and after a short period of time (for adsorption), the stimulus (e.g., video clip of a taped mock crime or an interaction with a confederate) is then presented to the participant. Next, depending on the particular research question, the participants may be asked to complete the dependent measures while still intoxicated, or they may be asked to return for a follow-up

session, where they will be sober when they complete the dependent measures. Regardless of the research question, for safety purposes, all participants in this type of research must be relatively sober before they are permitted to leave the research lab. To ensure that participants' BAC is low enough for them to be excused (usually 0.03% or lower, as set by individual institutional review boards), a breathalyzer is used. It should be noted that although a blood-test analysis could also be conducted in lieu of a breathalyzer, this practice is not normally used by psychology and law researchers. Also, laboratory research is limited with regard to the amount of alcohol that can be safely administered to participants. Although there may be exceptions depending on the location (country) of data collection, the research question, and individual IRBs, generating BACs in the lab greater than 0.08% is rarely permitted.

Field Studies

Field studies, on the other hand, do not normally screen participants for characteristics that would make them ineligible for lab studies because participants in field studies are obtained in bars or drinking establishments and have consumed alcohol, presumably on their own volition, prior to taking part in the research study. Also, because participants have consumed alcohol on their own, obtaining participants with BACs higher than 0.08% is common. Overall, there are few differences between field and lab research with regard to the presentation of stimuli or measuring of dependent variables. One important difference, however, should be noted. Due to the fact that participants in field studies are intoxicated at the time when consent to participate is given, they must be provided with an opportunity to withdraw their participation at a later time (i.e., when they are sober).

Intoxicated Eyewitnesses: Experimental Findings

Researchers have been examining the effects of alcohol on eyewitness memory since the early 1990s. Early experiments examined the effects of alcohol on memory by comparing groups that were either sober or intoxicated at the time of encoding and then testing all participants on a different day when all participants were sober. The results from these studies suggested that intoxicated participants were less accurate when asked to recall the features of a target person and less accurate about describing the events that took place during the critical encoding period than were sober witnesses. However, participants who were intoxicated during encoding were just as accurate at identifying a target person in an identification task as witnesses who had not consumed alcohol. Although these studies were not specifically testing alcohol myopia theory, the results are consistent with alcohol myopia theory predictions.

Later research examined the effects of alcohol intoxication at the time of encoding and at the identification task. Although it is possible to conduct this research by having participants return to the lab a second time to become intoxicated again (i.e., context reinstatement), this body of research administered the dependent variables (e.g., a showup) relatively soon after the viewing of the target person and while the participants were still intoxicated. This research was unique from earlier studies in that it allowed researchers to study alcohol myopia theory by manipulating (a) the behavior of the investigator and (b) the identification procedure. This research was relevant to real police practice because the police often encounter intoxicated individuals in the course of their investigations and there had been no research on the potential vulnerabilities of intoxicated witnesses to police practices. The findings of these studies suggest that intoxicated participants are more susceptible to minor changes in police procedure, such as the instructions that are given to a witness prior to viewing a showup (e.g., "Please be careful when making your decision.") and biased identification procedures (e.g., when the suspect is shown wearing similar clothes to those worn by the perpetrator). Ultimately, however, intoxicated witnesses could, under the circumstances of these research studies, be more accurate than sober witnesses. In addition, correct identification decision rates were in the neighborhood of 90%—a notably high rate even for sober witnesses in eyewitness identification research.

Jennifer E. Dysart

See also Eyewitness Descriptions, Accuracy of; Eyewitness Memory; Identification Tests, Best Practices in

Further Readings

Dysart, J. E., Lindsay, R. C. L., MacDonald, T. K., & Wicke, C. (2002). The intoxicated witness: Effects of alcohol on identification accuracy. *Journal of Applied Psychology, 87,* 170–175.

Read, J. D., Yuille, J. C., & Tollestrup, P. (1992). Recollections of a robbery: Effects of arousal and alcohol

upon recall and person identification. *Law and Human Behavior, 16,* 425–446.

Steele, C. M., & Josephs, R. A. (1990). Alcohol myopia: Its prized and dangerous effects. *American Psychologist, 45,* 921–933.

Yuille, J. C., & Tollestrup, P. (1990). Some effects of alcohol on eyewitness memory. *Journal of Applied Psychology, 75,* 268–273.

Alibi Witnesses

An *alibi,* in its most basic form, is a plea that one was not present when a crime was being committed. In practice, alibis can be considerably more complex than a simple narrative story. In the criminal justice system, alibis function as exculpatory evidence—a good alibi should rule out the alibi provider as a potential suspect in a case or provide reasonable doubt as to a defendant's guilt in a criminal trial. Psychological research into the study of alibis is a relatively new area in psychology and law. This entry summarizes some of the major findings and introduces the terminology of the existing psychological literature.

It is unclear how alibis are used in the early stages of criminal investigations, and the rules about how and when alibi evidence can be used in the court system vary greatly across jurisdictions. To function as exculpatory evidence, alibis must contain both a believable story and credible proof of the alibi provider's whereabouts. Psychology is in a unique position to study alibis from both sides of the criminal process: *Alibi generation* relies largely on the memory of alibi providers and corroborating witnesses, and *alibi evaluation* occurs as the police, attorneys, and jurors decide the exculpatory worth of the alibi. The study of alibi generation can be informed by autobiographical memory research, and alibi evaluation can benefit from deception detection and suspect interrogation research. However, psychological research on alibis specifically is still relatively new and has focused thus far on the evaluation of alibis.

Alibis are evaluated according to their believability by detectives, prosecutors, defense attorneys, and jury members at different stages of the criminal process. For an alibi to be judged believable, credible proof of the alibi provider's whereabouts is essential, and it can take one of two forms: physical evidence and person evidence. Credible physical evidence ties the alibi provider to a specific place and time; for example, an airline boarding pass includes time and location information and requires identification, making it highly unlikely that someone other than the ticket holder would be able to obtain the pass. The research to date has indicated that physical evidence corroborating an alibi carries considerable weight with alibi evaluators; mock jurors have rated alibis with supporting physical evidence as more believable than alibis without such evidence. However, evaluators do not seem to differentiate between physical evidence that might be easily fabricated, such as a cash receipt, and evidence that is more difficult to fabricate, such as a security video. Person evidence consists of testimony by an alibi corroborator, or alibi witness, as to the whereabouts of the alibi provider. Preliminary research has shown that mock jurors are quick to distinguish among alibi corroborators according to the corroborator's relationship to the alibi provider. Specifically, corroborators who could conceivably have a motivation to lie for the alibi provider (such as a close relative or a good friend) are viewed as less credible than corroborators who have no relationship to the alibi provider. Some research has suggested that having someone close to a defendant as an alibi corroborator could be no better than having no alibi at all—mock jurors voted guilty just as often when the corroborating witness was a motivated other as when the defendant had no alibi defense at all.

Skepticism on the part of alibi evaluators may work well when evaluators are dealing with fabricated alibis offered by guilty defendants. However, difficulties may arise when evaluators are faced with alibis offered by innocent alibi providers. Innocent alibi providers could potentially fall a victim to normal memory errors, such as misremembering a date or time for a particular activity or failing to correctly recall their companions for a particular day. Unlike in a normal recollection situation, however, a normal memory mistake could look suspicious in the context of a criminal investigation. Preliminary investigations into the strength of alibis produced by innocent alibi providers suggest that people frequently misremember their actions for a previous date and have considerable difficulty producing any kind of proof for their whereabouts. Anecdotal evidence from past criminal cases suggests that evaluators may use a weak alibi as incriminating evidence, which could be especially worrisome for innocent alibi providers.

Continued research into the psychology of alibis will shed additional light on how police detectives, attorneys, and jury members deal with alibis in the

context of more complex criminal cases. For example, it is unclear how evaluators would deal with multiple pieces of alibi evidence or how they would look upon innocent alibi providers who need to change their alibis in some way. Although the psychological research is limited at present, the literature is growing and will continue to uncover how alibis interact with other pieces of evidence in criminal trials.

Elizabeth A. Olson

See also Detection of Deception: Use of Evidence in; Detection of Deception in Adults; Interrogation of Suspects; Police Decision Making; Postevent Information and Eyewitness Memory; Reconstructive Memory

Further Readings

Burke, T., Turtle, J., & Olson, E. A. (2007). Alibis in criminal investigations and trials. In M. Toglia, J. D. Read, M. Ross, & R. C. L. Lindsay (Eds.), *The handbook of eyewitness psychology: Vol. 1. Memory for events* (pp. 157–174). Hillsdale, NJ: Lawrence Erlbaum.

Culhane, S. E., & Hosch, H. M. (2004). An alibi witness' influence on mock jurors' verdicts. *Journal of Applied Social Psychology, 34,* 1604–1616.

Olson, E. A., & Wells, G. L. (2004). What makes a good alibi? A proposed taxonomy. *Law and Human Behavior, 28,* 157–176.

Alternative Dispute Resolution

Alternative dispute resolution (ADR) has come to refer broadly to a range of processes (e.g., bilateral negotiation, fact finding, mediation, summary jury trial, arbitration) that are used in transactional (e.g., design contracts, develop regulations), dispute prevention, and dispute resolution contexts. ADR processes operate in public and private settings, such as courts, government agencies, community mediation centers, schools, workplaces, and private providers, to address an array of substantive issues (e.g., custody, torts, contracts, misdemeanors, environmental issues).

This entry focuses on a subset of ADR processes: those that involve a neutral third party and serve as an alternative to court adjudication of civil, divorce, and minor criminal disputes. The processes that are most commonly used are described in the following section.

The goals and asserted benefits of ADR include enhancing disputants' satisfaction with the resolution process and its outcome; producing better outcomes and increased compliance; improving the disputants' relationship and reducing future disputes; providing faster, less expensive, and confidential case resolution; increasing disputants' access to a hearing on the merits; and reducing caseloads and the use of court resources. These goals do not all apply to, and are not of equal importance in, every ADR process and setting. Criticisms of ADR, particularly when its use is mandatory, include that it lacks procedural safeguards, decreases public participation and scrutiny, reduces the available legal precedents and reference points, creates pressures to settle, provides second-class justice, and impedes access to trial by adding another step in the litigation process. Empirical field research on the efficacy of ADR, and on the impact of process, third-party, and dispute characteristics, is discussed in a subsequent section.

Third-Party ADR Processes

Third-party ADR processes fall into two main categories. The first involves processes such as arbitration, in which the third party decides the case for the disputants. The second category involves processes such as mediation, in which the third party assists the disputants in reaching their own resolution. If the disputants reach an agreement, it is legally enforceable; if they do not, the case continues in litigation. Although most disputes settle before trial, a neutral third party can help disputants overcome the logistical, strategic, and cognitive barriers to bilateral negotiation that often impede early or optimal settlements.

Disputants can enter ADR as the result of a predispute contractual agreement to use ADR or, after a dispute has arisen, as a result of mutual agreement, judicial referral of a specific case, or court-mandated use for an entire category of cases. In both court-connected and private ADR, the proceedings are private, and the content of any agreement reached is confidential and not reported to the court. Below is a general description of several commonly used processes. How each is implemented varies with the type of setting and disputes, as well as with the specific ADR provider.

Arbitration involves a hearing during which the disputants' lawyers present evidence and arguments to a single arbitrator, or sometimes a panel of three arbitrators, who renders a decision. In voluntary private arbitration,

the arbitrator's decision typically is binding, but the disputants determine that as well as other features of the process by agreement. Mandatory court-connected arbitration is nonbinding: The disputants may reject the arbitrator's decision and proceed to trial de novo. If they accept the arbitrator's decision, it becomes a court judgment.

The arbitration hearing typically is held after discovery has been substantially completed. Compared with a trial, an arbitration hearing tends to be less formal and to permit the broader admissibility of evidence. Court-connected arbitration usually involves a single session lasting several hours; private arbitration can involve multiple daylong sessions spread over weeks. Arbitrators are either lawyers or nonlawyers with expertise in the subject matter of the dispute. Although disputants often attend arbitration hearings, their participation is limited to providing evidence.

Mediation is a process in which a mediator, or sometimes a pair of mediators, facilitates the disputants' discussion of issues and options to help them reach a mutually acceptable resolution of their dispute. Accordingly, disputant participation in the mediation process and in determining the outcome is viewed as critical. The mediator's approach can vary with the setting, as well as with the individual mediator's preferences and the nature of the particular dispute. Some mediators view their primary objective as enabling the disputants to better understand their own interests and the other side's perspective. Most mediators, however, do not consider enhancing the disputants' understanding as an end in itself but as a means to helping them reach an agreement that meets their needs.

Mediators differ in how actively they intervene during the session: whether they focus the disputants' discussion narrowly on the instant dispute and legally relevant issues or expand it to include broader issues and considerations and whether they help the disputants assess various options or offer their own evaluation of the merits of the disputants' positions and proposals. The timing of mediation (e.g., before a claim is filed, shortly after filing, after discovery is completed), the number and length of sessions, who the mediators are (e.g., lay people, mental health professionals, lawyers), and whether the attendance of the disputants' lawyers is required or prohibited vary with the setting and types of disputes.

Neutral case evaluation is used less frequently than mediation. Following each lawyer's brief presentation of the case, the third party assesses the strengths and weaknesses of each disputant's position and facilitates settlement discussions. The evaluator, who usually is a lawyer, also might offer an assessment of liability and a valuation of damages, suggest a reasonable settlement value, or predict the likely trial outcome to facilitate settlement. If no settlement is reached, the evaluator might explore ways to streamline pretrial discovery and motions. Neutral case evaluation typically involves a single several-hour session that is held relatively early during litigation and is attended by the disputants and their lawyers.

Judicial settlement conferences may be conducted by the judge assigned to the case or by another judge and usually take the form of neutral case evaluation or narrow, settlement-focused, evaluative mediation. A settlement conference typically involves a single session that lasts several hours and is held when the case is essentially ready for trial. Although some judges require disputants to attend, usually only the lawyers are present and participate in the discussions. Courts generally consider judicial settlement conferences to be ADR, but some commentators regard them as a component of traditional litigation.

Empirical Field Research on ADR

Few general statements about the research findings can be made that apply consistently across ADR processes, settings, and dispute types. Even within the same process and setting, the findings are mixed as to whether ADR performs better than, or simply as well as, litigation.

Most of the research has examined mediation and arbitration in court-connected programs; few published studies have examined other ADR processes or private ADR. The primary data sources include court or ADR program records and questionnaires completed at the end of the session by disputants, lawyers, and neutrals. Few studies have included observations of sessions or long-term follow-up with disputants. Many studies do not include a comparison group of non-ADR cases; those that do seldom assign cases randomly to ADR and non-ADR groups. Drawing conclusions across studies is further complicated because different studies use different non-ADR comparison groups: Some use only cases settled via negotiation, others use only tried cases, and still others include all disposition types.

The Efficacy of ADR

In divorce, small claims, and community mediation, from 50% to 85% of cases settle. In general jurisdiction civil cases, from one fourth to two thirds of cases

that use mediation, neutral evaluation, or arbitration settle. A majority of studies find that the settlement rate in mediation cases is higher than in comparable cases that do not use mediation, but other studies find no differences between mediated and litigated cases in settlement rates. Studies of court-connected arbitration tend to find a lower settlement rate in arbitrated cases than in comparable nonarbitrated cases. Because arbitration hearings divert cases from settlement but not from trial, arbitration increases disputants' access to a hearing on the merits. Studies generally find that judicial settlement conferences do not increase the rate of settlement but that lawyers think they do.

Some studies find that compared with traditional litigation, ADR resolves cases faster; reduces discovery, motions, pretrial conferences, and trials; and reduces disputants' legal fees and litigation costs. Other studies, however, find no differences between ADR and litigation in these measures. No study has found that judicial settlement conferences resolve cases faster. In mediation and neutral evaluation, time and cost savings are more likely in cases that settle than in cases that do not settle. In court-connected arbitration, however, cases that settle before the arbitration hearing often are not resolved more quickly than cases resolved by the arbitrator's decision; cases that appeal the decision take substantially longer to conclude, regardless of whether they eventually settle or are tried.

Most disputants and lawyers who participate in ADR have highly favorable assessments of the process (e.g., they feel that it was fair and gave them sufficient opportunity to present their case), the third party (e.g., they think that she or he was neutral, understood their views and the issues, did not pressure them to settle, and treated them with respect), and the outcome (e.g., they feel that it was fair, and they were satisfied with it). Thus, ADR tends to get high ratings on procedural justice and its correlates. Whether ADR participants' assessments are as favorable as or more favorable than those of non-ADR participants, however, varies across studies and settings. In most settings, disputants in mediation who settle have more favorable assessments than disputants who do not settle. Disputants in arbitration who have a hearing have more favorable views of the process, but not necessarily of the outcome, than disputants who settle before the arbitration hearing.

Studies involving divorce and small claims cases tend to find that disputants in mediated cases report a higher rate of compliance with the outcome, less anger, improved relationships, and less relitigation than disputants in litigation. These benefits associated with divorce mediation tend to disappear after several years, although disputants remain more satisfied. In general civil cases, most studies find no differences between mediated and nonmediated cases in terms of postresolution compliance or relationships. Several studies suggest that postresolution outcomes are less strongly influenced by whether disputants use mediation or litigation than by antecedent characteristics of the disputants, such as their ability to pay or their level of anger or adjustment.

The few studies that have examined the relative efficacy of different ADR processes tend to find no differences among them. However, because these studies do not involve the random assignment of cases to processes, these findings might simply reflect the "correct" matching of disputes to processes for which they are best suited.

Despite ADR performing at least as well as litigation, there is relatively little voluntary use of ADR after disputes have arisen. This appears to say less about disputants' or lawyers' preferences regarding dispute resolution procedures and more about the logistical, strategic, cognitive, and economic barriers to using ADR once litigation has begun. Rules designed to overcome these barriers by requiring lawyers to inform their clients about ADR or to discuss ADR with opposing counsel have had mixed success in increasing early settlements or voluntary ADR use.

The Effect of Process, Third-Party, and Dispute Characteristics

The mixed research findings regarding ADR's efficacy might reflect, in part, differences across studies in how the ADR process was implemented or in the mix of disputes handled. A small number of studies have examined the relationships between ADR outcomes and characteristics of the process, third party, and disputes, though few have systematically varied these characteristics.

Process Characteristics

Studies find that several benefits are associated with holding the ADR session sooner after the legal complaint is filed: Cases are resolved faster; fewer motions are filed; and, as found in some studies, more cases settle. Delaying ADR until after discovery is substantially completed is not associated with an increased rate of settlement. Most studies find no differences in settlement rates

or participants' assessments associated with whether mediation use is voluntary or mandatory, but some studies find that voluntary use of mediation is associated with more favorable outcomes.

Third-Party Characteristics

A majority of studies find that when the mediator or neutral evaluator plays a more active role during the session in helping disputants identify issues and options, settlement is more likely and disputants have more favorable assessments of the process. Mediator actions associated with these positive outcomes include actively structuring the process, getting disputants to express their views and to assess different options, and providing their own views about the disputants' positions and proposals. If the mediator recommends a specific settlement, however, disputants are more likely to settle but less likely to view the mediation process as fair. Only a few studies have examined whether the third party's general approach or specific actions appear to be differentially effective in different types of disputes. These studies show, for instance, that some mediator approaches that are effective in resolving less intense conflicts are not effective in resolving more intense conflicts and some approaches that are effective in divorce cases are not effective in general civil cases.

Greater third-party familiarity with the substantive issues in the case is related to lawyers' viewing the arbitration process and decision as more fair. In mediation, the third party's substantive expertise is not related to settlement or to disputants' or lawyers' assessments. How well the mediator understood the disputants' views, however, is related to their assessments. Disputants' and lawyers' perceptions that the third party was not biased and was prepared for the session are associated with favorable assessments of the process and outcome of all ADR processes.

Dispute and Disputant Characteristics

Research examining which dispute and disputant characteristics are associated with better outcomes has been conducted primarily on the mediation process. The contentiousness of the disputants' relationship impedes settlement in divorce and community mediation but not in general civil and small claims mediation, which involves few intimate or ongoing relationships. In addition, divorcing couples with a more contentious relationship are more likely to be dissatisfied with the settlement, remain bitter, and bring subsequent lawsuits. Across mediation settings, other indicators of more intense conflicts, such as poor communication, greater disparity in the disputants' positions, and the denial of liability, also are associated with a lower likelihood of settlement.

Not surprisingly, the greater the disputants' motivation to settle and the less disparity between the disputants in that motivation, the more likely they are to settle. Disputants who misunderstand the goals of mediation or whose goals are inconsistent with those of mediation are less satisfied and less likely to settle. Similarly, lawyers whose expectations about how the neutral case evaluation session will be conducted are closer to the approach actually used are more satisfied with the process. Disputants who are better prepared for mediation by their lawyers tend to be more likely to settle and to feel that the process is fair, perhaps because preparation modifies their expectations or their actions during the session.

Few studies have examined how antecedent dispute characteristics affect what goes on during the mediation session and how that, in turn, affects outcomes. These studies find that disputants who have a less contentious relationship or who are more motivated to settle are more likely to be cooperative and to engage in productive joint problem solving during mediation. These behaviors, in turn, are associated with disputants being more likely to settle, view the mediation process and outcome as fair, and report improved relationships. More active disputant participation during mediation also is associated with more favorable outcomes. The few studies that have examined lawyers' impact on mediation suggest that how cooperative the lawyers are during the session is related to settlement and to disputants' assessments of the process.

The research findings are mixed with regard to whether or not there is a relationship between settlement and dispute complexity, which has been defined in different studies as the number of disputants, the number of disputed issues, or the complexity of the issues in dispute. A majority of mediation studies find that legal case type categories (e.g., tort, contract) and the size of the monetary claim are not related to settlement or to disputants' assessments of mediation. A majority of arbitration studies, however, find that disputants are more likely to appeal the arbitrator's decision in cases involving larger dollar claims and in tort rather than contract cases.

Roselle L. Wissler

See also Legal Negotiation; Procedural Justice

Further Readings

ADR and the vanishing trial [Special issue]. (2004, Summer). *Dispute Resolution Magazine, 10*.

Brazil, W. A. (1985). *Settling civil suits: Litigators' views about appropriate roles and effective techniques for federal judges.* Chicago: American Bar Association.

Conflict resolution in the field: Assessing the past, charting the future [Special issue]. (2004, Fall–Winter). *Conflict Resolution Quarterly, 22*.

Folberg, J., Milne, A. L., & Salem, P. (Eds.). (2004). *Divorce and family mediation: Models, techniques, and applications.* New York: Guilford.

Menkel-Meadow, C. J., Love, L. P., Schneider, A. K., & Sternlight, J. R. (Eds.). (2005). *Dispute resolution: Beyond the adversarial model.* New York: Aspen.

Wissler, R. L., & Dauber, B. (2005). Leading horses to water: The impact of an ADR "confer and report" rule. *Justice System Journal, 26,* 253–272.

Wissler, R. L., & Dauber, B. (2007). Court-connected arbitration in the Superior Court of Arizona: A study of its performance and proposed rule changes. *Journal of Dispute Resolution 1*, 65–100.

AMBER Alert System

The AMBER Alert system was designed to help rescue missing children. Law enforcement entities release information about the child and the perpetrator through public announcements on television, roadside signs, and the Internet. Citizens are expected to remember the information and report sightings to the police. Although the system has not been well evaluated, a number of social science methods used in other areas (e.g., eyewitness memory research, bystander effect) may be applicable. Concerns have been raised that the program has been overused by the authorities, who issue alerts in nonserious cases, and that alerts are most "effective" when relatively little threat is posed, such as when a child is abducted by a parent.

AMBER Alert and Social Science

The AMBER Alert system makes many assumptions about human behavior that remain untested. The system assumes that individuals have the ability to remember the information presented in the alert and to identify the perpetrator or the child at a later time. Research on cognitive load and exposure duration suggests that brief messages presented while the recipient is busy (e.g., driving a car) may not be acquired, although these notions have not been tested with AMBER Alert messages. Retention failure and memory reconstruction may also make it difficult to properly remember the alert message. Retrieval problems, such as source attribution errors, may also make it difficult for citizens to fulfill their role in the AMBER Alert system. Eyewitness memory research has indicated that individuals are not always able to recognize a face seen before; this can be especially true for faces of another race. These research techniques could be used to test citizens' ability to become informants.

Social influences and individual differences could affect one's willingness to report. Informants may feel that they are too busy to get involved with an investigation, or they could decide that because other citizens will report the sighting, there is no need for them to report (i.e., the bystander effect). The people around informants could doubt their memory, influencing them not to report. On the other hand, the high severity of a crime may make informants more likely to report. Gender, race, and past experiences with the police have also been shown to affect one's willingness to help. Although these studies were not conducted using AMBER Alert as a framework, they may suggest avenues for future study.

There is also concern that AMBER alerts will lead to "AMBER fatigue," a phenomenon in which individuals stop paying attention to the alerts because they have seen so many of them. There is also concern that the great number of alerts could lead to a heightened level of public fear and to perceptions that abductions are more common than they actually are, as suggested by research on the availability heuristic and social construction of fear by the media. Alternately, the presence of the AMBER Alert system could convince people that the system is deterring abductions; this could lead to a reduction in the perceived need for prevention programs. Stories of abductions by strangers (which AMBER Alert was designed to address) may lead to a neglect of the more frequent problem of abductions by family members. Counterfactual thinking and hindsight bias can affect perceptions of the system: A rescue after an alert was issued or a child's death after a failure to issue an alert may seem like inevitable outcomes, thus bolstering the system's perceived effectiveness.

Finally, AMBER alerts can affect perpetrators. It is possible that alerts can deter criminals or encourage them to return the child safely. It is, however, also possible that they will encourage copycat abductions by publicity-seeking criminals. Seeing an alert could also

lead a criminal to kill and dispose of the child more quickly than he or she had planned.

AMBER Alert Research

A few researchers have attempted to test the effectiveness of the system. An examination of 233 AMBER alerts issued in 2004 revealed that, despite the intention of focusing AMBER alerts on only serious abduction cases (which generally involve strangers), 50% of the alerts studied involved familial abductions, another 20% involved hoaxes or confusions, and only 30% actually involved abduction by strangers. The researchers recommended stricter adherence to the restrictive issuance criteria recommended by the U.S. Department of Justice to avoid overuse of the system.

There has also been one attempt to determine how effective AMBER Alert is in accomplishing its key goal, which is saving abducted children's lives in the worst cases (often called "stereotypical" abductions). The researchers found that, despite claims by some practitioners that AMBER alerts have helped rescue hundreds of children, successful recovery is most likely when the victim is abducted by a parent and least likely when the child is abducted by a stranger. Since prior research has shown that most children abducted by parents are not harmed (regardless of whether an alert was issued or not), researchers questioned the effectiveness of alerts and their ability to "save" lives.

In addition to these issues, there might be obstacles to AMBER alerts routinely functioning as intended. For practical reasons, it is very difficult to learn of an abduction and issue an alert within the small, critical window of opportunity that exists in the worst cases. Despite the reasonableness of insisting that AMBER alerts only be issued in serious scenarios, there is an inherent dilemma in determining the level of threat actually posed when a child is missing and might or might not have been abducted.

Monica K. Miller and Timothy Griffin

See also Eyewitness Memory; Reporting Crimes and Victimization; Sex Offender Community Notification (Megan's Laws); Victimization

Further Readings

Griffin, T., Miller, M. K., Hammack, R., Hoppe, J., & Rebideaux, A. (2007). A preliminary examination of AMBER Alert's effects. *Criminal Justice Policy Review*.

Hargrove, T. (2005). *False alarms endangering future of Amber Alert system.* New York: Scripps Howard News Service.

Miller, M. K., & Clinkinbeard, S. S. (2006). Improving the AMBER Alert system: Psychology research and policy recommendations. *Law and Psychology Review, 30,* 1–21.

Miller, M. K., Griffin, T., Clinkinbeard, S. S., & Thomas, R. M. (2006, April). *The psychology of AMBER Alert: Unresolved issues and policy implications*. Paper presented at the Western Social Science Association Conference, Phoenix, AZ.

American Bar Association Resolution on Mental Disability and the Death Penalty

The question of how individuals with severe mental disabilities should be sentenced when they are convicted of capital (death penalty) crimes is a vexing one in U.S. society. On one hand, the death penalty is an established part of the criminal justice system in the United States, which exists in part as a reflection of our society's outrage in response to certain kinds of violent crime. On the other hand, in the words of former U.S. Supreme Court Chief Justice Earl Warren, a society's "evolving standards of decency that mark the progress of a maturing society" require that we recognize that there must be exceptions to this most extreme form of punishment. This entry describes the Resolution of the American Bar Association on Mental Disability and the Death Penalty, which was endorsed by the American Psychological Association and other professional organizations, and the Resolution's approach to the difficult problem of mental disability and capital punishment.

The American Bar Association (ABA) formed an interdisciplinary task force to consider this problem. The Task Force on Mental Disability and the Death Penalty (hereinafter "Task Force") was established by the ABA's Section of Individual Rights and Responsibilities and chaired by Ronald Tabak (Task Force, 2006). Many of the 24 members of the Task Force were attorneys, including representation from the National Alliance on Mental Illness, but there were also representatives from the American Psychological Association (the three authors of this entry) and the American Psychiatric Association. The Task Force worked for 2 years

(April 2003 to March 2005) on considering, debating, and crafting the Resolution that is quoted in this entry. It was approved by the ABA in August 2006, after having previously been endorsed by the American Psychological Association, the American Psychiatric Association, and the National Alliance on Mental Illness.

One of the important initial questions facing the Task Force was whether mental disability should constitute a per se bar to capital punishment—that is, whether individuals with certain kinds of mental disability should not need to demonstrate anything further in order to be excluded from consideration for the death penalty. There were differing views among Task Force members on this question. The vast majority of questions in mental health law require consideration not only of mental disability but also of specific functional legal capacities that vary according to the legal question, and the relationship between the mental disability and the functional capacities. For example, an individual with a severe mental disability would not be adjudicated incompetent to stand trial only on the basis of that disability; the court would also consider the functional legal criteria involving a rational and factual understanding of the individual's legal situation and the capacity to assist counsel in his or her own defense. The defendant who experiences deficits in these functional legal capacities that are caused by symptoms of a severe mental disability is much more likely to be adjudicated incompetent to stand trial by a court.

So it did not appear sufficient to craft a resolution on the theme that those with mental disability should be excluded from the death penalty on that basis alone. Throughout most of the Resolution, the Task Force used the consideration of mental disability, functional legal criteria, and causal connection in formulating its language.

To complicate matters further, however, there is some important case law, in the form of decisions by the U.S. Supreme Court, indicating that in some instances the defendant's mental condition or age is sufficient *by itself* to exclude that individual from capital punishment. In *Atkins v. Virginia* (2002), the U.S. Supreme Court decided that the Eighth Amendment of the Constitution bars capital punishment for individuals with mental retardation on the basis that it is a cruel and unusual punishment. This decision was followed by another case, *Roper v. Simmons* (2005), in which the Supreme Court held that execution of those under the age of 18 at the time of the offense was also constitutionally prohibited under the Eighth Amendment. Faced with the choice of whether to apply "mental disability" to capital punishment as the Supreme Court did in *Atkins* and *Roper,* with the disability itself constituting sufficient grounds for an exclusion, or to use the more established approach used in virtually all other questions in mental health law, the Task Force adopted a two-dimensional approach. Consistent with *Atkins*, the first prong of this Resolution proposes that those with significant limitations in their intellectual functioning and adaptive behavior (criteria associated with mental retardation) be excluded from consideration for capital punishment on that basis alone. However, individuals with "severe mental disorder or disability" would need to demonstrate both the existence of such a disorder/disability and the resulting impairment in functional legal capacities at the time of the offense (the Resolution's second prong) or following sentencing (the third prong). This two-dimensional approach has the advantage of not only recognizing the Court's holding that a specific kind of disability (mental retardation) is sufficient in itself to exclude defendants with this disability from capital sentencing but also acknowledging the longstanding demand for considering both nature of disability and relevant functional legal capacities in other areas of mental health law.

Finally, the Task Force sought to fill an important gap in the law regarding competence for execution, which applies when a defendant who receives a death sentence begins to demonstrate symptoms of a severe mental disability after sentencing but before execution. In *Ford v. Wainwright* (1986), the U.S. Supreme Court held that execution of an incompetent prisoner constitutes cruel and unusual punishment, which is proscribed by the Eighth Amendment. However, the Court did not specify what criteria should be used to determine whether the prisoner is incompetent for execution. The Resolution provides suggested criteria that expand on the language used by Justice Lewis Powell, in his concurring opinion in *Ford*, to the effect that the prisoner's understanding of the nature of capital punishment and why it is imposed in this particular case ought to be the relevant test. (Since Justice Powell's opinion concurred with the majority on many points but was not part of the majority opinion, his language regarding the criteria for competence for execution did not become officially recognized as part of the *Ford* decision and hence applicable to other cases involving competence for execution. Some states have adopted this language as part of their law in this area, but they are not required to do so as they

would have been if the language had been included in the majority's decision.)

The Resolution (Quoted From the Task Force)

RESOLVED, That the American Bar Association, without taking a position supporting or opposing the death penalty, urges each jurisdiction that imposes capital punishment to implement the following policies and procedures:

1. Defendants should not be executed or sentenced to death if, at the time of the offense, they had significant limitations in both their intellectual functioning and adaptive behavior, as expressed in conceptual, social, and practical adaptive skills, resulting from mental retardation, dementia, or a traumatic brain injury.

2. Defendants should not be executed or sentenced to death if, at the time of the offense, they had a severe mental disorder or disability that significantly impaired their capacity

a. to appreciate the nature, consequences or wrongfulness of their conduct,
b. to exercise rational judgment in relation to conduct, or
c. to conform their conduct to the requirements of the law.

A disorder manifested primarily by repeated criminal conduct or attributable solely to the acute effects of voluntary use of alcohol or other drugs does not, standing alone, constitute a mental disorder or disability for purposes of this provision.

3. Mental Disorder or Disability after Sentencing

a. Grounds for Precluding Execution. A sentence of death should not be carried out if the prisoner has a mental disorder or disability that significantly impairs his or her capacity

i. to make a rational decision to forgo or terminate post-conviction proceedings available to challenge the validity of the conviction or sentence;
ii. to understand or communicate pertinent information, or otherwise assist counsel, in relation to specific claims bearing on the validity of the conviction or sentence that cannot be fairly resolved without the prisoner's participation; or
iii. to understand the nature and purpose of the punishment, or to appreciate the reason for its imposition in the prisoner's own case.

Procedures to be followed in each of these categories of cases are specified in (b) through (d) below.

b. Procedure in Cases Involving Prisoners Seeking to Forgo or Terminate Post-Conviction Proceedings. If a court finds that a prisoner under sentence of death who wishes to forgo or terminate post-conviction proceedings has a mental disorder or disability that significantly impairs his or her capacity to make a rational decision, the court should permit a next friend acting on the prisoner's behalf to initiate or pursue available remedies to set aside the conviction or death sentence.

c. Procedure in Cases Involving Prisoners Unable to Assist Counsel in Post-Conviction Proceedings. If a court finds at any time that a prisoner under sentence of death has a mental disorder or disability that significantly impairs his or her capacity to understand or communicate pertinent information, or otherwise to assist counsel, in connection with post-conviction proceedings, and that the prisoner's participation is necessary for a fair resolution of specific claims bearing on the validity of the conviction or death sentence, the court should suspend the proceedings. If the court finds that there is no significant likelihood of restoring the prisoner's capacity to participate in post-conviction proceedings in the foreseeable future, it should reduce the prisoner's sentence to the sentence imposed in capital cases when execution is not an option.

d. Procedure in Cases Involving Prisoners Unable to Understand the Punishment or Its Purpose. If, after challenges to the validity of the conviction and death sentence have been exhausted and execution has been scheduled, a court finds that a prisoner has a mental disorder or disability that significantly impairs his or her capacity to understand the nature and purpose of the punishment, or to appreciate the reason for its imposition in the prisoner's own case, the sentence of death should be reduced to the sentence imposed in capital cases when execution is not an option.

Discussion

This Resolution does not take a position on the death penalty generally. Neither the ABA, which organized the Task Force and ultimately approved the Resolution, nor organizations such as the American Psychological Association, the American Psychiatric Association, or the National Alliance on Mental Illness intended their endorsement to reflect a broader position on capital punishment applicable beyond the scope of the Resolution.

In some respects, this Resolution is largely consistent with established law. In Prong 1, for example, the Resolution language is quite consistent with the Supreme Court's decision in *Atkins*, although it does expand the possible reasons for significantly limited intellectual functioning and adaptive behavior so that it now includes mental retardation as well as other possible sources of deficit (e.g., dementia, brain injury).

In other respects, however, the Resolution goes well beyond what is presently established under the law. It proposes to exempt from capital punishment those who, at the time of the offense or prior to execution, display both severe mental disability and impaired functional legal capacities. It does so in a traditional fashion, without the per se bar of a specific kind of mental disability or the defendant's age. However, there is no question that what is proposed in the Resolution's second and third prongs would change the law in some significant ways if the Resolution's language were adopted by state legislatures and used by appellate courts.

This Resolution should not be interpreted as an attempt to absolve offenders of responsibility for their actions or exempt them from punishment. But it does recognize that there are degrees of culpability for very serious offenses and that severe mental disability may reduce that culpability somewhat. Even for those who might meet the criteria described in this Resolution, however, the reduction in sanction is from a death sentence to life incarceration—an attempt to balance our society's interest in punishing the guilty with the importance of punishing them as culpability and fairness dictate.

Kirk Heilbrun, Joel Dvoskin, and Diane Marsh

See also Competency for Execution; Death Penalty; Mental Illness and the Death Penalty

Further Readings

Atkins v. Virginia, 536 U.S. 304 (2002).

Bonnie, R. (2005). Mentally ill prisoners on death row: Unsolved puzzles for courts and legislatures. *Catholic University Law Review, 54,* 1169–1193.

Ford v. Wainwright, 477 U.S. 399 (1986).

Heilbrun, K., Radelet, M., & Dvoskin, J. (1992). The debate on treating individuals incompetent for execution. *American Journal of Psychiatry, 149,* 596–605.

Roper v. Simmons, 543 U.S. 551 (2005).

Task Force on Mental Disability and the Death Penalty. (2006). Recommendation and report on the death penalty and persons with mental disabilities. *Mental and Physical Disability Law Reporter, 30,* 668–677.

Trop v. Dulles, 356 U.S. 86 (1958).

Americans with Disabilities Act (ADA)

Psychologists may become involved with the Americans with Disabilities Act (ADA) through consultations with employers and workers or as an expert witness in litigation involving the act. In all these roles, the psychologist must gain an understanding of the many definitions in the act and the Equal Employment Opportunity Commission (EEOC) regulations mandated by it. The ADA not only is a valuable tool for use by disabled people against discrimination but also an arena of practice for forensic psychologists. Although the ADA is a complex mixture of definitions and rules, the forensic practitioner may enter this arena using many of the skills developed in tort cases or in civil rights cases involving sex or race. This entry describes the ADA, discusses the roles that psychologists may play in workplace consultations, and examines the use of psychological evaluations in litigation related to disability.

Background of the ADA

The ADA was signed into law in 1990 and came into effect 2 years later. The law was designed to eliminate discrimination against people with disabilities. The statute (42 U.S.C. 12101, Section 2 b (1), 1992) enabled the development of regulations by the EEOC and has been shaped by a number of U.S. Supreme Court decisions. The most obvious impact of the ADA

is seen in its transformation of buildings, roads, sidewalks, buses, and restrooms into places where people with disabilities may function with fewer barriers.

However, the advocates of disabled people who framed the ADA were more ambitious. The law intends to prevent individuals with disabilities from being discriminated against in hiring, training, compensation, and benefits. Under the ADA, it is illegal to classify an employee on the basis of disability or to participate in contracts that have the effect of discriminating against people with disabilities. The use of tests or other qualification standards that are not job related but result in screening out individuals with disabilities is also banned. Like the Civil Rights Act of 1964, the ADA protects workers who file complaints with the EEOC or other agencies from retaliation by their employers. Under the ADA, employers are required to provide "reasonable accommodation" for workers with disabilities who could qualify for jobs with appropriate assistance.

Mental Disabilities in the ADA

Forensic psychologists working in cases involving the ADA must have an understanding of the specific definitions that shape how the act is used. An important definition in the act is the definition of disability: (1) a physical or mental impairment that substantially limits one or more of the major life activities of an individual, (2) a record of such an impairment, or (3) being regarded as having such an impairment.

A *qualified individual with a disability* is a person with a disability who has the basic qualifications for the job, including the skills, experience, education, and other job-related requirements required for the position the person either currently holds or wishes to obtain. In the context of the ADA, a qualified individual with a disability, with or without reasonable accommodation, can perform the essential functions of that job.

An *impairment* becomes a disability when it adversely affects one or more major life activities. One first considers the impact of the disability on non-work-related activities, which include self-care, sleeping, reading, and concentrating. If none of those basic human activities are affected, the inquiry shifts to work-related activities. The impairment must be considered *severe* enough to "substantially limit a major life activity." How much restriction on essential life activity is caused by the disability is one metric, but the act also allows for consideration of the duration of the disability. Temporary disability is not considered, and chronic and recurring conditions must be considered substantially limiting while they are active.

Mental impairment refers to "any mental or psychological disorder, such as . . . emotional or mental illness." The ADA provides examples of mental or emotional illnesses, such as major depression, bipolar disorder, anxiety disorders, and schizophrenia. Although not listed in the ADA itself, EEOC regulations also include personality disorders as potentially disabling conditions and point to the *Diagnostic and Statistical Manual of Mental Disorder*s (currently the *DSM-IV-TR*) as the appropriate reference for determining the symptoms associated with mental disorders. The ADA specifically excludes conditions related to sexuality, such as homosexuality, bestiality, transvestism, transexualism, pedophilia, exhibitionism, voyeurism, or gender identity disorders not related to physical impairments. In addition, the act excludes other behaviors of which Congress did not approve, including compulsive gambling, kleptomania, pyromania, and psychoactive substance abuse disorder resulting from the illegal use of drugs.

In general, the disabled worker must conduct himself or herself in the workplace just like other workers, unless the disability is causing conduct problems on the job. In those situations, the employer must provide *reasonable accommodations* that would allow the worker to meet conduct requirements. If a worker's behavior constitutes "a significant risk of substantial harm to the health and safety of the individual or others that cannot be eliminated or reduced by reasonable accommodation," it may be considered a *direct threat.* The ADA allows workers who pose a direct threat to be fired or removed from the affected position.

The ADA treats the abuse of illegal substances differently than the abuse of legal ones. Current illegal drug use, including abuse of prescription drugs, is not protected by the ADA. Rehabilitated illegal drug users are protected, and the existence of a history of illegal drug use may not be a basis for discharge or discipline, although a relapse may legitimately trigger discharge. Workers who have addictions to legal drugs, such as alcohol, must experience a substantial limitation in a major life activity to be covered by the ADA. Alcohol-dependent workers with excessive absenteeism who report to work drunk or who endanger other workers because of their dependence are subject to the same discipline as other workers.

Psychological Consultations With Employers and Workers

Accommodation Plans

The ADA mandates that an employer work with each disabled employee to develop a plan that takes into account the worker's disability, the worker's strengths, and the nature of the job. Psychologists may assist the employer to help craft an accommodation plan to allow the worker to function in the workplace. This may be done through changes in work hours or supervision levels or by simply providing time off for psychotherapy sessions.

Return-to-Work Evaluations

Workers with mental disabilities may experience fluctuations in their illnesses that result in extended absences from the workplace. In these situations, the employer may require that the worker undergo a psychological evaluation to determine if the worker may effectively return to the workplace without irremediable deficits in work functioning or dangers to the worker or others. In these situations, the psychologist obtains information concerning the demands of the job. The next task is to determine if the worker can perform essential job functions with or without reasonable accommodation.

The psychologist may provide information about what accommodations may be made, which might include altering the interpersonal demands of the workplace, changing the environmental conditions, changing the worker's shift, and eliminating distractions. In addition to reviewing the worker's documented medical and mental records, the examining psychologist may administer a battery of tests. Cognitive assessment may be required in situations in which the mental disability may affect attention, concentration, or the ability to work quickly. Personality assessment may add additional information about existing patterns of psychopathology in relation to the worker's history or the symptom picture that predicated the worker's departure from the workplace. A full clinical history and interview is part of this assessment and should include a detailed vocational history to determine whether the presented impairments have caused the worker problems in the past. A history of relationships, both on and off the job, will illuminate the existence of interpersonal impairments that could limit vocational functioning.

The assessment should result in the psychologist's opinion about whether the worker is disabled under the definitions of the ADA. Then, the psychologist determines if the worker's disability is amenable to reasonable accommodation within the range of alternatives that are feasible for that employer. This decision, as all others in relation to the ADA, is related to the nature of the employer's business, the number of employees, the cost of the accommodations, and other factors. For a small employer, changes in the worker's schedule may not be reasonable, while for a large employer, more extensive changes in the workplace may be practical.

The psychologist's active participation in discussions with the employer and the worker can result in a return-to-work plan that meets the worker's needs and allows for the employer to return a trained and functioning employee to duty. The psychologist should listen to all the parties to craft a viable course of action for the employee's return to work.

Litigation-Related Evaluations and Consultations

Failure to Provide Reasonable Accommodation

The ADA allows workers to sue employers for a number of acts and omissions in relation to the ADA. The worker may claim that the employer has failed to provide reasonable accommodation for a disability or has refused to hire a disabled employee. Assessment of plaintiffs in these cases involves evaluations similar to those used in return-to-work contexts because the psychologist is called on to compare the worker's skills with the job requirements to determine if changes in the workplace would allow the worker to perform essential job functions. Employers may claim that no amount of accommodation would bring the worker up to a functional level, that the proposed accommodations are not feasible or would impose an undue hardship on the employer, that reasonable accommodation has been offered to the worker but was rejected, or that no effective accommodation exists for that worker in that job setting.

These evaluations should meet the standards for any litigation-related evaluation and include gathering a thorough history, reviewing the appropriate job, mental health, and medical records, appropriate psychological testing, and collateral interviews. The psychologist

should prepare a report consistent with professional standards and be prepared to be questioned in deposition or in open court.

Disparate Treatment and Disparate Impact Evaluations

If a worker is disabled according to the ADA and has not been hired, has been denied promotion, or has been fired, and nondisabled workers who are similarly situated have been treated more favorably, the disabled worker may have a claim for *disparate treatment.* If the disabled worker has experienced an adverse job action that is not a result of the employer's overt discrimination but is a result of a policy that was designed to be neutral toward people with disabilities, the worker may have a claim for *disparate impact.*

Psychological evaluation in these cases focuses on the impact of the nonhire, firing, or nonpromotion. Emotional damages may flow from these adverse job actions, and the impact of changes in income and lost future job opportunities may be considered. Psychological evaluations in these cases may more closely resemble evaluations in personal injury or workers' compensation cases, as reasonable accommodation is not an issue. Interviews with family members and friends may assist in determining if the worker has suffered emotional harm because of the employer's actions.

Reprisal for Protected Conduct

If a worker files a complaint with the EEOC or other similar agency and is subsequently the recipient of adverse treatment or discharge from his or her employer, that employee may file a claim for reprisal. Psychological evaluation of these cases may follow the parameters of evaluations in disparate treatment and impact cases.

Disability Harassment and Hostile Work Environment

In some situations, disabled individuals experience harassment or hostile work environments because of their disability status. In these situations, the plaintiff must show that he or she is disabled and that because of the disability, he or she was subjected to physical or verbal conduct so offensive that a reasonable person would consider the work situation to be a hostile work environment. Also, the plaintiff must show that the employer failed to take prompt remedial action to stop the harassment. Evaluations for hostile work environment would follow the same pattern as outlined above.

William E. Foote

See also Disparate Treatment and Disparate Impact Evaluations; Forensic Assessment; Return-to-Work Evaluations

Further Readings

Foote, W. E. (2000). A model for psychological consultation in cases involving the Americans with Disabilities Act. *Professional Psychology: Research and Practice, 31*(2), 190–196.

Foote, W. E. (2003). Forensic evaluation in Americans with Disabilities Act cases. In A. D. Goldstein & I. B. Weiner (Eds.), *Comprehensive handbook of forensic psychology: Vol. 11. Forensic psychology*. New York: Wiley.

U.S. Equal Employment Opportunity Commission. (2000). Questions and answers on amending the interpretive guidance on Title I of the Americans with Disabilities Act. Retrieved June 4, 2007, from http://www.eeoc.gov/policy/regs/1630-mitigating-qanda.html

Amicus Curiae Briefs

Amicus curiae literally means "friend of the court," and the author of an amicus curiae brief is an entity who wishes to provide legal, scientific, or technical information to a court to aid its decision. An amicus is not a party to the case entitled to be heard as a matter of right but an individual or an organization granted discretionary leave to file a written brief to provide insight into an issue that the parties to the case may not be able to have because of lack of time, space, or expertise. Amicus curiae briefs have influenced the outcomes of many landmark legal cases. The American Psychological Association (APA) regularly seeks leave to file amicus briefs, as do a host of other individuals and organizations.

Overview

The U.S. adversarial legal system looks to the parties to present the information necessary for the judge or jury to decide the questions presented by a case. The amicus curiae brief is a vehicle for people or

organizations, not joined as parties or otherwise entitled to be heard in the case, to provide the judiciary with insights or analysis that would otherwise be lacking in decisions of significant import.

Amici lack important rights that parties enjoy. For example, amici have no right to settle or refuse to settle claims, to raise a claim or a defense that the parties did not, or even to join a person that the parties did not. There is no constitutional right to file an amicus brief. The opportunity to be heard as an amicus rests with the discretion of the court before whom the case is pending or, in federal court, the consent of the parties or permission of the court. Typically, amicus briefs are thought to address transcendent questions of law decided at the appellate stage of a case. But it is within the discretion of the court to accept an amicus brief at trial as well as on appeal, whether labeled a pure or a mixed question of law or fact.

A Brief History

Authors such as Simpson and Vasaly have traced the roots of the amicus curiae brief to ancient Rome, where briefs were submitted to provide legal expertise directly to the judiciary at their discretion. Seventeenth-century England provides the first known occurrence of what is now understood as an amicus brief to aid judges in avoiding legal errors and maintaining judicial honor. The first known instance in the United States was when an amicus curiae brief was requested of House Speaker Henry Clay in 1812 by the Supreme Court to aid the Court in the application of law to a land dispute between two states. It was not long after this use of an amicus curiae brief that the practice of filing amicus briefs in appellate courts began in earnest. Although the core purpose of the amicus curiae brief has always been a nonpartisan effort to educate the court and not to advance the interests of a specific party, there has always been a tension between these motivations.

The amicus curiae brief may seek to serve numerous functions categorized by Simpson, include the following: (a) to address issues of policy; (b) to provide a more appealing advocate; (c) to support the granting of a Supreme Court review; (d) to supplement the brief of a party; (e) to give a historical perspective; (f) to provide technical or scientific aid; (g) to endorse a particular party in the case; and (h) to try and correct, limit, publish, or "depublish" an issued judicial opinion. These functions are not mutually exclusive; thus an amicus curiae brief may serve multiple purposes.

Prevalence and Influence of the Amicus Curiae Brief

The prevalence of amicus curiae briefs submitted to the courts, and the Supreme Court in particular, has increased over time. During the first few decades of the 20th century, Kearney and Merrill found that amicus curiae briefs were only filed in approximately 10% of the Supreme Court's cases. This practice has increased dramatically. For example, in the most recent decades, at least one amicus curiae brief has been filed in at least 85% of the Court's cases that incorporated oral arguments. Thus, today, cases with no amicus curiae filings have become the anomaly.

As the number of amicus curiae briefs filed has increased over time, so has the ability of the amicus curiae brief to influence the outcome of court cases, especially where there are many amicus curiae briefs that aid the parties in strong calls for change in the areas of social policy. Amicus curiae briefs that focus on social policy instead of pure legal argument have come to be known as "Brandeis briefs," named for the first filing by Louis Brandeis, later appointed a Supreme Court justice. Brandeis's use of a nonlegally oriented brief to highlight social science data has become a model for presenting such information.

Perceptions of the Amicus Curiae Brief

Perceptions of the use and utility of amicus curiae briefs vary widely within the legal profession. From one point of view, the amicus curiae brief is a beneficial vehicle, providing arguments, technical information, or authorities not included by the parties. Those agreeing with this view point to the numerous references to amicus curiae briefs in many court opinions to suggest that courts find amicus curiae briefs helpful.

Some members of the legal community hold an opposite view. Many judges report that amicus curiae briefs replay the arguments put forth by the parties and provide the court little or no assistance. Those who subscribe to this view contend that amicus curiae briefs are a nuisance, burdening judges and their staffs yet providing few, if any, benefits. For those who view the amicus curiae brief in this way, either prohibiting or limiting the submission of amicus curiae briefs would improve the judicial system.

Finally, a middle ground regarding the amicus curiae brief acknowledges its prevalence and its potential

utility but cautions that amicus curiae briefs are most often filed by large, resourceful organizations. While amicus curiae briefs may prove helpful, researchers including Kearney and Merrill caution that inequality in organizational power, interest, and influence should be considered when contemplating an amicus curiae brief.

The APA as a Friend of the Court

The APA has been a prolific author of amicus curiae briefs. It has submitted amicus curiae briefs in cases presenting issues that can potentially affect the internal practices of the APA or its membership as well as external issues of social import that may affect the welfare of populations served by the APA. The topics of APA amicus briefs cover a wide gamut, ranging from scientific research and testing, psychological practice, and treatment of the mentally ill to abortion, sexual orientation, affirmative action, and the death penalty. While the wide range of amicus curiae brief topics are as diverse as the United States itself, in each specific case, the APA perceived either an important social value or an internal necessity in speaking as a "friend of the court."

The APA offers full-text copies of numerous amicus curiae briefs on its Web site, including briefs submitted in "landmark" cases. As an example, in *Planned Parenthood of Southeastern Pennsylvania v. Casey* (1992), the APA presented amicus briefs containing extensive psychological research to assist the Supreme Court's scrutiny of a Pennsylvania law requiring married women to obtain consent from their husbands before obtaining an abortion. The APA's amicus brief presented research that such a restriction supplants a woman's rational choice and places an unfair and potentially harmful burden on women who have compelling reasons not to inform their husbands of their choice. The Supreme Court found that the Pennsylvania law placed an unacceptable burden on women and declared the law unconstitutional.

In the Court's 2005 decision in *Roper v. Simmons*, which presented the constitutionality of imposing the death penalty on someone who was under 18 when the murder was committed, the APA presented research on juvenile behavior, maturity, decision-making ability, and criminology. In a 5:4 decision, in which the research presented by APA was central, the Supreme Court held that the Eighth Amendment of the Constitution prohibits the imposition of the death penalty on juveniles under the age of 18 when the crime was committed.

Daniel W. Shuman

See also Expert Psychological Testimony; U.S. Supreme Court

Further Readings

Barrett, G. V., & Morris, S. B. (1993). The American Psychological Association's amicus curiae brief in *Price Waterhouse v. Hopkins*: The values of science versus the values of the law. *Law and Human Behavior, 17,* 201–215.

Ennis, B. J. (1984). Symposium on Supreme Court advocacy: Effective amicus briefs. *Catholic University Law Review, 33,* 603.

Fiske, S. T., Bersoff, D. N., Borgida, E., Deaux, K., & Heilman, M. E. (1991). Social science research on trial: Use of sex stereotyping research in *Price Waterhouse v. Hopkins. American Psychologist, 46,* 1049–1060.

Kearney, J. D., & Merrill, T. W. (2000). The influence of amicus curiae briefs on the Supreme Court. *University of Pennsylvania Law Review, 148,* 743.

Krislov, S. (1963). The amicus curiae brief: From friendship to advocacy. *Yale Law Journal, 72,* 694.

Planned Parenthood of Southeastern Pennsylvania. v. Casey, 505 U.S. 833 (1992).

PsycLAW: APA's amicus briefs. (n.d.). Retrieved January 28, 2007, from http://www.apa.org/psyclaw/amicus.html

Roper v. Simmons, 543 U.S. 551 (2005).

Simpson, R. W., & Vasaly, M. R. (2004). *The amicus brief: How to be a good friend of the court* (2nd ed.). Chicago: American Bar Association.

Walbot, S. H., & Lang, J. H. (2003). Amicus briefs: Friend or foe of Florida courts? *Stetson Law Review, 32,* 269.

Antisocial Personality Disorder

Antisocial personality disorder (ASPD) is characterized by a lifelong pattern of behavior that violates the law and other people's rights. Its primary relevance to the field of psychology and law stems from its association with criminal and violent behavior, as well as its implications for attempting to reduce the risk thereof through treatment. This entry reviews the diagnostic criteria for ASPD, its phenomenology (common attitudinal, cognitive,

emotional, and behavioral features), assessment approaches, treatment issues, etiological factors, and current controversies.

Description

There are a number of definitional elements to personality disorder (PD) generally that apply to ASPD. A PD is a pattern of inflexible interpersonal relations, behavior, and internal experiences (emotional, cognitive, or attitudinal tendencies) that is stable across the life span and starts in adolescence (or early adulthood). It is inconsistent with cultural norms or expectations and involves distress or impairment to the individual. The core of ASPD involves consistently disregarding social norms or rules and violating other people's rights.

The official diagnostic criteria for ASPD, as with all PDs, are provided by the *Diagnostic and Statistical Manual of Mental Disorders*, currently in its fourth edition, which includes a textual revision (*DSM-IV-TR*), published by the American Psychiatric Association. To receive a diagnosis of ASPD, an individual must be at least 18 years old; there must be evidence of conduct disorder (CD) with an onset before the age of 15; antisocial behavior must not be limited in its occurrence solely within the course of schizophrenia or a manic episode; and there must be a pattern of violating or disregarding others' rights since the individual was 15 years old.

More specifically, an individual must meet three of seven diagnostic criteria—as specified in the *DSM-IV-TR*—since the age of 15. Paraphrasing, these include (1) repeated criminal behavior; (2) frequent lying or manipulation; (3) impulsive behavior; (4) aggression, including physical violence; (5) jeopardizing other people's safety (e.g., driving while intoxicated); (6) being irresponsible (i.e., refusing to pay one's bills or debts); and (7) not experiencing remorse for one's harmful behaviors.

In addition to meeting at least three of these seven criteria since age 15, an individual must also have shown evidence of CD prior to the age of 15. Although the *DSM-IV-TR* does not specify the number of CD symptoms required to satisfy this diagnostic criterion, some experts, and common assessment instruments (see below), have suggested that as few as 2 (of 15) CD symptoms would suffice. The 15 symptoms of CD include, among others, aggressive behaviors (e.g., stealing, fighting, using weapons, robbery, sexual assault), destroying property, lying, and other rule-breaking behavior (e.g., skipping school, running away from home).

Phenomenology, Associated Features, and Correlates

Attitudinally, individuals with ASPD may hold disparaging views of others and consider them to be avenues to fulfill their own needs (e.g., for money, sex, pleasure). They tend to have a hostile and distrustful view of the world, believing that others may be out to harm or deceive them and hence their own harmful or deceptive behavior is justified. ASPD is associated with negative views of societal institutions such as law enforcement, the judiciary, or the government. Procriminal attitudes that support, condone, or justify criminal behavior are common.

Cognitively, ASPD is associated with impulsive decision making involving little forethought, even if negative consequences are serious and probable. People with ASPD also may show poor concentration abilities and an impaired ability to devote sustained attention to routine activities. On the other hand, they may indeed be able to devote attention to activities that they consider pleasurable or exciting (e.g., gambling).

Emotionally, some, though not all or even the majority of, people with ASPD show serious deficits in the depth and breadth of emotional experience. That is, they tend not to experience extremes (positive or negative) of emotion, such as despair or love, to the same degree as people without ASPD. This type of emotional poverty would be most likely to occur in individuals with ASPD who also meet definitions of the more classic form of antisocial personality pathology—namely, psychopathy, a hallmark of which is emotional detachment.

People with ASPD commonly are prone to negative emotionality, or the tendency to have feelings of anger, irritability, hostility, dissatisfaction, unhappiness, displeasure, and anxiety. Such an emotional disposition may account, in part, for the tendency of people with ASPD to have problems initiating or sustaining positive interpersonal relationships. Furthermore, such emotional tendencies could explain the increased risk of suicide-related behavior in ASPD.

Behaviorally, there are numerous correlates of ASPD that span all domains of life functioning. Perhaps most notably, ASPD is commonly associated with criminal and violent behavior. This observation is complicated by the fact that crime and violence form part of its diagnostic criteria, and hence, not surprisingly, individuals with ASPD have more crime and violence in their histories than those without ASPD. However, ASPD also is predictive of future criminal behavior

once persons are released from prisons or forensic institutions. In addition to criminal behavior, risk-taking behavior is common. This can take a variety of forms, such as problematic substance use that is associated with adverse outcomes, such as crime, injury, personal neglect, or financial difficulties. It also may include irresponsible behaviors, such as reckless driving, failing to care for children adequately, sexual behavior that puts others' safety at risk, or gambling problems.

In terms of more general life functioning, the effects of ASPD are notable as well. For instance, ASPD is associated with low socioeconomic attainment, poor employment records and performance, low educational attainment and success, and unstable interpersonal relationships. The latter may include broken ties with one's family, abuse and other mistreatment within romantic relationships, and having only friends of convenience. Furthermore, ASPD predicts increased morbidity and mortality associated with accidental death and injury, as well as suicide.

Association With Other Disorders

Most PDs are associated with other PDs, and ASPD is no exception. It is common for people with ASPD to show symptoms of other PDs involving dysregulation of affect and impulsive behavior, such as borderline, narcissistic, or histrionic PDs. In addition, perhaps stemming from the high degree of negative emotionality commonly present in ASPD, some depressive and anxiety disorders are overrepresented in ASPD. Substance-related disorders also are disproportionately present in persons with ASPD relative to those without.

Assessment

Both self-report and interview-based measures are available to assess ASPD. Although conducting an interview is regarded as meeting a higher standard of clinical care when assessing personality (or other) pathology, self-report tools may be desirable additions to an assessment because they tend to be relatively brief, may be appropriate for group administration, and do not require an examiner with advanced credentials. On the other hand, self-reports require cooperation from the examinee and a minimum level of literacy.

Several (semi)structured interviews exist for assessing ASPD, including the Diagnostic Interview for *DSM-IV* Personality Disorders, the Structured Interview for *DSM-IV* Personality Disorders, the Personality Disorder Examination, the Diagnostic Interview Schedule, and the Composite International Diagnostic Interview. Perhaps the most widely used and researched semi-structured interview schedule for use by trained clinicians in assessing ASPD (and other PDs) is the Structured Clinical Interview for *DSM-IV* Axis II Personality Disorders (SCID–II). Each symptom criterion is assessed by an item that the interviewer rates using a 3-point scale (1 = *absent or false*; 2 = *subthreshold*; and 3 = *threshold or true*). Research indicates acceptable levels of internal consistency, test-retest reliability, and interrater reliability for the SCID–II ASPD module.

Several self-report measures that include modules for assessing ASPD also have been developed, such as the Personality Diagnostic Questionnaire–4 (PDQ–4), the Assessment of *DSM-IV* Personality Disorders Questionnaire, and the Wisconsin Personality Disorders Inventory. Self-reports whose items closely track the diagnostic criteria, such as the PDQ–4, have greater clinical relevance to the assessment of ASPD than those that do not. Although many self-report personality measures and diagnostic inventories include scales for assessing features of ASPD (e.g., the California Psychological Inventory, the Minnesota Multiphasic Personality Inventory–2, the Millon Clinical Multiaxial Inventory–III, and the Personality Assessment Inventory), they often emphasize conceptualizations of delinquent personality other than ASPD (e.g., psychopathy). These scales typically demonstrate low concordance with SCID–II diagnoses of ASPD, which likely is related to their lack of representation of the *DSM* criteria for ASPD. Compared with interview-based measures, self-reports tend to yield elevated prevalence rates of ASPD. Furthermore, an actual diagnosis of ASPD must be made by a qualified mental health professional, who interprets whatever tests and measures are used, rather than simply relying on scores on a test or measure.

Research studies comparing the utility of self-report and interview measures for ASPD generally conclude that whereas agreement for dichotomous diagnostic classification tends to be poor, concordance is much higher when a dimensional perspective is considered. Although knowing the rates of categorical classification is attractive from a clinical perspective, there nevertheless is substantial empirical support for the use of dimensional representations of PDs. In terms of relevance to applied practice, information regarding the severity of symptoms (i.e., a dimensional perspective) can be useful for treatment planning and case management.

Despite the ease of use and availability of self-report measures and (semi)structured interviews, clinicians should be aware of the circumstances under which a diagnosis of ASPD is not warranted. First, a diagnosis of ASPD should not be given to individuals who display antisocial behavior only during acute phases of psychotic or mood disorders (e.g., a manic episode). In cases where the examinee has a substance use disorder and adult antisocial behaviors are observed, ASPD should be diagnosed only if features of the disorder were present during childhood. Also, given the high degree of comorbidity between PDs, differentiating between features of ASPD that are similar to those of other PDs is critical. Of course, ASPD also needs to be differentiated from certain Axis I disorders with similar symptoms (e.g., grandiosity and impulsivity, observed in bipolar disorder). Finally, collateral information is useful to consider in assessments in light of the characteristic deceitfulness of individuals with the disorder.

Treatment

ASPD is extremely difficult to treat, and at present, the prognosis for antisocial individuals typically is considered poor. The empirical treatment literature bearing on ASPD is in its infancy, with few controlled studies having been conducted. In addition, research in this area tends to examine the outcomes of interventions for behaviors associated with ASPD, such as substance abuse and violence, rather than treatments aimed at altering the underlying personality features of the disorder. In addition, relatively little research has examined intervention outcomes with women—and when women are included in samples, results typically are not disaggregated by gender. Nevertheless, the body of literature on this topic has grown over the past decade, and some broad trends are apparent.

Several studies have investigated the outcomes of substance abuse treatment among individuals with ASPD. Most results indicate that persons with co-occurring substance abuse problems and ASPD make treatment gains on par with those of individuals in substance abuse treatment without ASPD. However, other studies on this topic suggest less improvement in individuals with ASPD than in others. Furthermore, research suggests that broad classifications such as "substance abuser" may be too generic and that differences based on an individual's drug of choice and the severity of the impact on daily functioning may be important to treatment outcome.

Given the nature of the diagnosis, it is not surprising that most treatment outcome studies on ASPD have been conducted with offender samples. Although at this time, research data do not endorse a specific type of treatment for ASPD, there is strong empirical support for the effectiveness of certain guiding principles. The principles of *risk, need,* and *responsivity* indicate that treatment outcome will be maximized as a function of a treatment program's match with an individual's level of risk, criminogenic needs (changeable risk factors), and learning style. Meta-analytic reviews indicate that the strongest predictor of success across different correctional programs and offender groups—including both men and women—is treatment that adheres to these three principles.

Another aspect of treatment with empirical support is the *multimodal hypothesis*, which suggests that correctional treatment is most effective when multiple need areas of an offender are targeted. Research demonstrates that multimodal programs that incorporate cognitive-behavioral and social learning strategies are associated with substantially larger treatment gains than are nonbehavioral interventions. In addition, there is a positive association between the number of criminogenic needs targeted for intervention and subsequent reductions in recidivism. In contrast, approaches that are contraindicated for treating ASPD because they are viewed as unresponsive to offenders' criminogenic needs and/or learning style include traditional "talk" psychotherapy of the psychodynamic, client-centered, and insight-oriented ilk.

Programs that include a relapse prevention element are associated with enhanced reductions in recidivism. Relapse prevention is a cognitive-behavioral approach to self-management that entails teaching individuals alternate (more effective) responses to high-risk situations. Components of relapse prevention that seem to be especially effective in reducing recidivism include identifying one's offense-chain and high-risk situations and, subsequently, role-playing alternate (more effective) ways of handling such situations.

Etiology

Specifying etiological mechanisms for ASPD is difficult because of the nonspecificity of the disorder. That is, there are innumerable symptom combinations that can give rise to a diagnosis. Furthermore, a diagnosis can arise almost solely from a person having engaged in chronic criminal and violent behavior. That is, there are no pathognomonic, necessary, or sufficient signs

of ASPD. Therefore, almost anything that predicts chronic crime and violence ostensibly could be considered a candidate etiological factor for ASPD.

Nevertheless, there is evidence for certain genetic, biological, and environmental etiological mechanisms in ASPD. Large-scale twin and adoption research shows a high degree of heritability for PDs generally, as well as for ASPD specifically. An interesting line of research by Robert Krueger and colleagues has shown that ASPD might be construed as part of a heritable externalizing spectrum of psychopathology that includes antisocial personality features and behavior, substance use problems, conduct problems, sensation seeking, and low constraint.

Potential biological mechanisms include neurochemical imbalances, such as low serotonin levels, that are related to impulsive and aggressive behavior. Some biological etiological mechanisms have been advanced more specifically for psychopathy, which includes additional interpersonal and emotional deficits. For instance, some experts propose that psychopathy, and as such some cases of ASPD, is associated with functional brain deficits, such as a diminished ability to process emotion or impaired information processing. Other mechanisms could include temperamental deficiencies, such as decreased startle potentiation. Structural, as opposed to functional, neuroanatomic models have been proposed as well, including deficits in prefrontal and temporal lobe gray matter. It is important to note that all such research on the biological mechanisms of psychopathy and ASPD is in its infancy and cannot yet support definitive statements about clear etiological factors.

Environmental factors also may elevate the risk of development of ASPD. For instance, abusive, inconsistent, or permissive parental disciplinary styles predict delinquency and adult criminality. Similarly, other family-of-origin and formative experiences predict delinquent and criminal behavior, such as parental criminality, violence, and substance use problems. Social learning theory would posit that such parental behaviors model criminal behavior for children, who then learn to use crime and violence in their own lives.

Of course, many such parental factors could be acting as mere proxies for genetic etiological mechanisms, and future research will need to disentangle genetic from environmental risk factors. Some interesting emerging research has started to do so. For instance, parental physical maltreatment of children has been found to predict antisocial behavior above and beyond the heritable aspects of parental antisociality. Furthermore, research is starting to address gene-environment interactions vis-à-vis antisocial behavior and personality, which posit that genetic and environmental factors might be multiplicative in their influence on such outcomes rather than merely additive.

Controversies

The ASPD diagnosis has generated controversy on several fronts. The debate that has received the most commentary pertains to whether the diagnostic criteria should emphasize objective behaviors or personality features. The introduction of ASPD into the DSM was intended to reflect the clinical disorder known as psychopathy, which includes features such as callousness, remorselessness, guiltlessness, superficiality, and shallow affect. The ASPD criteria were written with a behavioral focus in the service of the decreasing subjectivity involved in rating personality features, thereby increasing reliability. In the current diagnostic nomenclature, ASPD is presented as being largely the same as psychopathy—even though many of the descriptors traditionally associated with psychopathy are absent from the diagnostic criteria. That the two disorders are not in fact synonymous is highlighted by the results of contemporary prevalence studies demonstrating that about three quarters of prisoners meet the criteria for ASPD whereas only about one quarter, or less, meets the criteria for psychopathy.

Additionally, the criteria have been criticized for lacking specificity; for instance, meeting diagnostic criteria may arise from a boggling number of permutations of the 7 adult disorder and 15 CD symptoms. An important impact of the imprecision with which the outcome of ASPD is delineated is that it renders investigation into the disorder's causal factors much more challenging, as noted above. Moreover, the validity of ASPD has been challenged in light of the paucity of available longitudinal data. Critics of the ASPD criteria also argue that they are underinclusive (in that individuals will not be identified who have the core antisocial personality features but have not been criminally sanctioned or who demonstrate antisociality during adulthood but for whom there is no evidence of CD). In contrast, others advance concerns that the criteria are overinclusive (in that there likely are several etiological bases for antisociality, only one of which may be psychopathy). As noted earlier, the criteria largely reflect the behavioral difficulties associated with crime and substance use. This is noted to be problematic because behaviors can be influenced by external circumstances, whereas personality traits are viewed as being more reflective of underlying pathology.

Another controversy surrounding the diagnostic criteria is the apparent diagnostic biases they invoke. Although the prevalence of ASPD genuinely may be higher among men (estimated at 3% of the population) than among women (estimated at 1%), research has documented elevated rates among men even when men and women do not differ in symptomatology. Some researchers have argued in favor of amending the diagnostic criteria to include behaviors associated specifically with antisociality in women in an effort to make the criteria more gender neutral. Finally, concerns also have been raised that ASPD may be disproportionately overdiagnosed among prisoners and persons with substance use problems in light of the behavioral focus of the criteria.

Kevin S. Douglas and Laura S. Guy

See also Aggravating and Mitigating Circumstances, Evaluation of in Capital Cases; Alcohol Intoxication; Community Corrections; Conduct Disorder; Criminal Behavior, Theories of; Ethnic Differences in Psychopathy; Forensic Assessment; Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); Juvenile Offenders, Risk Factors; Juvenile Psychopathy; Personality Disorders; Psychopathic Personality Inventory (PPI); Psychopathy; Psychopathy, Treatment of; Psychopathy Checklist: Youth Version; Violence Risk Assessment

Further Readings

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Fowler, K. A., & Lilienfeld, S. O. (2006). Antisocial personality disorder. In J. E. Fisher & W. T. O'Donohue (Eds.), *Practitioner's guide to evidence-based psychotherapy* (pp. 57–67). New York: Springer.

Krueger, R. F., Markon, K. E., Patrick, C. J., & Iacono, W. G. (2005). Externalizing psychopathology in adulthood: A dimensional-spectrum conceptualization and its implications for *DSM-V*. *Journal of Abnormal Psychology, 114,* 537–550.

Moffitt, T. E. (2005). The new look of behavioral genetics in developmental psychopathology: Gene-environment interplay in antisocial behaviors. *Psychological Bulletin, 131,* 533–554.

Patrick, C. J. (2006). *Handbook of psychopathy.* New York: Guilford.

Widiger, T. A., Cadoret, R., Hare, R., Robins, L., Rutherford, M., Zanarini, M., et al. (1996). *DSM-IV* antisocial personality disorder field trial. *Journal of Abnormal Psychology, 105,* 3–16.

Appearance-Change Instruction in Lineups

Prior to viewing a lineup, eyewitnesses to crimes are often given various instructions by lineup administrators. Among these is the appearance-change instruction, which is used to inform the eyewitness that the criminal's appearance in the lineup may be different from his or her appearance at the time of the crime. Generally, this alteration in appearance would be the result of features that might have changed over time (such as head or facial hair). This instruction is especially likely to be given, and is presumed to be most beneficial, if a significant period of time has passed between the crime and the lineup or if the suspect's appearance is somehow at odds with the witness's description of the criminal. Although frequently administered in an attempt to increase identifications of the criminal, preliminary research suggests that the appearance-change instruction does not increase correct identifications but instead increases false identifications of innocent lineup members.

Eyewitness Evidence: A Guide for Law Enforcement (a set of guidelines distributed to all law enforcement agencies across the United States) recommends that lineup administrators instruct a witness that "individuals present in the lineup may not appear exactly as they did on the date of the incident because features such as head and facial hair are subject to change" (p. 32). Although recommended, this instruction is not mandatory; consequently, various police departments and individual lineup administrators may word the instruction differently or may omit it altogether. The purpose of this instruction is to ensure that the witness does not fail to identify the criminal simply because the witness does not appreciate that the criminal's appearance might have changed since the crime. Therefore, it is implicitly assumed that administering the appearance-change instruction will lower witnesses' expectations that the criminal's appearance in the lineup will exactly match his or her appearance at the time of the crime. This should, in turn, increase the probability of correctly identifying the actual criminal when the criminal is in fact in the lineup.

Empirical research on the effects of the appearance-change instruction is scarce. Preliminary studies suggest, however, that the instruction may not be as beneficial as previously assumed. Although it has

been shown experimentally that witnesses who receive an appearance-change instruction do make more lineup identifications, this did not result in an increased number of *correct* identifications. Instead, the appearance-change instruction was shown to increase the number of incorrect identifications of fillers (i.e., lineup members who are known to be innocent) without increasing the number of correct identifications of the criminal. Although it is uncertain whether these findings will be replicated by future studies, they do nonetheless challenge the basic assumption underlying the use of the appearance-change instruction. Such an increase in false identifications without a concomitant increase in correct identifications means that lineup identifications made following an appearance-change instruction were, as a whole, less accurate than identifications made without an appearance-change instruction. Additionally, the appearance-change instruction has been shown to increase the length of time it takes witnesses to make an identification and to decrease the confidence with which witnesses report making an identification.

Although it is as yet not known why the appearance-change instruction increased false identifications without a concomitant increase in correct identifications, two hypotheses have been advanced. Both are predicated on the assumption that a lineup identification occurs when the similarity of a lineup member to the witness's memory of the criminal surpasses a minimum level.

The first hypothesis is that the instruction may simply lower a witness's decision criterion (the minimum level of similarity needed to result in an identification). Witnesses who are given an appearance-change instruction might conclude that due to possible appearance change they should not expect a high degree of similarity between the criminal in the lineup and their memory of the criminal. However, because even innocent lineup members may bear some moderate resemblance to the criminal, if a witness's decision criterion is low enough, even these innocent people may be falsely identified.

The second hypothesis that explains the effects of the appearance-change instruction is that the instruction may lead witnesses to mentally alter various facial features of the lineup members. For example, witnesses may imagine what the lineup members would look like with different facial hair, different hairstyles, or a chubbier face. If witnesses mentally alter the various lineup members' appearance in an effort to match the lineup members to their memory of the criminal, then even innocent lineup members may come to resemble the actual criminal. Thus, the appearance-change instruction would make it even more likely that the similarity between an innocent lineup member and the criminal surpasses the witness's decision criterion, thereby leading to a false identification.

Whether the effects described here are replicable and whether they generalize across variations in the wording of the appearance-change instruction, across different witnessed events, and across various other lineup manipulations remain open empirical questions. A greater understanding of the effects of the appearance-change instruction, and the explanation of those effects, awaits further research.

Steve D. Charman

See also Estimator and System Variables in Eyewitness Identification; Eyewitness Identification: Effect of Disguises and Appearance Changes; Eyewitness Memory; Instructions to the Witness; WITNESS Model

Further Readings

Charman, S. D., & Wells, G. L. (2007). Eyewitness lineups: Is the appearance-change instruction a good idea? *Law and Human Behavior, 31,* 3–22.

Douglass, A. B., & Gerety, M. (2005). Eyewitness accuracy as a function of lineup instruction and expectation. Unpublished manuscript.

Technical Working Group for Eyewitness Evidence. (1999). *Eyewitness evidence: A guide for law enforcement.* Washington, DC: U.S. Department of Justice, Office of Justice Programs.

Automatism

Automatism is an excuse defense against criminal liability for defendants who committed a presumptively criminal act in a state of unconsciousness, semiconsciousness, or unawareness. Medically, the term automatism refers to motor behavior that is automatic, undirected, and not consciously controlled. The use of automatism as a legal defense is relatively rare and is typically claimed in cases where the defendant's conscious awareness is compromised by epilepsy, brain injury, somnambulism (sleepwalking), or trauma. The automatism defense is recognized as a viable defense in U.S. and British courts, but the definitions and

applications of the defense vary widely and are often inconsistent. The basis for the defense is that a defendant should not be held responsible for presumptively criminal actions because of the involuntary nature of the behaviors, leading to lack of criminal intent and voluntary criminal action.

Excuses and Justifications

In criminal law, there is a general rule that individuals are to be held legally responsible for their actions. Our fundamental and longstanding societal values and moral traditions allow for several exceptions in situations in which it would not be fair or just to hold persons criminally liable. These exceptions are discussed under the general heading of defenses, which, in turn, have been distinguished as justifications and excuses. Justifications seek to establish that even though the prosecution may have fulfilled its required burden to prove the basic facts of the offense, the act committed by the defendant was not criminal because, for example, it was done in defense of self, others, or property. Excuses essentially concede the wrongfulness of the act but seek to establish that the defendant is not criminally responsible because the act took place, for example, under conditions of duress or compulsion, immaturity, or insanity.

Automatism is an excuse defense that has been characterized as similar to the excuse of ignorance. That is, an automatism can be defined as an action taken without any knowledge of acting or without consciousness of what is being done. Automatism, however, is not simply a matter of acting out of ignorance. In the case of ignorance, a defendant may be acting based on an erroneous belief (e.g., the defendant believes that he or she is administering first aid but is, rather, exacerbating a medical condition of the victim), but in the case of automatism, the defendant is unaware that he or she is acting at all.

Actus Reus and Mens Rea

Except in cases of strict liability, any crime contains two elements: the *actus reus* ("guilty act") and *mens rea* ("guilty mind"). The automatism defense seeks to prove that the defendant made physical actions (automatisms) that led to a bad outcome but did not perform a guilty act. As such, the automatism defense is the only excuse defense that is based on the actus reus element rather being purely a mens rea excuse defense (e.g., insanity). In an insanity defense, the defense acknowledges the guilty act but claims that the defendant should not be held blameworthy due to the lack of a guilty mind or intent.

Another way of understanding these two elements would be to consider if the presumptively criminal act was *intentional* or *voluntary.* Actions directed toward a goal are typically considered to be intentional. An automatism defense, however, claims that the actions taken are automatic and, therefore, not intentional. In the case of some automatic movements (e.g., loss of muscular control during a grand mal seizure), the absence of intentionality is obvious. In some cases, however, this judgment can be exceedingly difficult. For example, intentionality is far less obvious in a defendant who engaged in goal-directed aggression during a period of postictal confusion following a nocturnal partial complex seizure when the defendant appeared to be sleepwalking. The issue of volitional control (voluntariness) goes directly to the heart of the automatism defense. The Model Penal Code of the American Law Institute states that a defendant is not criminally liable if he or she does not commit a "voluntary act," which is defined to exclude "reflex or convulsion" or actions taken during "unconsciousness." There can be no actus reus when the defendant does not commit a voluntary act. Typically, courts have required that volitional dyscontrol be total; that is, the actor (defendant) has no control over his or her actions.

The Automatism Defense: Case Law

Although its use is relatively rare, the automatism defense has been established as a criminal defense in courts in the United States and Britain. Courts vary widely, however, in definitions and applications of the defense. In the United States, for example, some courts have applied the rationale of an insanity defense, interpreting the involuntary behaviors associated with automatisms as a defect in reason that prevented the defendant from knowing the nature and quality of his or her act, therefore making an automatism defense a mens rea defense. Other courts have stressed the involuntary nature of the defendant's actions, focusing on the lack of actus reus. British courts have made a distinction between sane and insane automatism. A defense of insane automatism requires that the defendant meet all three conditions of the British insanity defense (the M'Naghten standard), where the automatism would be the "disorder of reason" caused by a "disease of the mind," leading

to the defendant not knowing the "nature and quality of his act or that it was wrongful." Defendants who raise an automatism defense and who meet M'Naghten standards would be adjudicated under the "not guilty by reason of insanity" (NGRI) standard. The defendant who raises the defense and who does not meet the standard would be claiming sane automatism, seeking to challenge that his or her behavior was simply not a voluntary act. If such a defense were successful, the defendant would be acquitted and not subjected to the possible consequences (e.g., commitment to a psychiatric facility) faced by an NGRI acquittee. British courts have indicated that sane automatism is an acceptable defense when the defendant has suffered from a defect of reason but not a disease of the mind, usually due to some external physical factor. The sequelae of a head injury or confusion as a result of the administration of drugs would be examples of such external causes of automatisms.

Matt C. Zaitchik

See also Criminal Responsibility, Assessment of; Criminal Responsibility, Defenses and Standards; Insanity Defense, Juries and

Further Readings

Borum, R., & Appelbaum, K. L. (1996). Epilepsy, aggression, and criminal responsibility. *Psychiatric Services, 47*(7), 762–763.

Reznek, L. (1997). *Evil or ill? Justifying the insanity defense.* London: Routledge.

Schopp, R. F. (1991). *Automatism, insanity, and the psychology of criminal responsibility: A philosophical inquiry.* Cambridge, UK: Cambridge University Press.

B

Bail-Setting Decisions

The bail-setting decision is one of the early court decisions made in a case, and it has attracted attention from researchers studying legal decision making. When a case is adjourned (postponed), the court must decide what to do with the defendant until the next hearing of the case—basically, should the defendant be released on bail or not? The main goal of the bail decision is to ensure that the defendant appears at court for the next hearing. The bail decision also can affect later decisions in a case. Although laws govern the bail decision-making process, they are typically vague and ill defined, thus allowing courts considerable discretion. Past research on bail decision making has mostly been conducted in the United States and the United Kingdom; researchers have aimed to describe how courts make bail decisions as well as to evaluate efforts to improve bail decision making.

Because it arises each time a case is adjourned for trial, sentence, or appeal, the bail decision is one of the most frequent legal decisions made by the criminal courts. The primary goal is to ensure that the defendant surrenders to the court at the next hearing of the case and so does not abscond. A secondary goal is that the defendant does not threaten community safety (e.g., offend) while released on bail. In the United States, the court sets a monetary amount of bail. A defendant may either be required to provide a security (deposit the amount with the court) before release, which is forfeited if he or she fails to appear in court, or be released on recognizance, which is a promise to appear, so the amount is paid only if he or she fails to appear. (For a fee, bail bondsmen can act as a surety, a third party who agrees to pay the forfeited amount to the court.) Nonfinancial conditions, such as curfew and surrendering firearms, may also be applied to bail. In the United Kingdom, defendants can be bailed (released) unconditionally; bailed with nonfinancial conditions or financial conditions, such as surety or security; or denied bail and remanded into custody. Whereas in the United States the bail decision is commonly measured on a continuous scale reflecting the monetary amount at which bail is set, in the United Kingdom the decision is typically measured as categorical because financial bail is uncommon. In most jurisdictions, bail jumping (skipping bail or absconding) is an offense.

The bail decision-making process is often governed by legislation, which is periodically revised. For instance, in the United States, currently there is the Federal Bail Reform Act of 1984 (state laws vary); in the United Kingdom, there is the Bail Act of 1976. It has often been recommended that the practice of bail decision making should adhere to the principles of due process rather than crime control. Thus, there is typically a general right to bail or pretrial liberty. However, there are exceptions if the court decides that the defendant may pose a risk of absconding or offending. The laws typically recommend that the court considers several factors (e.g., the defendant's offense, community ties, previous convictions, prior bail record, and strength of the prosecution's case) when judging these risks and consequently making bail decisions. Beyond this, the court is afforded considerable latitude in making bail decisions in terms of how it weights and integrates these and other factors.

The bail decision can have significant negative ramifications for defendants and their families if a defendant is denied bail or cannot raise the bail amount. For

instance, defendants may lose their homes, employment, contact with their families, and their reputations, as well as experience the adverse effects of custody. In addition, evidence suggests that the bail decision may influence later decisions on a case, such as the decision to plea, convict, and sentence. Here, defendants who do not get bail are more likely to plead guilty or be convicted and are also more likely to receive a custodial sentence than their bailed counterparts.

Much of the past research, as noted previously, has investigated bail decision making in the United States and the United Kingdom. Studies have been conducted by psychologists, sociologists, criminologists, and legal scholars using methodologies such as experiments involving decision makers being presented with simulated cases, interview and questionnaire surveys of decision makers, courtroom observations of bail hearings, analyses of bail records and statistics, and analyses of bail laws. While most of this body of research has aimed to describe and explain how bail decisions are made, several studies have explored efforts to improve bail decision making. Overall, the research has yielded consistent findings.

Describing and Explaining Bail Decisions

Researchers have aimed to describe and explain bail decisions in terms of the variations in decision making and the factors that influence bail decisions. Studies have documented the variation in bail decisions made across cases and across jurisdictions (courts or decision makers), as well as within jurisdictions (courts or decision makers). There are apparent disparities in how cases that vary in their extralegal characteristics, such as the defendant's gender and race, are dealt with. In addition, different jurisdictions (courts or decision makers) may disagree on how to deal with cases that are similar. Beyond this, there is variability where the same jurisdiction (court or decision maker) is inconsistent in dealing with similar cases on different occasions.

Research has shown that bail decisions may be influenced by both legal and extralegal factors. Legal factors include the nature and seriousness of the offense the defendant is charged with, the defendant's previous convictions, and the strength of his or her community ties. Specifically, bail is more likely to be denied or set at a high amount if the defendant is charged with a serious offense, has previous convictions, or has weak community ties. The extralegal factors that have been found to affect bail decisions include the defendant's gender and race and the police and prosecution's recommendations. Here, denial of bail or its high amount is more likely to be associated with the defendant being male or non-White and a recommendation to deny bail.

In addition to identifying the factors that may influence bail decision making, some psychological studies have examined how the information is processed to form a decision. Here, there is evidence to suggest that the bail decision is the result of a simple strategy where only a few factors are considered rather than a more complex strategy involving weighting and integration of several factors.

Improving Bail Decisions

Researchers and policymakers have attempted to improve bail decision making by reducing discretion and increasing the availability of relevant information. As mentioned, the law affords the court considerable discretion in how it makes bail decisions. There have been attempts to reduce variability in bail decisions and the influence of extralegal factors as well as increase the accountability, transparency, and equity of bail decisions by limiting this discretion through the introduction of more precise guidelines. For example, in the United States, bail guidelines that specify the factors that the court should use and how they should make their risk assessments have been developed and implemented in several jurisdictions since the early 1980s. John Goldkamp and colleagues have evaluated the utility of such guidelines using randomized controlled trials and pre-post analyses. They found that decisions made under guidelines differed from those made without guidelines in several respects, including that under guidelines the bail amount was lower, there was an increase in the use of nonfinancial conditions, and there was a reduction in the time in pretrial custody. However, the impact of guidelines appears to differ across jurisdictions as they are applied and used differently.

There have also been efforts to increase the effectiveness of bail decisions by improving the court's ability to judge the defendant's risk of absconding on bail. The idea is that low-risk defendants, such as those who have strong ties to the community and thus may be unlikely to abscond, can be appropriately released. For example, in the United States, the Manhattan Bail Project (later renamed the New York Release on Recognizances Project) involved the collection, verification, and scoring of information on a defendant's community ties (e.g., residence, employment, and family situation)

and then providing a recommendation directly to the court concerning the defendant's suitability for bail. In a randomized controlled trial involving real cases, the Vera Institute of Justice in 1963 found that defendants in the experimental group for whom a recommendation was provided were more likely to be bailed than those in the control group for whom the recommendation was withheld. In the United Kingdom, Bail Information Schemes provide largely positive information about a defendant's community ties to the prosecution and defense, who then can relay it to the court. In 2002, in an experiment involving simulated cases, the author found, however, that such schemes did not have a statistically significant effect on the bail decisions made.

Mandeep K. Dhami

See also Parole Decisions; Probation Decisions; Sentencing Decisions

Further Readings

Dhami, M. K. (2002). Do bail information schemes really affect bail decisions? *Howard Journal of Criminal Justice, 41,* 245–262.

Dhami, M. K. (2005). From discretion to disagreement: Explaining disparities in judges' pretrial decisions. *Behavioral Sciences and the Law, 23,* 367–386.

Dhami, M. K., & Ayton, P. (2001). Bailing and jailing the fast and frugal way. *Journal of Behavioral Decision Making, 14,* 141–168.

Goldkamp, J. S., & Gottfredson, M. R. (1985). *Policy guidelines for bail: An experiment in court reform.* Philadelphia: Temple University Press.

Goldkamp, J. S., Gottfredson, M. R., Jones, P. R., & Weiland, D. (1995). *Personal liberty and community safety. Pretrial release in the criminal court.* New York: Plenum Press.

Battered Woman Syndrome

Battered woman syndrome (BWS), first proposed in the 1970s after research demonstrated the psychological impact from domestic violence on the victim, has undergone further clarification since its inception. This entry reviews the historical issues concerning domestic violence and its victims in the criminal justice system (including the criminal and family courts), describes psychological theories about domestic violence victims and the BWS, and discusses the application of the BWS in legal context.

History of Domestic Violence and the Law

Domestic violence is defined as the physical, sexual, and/or psychological abuse by one person (mostly men) of another person (mostly women) with whom there is an intimate relationship, in order to get that person to do what the abuser wants without regard for that person's rights. Domestic violence is also called *intimate partner violence* by some, while the term *family violence* encompasses child and elder abuse as well as intimate partner abuse.

Some have suggested that the family and monogamous relationships originated to protect women and children from physically and sexually aggressive nomadic men. Unfortunately, the family has not been a safe haven for some women and children. Laws condoning the practice of wife beating were common in the United States and other countries until very recently. Since men were given the legal responsibility of protecting their wives and children, they also had the right to discipline them. When women demanded their own legal and social rights during the renewed women's movement that began in the early 1970s in the United States, they also began to demand that the laws better protect them from men's physical and sexual violence.

Battered Women in the Criminal Justice System

The first area that received attention was the need for law enforcement to better protect women who were being abused by intimate partners. Typical reports were that the man would batter the woman and leave the scene if the police were called. Even if he was still present, the police would hesitate to intervene and make an arrest in what was said to be a family matter and instead would typically take the man for a walk around the block in an attempt to calm him down. Women told of how this rarely worked and that they would be beaten even worse after the law enforcement officers left. Police officers complained that prosecutors didn't take these cases seriously; but prosecutors claimed that women dropped the charges and refused to cooperate and judges didn't know how to handle these domestic matters. Two areas for reform became clear. First, domestic assaults should be prosecuted just like any other assault, without placing the burden on the woman to file or drop charges. Second, women needed protection from further abuse from all legal, social, and medical institutions and agencies. The barriers that women

faced in all society's institutions became more visible as cases began to be heard in courts around the world. It became clear that it would require cooperation from all levels of society to better protect women and children.

The criminal justice system began to introduce several different reforms, including vertical prosecution of domestic violence cases and the development of pro-prosecution strategies, including special problem-solving domestic violence courts where perpetrators could be diverted into treatment. Other reforms included making restraining orders easier to obtain and strengthening their enforcement with penalties, as well as removing the ability of those arrested to bond out without first being in front of a judge. Research suggested that spending the night in jail and getting a stern message from the judge was a sufficient deterrent for most known batterers, and pro-arrest policies began to be adopted in many cities across the United States. Later research showed that some batterers, particularly those who had few community ties, such as a job or a social network, might actually become more violent after an arrest, and as batterers began to enter treatment programs, it became clear that they were as demographically diverse a population as were the women they abused.

Dependency and Family Courts

It also became clear that both men and women involved in domestic violence often had psychological and substance abuse problems. Although battered woman advocates in shelters and support groups disagreed about the origin of these problems, most agreed that availability of appropriately trained mental health providers was important. In the beginning, few psychiatrists, psychologists, social workers, or psychiatric nurses were trained in working with domestic violence victims or perpetrators. Protocols were developed for those in the medical and psychology fields, and large-scale government funding went into training victim advocates, shelter workers, and legal and mental health professionals. The battered woman shelter became the organizing point for policies and services in the United States and other countries. In the United States, the legal system and, in particular, the criminal justice system remained the gatekeeper for services for both perpetrators and victims, while in other countries, where the public health system had more impact, services were provided through that system.

Although the emphasis had been on protection of women from abusers, it was also necessary to focus on protection of children from abuse. Studies found that an overlap of anywhere from 40% to 60% of cases of child abuse occurred in families with known domestic violence. Child protection workers who had been trained to blame the mother for the actual abuse or failure to protect the child had to relearn how to work with moms who were also being battered and who tried to protect their children with little help from agencies in the community. The issue of protection of children is still unsolved, with cases going between criminal, dependency and neglect, and family courts, and children are often inadequately served by any of them.

Many advocates for battered women believe that batterers often use the family courts to continue their contact and control over the woman long after the marriage is dissolved by insisting on shared parental responsibility. They further believe that the court declines to use its power to empower the battered woman and assist her in the protection of the child. When the court does not intervene, the batterer is not stopped from his continued psychological abuse of both the woman and the child. An example of how batterers may use the court to their advantage is by filing numerous court motions, which become a major psychological and financial drain on women who earn less money than do men. To further complicate matters, mental health professionals hired by lawyers on both sides of highly contested divorce and custody cases may introduce constructs, such as Parental Alienation Syndrome and Psychological Munchausen by Proxy, that have questionable validity. These questionable constructs have been ruled inadmissible in criminal courts but are admissible in family courts.

Women Who Kill in Self-Defense

Approximately 1,000 women in the United States are known to have killed their abusive partners in what they claim was self-defense. In contrast, more than 4,000 women are reportedly killed by their partners each year. The self-defense laws had to be re-formed to enable these women to plead not guilty using a justification defense in criminal court. From the late 1970s to the early 1990s, states began the admissibility process through case law and legislation, so that women's perception of danger and, in particular, the battered woman's perception of danger would be accepted at trial. Until these cases began to be heard, self-defense was thought to be similar to two men having a fight in a bar. To help the triers of fact—the judges and juries who heard these cases—better understand the battered woman's perception of danger,

especially when the woman killed the man when he was asleep or was just starting his dangerously escalating abuse, the dynamics of domestic violence and psychological theories, such as learned helplessness and BWS, were introduced into court testimony.

Psychological Theories About Domestic Violence and Battered Women

Dynamics of Domestic Violence

In the past 30 years, the assessment of behavior that is or is not considered to be domestic violence has been a major challenge for advocates and professionals. This difficulty may in large part be due to battered women having to maintain secrecy in order to protect themselves from their abuser, which leads them to minimize or cover up their pain, both emotional and physical. However, as the women began to receive legal protection and services, they have been able to describe the dynamics that occur in their homes, and as batterers began to talk in the offender-specific intervention programs into which they were sent by the courts, they confirmed much of the women's descriptions. Lenore Walker first found that battering did not occur all the time in homes where domestic violence existed but that it was not random either. Rather, the women described a cycle of violence that followed a courtship period that was mostly made up of loving behavior.

This cycle included three phases: (1) the tension-building period, (2) the acute battering incident, and (3) a period of loving contrition or absence of battering. Each time a new battering event occurred, the memory of fragments of the previous battering incidents added heightened fear, which guided the woman's response, usually to try to calm down the batterer and prevent further escalation of the violence. However, at times, when the woman saw signs that the batterer's violence was escalating no matter what she did, she engaged in actions to protect herself. Occasionally, this resulted in her intentionally or unintentionally killing the abuser.

Learned Helplessness

When evaluating battered women who killed their abusers, it became necessary to understand why a woman would use a gun or a knife against a man who was sleeping or at the beginning of a violent event. Why wouldn't she simply leave? The answer to this question is most important, both for specific cases and generally. The theory of learned helplessness helps explain how someone can learn to believe that her actions will not have a predictable effect and, therefore, that leaving will not stop the violence toward her. Research shows that many women are seriously injured or killed at the point of separation. The batterer who tells his partner that he will follow and harm her wherever she goes and who uses his power and control to enforce isolation, intrusiveness, and overpossessiveness reinforces her belief in his omnipotence. When battering continues unabated and the batterer suffers no consequences for his actions, he confirms her belief in his dominance over her. The loss of contingency between the victim's behavior and the battering leads to learned helplessness.

Battered women who experience learned helplessness experience the loss of their belief that they can escape to protect themselves. This learned helplessness is sometimes misunderstood as actual helplessness or the actual inability to escape the battering. The theory of learned helplessness, together with the cycle theory of violence and the BWS, has helped juries understand why women do not simply walk out of their homes and leave the batterer. In some of the legal opinions, the BWS is actually described as including the dynamics of abuse together with learned helplessness rather than the collection of psychological signs and symptoms that typically make up a syndrome according to the *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition, text revision; *DSM-IV-TR*; American Psychological Association, 2000). However, this is part of the tension between the advocates who wish to eliminate any discussion of mental disorders as part of BWS and psychologists who understand that exposure to repeated trauma may well cause emotional difficulties, including posttraumatic stress disorder (PTSD), of which BWS is considered a subcategory.

Trauma Theory and Battered Woman Syndrome

The complexity of symptomatology and the clinical presentation of battered women has made it challenging for both legal and clinical disciplines. Over the years, these complexities have been widely studied, and a trend across cultures has been identified in the way women experience various forms of violence against them, including sexual assault and rape, domestic violence and sexual exploitation, and harassment. These abuses are perceived by most women as traumatic events, and therefore, a combination of

feminist theory, to attempt to account for the power and control issues, and trauma theory, to deal with the abuse underlying BWS, is required.

BWS can best be conceptualized as a combination of posttraumatic stress symptomatology, including reexperiencing a traumatic event (i.e., battering episode); numbing of responsiveness; and hyperarousal, in addition to a variable combination of several other factors. These additional factors include, but are not limited to, disrupted interpersonal relationships, difficulties with body image, somatic concerns, as well as sexual and intimacy problems. Over the past few years, an attempt has been made to clearly define the hypothesized constituents of BWS for research purposes. As such, some variables were isolated and include PTSD symptoms, power and control issues, body image distortion, and sexual dysfunction, using data collected with the use of the Battered Woman Syndrome Questionnaire developed by Lenore Walker.

In the literature from the past 30 years, one of the most contemplated components of BWS is PTSD. When the original research was designed, PTSD had not yet been tested and entered into the *DSM* diagnostic system. In general, criticisms suggest that the trauma model does not include sufficient context of the woman's life so that it makes it appear that she has a mental illness rather than her symptoms being a logical response to being abused. While that is true for some women, studies indicate that there are numerous women who come to a therapist because the symptoms do not go away despite the fact that they are no longer being battered. PTSD, which is characterized by reexperiencing of the trauma from stimuli that are both physically and not physically present, can account for this phenomenon.

The Battered Women Syndrome Questionnaire

To gain insight into BWS and its effect on women across cultures, Lenore Walker and colleagues are continuing the validation process for the Revised Battered Woman Syndrome Questionnaire 2003 (BWSQ–3). Given the violence against women as a universal phenomenon, it is essential to interview women from various cultures. Consequently, data from interviews have been gathered from Russia, Spain, Greece, Colombia, and South Florida. Furthermore, the research has recently begun to take into account incarcerated women who report a history of battering relationships.

The original version of the Battered Women Syndrome Questionnaire was developed more than 25 years ago by Lenore Walker. The most recent version, the Battered Women Syndrome Questionnaire–3, and its predecessors serve as comprehensive tools to gather valuable information regarding the field of domestic violence research and treatment. Establishing the reliability and validity of BWSQ–3 will enable future clinicians to use a semistructured clinical interview to assess women who report a battering relationship. The assessment also has the potential to help guide clinicians treating battered women, as the interview allows for an individualized overview of the woman's history and battering relationship. In addition, researchers have begun to investigate the dynamics of battering relationships as experienced by women who become involved in the criminal justice system, for the purpose of identifying the unique needs of this population. Current research by the authors and their colleagues using the BWSQ–3 has shown similar patterns of experience, including a high endorsement of PTSD symptomatology, across cultures.

Application of Battered Woman Syndrome in Legal Contexts

As was described above, in a legal context, the term *battered woman syndrome* is most frequently used as an explanation of a woman's perception of threat leading her to commit a criminal offense in self-defense. Criminal offenses may also include spousal assault (i.e., in cases in which battered women fight back without killing their partners) or any other crime they may co-commit under the influence of their battering partners. In fact, the use of BWS extends beyond the criminal justice system, to include family court (e.g., child custody cases) or even civil court (e.g., in rare cases when the woman is suing the batterer for physical and emotional damages).

BWS is generally applied in the form of evidence being presented during a criminal trial where the battered woman killed her abusive partner in self-defense. The goal of introducing BWS is to obtain either an acquittal or a downgrading of a first-degree murder charge to second-degree murder or manslaughter. The burden carried by the defense includes presenting evidence that the woman was—or perceived herself to be—in imminent danger. The defense usually attempts to establish this with the help of an expert witness who testifies concerning the dynamics of an abusive

relationship and how a woman's perception can be influenced by a history of abuse and PTSD symptomatology. In addition, because the expert conducts a comprehensive assessment of the defendant, he or she is likely able to discuss possible comorbid mental health disorders.

Because of BWS's broad range of applications within the legal system, and the need for psychological evaluation and/or expert testimony across legal settings, the term *battered woman syndrome* has traditionally been used in both a legal and a clinical context, with an understanding that the wide-ranging effects of battering are physiological, behavioral, cognitive, and emotional.

Lenore E. Walker, Rachel I. Duros, and Allison Tome

See also Domestic Violence Courts; Intimate Partner Violence; Posttraumatic Stress Disorder (PTSD); Victimization

Further Readings

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Browne, A. (1987). *When battered women kill*. New York: Free Press.

Brownmiller, S. (1975). *Against our will: Men, women and rape*. New York: Simon & Schuster.

Koss, M. P., Goodman, L. A., Browne, A., Fitzgerald, L. F., Keita, G. P., & Russo, N. F. (1994). *No safe haven: Male violence against women at home, work, and in the community*. Washington, DC: American Psychological Association.

Walker, L. E. (1979). *The battered woman*. New York: Harper & Row.

Walker, L. E. A. (1984/2000). *The battered woman syndrome*. New York: Springer.

Walker, L. E. A., Arden, H., Tome, A., Bruno, J., & Brosch, R. (2006). *Battered Woman Syndrome Questionnaire: Training manual for interviewers*.

Battered Woman Syndrome, Testimony on

The most common form of syndrome testimony that has been introduced in the courtroom is battered woman syndrome testimony. For the most part, this testimony has been offered in homicide trials of battered women who have killed their abusers. Most often, the expert witness, typically a clinical psychologist, offers the testimony on behalf of the defense, with the testimony being of relevance to jurors' evaluation of the woman's claim of self-defense. The courts have been quite receptive to this form of expert testimony, and it has now been admitted with some frequency in not only courtrooms across the United States but also in courtrooms in Canada, Britain, Australia, and New Zealand. Battered woman syndrome evidence has been used in other contexts as well (e.g., duress defenses, sentencing, civil actions), but the research examining its impact on jurors is confined primarily to cases involving battered women who have killed their abusers. This research suggests that the introduction of battered woman syndrome evidence is associated with positive effects for a battered woman on trial, but findings also point to some shortcomings of its use.

The term *battered woman syndrome* was first coined in the late 1970s by Dr. Lenore Walker, who pioneered much of the research on the topic. The syndrome describes the pattern of violence found in abusive relationships and the psychological impact that this violence can have on a woman. Drawing on her clinical work, as well as on interviews she conducted with hundreds of battered women, Walker identified a repetitive three-phase cycle that characterizes the battering relationship. The first phase, referred to as the *tension-building* phase, is characterized by "minor" abusive incidents (e.g., outbursts, verbal threats). These more minor incidents of abuse, however, eventually build up to the second, *acute battering* phase, which is then followed by the third, *loving contrition* phase. It is in this final phase that the abuser professes his love, promising never to harm the woman again. Believing his promises, the woman is provided some hope that the violence will cease. Eventually, however, the cycle repeats itself.

Alongside the cycle of violence theory, Walker proposed a *psychological rationale* to explain how battered women can become psychologically trapped in an abusive relationship. Given the repetitive, yet unpredictable nature of the violence and the impending imminence of harm that it presents to the woman, she is eventually reduced to a state of *psychological helplessness*, perceiving that there is little she can do to alter the situation. In her more recent writings, Walker characterizes the battered woman syndrome as

a subcategory of posttraumatic stress disorder (PTSD), a clinical diagnostic disorder included in the *Diagnostic Statistical Manual of Mental Disorders-IV*.

Since its inception in the psychological literature in the late 1970s, psychologists have been asked to provide expert testimony pertaining to battered woman syndrome in homicide trials of battered women who have killed their abusers. As the content of the testimony suggests, battered woman syndrome testimony speaks of the woman's mental state and provides a context for understanding why she perceived herself to be in imminent danger at the time of the killing. The courts have also found the expert testimony on battering and its effects to be relevant to the jurors' understanding of the seemingly puzzling behavior and actions of the woman, most notable among these being why she remained in the relationship.

In contrast to its reception in the courts, within the psychological and legal communities, the admissibility of this form of expert testimony has sparked much debate and controversy. Since its introduction into the courtroom, some scholars and battered women's advocates have challenged the validity and applicability of the syndrome evidence to battered women's claims of self-defense. Methodological shortcomings in the research as well as the theories underlying the syndrome evidence have been critiqued by various researchers and legal scholars. Although numerous studies have documented the profound impact of battering and its effects on a woman's physical and mental health, there does not appear to be overwhelming support for a singular profile. As researchers have noted, the singular portrayal of the battered woman as a passive and helpless victim conveyed via battered woman syndrome testimony fails to take into account the variability in battered women's reactions and responses and is at variance with the help-seeking behavior of battered women. As such, scholars have warned against the dangers of adopting such a restrictive conceptualization of the responses of battered women.

As early as the mid-1980s, critics of the testimony voiced the concern that the "syndrome" terminology was likely to be interpreted by the jurors as an illness or a clinical disorder. Thus, as opposed to providing a framework that normalizes the battered woman and her actions, she is characterized as an "irrational and emotionally damaged" woman. As suggested below, a review of the empirical research examining the impact of battered woman syndrome evidence on jurors' judgments and verdict decisions indicates that there may be some validity in these concerns.

Empirical research on the impact of battered woman syndrome evidence began in the late 1980s, with much of this work employing juror simulation techniques. Using this methodology, mock jurors are presented with a simulated or mock trial and asked to render a verdict and provide various judgments about the defendant and the case. Within the trial presentation, the presence or absence of the expert testimony is varied, and comparisons of the mock jurors' responses (e.g., judgments, verdicts) across these different versions of the trial are made to assess the impact of the testimony. The findings of this research are somewhat mixed. While some simulation studies have found little evidence for the impact of battered woman syndrome evidence, studies conducted by Regina Schuller and her colleagues suggest that exposure to the testimony does result in more lenient verdicts and more favorable evaluations of the defendant. In a series of studies, these researchers found that compared with mock jurors who were not exposed to battered woman syndrome evidence, mock jurors provided with expert testimony pertaining to battered woman syndrome were more likely to believe the defendant's claim of self-defense (e.g., perceptions of fear, few options) and more likely to render a not guilty verdict. Although verdict decisions were more favorable to the defendant when battered woman syndrome evidence was presented, there was also evidence consistent with the notion that battered woman syndrome evidence is likely to be associated with interpretations of psychological dysfunction. Lending some support to the concern that battered woman syndrome evidence may lead to interpretations of dysfunction, mock jurors provided with the battered woman syndrome evidence, as opposed to no expert testimony, viewed the woman as more psychologically unstable and were more likely to support a plea of insanity.

In response to the criticism that battered woman syndrome evidence characterizes battered women as psychologically damaged and fails to capture the variation in battered women's experience, Mary Ann Dutton recommends that the term *battered woman syndrome* itself be dropped from the testimony and reference instead be made to expert testimony on "battering and its effects." Moreover, Dutton, one of the authors of a review of battered woman syndrome evidence undertaken at the direction of Congress, notes that the testimony should incorporate the diverse range of traumatic reactions described in the psychological literature and should not be limited to an examination of learned helplessness, PTSD, or any other single reaction or "profile."

Using juror simulation techniques, researchers have explored the impact of such a reformulation of the expert testimony. Specifically, the impact of an alternative form of testimony that eliminated reference to the syndrome terminology, as well as references to learned helplessness and PTSD, on mock jurors' decisions was examined in a series of studies conducted by Schuller and her colleagues. This alternative form of the testimony placed greater emphasis on the battered woman's agency (i.e., effortful and active rather than passive and helpless) and social realities (e.g., lack of social support). The results of this research indicate that, like the battered woman syndrome evidence, the inclusion of this expert evidence resulted in more lenient verdicts than when this evidence was omitted. Moreover, the presence of the expert testimony, compared with the no-expert condition, led to more favorable evaluations of the defendant's claim. Finally, and in contrast to the impact of battered woman syndrome evidence on mock jurors' evaluations of the defendant's psychological stability, the alternative form was not associated with interpretations of psychological dysfunction. In short, the research suggests that an alternative form of testimony that emphasizes the social aspects of the battering relationship and omits references to the term *battered woman syndrome*, learned helplessness, and PTSD may be as successful as battered woman syndrome evidence in terms of verdict decisions. Also, it appears to avoid some of the potential pitfalls associated with the syndrome evidence.

Regina A. Schuller

See also Battered Woman Syndrome; Expert Psychological Testimony; Expert Psychological Testimony, Admissibility Standards; Expert Psychological Testimony, Forms of; Expert Testimony, Qualifications of Experts

Further Readings

Dutton, M. (1993). Understanding women's responses to domestic violence: A redefinition of battered women syndrome. *Hofstra Law Review, 21,* 1191–1242.

Parrish, J. (1996). Trend analysis: Expert evidence on battering and its effects in criminal cases. In *The validity and use of evidence concerning battering and its effects in criminal trials* (Section 2). Washington, DC: DOJ, NIJ, USDHHS, and NIMH. Retrieved January 3, 2007, from http://www.ncjrs.org/pdffiles/batter.pdf

Schuller, R. A., & Jenkins, G. (2007). Expert evidence pertaining to battered women: Limitations and reconceptualizations. In M. Costanzo, D. Krauss, & K. Pezdek (Eds.), *Expert psychological testimony for the court* (pp. 203–225). Mahwah, NJ: Lawrence Erlbaum.

Schuller, R. A., & Rzepa, S. (2002). The battered women syndrome and other psychological effects of domestic violence against women. In D. L. Faigman, D. H. Kaye, M. J. Saks, & J. Sanders (Eds.), *Modern scientific evidence: The law and science of expert testimony* (Vol. 2, 2nd ed., chap. 11, pp. 37–72). St. Paul, MN: West.

Walker, L. E. (1992). Battered women syndrome and self-defense. *Notre Dame Journal of Law, Ethics & Public Policy, 6,* 321–334.

Walker, L. E. (2000). *The battered woman syndrome* (2nd ed.). New York: Springer.

Behavior Analysis Interview

The behavior analysis interview (BAI) is a set of 15 predetermined standardized questions designed to elicit differential responses from innocent and guilty suspects at the outset of a police interview. Police investigators who are reasonably certain of a suspect's guilt may submit the suspect to persuasive interrogation techniques meant to break down the suspect's resistance; because such interrogation techniques may lead to false confessions, it is important not to submit innocent suspects to these techniques. For this reason, BAI forms an important first step in police interviewing. Some evidence, however, refutes the basic assumptions of the BAI that guilty suspects will feel less comfortable and be less helpful than innocent suspects. This raises doubts about the ability of the BAI protocol to determine successfully which suspect is guilty and which suspect is innocent.

The BAI starts with the question "What is your understanding of the purpose of this interview?" followed by questions such as "Did you commit the crime?" or "Do you know who committed the crime?" or "Who would have had the best opportunity to commit the crime if they had wanted to?" and "Once we complete our entire investigation, what do you think the results will be with respect to your involvement in the crime?" Despite its name, *behavior analysis interview*, the BAI predicts that guilty and innocent suspects will differ in their nonverbal behavior and also in their verbal responses.

Regarding the *nonverbal responses,* it is assumed that liars feel more uncomfortable than truth tellers in police interviews. Guilty suspects should therefore show more nervous behaviors, such as crossing their

legs, shifting about in their chairs, performing grooming behaviors, or looking away from the investigator while answering questions such as "Did you commit the crime?" Regarding the *verbal responses,* it is assumed that compared with guilty suspects, innocent suspects expect to be exonerated and therefore should be more inclined to offer helpful information. Thus, truth tellers should be less evasive in describing the purpose of the interview, more helpful in naming possible suspects when asked who they think may have committed the crime, and more likely to divulge who had an opportunity to commit the crime, and they should express more confidence in being exonerated when asked what they believe the outcome of the investigation will be.

Investigators who use the BAI protocol acknowledge that not every response to a BAI question will consistently match the descriptions presented for guilty and innocent suspects. Consequently, investigators should evaluate the responses to the entire BAI rather than to the 15 questions individually. There is only one study with real-life suspects that used the BAI protocol successfully. When only conclusive decisions were scored, 91% of the deceptive suspects and 80% of the innocent suspects were classified correctly. Although these results appear impressive, the authors themselves noted an important limitation of the study: They could not establish with certainty that the guilty suspects were truly guilty and the innocent suspects were truly innocent.

The BAI assumption that guilty suspects will feel less comfortable than truth tellers in a police interview is not universally accepted by the scientific community. For instance, in situations where the consequences of being disbelieved are severe, both liars and truth tellers will be concerned about not being believed. The prediction that guilty suspects will show more nervous behaviors than innocent suspects is not supported by deception research. In a mock theft laboratory study, where guilty and innocent suspects were interviewed via the BAI protocol, guilty suspects (those who had taken the money) did not differ from innocent suspects (those who had not taken the money) in eye contact. With other behaviors, just the opposite of the BAI prediction occurred: Guilty suspects displayed *fewer* movements than innocent suspects. A meta-analysis reviewing more than 100 deception studies showed exactly the same pattern: Eye contact is not related to deception, and liars tend to *decrease* rather than *increase* their movements. This pattern was also obtained in a real-world study examining the nonverbal responses of suspects in police interviews. The decrease in movements often found in deception research could be the result of liars (guilty suspects) having to think harder than truth tellers (innocent suspects). Numerous aspects of lying add to mental load. For example, liars must avoid making slips of the tongue, should not contradict themselves, and should refrain from providing possible leads. If people are engaged in cognitively demanding tasks, their overall animation is likely to decrease. An alternative explanation of liars' decreased movements is that liars typically experience a greater sense of awareness and deliberateness in their performance, because they take their credibility less for granted than do truth tellers. Although truth tellers are also keen to be seen as truthful, they typically do not think that this will require any special effort or attention. As a result, liars are more inclined than truth tellers to refrain from exhibiting excessive movements that could be construed as nervous or suspicious.

This latter *impression management* explanation (liars put more effort into making a convincing impression than truth tellers) conflicts with the BAI's prediction that guilty suspects will be less helpful than innocent suspects. The impression management hypothesis states that guilty suspects will be keener than innocent suspects to create a favorable impression on the investigator, because liars will be less likely to take their credibility for granted. Indeed, the results from the mock theft laboratory study in which the BAI protocol was used showed just that pattern: Guilty suspects were *more* helpful than innocent suspects.

Aldert Vrij, Samantha Mann, and Ronald Fisher

See also Detection of Deception: Nonverbal Cues; Detection of Deception in High-Stakes Liars; False Confessions; Interrogation of Suspects; Reid Technique for Interrogations

Further Readings

Horvath, F., Jayne, B., & Buckley, J. (1994). Differentiation of truthful and deceptive criminal suspects in behavior analysis interviews. *Journal of Forensic Sciences, 39,* 793–807.

Inbau, F. E., Reid, J. E., Buckley, J. P., & Jayne, B. C. (2001). *Criminal interrogation and confessions* (4th ed.). Gaithersburg, MD: Aspen.

Vrij, A., Mann, S., & Fisher, R. (2006). An empirical test of the behaviour analysis interview. *Law and Human Behavior, 30,* 329–345.

Bias Crime

Bias crime represents the nadir of intergroup relationships and contact. Prejudice and bigotry give rise to bias crime, and bigotry accompanies bias offenses. Protected categories of victims according to the bias crime statutes include ethnic, racial, religious, and sexual minorities as well as those with mental or physical disability status. Although debate about the criminalization of bias motives abounds, most of those who study bias crime agree that combating these types of offenses is important. This is because bias crime is different from similarly egregious crimes; the effects of bias crime extend well beyond the initial victim. There are physical, psychological, financial, and societal costs associated with this from of criminal activity.

Most people have a sense of what is meant by *prejudice*, and social scientists use the term to refer to a negative attitude that occurs when people prejudge disliked others. Those who are the targets of prejudice are disliked and perceived to be members of a particular social group. The term *bigotry* refers to extreme, and often blatant, forms of prejudice. Although both terms refer to a bias in the perception of others, prejudice can in rare cases refer to positive attitudes and reactions, whereas bigotry is exclusively reserved for negative attitudes. It is the latter set of reactions to a disliked individual or group of individuals (i.e., bigotry) that is most likely to spawn bias crimes.

Bias crimes involve a unique form of illegal, antisocial (and sometimes aggressive) behavior perpetrated primarily because of what the intended target represents. Definitions of bias crime vary, but definitions such as that of the Anti-Defamation League of B'nai B'rith (ADL) tend to focus on the motivation of the offender as well as the group status of the targeted victim. According to the Federal Bureau of Investigation (FBI) of the U.S. Department of Justice, a bias crime is "a criminal act that targets a person, property, or society and is motivated, in whole or in part, by the offender's bias against a race, religion, disability, sexual orientation, or ethnicity/national origin." Bias crimes "are traditional offenses motivated by the offender's bias."

The negative sentiment that drives bias crime offenders is so central and distinguishing a feature that the term *hate crime* is often used to describe these actions. Hate crime puts the extreme negative emotion (i.e., the affective state) front and center. Although most people can readily identify with an offense characterized as a hate crime because of an almost visceral familiarity with that very negative emotion, some scholars debate the accuracy of this label. They argue that it is not always the case that the sentiment that motivates bias crime offenders is hate. Indeed, as the specialists James Jacobs and colleagues contend, hate crime is less about "hate" per se and more about bias or prejudice.

To be sure, the problem of bias crime is real, and because of the inherently social aspect of these offenses, they must be viewed within a particular context. According to Gregory Herek and colleagues, bias offenses generally occur "against a backdrop of intolerance." They represent the manifestation of deep-seated resentment and bigotry coupled with opportunity and disinhibition. *Disinhibition* has long been regarded as a necessary psychological feature in a person's decision to actually commit an antisocial or aggressive action. For the bias crime offender, disinhibition can occur in several ways. Potential bias crime offenders become disinhibited (i.e., releasing the proverbial brake) when they are prompted by like-minded others, when they can rationalize and justify their aggression, or when they believe that conventional authority figures condone their actions.

Bias Crime in the United States

According to recent statistics released by the FBI, 7,163 criminal incidents involving 8,380 offenses were reported in 2005 as a result of an extreme prejudice or bias. The greatest proportion of these incidents resulted from racial and ethnic animus (there were 3,919), with African Americans representing the most frequently targeted racial group. This is not surprising given that racial (i.e., anti-Black) prejudice has played so prominent a role in determining the nature of intergroup relations within the United States and because skin color represents a primary and salient marker for racial status.

Bias crimes in the United States have assumed many forms and have ranged from nonviolent to egregious and harmful. They include physical and verbal transgressions stemming from a perpetrator's bigotry or extreme prejudice. These transgressions can include defamation, threat and intimidation, verbal abuse, and physical assault or homicide, as well as offenses to property including arson, defacement, and vandalism. Many bias crimes against property assume

the form of obscene or hurtful verbiage spray painted on private or public property.

Victims of bias crime are targeted because of their perceived race, ethnicity/national origin, religion, sexual orientation, gender, and physical disability. Whether victims actually are members of the targeted group matters little to their offenders; it is the perception that they do that drives offenders. Most targeted groups also tend to be singled out for negative stereotypes. Given the established relationship between stereotypes and prejudice, it is not surprising that members of the most negatively stereotyped social groups are also members of groups most frequently targeted by bias crime offenders. Thus, victims of bias crime disproportionately involve racial, ethnic, sexual, and religious minorities.

In the FBI's 2005 Hate Crime Statistics report, of the 8,380 reported bias offenses, 4,691 were racially motivated, 1,171 were instigated because of offenders' perceptions about their victims' sexual orientation, 1,314 resulted from religious prejudice, 1,144 were due to ethnicity/national origin prejudice, and 53 targeted victims because of a disability they were believed to possess. These numbers remain relatively consistent, although they reveal a slight drop from the 9,035 offenses reported in the 2004 statistics report.

It is worth noting that reluctance and fear on the part of certain immigrants and ethnic minorities may serve to stifle reports of certain bias offenses. Indeed, like many forms of criminal activity, many bias crimes that occur are not reported. Additionally, underreporting may be particularly likely in the case of victims of antigay bias crimes who, like rape victims, may not be willing to risk disclosure or be subjected to investigation by insensitive or unhelpful law enforcement personnel. Moreover, whether an actual bias crime is recorded as such is very much at the discretion of the individual law enforcement officer. Findings from one federally funded study, reported in Lu-in Wang's published work, found significant variation among police officers in their decisions to categorize incidents as bias crimes as well as within the state agencies charged with reporting to federal agencies.

Criminalizing Bias Crime

In recent years, criminologists and legal scholars have debated the usefulness of criminalizing bias, and debates about the constitutionality of legislation that penalizes it abound. Of course, crimes that are motivated by bias are not new. The history of bias as an instigator and motive in criminal activities occurring within the United States predates the establishment and enactment of any legislation in the country. The legal scholar Brian Levin notes that "status-based deprivations" such as slavery were in place at the very same time that deliberations about the Constitution and Declaration of Independence were under way. What is new about today's form of bias crime, however, is the existing legislation as well as the corresponding efforts aimed at enacting additional legislation penalizing these activities. The term *bias crime,* first used by journalists and politicians, is well entrenched in today's academic and juridical circles.

Most jurisdictions see bias crime as emanating from a perpetrator's bias targeting some feature of the victim (e.g., racial status or sexual orientation). Although the Hate Crime Statistics Act (initially promulgated in 1990) mandates that all jurisdictions report the number of bias offenses that have occurred, there is substantial variance in the extent of participation across states. Like other offenses included in the FBI's Uniform Crime Reports, bias crimes are voluntarily reported by local jurisdictions.

In 2005, several members of the House of Representatives introduced a bill that would represent an amendment to the law that mandates the FBI's collection of bias crime information to include gender as a protected category (called the Hate Crime Statistics Improvement Act of 2005). Historically, gender has not been included in the FBI's definition of bias crime. The bill never became a law, and the current Federal Hate Crimes Statistics Act does not require the FBI to collect data on crimes that may manifest evidence of a gender bias. However, of the 41 states that have crime statutes, 19 of them include gender-based hate crimes in their hate crimes laws.

Importantly, where bias crimes were formerly limited to the actual physical presence of an offender (e.g., an assault) or the offender's sentiment (e.g., graffiti or vandalism), widespread usage of the Internet has enabled offenders to transcend the boundaries of space and time. According to a representative of the ADL, "the majority of Internet hate crime cases result from e-mails containing threats." Indeed, because of the proliferation of biased sentiment throughout the Internet, "cyber hate" is now investigated and tracked by advocacy groups, such as the ADL, as well as the FBI.

Bias Crime Versus "Normal" Offenses

Bias offenses differ from other similarly egregious offenses in several ways. First, because bias crimes indicate an offender's bias, they serve symbolic and instrumental functions. The targeted victim is symbolic of a despised out-group. An out-group is a social group composed of people whom an offender perceives to be outsiders. Symbolically, the bias crime effectively communicates a message to an entire community, neighborhood, or group. The message is extremely negative and reminds anyone who identifies as a member of the victim's social group of their own vulnerability.

Bias crime serves an instrumental function in that it curtails the behaviors and movement of members of large numbers of people, including members of the victim's and offender's groups. Bias offenses restrict the behaviors and choices of people because members of the victim's and offender's groups will tend to avoid certain locations and interactions with out-groups. For example, people who are personally unacquainted with the victim but who perceive themselves to be members of the victim's social group are likely to restrict their activities. They will think twice about being in geographic proximity of the location where the bias offense is known to have occurred. Members of the offender's group who sympathize with victims are also likely to be anxious about the prospect of intergroup interaction. Without realizing it, offenders can affect far greater numbers of people than the actual victim(s) of the offense.

The bias crime is also distinguished from the "normal" offense (i.e., the nonbias crime) in that the bias crime is a reflection of a perpetrator's bigotry or hatred, or both. Such clarity about an offender's thinking is a feature of the bias crime and not readily apparent in many other types of offenses. However, it should be noted that legal scholars debate the constitutionality of bias crime statutes because they argue that characterization of an offense as a bias offense is based on penalizing thoughts and motives. Although there may be some ambiguity for certain offenses, law enforcement, legislators, and prosecutors generally consider the presence of one or more specific indicators during the commission of an offense to be evidence of a bias motive. These indicators serve to disambiguate the circumstances surrounding the incident because they suggest that the offender's actions were motivated, in whole or in part, by bias.

A clear difference in group status between the victim(s) and offender(s) that has historically involved relations fraught with strife is often taken as an indicator of a bias motive. When the incident occurs in the context of an event that makes the group status of the victim particularly salient, prosecutors will likely suspect a bias motive. Moreover, when there are obvious items present, used in, or produced as a result of the offense (e.g., graffiti, bias-related gestures or expressions, and written materials) or when the offenders are members of organized hate groups (e.g., the Ku Klux Klan), the incident is likely to be characterized as a bias offense.

Costs Incurred

There are a number of costs associated with bias crimes. Those who are targeted by offenders (i.e., victims) may incur physical, psychological, and financial costs. Victims of hate crime who are physically assaulted suffer injuries that may lead to permanent bodily damage, and in several high-profile cases (e.g., the murders of James Byrd and Mathew Sheppard), these injuries have resulted in death. Psychologically, the victim of a bias crime may experience posttraumatic stress disorder (PTSD). In fact, research by Gregory Herek and colleagues provides evidence of long-term PTSD symptoms. That research examined the experiences of victims of antigay bias crimes and found that in some cases the victims needed as many as 5 years to overcome the effect of their victimization.

Even when victims are able to function "normally" following a bias crime, they may harbor intense fear. They may fear their attackers, and they may also fear anyone who resembles their attackers. Although this can be debilitating, it can be most problematic for the fearful victims who feel compelled to move from their residence, change jobs, or restrict their activities. Thus, an additional outcome of bias crime victimization can involve very real financial costs. To the extent to which victims decide to suddenly change their place of employment or residence, there is likely to be a significant change in financial well-being. In addition, bias crime involving property offenses creates financial costs for property owners who resolve to return their property to its original state.

Although the most obvious costs are incurred by the actual victims of the offense, there are also societal costs associated with bias crime activities. Bias crimes

create a climate of suspicion and fear. They effectively contribute to deterioration in intergroup relations. Those who may perceive themselves to be members of the victim's social group will fear others who happen to be members of the offender's social group, and members of the latter may feel anger and guilt leading them to avoid interaction with those perceived to be members of the victim's group. In addition, particularly visible incidents can potentially trigger subsequent hate crime offenses, setting off a wave of retaliatory offenses.

Profile of Offenders

According to the U.S. Department of Justice's *Policymaker's Guide to Hate Crime*, hate crime offenders can be categorized according to their motives. In some cases, offenders perceive themselves to be exacting vigilante justice. These types of offenders blame the targets of their offenses for what they perceive to be wrong with the world or their immediate circumstances. In other cases, offenders perceive their actions to be a part of a greater mission—one in service of ridding the world of the social evil that their victim represents. An additional motive believed to account for some hate crime offenses involves the excitement and "rush" of committing the offenses. For these frenetic offenders, who are referred to as "thrill seekers," any targeted outgroup will do. In these incidents, willing offenders have the right set of circumstances, potential victims, and disinhibiting factors present at just the right time.

Although it would be useful to have a more detailed description of offenders, there is some variability among those who commit bias crimes. For example, the Hate Crime Statistics report of 2005 reveals that racial minorities are represented among racist bias crime offenders. Nevertheless, representatives from some local jurisdictions have noted that bias crime offenders are overwhelmingly young, White, and male.

Preventing Bias Crimes

Bias crimes, though extremely problematic, are not inevitable. When one considers that of the infinite number of interactions possible among the 34 million people living in California, for example, fewer than 2,500 resulted in reports of hate-motivated offenses, it is clear that bias crime occurrence is actually rare relative to its nonoccurrence. That said, recent events reflecting bias and bigotry underscore the importance of continued attention to this problem. Researchers, advocates, legislators, and law enforcement personnel have roles to play in attenuating the problem of bias crime. The greatest responsibility, however, rests with the lay public, which is composed of both victims and offenders. Eliminating bigotry and the problem of bias crime requires vigilant, continuous, and cross-cutting efforts, and it involves education, intergroup interaction, and legislation.

Kellina M. Craig-Henderson

See also Racial Bias and the Death Penalty; Reporting Crimes and Victimization; Victimization

Further Readings

Anti-Defamation League of B'nai B'rith. (1994). *Hate crime laws. A comprehensive guide.* New York: Author.

Craig-Henderson, K. M. (2004). A review of the debate over hate crime legislation: Do hate crime statutes work for the common good? In R. R. Miller & S. L. Browning (Eds.), *For the common good: A critical examination of law and social control* (pp. 230–236). Durham, NC: Carolina Academic Press.

Federal Bureau of Investigation. (2006). *Hate crime statistics 2005.* Washington, DC: U.S. Department of Justice.

Herek, G. M., & Berrill, K. T. (Eds.). (1992). *Hate crimes. Confronting violence against lesbians and gay men.* Newbury Park, CA: Sage.

Jacobs, J. B., & Potter, K. (1998). *Hate crimes: Criminal law and identity politics*. New York: Oxford University Press.

Levin, J., & McDevitt, J. (2002). *Hate crimes revisited. America's war on those who are different*. Boulder, CO: Westview Press.

Wang, L.-I. (2003). *Hate crimes law*. St. Paul, MN: Thomson/West.

C

Capacity to Consent to Treatment

The capacity to consent to treatment, also known as *treatment consent capacity* (TCC) and *medical decision-making capacity*, is a civil legal capacity with important ethical, legal, and functional aspects. TCC is a fundamental aspect of personal autonomy and self-determination and refers to a person's cognitive and emotional capacity to consent to medical treatment. TCC involves the capacity not only to accept a treatment but also to refuse a treatment, or to select between treatment alternatives. Legally, TCC forms the cornerstone of the medical-legal doctrine of informed consent, which requires that a valid consent to treatment be not only *informed* and *voluntary* but also *competent*. Functionally, TCC may be viewed as an "advanced activity of daily life" that is an important aspect of health and independent living skills in both younger and older adults. As such, it is a critical functional and life skill considered by probate courts conducting guardianship determinations.

From a legal standpoint, TCC is a distinctive civil capacity. Issues of TCC generally arise in a medical setting and usually involve a physician, a psychologist, or some other clinician, not a legal professional, as decision maker. These clinical judgments of TCC are rarely subject to judicial review. Accordingly, while clinicians do not determine TCC in a formal legal sense, their decisions often have the same effect insofar as a patient can effectively lose decisional authority.

Over the past 30 years, consent capacity has emerged as a distinct field of legal, ethical, clinical, and behavioral research. Clinical and cognitive models of TCC, and associated assessment instruments, have been developed for evaluating TCC. TCC is often tested using four standards drawn from case law and the psychiatric literature: the capacities to

1. "evidence" or express a treatment choice (*expressing choice*),
2. "appreciate" the personal consequences of a treatment choice (*appreciation*),
3. "reason" about treatment (*reasoning*), and
4. "understand" the treatment situation and choices (*understanding*).

There is also a fifth consent ability of making a "reasonable" treatment choice (*reasonable choice*), which is used experimentally but not clinically. These consent abilities represent different legal thresholds for evaluating TCC and have served as the conceptual basis for instrument development and clinical and cognitive studies.

Legal Aspects of TCC

TCC is a fundamental aspect of personal autonomy in our society. Clinicians are ethically and legally obligated to respect patients' right of self-determination with respect to medical care. The doctrine of informed consent protects this right of self-determination by requiring that a legally valid consent to treatment be informed, voluntary, and competent. As such, a diagnostic or therapeutic intervention that is performed on a person lacking the capacity to consent—regardless

of its intended benefit—may often represent a technical battery and be actionable under the law.

Medical-Legal Model of Consent Capacity

As discussed above, a medical-legal model of TCC incorporating specific consent abilities, or standards, has been developed from case law and the psychiatric literature. These standards are set forth below in order of proposed difficulty for patients with dementia:

S1. The capacity simply to "evidence" or express a treatment choice

S2. The capacity to make a "reasonable" treatment choice (this is not a clinically accepted consent standard because of concerns about the arbitrariness of the operative term *reasonable*; it is thus for experimental use only and is accordingly referenced with brackets)

S3. The capacity to "appreciate" the personal consequences of a treatment choice

S4. The capacity to reason about treatment and provide "rational reasons" for a treatment choice

S5. The capacity to "understand" the treatment situation and treatment choices

The above standards represent different thresholds for evaluating TCC. For example, S1 (*expressing choice*) requires nothing more than the subject's communication of a treatment choice. [S2] (*reasonable choice*) calls for the individual to demonstrate a reasonable treatment choice, particularly when the alternative is unreasonable. S3 (*appreciation*) requires the individual to appreciate how a treatment choice will affect him or her personally. S4 (*reasoning*) evaluates the individual's capacity to supply rational reasons for the treatment choice. S5 (*understanding*) is a comprehension standard and requires the individual to demonstrate conceptual and factual knowledge concerning the medical condition, its symptoms, and the treatment choices and their respective risks/benefits. Standards 3 to 5 are the standards generally applied in clinical settings. It should be noted that this medical-legal model can be readily applied to other consent capacities, such as the capacity to consent to research, and to decisional capacity generally.

In using this model and selecting applicable standards, clinicians should consider the potential risks and benefits of a proposed treatment and the consequences of refusing treatment. For instance, a patient who consents to a relatively low-risk medical procedure expected to yield significant benefits may be judged using a lower or more liberal standard of TCC. A more stringent threshold (e.g., S4, reasoning, and/or S5, understanding) should be considered as the risks associated with a medical procedure or with refusing treatment increase. Due to its short-term memory and other cognitive demands, S5 may be the most stringent legal standard, particularly for older adults and persons with amnesic disorders.

Cognitive Model for Consent Capacity

TCC may also be conceptualized cognitively as consisting of three core tasks: comprehension and encoding of treatment information, information processing and internally arriving at a treatment decision, and communication of the treatment decision to a clinical professional. These core cognitive tasks occur in a specific context: a patient's dialogue with a physician, a psychologist, or some other health care professional about a medical condition and potential treatments. The comprehension/encoding task involves oral and written comprehension, and encoding, of novel and often complex medical information presented verbally to the patient by the treating clinician. The information-processing/decision-making task involves the patient processing the consent and other information presented, integrating this information with established personal knowledge, including values and risk preferences, reasoning about and weighing this information, and arriving internally at a treatment decision. The decision communication task involves the patient communicating his or her treatment decision to the clinician in some understandable form (e.g., oral, written, and/or gestural expression of consent/nonconsent).

Clinical Assessment of TCC

Problems in Assessment

Despite the relevance of issues of TCC in medical settings, there is little academic or clinical education in this area. Medical and graduate schools, as well as residency, internship, and fellowship programs, have not traditionally offered formal training in capacity

assessment. There has also been a general lack of practical clinical guidelines on which to base capacity assessments. Until recently, clinicians have had to rely almost exclusively on subjective clinical impressions and brief mental status testing in reaching a judgment regarding TCC.

Physician judgment has traditionally represented the accepted criterion or gold standard for determining TCC in medical and legal practice. However, studies involving older adults and persons with AD have raised the concern that physician judgments of TCC may be both subjective and unreliable. Specifically, experienced physicians have been found to be highly inconsistent in their judgments of TCC in older adults with mild AD. This inconsistency may reflect issues of lack of clinical training, differing conceptual approaches, and the conflation of mental status results with capacity status in older adults. One response to these issues of clinical accuracy and consistency in capacity judgments has been the development of standardized assessment measures.

Instruments for Assessing TCC

In recent years, investigators have used the above models of TCC to develop standardized, norm-referenced psychometric instruments for assessment of TCC in different patient populations. These instruments include the MacArthur Competence Assessment Tool for Treatment (MacCAT–T), the Hopemont Capacity Assessment Instrument, and the Capacity to Consent to Treatment Instrument (CCTI). These standardized measures assist clinicians by offering specific definitions of the TCC construct and by operationalizing standards or thresholds for testing capacity. In addition to measuring capacity performance, some instruments also identify capacity status (capable, marginally capable, or incapable) using cut scores derived from control performance. Thus, these measures provide objective, norm-referenced information concerning an individual's TCC that can inform and guide clinical decision making.

The limitations of these assessment instruments should also be considered. First, instrument-based deficits in TCC should not be construed as necessarily reflecting clinical or legal impairments or incompetency. Second, and related, clinical determination of TCC is ultimately a judgment made by a clinician and not an instrument performance score. Assessment instruments can provide objective information about consent abilities but are not substitutes for clinical judgment. No capacity instrument can satisfactorily take into account the myriad medical, legal, ethical, and social considerations that inform a clinical or legal capacity judgment. For this reason, standardized measures of TCC are intended to support, but certainly not replace, the decision making of the clinician.

Research on TCC in Clinical Populations

Impairment and loss of TCC have been studied in multiple clinical populations, including persons with schizophrenia and other psychiatric illnesses, Alzheimer's disease (AD), mild cognitive impairment (MCI), Parkinson's disease (PD), and traumatic brain injury (TBI). Initial pioneering clinical studies of TCC were carried out in psychiatric populations by Appelbaum, Roth, Grisso, and colleagues and have documented clearly the effects of mental illness on informed consent capacities in these patients. Over the past 15 years, there have been an increasing number of studies of TCC in older adult populations with dementia. Due to its relentless progressive nature and the well-characterized stages of neurocognitive and functional change, AD has proven to be a useful prism for understanding impairment and loss of TCC. Studies have shown that the minimal standards of consent capacity, such as expressing choice (S1) and making a reasonable choice [S2], are relatively preserved in patients with mild to moderate AD, whereas the clinically relevant standards of appreciation (S3), reasoning (S4), and understanding (S5) already show significant impairment. TCC also shows significant longitudinal decline over a 2-year period in patients with mild AD. A very recent study has suggested that older patients with MCI, the prodrome or transitional stage to AD, also experience significant deficits in TCC. Other studies have identified deficits in TCC in patients with PD and cognitive impairment and dementia. In contrast to these dementia studies, an investigation of TCC in moderate to severely injured patients with TBI found significant initial impairment but also subsequent partial recovery of consent abilities 6 months following TBI. Thus, trajectories of consent capacity impairment and change over time can differ enormously across disease states.

Cognitive Studies of TCC

TCC assessment instruments have also provided a useful psychometric criterion for investigating the

neurocognitive changes associated with impairment of TCC in neurocognitive disorders such as dementia. Findings suggest that multiple cognitive functions are associated with the loss of consent capacity in patients with AD. For example, deficits in conceptualization, semantic memory, and probably verbal recall appear to be associated with the significantly impaired capacity of both mild and moderate AD patients to understand a treatment situation and choices (S5). A factor analysis of TCC in an AD population revealed a two-factor solution comprising *verbal reasoning* and *verbal memory*, which was subsequently validated using a form of neuropsychological confirmatory analysis. In contrast, in studies of patients with PD and dementia, executive function measures have emerged as the primary predictors of impairments of TCC.

Daniel C. Marson and Katina R. Hebert

See also Capacity to Consent to Treatment Instrument (CCTI); Competency, Foundational and Decisional; Consent to Clinical Research; End-of-Life Issues; MacArthur Competence Assessment Tool for Clinical Research (MacCAT–CR); MacArthur Competence Assessment Tool for Treatment (MacCAT–T)

Further Readings

Dymek, M. P., Atchison, P., Harrell, L. E., & Marson, D. C. (2001). Competency to consent to medical treatment in cognitively impaired patients with Parkinson's disease. *Neurology, 56,* 17–24.

Grisso, T. (2003). Competence to consent to treatment. In *Evaluating civil competencies: Forensic assessment and instruments* (2nd ed., pp. 391–458). New York: Kluwer Press.

Grisso, T., & Appelbaum, P. S. (1995). The MacArthur Treatment Competence Study. III: Abilities of patients to consent to psychiatric and medical treatments. *Law and Human Behavior, 19,* 149–169.

Grisso, T., & Appelbaum, P. S. (1998). *Assessing competence to consent to treatment*. New York: Oxford University Press.

Kim, S. Y., Karlawish, J. H., & Caine, E. D. (2002). Current state of research on decision-making competence of cognitively impaired elderly persons. *American Journal of Geriatric Psychiatry, 10,* 151–165.

Marson, D. C., Chatterjee, A., Ingram, K., & Harrell, L. (1996). Toward a neurologic model of competency: Cognitive predictors of capacity to consent in Alzheimer's disease using three different legal standards. *Neurology, 46,* 666–672.

Marson, D. C., Dreer, L. E., Krzywanski, S., Huthwaite, J. S., DeVivo, M. J., & Novack, T. A. (2005). Impairment and partial recovery of medical decision-making capacity in traumatic brain injury: A 6-month longitudinal study. *Archives of Physical Medicine and Rehabilitation, 86,* 889–895.

Marson, D. C., Ingram, K., Cody, H., & Harrell, L. (1995). Assessing the competency of Alzheimer's disease patients under different legal standards: A prototype instrument. *Archives of Neurology, 52*(10), 949–954.

Moye, J., Karel, M. J., Azar, A. R., & Gurrera, R. J. (2004). Capacity to consent to treatment: Empirical comparison of three instruments in patients with and without dementia. *The Gerontologist, 44*(2), 166–175.

Capacity to Consent to Treatment Instrument (CCTI)

The Capacity to Consent to Treatment Instrument (CCTI) is a standardized psychometric instrument designed to assess the treatment consent capacity (TCC) of adults. The CCTI evaluates five different consent abilities or standards and has been shown to be a reliable and valid measure of TCC. The measure discriminates well between cognitively intact adults and persons with Alzheimer's disease (AD), Parkinson's disease dementia syndrome, and traumatic brain injury. The CCTI has application to all adult patient populations in which issues of neurocognitive impairment and consent capacity arise. Research using the CCTI has provided insight into the relationships between cognitive change and different thresholds of decisional capacity.

Structure and Administration of the CCTI

The CCTI was first developed in 1992 to empirically investigate patterns of consent capacity impairment in patients with mild and moderate AD. The measure consists of two clinical vignettes that present hypothetical medical problems and their symptoms (brain tumor, atherosclerotic heart disease) as well as treatment alternatives with the associated risks and benefits. The CCTI is administered in a way that simulates an informed consent dialogue between the physician and the patient. The vignettes are presented simultaneously in oral and written format using an uninterrupted disclosure method. They are written at a fifth- to sixth-grade reading level, with low syntactic complexity and a moderate information load.

After each vignette is presented, the written stimulus is removed, and patients are asked to answer a series of questions that test distinct consent abilities. These consent abilities are derived from psychiatric literature and case law and reflect four well-established standards (S) for decisional capacity: *evidencing a choice* for or against treatment (S1), *appreciating* the personal consequences of a treatment choice (S3), *reasoning about treatment*, or making a treatment choice based on rational reasons (S4), and *understanding* the treatment situation and choices (S5). The CCTI also assesses the capacity to make a *reasonable choice* (S2). This is an experimental standard that has not received legal or clinical acceptance due to arbitrariness in determining what constitutes a "reasonable" treatment choice.

Administration time for the CCTI is about 20 to 25 minutes for both vignettes.

CCTI Scoring System

The CCTI has a detailed and well-operationalized scoring system that yields information regarding both capacity performance and capacity status. Capacity performance is the quantitative score that a patient receives for each standard. Scores across vignettes are summed to create a composite score for each standard. There is no CCTI total score.

Capacity status refers to the categorical outcome (capable, marginally capable, or incapable of consenting to treatment) obtained on a particular standard. Depending on the standard, capacity status on the CCTI is operationalized using either predetermined cut scores or psychometric cutoff scores derived from the performance of cognitively intact older adults. CCTI capacity outcomes must be used cautiously insofar as they are derived from cut scores and do not represent legal or clinical competency findings.

Reliability and Validity of the CCTI

The CCTI has reliability and validity as a measure of consent capacity. Three separate raters trained in administration and scoring of the CCTI achieved high interrater reliability for interval scales (>.83, $p < .0001$; S3–S5) and categorical scales (96% agreement; S1 and S2). The CCTI demonstrates face and content validity. The medical content of each vignette was reviewed and approved by a neurologist specializing in aging and dementia. The CCTI has been found to discriminate well between cognitively intact older adults and persons with both mild and moderate AD. The CCTI also discriminates well between older controls and patients with Parkinson's disease and dementia. With respect to construct validity, factor analysis of the CCTI in an AD sample revealed a two-factor model of verbal reasoning and verbal memory, which was subsequently confirmed using neuropsychological factor analysis. In addition, the CCTI has demonstrated utility as a psychometric criterion for investigating the neurocognitive changes associated with loss of TCC.

Clinical and Research Utility

The CCTI provides a standardized and norm-referenced basis for evaluating TCC in individual patients and across different patient populations. For this reason, it has very good research application. In addition, by objectively evaluating different consent abilities, it provides clinicians with flexibility in a particular case to consider different standards of capacity in relation to the risks and benefits of a particular treatment situation.

Limitations

The CCTI has three key limitations. First, because it uses standardized, hypothetical clinical vignettes (brain tumor, heart disease), the CCTI does not directly assess specific issues of TCC presenting clinically (e.g., in the treatment of bone cancer). Instead, it provides objective, norm-referenced information about a patient's treatment consent abilities that the clinician can consider as part of his or her overall assessment of TCC. Thus, the CCTI gives up clinical specificity for standardization. A second limitation of the CCTI is its use of hypothetical medical vignettes. Patients dealing with real, personal medical problems arguably may display treatment consent abilities that differ somewhat from those demonstrated when responding to hypothetical medical situations. Finally, the CCTI and its performance and outcome scores are intended to support but not replace clinical judgment. Determination of consent capacity is ultimately a judgment made by a clinician.

Daniel C. Marson and Katina R. Hebert

See also Capacity to Consent to Treatment; Competency, Foundational and Decisional; Competency Assessment Instrument (CAI); Consent to Clinical Research; End-of Life Issues; Hopkins Competency Assessment Test (HCAT); MacArthur Competence Assessment Tool for

Clinical Research (MacCAT–CR); MacArthur Competence Assessment Tool for Treatment (MacCAT–T)

Further Readings

Dymek, M., Marson, D., & Harrell, L. (1999). Factor structure of capacity to consent in Alzheimer's disease. *Journal of Forensic Neuropsychology, 1,* 27–48.

Griffith, R., Dymek, M., Atchison, P., Harrell, L., & Marson, D. (2005). Medical decision-making capacity in two neurodegenerative disorders: Mild AD and PD with cognitive impairment. *Neurology, 65,* 483–485.

Marson, D. C., Dreer, L., Krzywanski, S., Huthwaite, J., DeVivo, M., & Novack, T. (2005). Impairment and partial recovery of medical decision-making capacity in traumatic brain injury: A six month longitudinal study. *Archives of Physical Medicine and Rehabilitation, 86,* 889–895.

Marson, D. C., Ingram, K. K., Cody, H. A., & Harrell, L. E. (1995). Assessing the competency of patients with Alzheimer's disease under different legal standards: A prototype instrument. *Archives of Neurology, 52,* 949–954.

Capacity to Waive *Miranda* Rights

Prior to interrogating a suspect, police officers must inform individuals of their legal rights. Mental health professionals are frequently called on to evaluate the extent to which criminal suspects have understood their legal arrest rights and made valid decisions with respect to waiving those rights. For individuals to knowingly, intelligently, and voluntarily waive their rights, they must both understand and appreciate those rights. Research has consistently indicated that rights comprehension is significantly more impaired for younger adolescents than for older adolescents and adults. Furthermore, comprehension is most impaired among younger adolescents with lower intellectual abilities.

Miranda Warnings

Miranda v. Arizona (1966) required states to inform suspects prior to interrogation or questioning of several rights, which includes informing them of their right to remain silent, that anything they say can be used against them in a court of law, their right to the presence of an attorney, and the right to free counsel if they cannot afford the cost of an attorney. These warnings were viewed as strengthening an individual's protection against self-incrimination during police interrogation. The rights provided to adults in *Miranda* were extended to juveniles in the cases of *Kent v. United States* (1966) and *In re Gault* (1967). For those individuals who opt to waive these rights and undergo interrogation, any statements they make can be admitted as evidence against them in future court proceedings provided that the waiver is valid.

While the specific rights guaranteed to suspects prior to arrest and interrogation are outlined in *Miranda,* the specific wording and language employed in rights warnings vary between jurisdictions and police forces. Each warning typically contains the four prongs outlined in *Miranda.* A fifth warning prong has been added in many jurisdictions, which informs suspects that they can choose to stop questioning and consult with an attorney at any time. Additionally, some jurisdictions have included cautionary statements to juveniles regarding the possibility of having their case remanded to adult court or serving an adult sentence. Research has demonstrated significant variability in the language and readability of *Miranda* warnings across states, with Flesch-Kincaid Grade reading levels ranging from 4.0 to 9.9 in one study. The typical *Miranda* warning is at about the seventh-grade reading level, which is above the reading level of many intellectually impaired individuals. Also, the reading level of many adolescents in the juvenile justice system is below that of their peers. Many states employ separate *Miranda* warning cards for juveniles in an effort to simplify the warnings and increase comprehension.

Statements made by individuals who have waived their rights can be ruled inadmissible if a judge determines that certain conditions have not been met. Several U.S. Supreme Court decisions have established a *totality of circumstances* test for evaluating the validity of a rights waiver decision. This requires the court to consider both the suspect's capacities and the procedures and circumstances surrounding the waiver. This includes whether the individual knowingly, intelligently, and voluntarily waived his or her rights. The knowing component requires understanding verbally or in writing the wording used in the warning. The intelligent component goes beyond simple understanding and requires that a suspect appreciate the significance of a particular right in his or her particular situation. For example, suspects may

clearly understand a statement informing them that they can consult with a lawyer prior to interrogation, but without an appreciation of the role and function of a lawyer this understanding is rendered meaningless. Finally, the waiver must be made voluntarily, which requires that a suspect waive his or her rights independently, free from coercion from the police.

Research

Researchers have investigated the influence of numerous factors on adult and juvenile *Miranda* rights comprehension, including age, IQ, ethnicity, prior police contact and criminal justice experience, socioeconomic status, psychopathology and symptoms, special education classes, psychosocial maturity, and interrogative suggestibility. Results from these studies consistently indicate that rights comprehension is significantly more impaired for younger adolescents than for older adolescents and adults. Furthermore, comprehension is most impaired among younger adolescents with lower IQ. Adults with mental retardation have also been shown to demonstrate poor *Miranda* rights comprehension, resulting in the most frequent waiver challenges in court. Results from studies evaluating the influence of the other factors have been less clear. It is important to bear in mind that although research has been helpful in identifying areas in which capacity may be impaired, these studies have important limitations. They have typically been conducted in laboratory settings and have used hypothetical scenarios and noncriminal samples, thereby limiting the extent to which the true stressful nature of police interrogations is captured. Under stressful circumstances, suspects' understanding, appreciation, and reasoning about interrogation rights may be poorer than these findings suggest. Indeed, prior studies have shown that many adolescents in stressful or fearful situations, such as a police interrogation, will not be able to use their highest level of cognitive reasoning.

The choice whether to waive or exercise arrest rights represents the first step in a series of difficult decision points that individuals face when undergoing a police investigation. In addition to investigating the factors influencing arrest rights comprehension and waiver, researchers have examined the relationship between arrest rights comprehension and other possible outcomes arising from police interrogations. For example, researchers have begun to examine poor arrest rights comprehension as both a possible predictor of the decision to waive arrest rights and submit to police interrogation without assistance or advice as well as a predictor of the likelihood of offering a false confession. One recent study found that *Miranda* comprehension correlated negatively with false confessions in a juvenile sample, where juveniles were less likely to offer a false confession in response to a series of hypothetical vignettes as their *Miranda* comprehension improved.

Developmental Considerations

Results from research have generally demonstrated that younger adolescents with poor intellectual ability fail to comprehend adequately their *Miranda* rights. However, much of the variability in understanding can still be attributed to individual differences between people. A bright 12- or 13-year-old may demonstrate excellent understanding of *Miranda* rights, while a less intellectually capable adult may struggle to comprehend the content of typical *Miranda* warnings. However, adolescents are different from adults in one important way. They are at a stage of development in which they are still undergoing important maturational changes. Adolescence is marked by significant physical maturation, budding sexuality, an increased awareness of and sensitivity toward peers, and an increased desire for independence and identity development, to name only a few. One compelling explanation for the differences in understanding between adolescents and adults is that the cognitive capacities of adolescents are simply underdeveloped. Empirical evidence demonstrates that cognitive development continues throughout adolescence, and that it is only by age 17 that adolescents' raw cognitive abilities become more comparable with those of adults.

In addition to developmental differences in cognitive factors, research shows that adolescents differ in other important ways relevant to legal competencies. Particularly, adolescents differ in their level of psychosocial maturity and in the way they reason and make decisions. Younger adolescents with intellectual abilities comparable with those of adults have less life experience to draw on, which may influence their reasoning and decision-making processes. Younger children and adolescents are generally less likely to think strategically about their decisions; they are less future oriented, are less likely to weigh the consequences of their decisions, and often act impulsively. Thus, even if a young person adequately understands

the meaning of a *Miranda* warning, his or her appreciation of the consequences of the decision to waive or exercise those rights may suffer given his or her relative level of maturity and development. It is perhaps not surprising, then, that research demonstrates that the majority of young persons opt to waive their rights when being questioned by the police. Interestingly, results from Canadian and U.S. studies have shown that with increased rights understanding, young persons are more likely to refuse to waive their rights in the context of a criminal investigation.

Assessing Capacity to Waive *Miranda* Rights

It is important to clarify that the term capacity to waive *Miranda* rights does not refer to a specific legal disposition but rather to the capacity of the defendant to understand and waive his or her legal rights. Grisso has described three areas of functioning pertinent to the evaluation of capacity to waive rights, including a suspect's understanding of the rights warnings, the suspect's perceptions of the intended functions of the *Miranda* rights, and the suspect's capacities to reason about the probable consequences of waiver or nonwaiver decisions. Researchers and evaluators have typically assessed the suspect's understanding of the rights warnings by examining an individual's understanding of the phrases included in a standard rights warning. Grisso conceptualizes appreciation of the significance of rights to comprise three main parts. First, suspects must recognize the interrogative nature of police questioning. Second, suspects must perceive the defense attorney as an advocate who will defend and advise them, and be willing to disclose confidential information to him or her (appreciation of the right to counsel). Finally, suspects must perceive the right to silence as a right that cannot be revoked and that statements made by them can be used in court (appreciation of the right to silence).

Grisso's *Instruments for Assessing Understanding and Appreciation of* Miranda *Rights* were developed to assist mental health professionals to examine the capacities of individual youths or adults to waive their *Miranda* rights knowingly and intelligently at the time of their police interrogation. Three instruments assess the individual's understanding of a typical arrest by asking examinees to paraphrase the meaning of each right, compare the four elements of a typical rights warning with a pool of statements including accurate and inaccurate rewordings of each of the sentences, and provide definitions of six words contained in the interrogation warnings. Appreciation of the warnings is evaluated in a fourth instrument, which assesses appreciation of the importance of rights in an interrogation and in legal situations generally by asking examinees to respond to pictures and vignettes describing youths interacting with various criminal justice figures. The instruments provide normative data against which evaluators can compare an examinee's responses on the instruments; however the normative data are based on a sample of juveniles in Saint Louis, Missouri, in 1980. An updated version of these instruments, *The* Miranda *Rights Comprehension Instruments,* is currently being developed.

Consequences

Current findings from the literature underscore the need for the provision of appropriate assistance or improvement in the rights communication and the waiver processes. Results from research conducted on juveniles' *Miranda* rights comprehension findings strongly suggest that although a majority of youths involved in police questioning and interrogation waive their rights, many of them, particularly younger adolescents, may not have the capacity to provide a valid waiver. The consequences of poor understanding and appreciation of arrest rights, in combination with a highly suggestible young person and coercive interrogation conditions, may be far ranging and logically include a greatly increased likelihood of offering a false confession. Youths, especially younger adolescents and preteens, may be especially vulnerable to making false confessions due to immaturity and poor judgment.

Ronald Roesch and Kaitlyn McLachlan

See also Capacity to Waive Rights; False Confessions; Forensic Assessment; Grisso's Instruments for Assessing Understanding and Appreciation of *Miranda* Rights; Interrogation of Suspects; Videotaping Confessions

Further Readings

Feld, B. C. (2000). Juveniles' waiver of legal rights: Confessions, *Miranda*, and the right to counsel. In T. Grisso & R. G. Schwartz (Eds.), *Youth on trial: A developmental perspective on juvenile justice* (pp. 105–138). Chicago: University of Chicago Press.

Goldstein, N. E., Condie, L. O., Kalbeitzer, R., Osman, D., & Geier, J. L. (2003). Juvenile offenders' *Miranda* rights comprehension and self-report likelihood of offering false confessions. *Assessment, 10,* 359–369.

Grisso, T. (1998). *Instruments for assessing understanding and appreciation of* Miranda *rights.* Sarasota, FL: Professional Resources.

Grisso, T. (2003). Evaluating competencies: Forensic assessment and instruments. New York: Plenum Press.

Helms, J. (2003). Analysis of *Miranda* reading levels across jurisdictions: Implications for evaluating waiver competency. *Journal of Forensic Psychology Practice, 3,* 25–37.

In re Gault, 387 U.S. 1 (1967).

Kent v. United States, 383 U.S. 541 (1966).

Miranda v. Arizona, 384 U.S. 436 (1966).

Viljoen, J. L., & Roesch, R. (2005). Competency to waive interrogation rights and adjudicative competence in adolescent defendants: Cognitive development, attorney contact, and psychological symptoms. *Law and Human Behavior, 29,* 723–742.

Capacity to Waive Rights

With the Fifth Amendment right against self-incrimination and the Fourteenth Amendment right to due process as its grounding, the U.S. Supreme Court, in *Miranda v. Arizona* (1966), established important procedural protections for criminal suspects in custodial interrogations. Aware of the inherently coercive nature of interrogations and of suspects' risk of self-incrimination, the *Miranda* Court mandated that the police notify suspects of their right to silence and legal representation. The Court further ruled that a suspect may waive these rights, but the waiver would be considered valid only if it were provided *knowingly, intelligently*, and *voluntarily.*

To determine the validity of a *Miranda* waiver, courts typically examine the *totality of circumstances* under which the waiver was given, including both situational characteristics (e.g., length of the interrogation, strategies used to obtain the confession) and characteristics of the defendant (e.g., age, intelligence, prior criminal history). However, the question of how to weigh each of these factors in determining the validity of a waiver is left to the discretion of the judge. Thus, a judge or an attorney may request a forensic evaluator to aid the court in determining a defendant's capacity to meet the requirements of a valid waiver of rights.

Identification of Relevant Capacities

The first two elements of the standard, *knowing* and *intelligent*, are related to individuals' cognitive abilities: the ability to understand the meaning of the rights and to appreciate the consequences of waiver and nonwaiver decisions. Thus, forensic evaluators are able to conduct clinical and psychological assessments and inform the courts about individuals' specific abilities or deficits in these areas (e.g., whether they have the cognitive developmental and/or intellectual capacities to grasp the concept of a right as an entitlement rather than as a privilege that can be revoked). The *voluntariness* element, however, is more speculative because it considers the interaction between the situational characteristics of the interrogation (e.g., coercive police interrogation strategies used to extract a confession) and individual characteristics that may influence a defendant's waiver decision (e.g., susceptibility to suggestion by authority figures, psychosocial immaturity). Because forensic evaluators have little additional information to offer the courts about the situational characteristics, they typically address the issue of voluntariness less directly; they examine the capacities related to the knowing and intelligent elements and provide information about defendants' specific vulnerabilities that may influence their waiver decisions.

To meet the knowing and intelligent requirements of a valid waiver, one must demonstrate three primary capacities. First, one must demonstrate the ability to *comprehend* the meaning of the *Miranda* warnings. Simply, does the suspect understand the basic meaning of each of the warnings?

Second, one must be able to *appreciate the significance* of the rights. Slightly more complex than the first capacity, this ability is related to whether suspects are able to appreciate the importance of the warnings within the context of the legal process. For example, suspects may understand that they have the right to remain silent. However, if they lack an understanding of the adversarial nature of the criminal proceeding and mistakenly believe that exercising the right to silence will make them appear guilty, then their misunderstanding might impair their ability to benefit from the right.

Last, one must display the *ability to reason about choices* to make a waiver decision. This more complex ability, compared with the previous capacities,

requires individuals to consider various options throughout the interrogation process (e.g., whether to talk with the police about the crime) and to weigh the short- and long-term consequences of each option (e.g., talking with the police now may lead to immediate release, but it also may result in one's statements being used against one in court at a later date).

Assessment of Relevant Capacities

In the 1970s, Thomas Grisso developed a series of instruments, the *Instruments for Assessing Understanding and Appreciation of* Miranda *Rights,* designed to assess the capacities previously described. Briefly, these instruments are composed of four discrete measures to assess different capacities.

First, Comprehension of *Miranda* Rights (CMR) is designed to assess examinees' basic understanding of each of the warnings. Examinees are read out each warning and asked to paraphrase the meaning of the warning. Second, Comprehension of *Miranda* Rights–Recognition (CMR–R) is also designed to assess examinees' understanding of their rights, but this measure does so without reliance on verbal expressive abilities; examinees must only identify whether a series of statements means the same thing as, or something different from, the warnings. Thus, it provides the opportunity for examinees with difficulties articulating their understanding to demonstrate their comprehension. Third, Comprehension of *Miranda* Vocabulary (CMV) evaluates examinees' understanding of six words found in the *Miranda* warnings by asking them to define the following terms: consult, attorney, interrogation, appoint, entitled, and right. Last, the Function of Rights in Interrogation (FRI) is the only measure that assesses examinees' appreciation of the significance of the warnings. Evaluators present four short vignettes with illustrations of police, legal, and court proceedings to examinees. After reading each vignette, examiners ask open-ended questions about the vignette (e.g., If the judge finds out that the defendant would not talk to the police, then what would happen?).

The first three measures of the *Instruments for Assessing Understanding and Appreciation of* Miranda *Rights,* the CMR, CMR–R, and CMV, assess capacities related to the knowing element of the standard for a valid waiver of rights. The final measure in the instruments, the FRI, primarily assesses capacities related to the intelligent element of the standard. Importantly, questions about the validity of a defendant's waiver of rights may be raised at any point during the legal process, even weeks, months, or years after the waiver was provided. Consequently, the instruments provide direct information about examinees' understanding and appreciation of their rights at the time of the evaluation, not at the time of testing; data from testing must be extrapolated to estimate understanding and appreciation at the time the actual *Miranda* waiver was provided.

To increase the accuracy of a defendant's estimated capacities at the time of the *Miranda* waiver, forensic evaluators generally consider idiographic information in conjunction with the information obtained from Grisso's instruments. Additional measures typically include a clinical interview and measures of intellectual functioning, academic achievement, and symptoms of mental illness. In addition, collateral interviews are conducted and relevant records reviewed. For juvenile defendants, specific measures related to cognitive functioning and developmental maturity are also often administered.

Naomi E. Sevin Goldstein
and Rachel Kalbeitzer

See also Capacity to Waive *Miranda* Rights; Forensic Assessment; Grisso's Instruments for Assessing Understanding and Appreciation of *Miranda* Rights

Further Readings

Grisso, T. (1998). *Forensic evaluation of juveniles*. Sarasota, FL: Professional Resource Press.

Grisso, T. (1998). *Instruments for assessing understanding and appreciation of* Miranda *rights.* Sarasota, FL: Professional Resource Press.

Capital Mitigation

Capital mitigation consists of evidence that is presented in a death penalty trial to obtain a sentence other than death. In the bifurcated trial process that characterizes modern capital cases (in which a second penalty or sentencing phase occurs only if the defendant has been convicted of a crime for which the death penalty may be imposed), mitigation typically is introduced in the second stage of the trial. Its purpose

is to lessen the jury's perceived need, desire, or rationale to return a death verdict. Under the death penalty statutes that govern most states, jurors are instructed to "weigh" mitigating factors (which lessen the tendency to punish with death) against aggravating factors (which increase that tendency).

Nature and Scope of Capital Mitigation

The scope of potential mitigation in a capital case is quite broad. In fact, unlike aggravating factors, which typically are limited in capital-sentencing statutes to certain prescribed categories of evidence (such as prior felony convictions), mitigating factors or evidence has been repeatedly defined by the courts as consisting of "anything proffered by the defendant in support of a sentence less than death."

Conceptually, mitigation falls into several broad categories. Capital defense attorneys often seek to introduce evidence and testimony that tend generally to humanize the defendant—that is, to emphasize the defendant's personhood and establish points of commonality between the defendant and the jurors who sit in judgment and decide his or her fate. Because many jurors enter the courtroom with stereotypic views of violent criminality, defense attorneys seek to overcome preexisting tendencies to demonize or pathologize the defendant in ways that will facilitate condemning him or her to death. Mitigating evidence that humanizes the defendant challenges the notion that extreme violence is perpetrated only by dehumanized, anonymous figures or human monsters rather than real people with very problematic and troubled lives.

Capital mitigation can provide jurors with a broader and more nuanced view of the causes of violence and deepen their understanding of the person whose life they are being asked to judge. In addition to the introduction of mitigating evidence that generally humanizes the defendant, defense attorneys also typically introduce background or social history testimony that places the defendant's life in a larger social and developmental context. Background and social history testimony can be used to explain the various ways in which the nature and direction of a defendant's life have been shaped and influenced by events and experiences that occurred earlier, often in childhood. This may include childhood trauma, parental mistreatment, and exposure to other developmental "risk factors" that are known to increase the likelihood that someone will engage in criminal behavior later in life.

The presentation of a mitigating social history in a capital penalty trial also may include testimony about broader community-based risk factors and larger sociological forces to which the defendant was exposed and that helped shape his or her life course. Poverty, racism, "neighborhood disadvantage" (the surrounding environments characterized by unemployment, instability, and crime), and other social contextual factors may help explain the patterns of criminal behavior in which the defendant engaged. In that sense, they represent a form of mitigation. Similarly, testimony about mental health problems or disorders from which the defendant suffered, his or her cognitive limitations or deficits, or evidence of neurological abnormalities—especially if they help account for criminal behavior—are mitigating in nature. Capital mitigation also may focus on the circumstances that led up to, or helped precipitate, the capital crime itself. That is, showing that the crime was the product of a unique set of situational forces or circumstances that are unlikely to recur—at least in a prison setting (where a capital defendant who is not sentenced to death will be sent)—is a form of mitigation.

Another common but very different category of mitigation includes testimony about a capital defendant's positive qualities, good deeds, or accomplishments or the defendant's potential to make useful contributions in the future. Often this includes evidence of the defendant's positive (or, at least, unproblematic) adjustment to prison in the past, testimony about his or her potential to adjust well in the future, and even evidence that the defendant is likely to make useful contributions to prison life during his or her long-term incarceration. In these instances, the nature of the mitigating significance of the evidence derives from demonstrating the complexity of human nature (i.e., that even people who have done very bad things have other positive qualities that are unrelated to their criminality) and reminding jurors that even persons convicted of a very serious violent crime can make contributions to others that would be lost if they were sentenced to death.

In sum, the structure of capital mitigation generally involves the message that the defendant is a person, there are reasons why his or her life took the course that it did (ones that involve powerful psychological and sociological forces over which the defendant had little or no control), and the positive qualities and

future contributions of the defendant would be sacrificed if he or she were to be sentenced to death.

Legal Doctrines Governing Capital Mitigation

The explicit use of mitigation as a key element in the death-sentencing process was first acknowledged by the U.S. Supreme Court in *Gregg v. Georgia* (1976) and its companion cases. Here, the Court approved a number of new state death-sentencing statutes that had been enacted in response to the Court's earlier declaration in *Furman v. Georgia* (1972) that the death penalty was unconstitutional as it was then being applied in the United States. The *Gregg* opinion endorsed a framework for capital sentencing that appeared in several of the revised state death penalty statutes that the Court reviewed and that was derived from the American Law Institute's *Model Penal Code* (1962). The *Model Penal Code* provided a list of mitigating and aggravating circumstances that it suggested jurors should "take into account" in deciding whether to impose a death sentence. The Court endorsed this approach as an acceptable way to attempt to guide the discretion of the jury.

Two years after *Gregg*, in *Lockett v. Ohio* (1978), the Supreme Court provided an expansive interpretation of the scope of admissible capital mitigation, indicating that the sentencer in a death penalty case (at that time, either a judge or a jury) must "not be precluded from considering," as mitigating factors, "*any* aspects of a defendant's character . . . that the defense proffers as a basis for a sentence less than death." In a long line of cases that followed, the Court continued to endorse the principle that capital defendants should be permitted to introduce a very broad (indeed, seemingly limitless) range of mitigating evidence. These opinions repeatedly established the right to introduce a wide range of mitigating evidence by declaring unconstitutional any statutes, procedures, or rulings that precluded or limited defendants from doing so. However, the Court nonetheless failed to impose any requirement, standard, or guideline governing whether and when capital attorneys *should* introduce mitigating testimony (or what remedy, if any, defendants were entitled to if their attorneys failed to do so). As a result, although defendants were entitled to present virtually unlimited mitigating evidence, many attorneys—because they lacked the training, experience, or resources—managed to present little or none on their client's behalf.

Nearly 25 years after *Gregg* was decided, however, the Court took steps to remedy this problem. Thus, in *Williams v. Taylor* (2000), it reversed a death sentence because a capital defense attorney had failed to investigate, assemble, and present important and available mitigating evidence in a death penalty case. Specifically, the Court found that the defense attorney had rendered "ineffective assistance of counsel" because he had failed to "conduct a thorough investigation of the defendant's background." As a result, he did not uncover and introduce potentially important mitigating evidence at trial, including the fact that the defendant had endured a "nightmarish childhood," had been raised by criminally negligent and physically abusive alcoholic parents, had been committed to an abusive foster home, and was borderline mentally retarded. The trial attorney also failed to introduce available evidence about the defendant's positive prison adjustment, including his prior good behavior in prison and extremely low violence potential in structured institutional settings.

In several subsequent decisions, the Court reaffirmed the constitutional mandate that capital attorneys must diligently pursue and present available mitigation on behalf of their clients. In perhaps the most important of these cases, *Wiggins v. Smith* (2003), the Court indicated that defense attorneys must investigate, analyze, and, where appropriate, present mitigating social history evidence. *Wiggins* emphasized that evidence of a seriously troubled background is highly relevant to what has been called "the assessment of a defendant's moral culpability" and acknowledged that when juries are confronted with such evidence, they are likely to return a sentence less than death. The Court concluded that the American Bar Association *Guidelines* (2003) for competent representation in capital cases help establish "prevailing professional norms," thereby making it incumbent on defense attorneys to investigate, analyze, and consider presenting "all reasonably available mitigating evidence," including the defendant's "medical and educational history, employment and training history, family and social history, prior adult and juvenile correctional experience, and religious and cultural influences."

Psychological Underpinning of Capital Mitigation

The doctrine of mitigation is decidedly not a doctrine of legal excuse. It allows jurors to acknowledge defendants' legal responsibility for their actions and to

punish them for those actions. However, in a capital context, it provides a justification for imposing a punishment other than death. The underlying psychological rationale for this has several separate components. First, many mitigating factors that are introduced into a capital-sentencing trial serve to reduce defendants' level of moral culpability for the crime(s) they have been found responsible for committing. That is, exposure to traumatic, deprived, or otherwise criminogenic background factors may help account for a defendant's criminality, making him or her less personally blameworthy than otherwise. Similarly, a defendant whose behavior is significantly affected by mental health problems, cognitive or neurological impairments, or other maladies may be seen as less culpable than others not similarly afflicted. In a capital trial, depending on the nature and amount of those criminogenic forces or impairments, the defendant's moral culpability may be reduced, so that the jury decides that a death sentence is not warranted.

Humanizing testimony and evidence that illustrates the defendant's positive qualities and prior good acts are mitigating in a different way. This kind of capital mitigation speaks to the complexity of human nature, the fact that a life can be judged on the basis of more than the worst thing(s) someone has done, and encourages jurors to reflect comprehensively on the value of the life they are being called on to take. Mitigation about future adjustment, potential contributions to prison life, and the defendant's connections and importance to family and loved ones speaks to the psychological and social cost of a death verdict and encourages jurors to weigh these factors in the sentencing equation they employ.

Craig Haney

See also Aggravating and Mitigating Circumstances, Evaluation of in Capital Cases; Aggravating and Mitigating Circumstances in Capital Trials, Effects on Jurors; Death Penalty

Further Readings

American Bar Association. (2003). Guidelines for the appointment and performance of defense counsel in death penalty cases. *Hofstra Law Review, 31,* 913–1090.

American Law Institute. (1962). *Model penal code.* Philadelphia, PA: Author.

Fabian, J. (2003). Death penalty mitigation and the role of the forensic psychologist. *Law & Psychology Review, 27,* 73–120.

Furman v. Georgia, 408 U.S. 238 (1972).

Goodpaster, G. (1983). The trial for life: Effective assistance of counsel in death penalty cases. *New York University Law Review, 58,* 299–362.

Gregg v. Georgia, 428 U.S. 153 (1976).

Haney, C. (1995). The social context of capital murder: Social histories and the logic of capital mitigation. *Santa Clara Law Review, 35,* 547–609.

Haney, C. (2005). *Death by design: Capital punishment as a social psychological system.* New York: Oxford University Press.

Lockett v. Ohio, 438 U.S. 586 (1978).

Miranda v. Arizona, 384 U.S. 436 (1966).

Note, Eighth Amendment—Death penalty: Weighing of aggravating and mitigating factors. (2006). *Harvard Law Review, 120,* 144–154.

Wiggins v. Smith, 539 U.S. 510 (2003).

Williams v. Taylor, 529 U.S. 362 (2000).

Capital Punishment

See Death Penalty

Checklist for Competency for Execution Evaluations

To date, very few instruments have been developed for the purpose of assisting evaluators in the assessment of competency for execution. One of the first—the Checklist for Competency for Execution Evaluations—is described in this entry. The checklist consists of four sections that describe important and relevant psycholegal criteria to be considered in this type of forensic assessment. The purpose of the checklist is to guide evaluators through the interview portion of a competency for execution evaluation. At present, there is no available research that examines the reliability or validity of this checklist.

Evaluations of competency for execution are probably the least common type of criminal forensic evaluation conducted, simply because of the relatively small number of individuals who have been sentenced to death (as compared with the population of criminal defendants); however, the repercussions of this type of evaluation are literally a matter of life and death for the inmate whose competence has been questioned. Utmost care needs to be taken in conducting this type of evaluation.

In 2003, Patricia Zapf, Marcus Boccaccini, and Stanley Brodsky published a checklist to be used in the evaluation of competency for execution. This checklist was developed after a review of the available literature on criminal competencies, including a review of the available case law on competency for execution, and after conducting interviews with professionals involved in conducting evaluations of competency for execution.

The checklist is divided into four sections: (1) understanding the reasons for punishment, (2) understanding the punishment, (3) appreciation and reasoning (in addition to simple factual understanding), and (4) ability to assist the attorney. These four sections are representative of the legal criteria for competency for execution that have been set out in various jurisdictions.

Most jurisdictions model their statutes pertaining to competency for execution after the criteria set out in the decision by the U.S. Supreme Court in the case of *Ford v. Wainwright* (1986) and, therefore, only consider the prisoner's ability to understand the punishment that is being imposed and the reasons why it is being imposed. The first two sections of the checklist parallel these two *Ford* criteria. The first section targets the offender's understanding of the reasons for punishment—that is, his or her understanding of the crime and other conviction-related information. Specific topic areas include the offender's understanding of the reasons why he or she is in prison; his or her place of residence within the prison; the crime for which he or she was convicted, including an explanation of the criminal act and victim-identifying information; the perceived justice of the conviction; and the reasons why other people are punished for the same offense and also any self-identified, unique, understandings of the offense and the trial that the offender might have.

The second section targets the offender's understanding of the punishment: that is, that the punishment he or she is facing is death. Specific topic areas include the offender's understanding of the sentence, the meaning of a sentence of death, what it means for a person to be dead, and the reasons for execution and also specific understandings about death from execution. Questions about death are asked from a number of different angles (e.g., the meaning of death, specific understandings about death from execution) so as to facilitate a thorough evaluation of any irrational beliefs or ideas that the offender may hold regarding death.

The literature on other types of competencies (e.g., competence to consent to medical treatment) indicates that there is often a relationship between the severity of the consequences (to the individual being assessed) and the stringency of the standard used to evaluate competence. Thus, given the gravity of the consequences in the particular instance of competency for execution, it seems appropriate and important to assess the offender's appreciation and reasoning abilities (in addition to simple factual understanding). Therefore, the third section of the checklist lists topic areas specific to the assessment of an offender's appreciation and reasoning abilities with respect to death and execution—areas that may go above and beyond the specific *Ford* criteria but that are arguably important to a comprehensive evaluation of competency for execution. Specific content areas in this section include the offender's appreciation of the personal importance of the punishment and the personal meaning of death; the offender's rationality or reasoning about the physical, mental, and personal changes that occur during and after execution; his or her beliefs regarding invulnerability; inappropriate affect; the offender's acceptance of or eagerness for execution; and his or her beliefs against execution. Although the *Ford* criteria are often interpreted as dealing with the offender's *factual* understanding, it appears justified that mental health professionals involved in competency for execution evaluations should also assess the offender's appreciation and reasoning and leave it to the court to determine how to interpret the *Ford* (or other relevant) criteria in each specific case.

The last section of the checklist identifies issues related to the offender's ability to assist his or her attorney. This section is especially relevant in jurisdictions that rely on criteria that are broader in nature than those outlined in *Ford,* such as the capacity to comprehend the reasons that might make the capital sentence unjust and to communicate these reasons effectively. Specific topic areas in this section include the identity of the offender's attorney and the amount of time that the attorney has been working for the offender, the offender's trust in the attorney, his or her awareness of the execution date, the status of the appeals, what the attorney is attempting to accomplish through the appeals, how the appeals will be processed and assessed, the actual substance of the appeals, important content that the offender may have withheld from the attorney, and any pathological reasons for not planning or discussing appeals.

Patricia A. Zapf

See also Competency for Execution

Further Readings

Brodsky, S. L., Zapf, P. A., & Boccaccini, M. T. (2001). The last competency: An examination of legal, ethical, and professional ambiguities regarding evaluations of competence for execution. *Journal of Forensic Psychology Practice, 1,* 1–25.

Brodsky, S. L., Zapf, P. A., & Boccaccini, M. T. (2005). Competency for execution assessments: Ethical continuities and professional tasks. *Journal of Forensic Psychology Practice, 5,* 65–74.

Ford v. Wainwright, 477 U.S. 399 (1986).

Heilbrun, K. S. (1987). The assessment of competency for execution: An overview. *Behavioral Sciences and the Law, 5,* 383–396.

Zapf, P. A., Boccaccini, M. T., & Brodsky, S. L. (2003). Assessment of competency for execution: Professional guidelines and an evaluation checklist. *Behavioral Sciences and the Law, 21,* 103–120.

Chicago Jury Project

The Chicago Jury Project was a large-scale social science research initiative in the 1950s. This entry provides a descriptive portrait of the project, followed by a brief summary of the primary studies associated with it, and then a discussion of the project's legacy and its impact on the field of psychology and law. In essence, the Chicago Jury Project was a groundbreaking scientific endeavor that employed a variety of social science methods and anticipated a host of current research streams. It remains an impressive accomplishment and can fairly be said to represent the inaugural event in the scientific study of jury decision making.

Overview

The Chicago Jury Project, also known as the American Juries Project, was conceived as an innovative effort to study the American legal system using behavioral science methods. Initiated in 1953 with funding from a $400,000 grant from the Ford Foundation, the project was housed at the University of Chicago. A variety of research studies were undertaken with the aid of project funding, not all of which were concerned with juries (e.g., arbitration). The project was led primarily by three individuals: Harry Kalven (a law professor), Hans Zeisel (a sociologist, statistician, and law professor), and Fred Strodtbeck (a social psychologist), although more than 20 other individuals were affiliated with the project, including Dale Broeder and Rita James Simon. The initial funding was spent by 1956, which triggered a review of project activities and findings by the Ford Foundation. A second round of funding from Ford enabled some arms of the project (most notably the work on juries) to continue until 1959, at which point active data collection ceased. A bibliography published in 1966 listed more than 60 journal articles published by researchers associated with the project. In-depth summaries of selected project initiatives were subsequently published in three book-length volumes titled *Delay in the Court* (1959), *The American Jury* (1966), and *The American Jury: The Defense of Insanity* (1967). The physical records of the project are currently held in 10 boxes at the Special Collections Research Center at the University of Chicago's Law School.

Few social science research projects receive public attention, and even fewer achieve any that is sustained, but the Chicago Jury Project actually caused something of a national scandal at one point in its existence. One early initiative involved audiotaping the deliberations of five civil jury trials in the federal district court in Wichita, Kansas. Although this was done with the assent of the trial judge and counsel for both sides, the jurors were unaware that their discussion was being recorded. When this became public knowledge in the summer of 1955, uproar ensued. The methodology was publicly censured by the Attorney General of the United States, a special hearing was initiated by the Senate Judiciary Committee, and more than 30 jurisdictions subsequently enacted statutes prohibiting the direct observation or recording of jury deliberations.

Project Studies and Results

As noted above, the Chicago Jury Project consisted of a number of different research initiatives involving several major methodological strategies: (a) analysis of archival data on court system functioning, (b) surveys, (c) intensive interviews with attorneys and jurors, and (d) experimental research with mock juries. This section briefly summarizes the project activities and findings within each methodological domain.

Archival Research

Much of the early work associated with the project involved taking stock of the descriptive research already done by others. One line of inquiry was comparative in nature and attempted to identify what had

been learned about legal systems in general and the jury in particular in Western Europe. An effort was also made to collect and examine jury trial statistics from several major metropolitan areas in the United States in order to estimate the frequencies associated with defendants' waiving their right to jury trial, the occurrence of hung juries, and the number of annual jury trials in the United States. Existing data were also gathered on the extent to which judges agreed with the verdicts of their juries as well as the nature of cases heard by judges and juries. In the end, this archival research set the stage for a number of later project activities and produced the following conclusions: (a) there did not exist much data on juries outside the United States; (b) defendant waiver rates varied considerably across jurisdictions within the United States; (c) criminal "hung jury" rates varied across jurisdictions but on average occurred about 5% of the time; (d) judges and juries agreed on the appropriate verdict in about 75% to 85% of cases; (e) when trial complexity was taken into account, juries were about on par with judges in terms of the time needed to resolve cases; and (f) about 55,670 jury trials occurred in the United States in 1955 (which is considerably higher than current estimates).

Interview Research

Researchers associated with the Chicago Jury Project made extensive use of interview methodology in the course of their work. One notable study involved having one of the project researchers (Dale Broeder, a law professor) accompany a federal district court judge on his circuit for the better part of a year. During this time, he conducted intensive interviews with 225 jurors and many of the attorneys involved in 20 jury trials. Attorneys were asked about their strategies during voir dire and their reasons for challenging particular jurors; jurors were questioned about their attitudes toward the jury system in general, their service, and their preferences for particular kinds of trials. One finding from this line of work was that many jurors were not looking to serve, but those that did tended to be positively influenced by their experience and more supportive of the jury system afterward. This labor-intensive endeavor resulted eventually in a number of essays highlighting commonalities in deliberation across cases, most of which were published in law journals.

One of the most well-known findings associated with the Chicago Jury Project arose from a massive field study featuring interviews with more than 1,500 jurors from 225 criminal jury trials in Chicago and Brooklyn. Among the goals of this study was reconstruction of the distribution of juror votes on the first ballot taken during deliberation. The result—surprising at the time but often replicated since—was that the verdict preferred by the majority of the jury on the first ballot ended up being the jury's final verdict approximately 90% of the time regardless of the demographic composition of the majority and minority factions. Furthermore, the minority factions that did manage to prevail were typically fairly large (i.e., three or more jurors), not lone "hold-out" individuals. Project researchers concluded from this that most criminal cases were decided during the trial as opposed to deliberation, and they likened deliberation to the role of the dark room in photography—the image (verdict) was set at the moment of exposure (i.e., the conclusion of the trial), but deliberation served as the developmental process that brought the image to light. This line of work also produced some interesting generalizations about juror voting preferences as a function of ethnic/national background, as well as some of the first empirical evidence that jurors do not always fully understand their instructions.

Survey Research

Perhaps the most famous research associated with the Chicago Jury Project, however, concerned the extent to which it makes a tangible difference to the outcome whether bench trials or jury trials are used. To examine this question, project researchers assembled a comprehensive listing of judges who presided over jury trials and then invited all the 3,500 or so individuals on the list. In the end, 555 trial judges from every state (except Rhode Island) as well as the federal courts participated. Essentially, the participating judges were asked to fill out a brief questionnaire for each jury trial they presided over during the study and return it by mail. Sample I was collected during 1954 to 1955 using the first version of the questionnaire (k = 2,385 trials); Sample II was collected during 1958 using a revised and elaborated form (k = 1,191 trials). Although additional information was collected (especially on the second form), the focus was on three things: (1) the jury's actual verdict, (2) the judge's indication of what he or she thought was the appropriate verdict, and (3) the judge's perceived reasons for any discrepancy between the first two.

The spotlight finding of this massive study was that judges and juries agreed on the appropriate verdict in 75.4% of the 3,576 criminal trials when hung juries were treated as disagreements (and 78% of the trials when they were distributed evenly between "agree" and "disagree"). This figure for criminal jury trials was remarkably close to the corresponding figure for the approximately 4,000 civil jury trials for which data were obtained in the same fashion. Criminal juries were found to be more lenient than judges (i.e., they acquitted when the judge would have convicted) in 19% of the cases and more severe than judges in 3% of the cases. Intensive analysis yielded five broad categories of reasons for the discrepancies supplied by the judges: (1) evidence factors, (2) facts known to the judge but not to the jury, (3) disparity of counsel, (4) jury sentiments about the defendant, and (5) jury sentiments about the law. This research also produced a wealth of descriptive data on juries that would serve as a benchmark for later research, including estimates of the overall conviction rate for juries (64%), the overall "win" rate for plaintiffs (59%), and the frequency of "hung juries" (5.5%), as well as profiles of the different types of evidence presented by the prosecution and the defense.

Another survey study associated with the project but less well-known involved examining variation in damage awards as a function of region. Six model cases were created and submitted to 600 claims adjusters of three large insurance companies operating throughout the United States. Using the reports of claims adjustors as a proxy for jury awards, this study anticipated the now well-established finding that damage awards vary considerably by jurisdiction and region.

Experimental Research With Mock Juries

After the commotion caused by the taping of actual jury deliberations, project researchers were forced to seek an alternative method for studying jury deliberation and subsequently invented a staple methodology in the jury-decision-making literature: the mock jury. Four different cases (or scenarios) were created for use with mock juries to study the impact of manipulations associated with, for instance, the weight of the evidence, knowledge of the defendant's insurance status in civil cases, the legal definition of negligence in civil cases (comparative vs. contributory) and insanity in criminal cases, as well as the use of special verdict forms with interrogatories. In the end, 160 mock civil juries were run using two kinds of cases (auto negligence and product liability), whereas 98 mock criminal juries heard either a burglary or an incest case. The research on criminal juries was perhaps the first to show that an element of the jury's instructions (e.g, the definition of insanity) could influence jury verdicts; in contrast, little influence was associated with the provision of expert testimony or the fate of the defendant. Despite the focus on the effects of the manipulated independent variables, this line of research is perhaps most notable for the descriptive portrait it provided of jury deliberation. In particular, this research suggested that forepersons were usually selected quickly, with little discussion or campaigning, and the choices could be explained well using only three variables: prior jury experience, social status, and seat position around the table. Another conclusion was that speaking during deliberation was not egalitarian, but rather, a small set of jurors tended to do most of the talking (often males and those with more social prestige), while some jurors typically said little or nothing.

Project Legacy and Impact

It is common for scholarly papers on jury decision making to reference the Chicago Jury Project, and it is fair to ask if this exalted status is warranted. In other words, what lasting impact has the project had on the field of psychology and law? Arguably, the project's most fundamental contribution was in establishing the precedent that social science methods could be used to understand and ultimately improve the legal system. As natural and obvious as this may seem today, there was nothing inevitable about it. There are many institutions that have not received the same attention from psychologists; for example, there are no thriving subdisciplines for psychology and government, psychology and medicine, or psychology and the arts as there is for psychology and law. A second contribution was in showing that the full spectrum of social science methods could be brought to bear on the study of the legal system. Indeed, most of the major methodologies used to study juries today (with the exception of the Internet) were first used by the Chicago Jury Project, and it also put the use of mock juries on the map. Project researchers also stumbled on the limits of the legal system's tolerance for social science methods via their seemingly innocuous audiotaping of five civil jury deliberations in 1955; the door to the jury room was literally closed to researchers for basically the next 50 years (and it is only now starting to reopen).

Other lasting contributions associated with the Chicago Jury Project include the initiation of research on a remarkably diverse set of legal topics, devoting attention to civil as well as criminal juries, using a multidisciplinary approach with individuals from various fields, and publishing project findings in legal as well as psychology journals. By any standard, the number of publications resulting from the project's work is impressive, and there is no doubt that their widespread dissemination in different outlets is a major reason why the Chicago Jury Project is still so well-known today. These publications provided a number of descriptive findings based on large samples that provided empirical benchmarks for later work, including estimates of the frequency of jury trials, hung juries, and judge-jury agreement and a first portrait of deliberation that included foreperson selection and the power of early majority.

Alas, one unfortunate aspect of the project may have stemmed from the fairly cynical view of deliberation offered in *The American Jury* (1966). The colorful yet deterministic "dark room" metaphor may have inadvertently dissuaded a generation of jury scholars from taking an active interest in the dynamics of deliberation, and in some respects, it may continue to dampen interest in what happens behind the closed door of the jury room. Nonetheless, even 50 years later, the scope and accomplishments of the Chicago Jury Project remain remarkable, and it truly deserves its lustrous reputation as a seminal event in the field of psychology and law.

Dennis J. Devine

See also Insanity Defense, Juries and; Jury Decisions Versus Judges' Decisions; Jury Deliberation; Jury Selection

Further Readings

Broeder, D. (1958). The University of Chicago Jury Project. *Nebraska Law Review, 38,* 744–760.

Kalven, H., Jr., & Zeisel, H. (1966). *The American jury.* Boston: Little, Brown.

Simon, R. J. (1967). *The jury and the defense of insanity.* Boston: Little, Brown.

Strodtbeck, F. L., & Lipinski, R. M. (1985). Becoming first among equals: Moral considerations in jury foreman selection. *Journal of Personality and Social Psychology, 49,* 927–936.

Zeisel, H., Kalven, H., Jr., & Buchholz, B. (1959). *Delay in the court.* Boston: Little, Brown.

Child Abuse Potential (CAP) Inventory

Psychologists are often asked to evaluate and to provide testimony about parental capacity. The Child Abuse Potential (CAP) Inventory, a measure originally designed to screen parents for child physical abuse risk, is frequently used as a measure of general parental capacity. The CAP Inventory is a 160-item, forced-choice (agree/disagree) self-report questionnaire. It contains a 77-item physical abuse scale, six descriptive factor scales (distress, rigidity, unhappiness, problems with child and self, problems with family, and problems from others), and three validity scales (lie, random response, and inconsistency). The three validity scales are used in different combinations to form three response distortion indexes (faking good, faking bad, and random response). The CAP Inventory also contains two special scales: the ego-strength and loneliness scales. The Inventory has been translated into more than 25 languages, including multiple Spanish translations. Although the available data on the translated versions of the CAP Inventory are generally positive, the amount of published data on the reliability and validity of the CAP Inventory translations is highly variable.

Background

An original pool of CAP Inventory items was developed following an exhaustive review of the theoretical and empirical literature that described parental psychological and interpersonal risk factors thought to be associated with child physical abuse. In constructing the CAP Inventory, an effort was made to avoid using items that represented static risk factors. Items were included in the current 77-item abuse scale based on their ability to distinguish between known child physical abusers and matched comparison parents in validation studies. Furthermore, in selecting the final list of abuse scale items, an effort was made to exclude items that were correlated with demographics characteristics.

Reliability

Internal consistency estimates for the CAP Inventory physical abuse scale range from .92 to .96 for general population parents and from .95 to .98 for child physical abusers. Internal consistency estimates are

similar across gender, ethnic, and educational groups. Temporal stability (test-retest reliability) estimates for the CAP physical abuse scale are .91, .90, .83, and .75 for 1-day, 1-week, 1-month, and 3-month intervals, respectively.

Validity

Extensive construct validity data indicating the expected relationships between CAP Inventory abuse scores and risk factors have been reported. For example, the expected relationships have been found between a respondent's CAP abuse scores and his or her childhood history of observation and receipt of abuse, and the respondent's childhood history of observing marital violence. CAP abuse scores also are associated (in the expected manner) with psychophysiological reactivity, neuropsychological problems, social isolation/lack of social support, negative family interactions, adult attachment problems, low self-esteem/ego-strength, stress/distress, inadequate knowledge of child development, belief in corporal punishment, negative perceptions of child behaviors, negative evaluations of child behaviors, low expectations of children, negative attributions (e.g., hostile intent), authoritarianism, depression, anxiety, anger/hostility, aggression, mental health problems/psychopathology, alcohol/drug use, problems in coping, lack of empathy, problems in parent-child interactions, use of harsh discipline strategies, and lack of positive parenting behaviors.

Concurrent validity studies report abuse scale correct classification rates in the 80% to low 90% range. Predictive validity data indicate that elevated abuse scores in high-risk parents (where participants were tested before interventions) are significantly related to later cases of child physical abuse. In addition, numerous studies have reported that elevated parental CAP abuse scores are predictive of child problems. For example, in a prospective study, before and after controlling for obstetric risk factors, scores on an abbreviated version of the CAP abuse scale were predictive of neonatal morbidity. In another prospective study, before and after controlling for problematic parenting orientations, CAP abuse scores were predictive of children's later intelligence and adaptive behaviors.

In summary, although elevated CAP Inventory abuse scores have been shown to be predictive of later confirmed cases of child physical abuse, the large body of available construct validity data supports the view that the CAP abuse scale may have even more utility in detecting parents who are at high risk for a broad array of parenting problems (as outlined above) and is useful in detecting parents who are likely to have children who have problems in their physical and psychosocial development. Independent evaluations of the CAP Inventory psychometric data have produced similar conclusions. For example, with respect to testimonial admissibility, the CAP Inventory has been judged to meet the Daubert standard as a measure of parental capacity.

Joel S. Milner

See also Child Custody Evaluations; Child Maltreatment; Divorce and Child Custody; Parenting Stress Index (PSI)

Further Readings

Milner, J. S. (1986). *The Child Abuse Potential Inventory: Manual* (2nd ed.). DeKalb, IL: Psytec.

Milner, J. S. (2006). *An interpretive manual for the Child Abuse Potential Inventory* (2nd ed.). DeKalb, IL: Psytec.

Yanez, Y., & Fremouw, W. (2003). The application of the Daubert standard to parental capacity measures. *American Journal of Forensic Psychology, 22*(3), 5–28.

Child Custody Evaluations

Child custody evaluation (also known as evaluation of parental responsibility) refers to the use of the legal system to resolve questions of the distribution of decision-making responsibility and time with children, often but not always in the context of marital dissolution. This process exists to resolve disputes between two or more adults who have an interest in providing parenting to a child and who cannot agree about how the child's care should be divided between or among them. They may be divorcing or may have never lived together in the same household (such as when grandparents vie for the right to parent a grandchild whose biological parent is unavailable or when a child is born to two biological parents who were never involved in a live-in or marriage relationship). When adults with a potentially legitimate legal stake in parenting a child cannot agree on how time and responsibility for a child will be divided, the court, acting as parens patriae, must resolve the dispute. Society's interests are served by ensuring that a child's care is

provided by caregivers who are able and willing to put the child's best interests ahead of their own.

Best Interests of the Child

All 50 states focus on the best interests of the child in making determinations regarding parenting time and responsibility. The "best interests of the child" standard is, however, an indeterminate one. States may define the child's best interests by statute or may leave the determination to the judge to make on a case-by-case basis. Child custody matters are decided by judges in 49 states; in Texas, either party can elect to put the matter before a jury.

In 1973, the National Conference of Commissioners on Uniform State Laws published the Uniform Marriage and Divorce Act, in anticipation of its adoption in a large number of jurisdictions, and in the years that followed, a number of states adopted parts of the act to assist courts in custody determinations. Section 402 of that act specifies that the court consider, as relevant to determining the child's best interests, the wishes of the child; the wishes of the parents; the interaction of the child with parents and siblings; the child's adjustment to home, school, and community; and the mental and physical health of all persons involved. Many courts continue to rely on these or variants of these factors in deciding parenting time and responsibility disputes.

A Historical Review of Custody of Children

In English common law, children were considered to be chattels, or possessions of their parents. They were a commodity or resource when they were able to work or otherwise generate income for their parents and a liability when they were not productive. Since the property of a married couple was considered to belong to the man of the house, children were their father's possession.

This notion of children as chattels carried forth to the United States, and the government was loathe to intervene in matters regarding the care and control of children, perceiving those matters to be of concern to their owners, their parents, or more particularly their father. However, with an awakened appreciation of the importance of the mother in meeting the needs of infant children, the tender years doctrine, holding that children of tender years generally required the care of their mother because she was endowed with those natural qualities that were important in the nurture of young children, gradually displaced the children-as-chattels doctrine. With increasing frequency, mothers were awarded custody in contested cases. Coincident with the rising divorce rates in the United States, mothers began almost universally to win custody of the child unless fitness could be successfully challenged. Fathers ordinarily bore an inordinate proportion of financial responsibility, taxed to them in the form of alimony or child support. Their access to the child was often restricted to "visitation," which marginalized their involvement in parenting to the point that visiting fathers were referred to by Michael Lamb as "Disneyland Dad."

The pendulum began to swing away from the tender years doctrine, however, with several societal changes. As more women entered the workforce, parents increasingly shared responsibility for the home and child care. When marriages ended in divorce, involved fathers sought meaningful postdivorce contact with children reflective of their preseparation child care roles. Second, the roles of children had changed substantially—from field hands in the agrarian life of colonial America or workers in the Depression era middle class to emotionally cherished members of the family. With the postwar societal interest in improving the quality of life, Dr. Spock's advice on parenting, and a proliferation of self-help books to enhance emotional fulfillment, there was increased attention paid to children's emotional needs and to the role that each parent played in meeting those needs. Divorcing parents argued for a stake in childrearing based on their claimed fitness to meet various facets of the growing child's emotional needs.

Thus, the two-parent workforce, the shift in fathers' roles, and the recognition of the child's emotional attachment to both parents all converged to usher in a new era. State legislators increasingly recognized that it no longer made sense for the child to be in the sole custody of one parent, with contact with the other parent occurring through weekend visitation. Joint custody, in some form, became an option in every state. Disputing parents might be awarded either equivalent or joint legal decision-making power, equal or near-equal time with the child, or both, unless one parent was demonstrably incapable of providing such responsibility or care. There was increasing recognition of the importance of both parents in the child's

healthy development, and the courts searched for ways to maximize the positive contributions of each parent in postdivorce or coparenting arrangements.

High-Conflict Families

The migration from sole to joint or shared custody outcomes has been a rough journey. It is understood that among divorcing parents, the vast majority resolve questions of parenting without the court's assistance, and only a small number seek the court's resolution of the dispute. Among those who need assistance, some return again and again, filing further motions for modifications of earlier rulings or alleging contempt of court, alleging failure to follow the court's orders. These high-conflict parents may also appeal against rulings of the court, and their disputes take up about 95% of the family court's time and resources.

Of primary concern with high-conflict families, however, is not the monopoly of the court's time but the great damage done to the children who are subjects of the ongoing child custody litigation and conflict. Exposure to preseparation and postseparation conflict between their parents is the most reliable predictor that children will develop emotional and behavioral problems stemming from divorce. The courts, recognizing this toll on the children, have sought ways to assist the high-conflict families to find more constructive and successful paths to resolving their difficulties.

Currently, there is a trend under way, manifested by the removal of the language of "custody" and "visitation" in the statutes of several states, to try to move these matters away from the climate of adversary proceedings, where the winner takes all and the loser—the marginalized parent who is allowed to visit with his or her child—goes away almost empty-handed (often nevertheless paying the greater portion of child care costs). Statutes in these states refer to parenting time and responsibility determinations and strive to find a solution that best reflects the sharing of parenting, with each parent making a meaningful contribution to the child's well-being. The courts may require or at least solicit parenting plans to be submitted by each parent, to increase the parents' involvement in decision making and to help the parents focus on the needs of the child and the long-term commitment to shared parenting. The courts may order mediation or some other form of dispute resolution to attempt to provide the family with a nonadversarial method for resolving the question of how this coparenting will occur, presently and as the children grow older.

The Role of the Psychologist

Psychologists' participation in these matters began with therapists offering opinions to the courts about a child's needs or wishes, or an adult client's presumed fitness to parent. The other parent in such matters soon discovered the value of obtaining expert testimony to rebut that of the therapist and would take the child to another therapist in search of helpful testimony. The emergence of dueling experts soon burdened the court with trying to determine which expert opinion seemed to have more credibility or to deserve greater weight. Before long, both psychologists and judges recognized the value of a court-appointed expert serving in a neutral role to assess the parents and children in the matter, in order to investigate the claims of each parent about the parenting capacity of the other parent or the child's needs or wishes. Between the mid-1970s and late 1980s, it became increasingly common to see court-appointed custody evaluators taking the place of testifying therapists in these matters. It is now well accepted that the therapist may have limited data on which to base actual recommendations regarding parenting time or responsibility.

Comprehensive Evaluation of Parental Responsibility

When disputes about parenting time and responsibility are not resolved by early interventions, such as having each parent propose a parenting plan, mediating the areas in dispute, and working to resolve issues through other forms of intervention, the next step is the court-ordered child custody or parenting responsibility evaluation. Since the more benign matters are resolved through these lower levels of contention, what remains for the custody evaluator are the most intransigent matters. These often involve allegations of sexual abuse of a child; alienation by one parent of the child's affections toward the other parent; allegations of domestic violence; or requests by one parent to relocate, with the child, to another city or state or even, in some matters, a different country. These difficult cases may be referred by the court for a comprehensive custody evaluation or evaluation of parental responsibility.

The comprehensive evaluation may take place over several weeks or even months. The process is preceded

by a full disclosure to the parties of the purpose and nature of the evaluation, the limits of confidentiality, the potential range of outcomes, and the fee arrangements. The evaluator schedules appointments with each adult caregiver who is party to the suit and each child for an interview and testing, observation of interactions, and follow-up inquiry regarding matters in dispute. Collateral or third-party sources of information are sought, including records of previous court hearings, school records, mental health treatment records, and medical records for issues relevant to the dispute. Additionally, the parties may present other records, such as records of their communications with one another, recordings of exchanges, and other such materials. The psychologist may also consult teachers, child care workers, coaches, pediatricians, therapists, neighbors, and relatives who may have relevant information.

Psychological Testing

While psychological testing is not explicitly required in these evaluations, it is often included in the assessment techniques. Although no specialized tests of the best interests of the child or child custody fitness have been developed that meet established psychometric standards, some efforts have been advanced. When psychological measures are employed, instrument selection is driven by an appreciation of the importance of the relevance and reliability of the instrument for the purpose. Commonly used instruments include the Minnesota Multiphasic Personality Inventory–2 (MMPI–2), the Personality Assessment Inventory (PAI), and the Millon Clinical Multiaxial Inventory–III (MCMI–III) for assessing personality characteristics of the parents; the Parent-Child Relationship Inventory, the Parenting Stress Index, or some other measure of parental attitudes; and the Child Behavior Checklist or Behavior Assessment System for Children for children. Other instruments may be helpful to address special issues such as domestic violence allegations, substance abuse, or childhood depression and anxiety. Comprehensive social history and parenting history questionnaires may also be used to collect parent input in a somewhat standard way. When the inferential leap is too great from what the test measures to the matter at bar, it is advised that the test not be used.

Report of Findings

Finally, the data that have been collected are analyzed to develop information useful to the court in its determination of sharing of parenting responsibility and time. The psychologist may stop short of making specific recommendations about how parenting responsibility and time should be apportioned, recognizing the final determination to be a matter for the court to decide. When there are sufficient data to substantiate a specific recommendation, however, there is no legal bar to offering it.

Variations on the Nature and Forms of Families

Disputes regarding parenting time and responsibility are not limited to divorcing biological parents. Adoptive parents, noncohabiting parents, grandparent caregivers, estranged grandparents of a child with a deceased or incapacitated parent, gay and lesbian parents, and many other configurations of families may seek the court's assistance in settling matters in controversy when children's best interests are at stake. Families may enjoy unique cultural milieus, or there may be specialized concerns, such as a child with special needs or a parent with specific disabilities; all these issues may tax the court's resources in making particularized and customized determinations that best address the needs of the family whose child's best interests are in question. The psychologist may also be taxed by these special issues but may also have greater time and resources to invest in investigating their significance. Psychologists are helpful to the trier of fact by accomplishing this comprehensive, case-specific evaluation of parenting time and responsibility.

Mary Connell

See also Alternative Dispute Resolution; Child Sexual Abuse; Divorce and Child Custody; Parens Patriae Doctrine; Substance Abuse and Intimate Partner Violence; Tender Years Doctrine

Further Readings

American Psychological Association. (1994). Guidelines for child custody evaluations in divorce proceedings. *The American Psychologist, 49,* 677–680.

Association of Family and Conciliation Courts. (2007). Model standards of practice for child custody evaluation. *Family Court Review, 45,* 70–91. Available at http://www.afccnet.org

Connell, M. A. (2006). Notification of purpose in child custody evaluation: Informing the parties and their

counsel. *Professional Psychology: Research and Practice, 37,* 446–451.

Greenberg, S. A., & Shuman, D. W. (1997). Irreconcilable conflict between therapeutic and forensic roles. *Professional Psychology: Research and Practice, 28,* 50–57.

Otto, R., Buffington-Vollum, J., & Edens, J. F. (2003). Child custody evaluation. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 179–208). New York: Wiley.

Sparta, S. N., & Koocher, G. P. (Eds.). (2006). *Forensic mental health assessment of children and adolescents*. New York: Oxford.

Child Maltreatment

Child maltreatment extends across class, culture, ethnicity, and nationality. In the United States alone, upward of 3 million cases of child abuse are reported annually, and more than 1,000 children die each year as a result of abuse. However, these numbers are likely underestimates of the scope of the problem because, as most experts agree, child maltreatment is underreported. The term *child maltreatment* itself is broad, encompassing neglect, emotional abuse, physical abuse, and sexual abuse. Scientific and clinical evidence indicates that child maltreatment detrimentally affects children's cognitive, social, and emotional development. Psychological models specifying the mechanisms by which child maltreatment imparts its adverse effects include attachment theory (e.g., child maltreatment distorts children's internal working models of self and others) and psychophysiological theories (e.g., chronic elevation of an abused child's biological stress response may influence the child's developing brain and, thus, the child's behavior and functioning). Research also points to the importance and influence of contextual factors that may promote resilience in maltreated children.

Over the years, the United States has enacted a complex patchwork of laws for protecting children against abuse. Child protection agencies exist to intervene when child abuse is suspected or substantiated and to prevent child maltreatment through means such as education for families at risk and awareness campaigns for the public at large. The criminal justice system also acts to protect maltreated children, most notably by prosecuting offenders. Fortunately, these prevention and intervention efforts may well have been effective, given the recent declines in the rates of child abuse reporting. This entry elaborates on the definitions of child maltreatment, provides more information about its incidence, discusses what is known about the causes and consequences of child maltreatment, and suggests ways to prevent this serious social problem.

Defining Child Maltreatment

Neglect is the most common form of confirmed child maltreatment (comprising more than 60% of all cases), followed by physical abuse (18%), sexual abuse (10%), and psychological or emotional abuse (7%). Defining child maltreatment is sometimes controversial, but generally, neglect is an act of omission—a caretaker's failure to provide basic necessities such as food, shelter, emotional support, medical attention, education, or a safe haven from harmful situations. Although neglect is the most common child maltreatment case that comes to the attention of authorities and enters the juvenile or family court system, its perpetrators are rarely prosecuted in criminal court. A condition known as nonorganic failure to thrive is often considered a type of child neglect. It refers to a condition in which an otherwise healthy baby, while under his or her parent's care, loses weight and stops growing. Psychological, social, and/or economic problems within the family typically prompt failure to thrive.

Sexual and physical abuse reflect acts of commission. Child sexual abuse occurs when children are involved in sexual activities with an adult. Adults often use coercion or deception to lure children into such activities, but it is worth noting that coercion and deception are unnecessary elements of this crime because children are not considered legally or developmentally capable of consenting to sexual activities with adults. Child sexual abuse sometimes involves physical contact such as penetration or fondling, but physical contact is not always necessary. For example, exhibitionism, forcing children to watch or make pornographic material, or encouraging sexual promiscuity is also considered sexually abusive to minors. Child sexual abuse cases are particularly likely to bring child victims into contact with court systems, both juvenile and criminal. In fact, most children who testify in criminal court do so in the context of child sexual abuse cases.

Physical abuse, which is most often perpetrated by parents and guardians, can be more difficult to define than sexual abuse. That is, while all forms of sexual contact between an adult and a child are considered socially inappropriate across most cultures, mild to

moderate physical punishment applied as a disciplinary tactic is often socially sanctioned. Nevertheless, research shows that corporal punishment can have negative outcomes and that serious physical child abuse sometimes results from escalated corporal punishment. There is agreement that deliberate acts resulting in physical harm to a child, such as when an angry or frustrated parent hits, shakes, burns, or throws a child, constitute physical abuse. In many cases, the fact that physical abuse has taken place is relatively clear because of visible injuries to the child. Medical examination can confirm, to a certain extent, whether certain bruises, broken bones, bites, and burns are caused by accident (e.g., a child falling downstairs) or are a deliberate infliction of harm. In other cases, however, intentional physical abuse is hard to detect.

Psychological or emotional maltreatment involves acts of commission or omission that hinder children's psychological development. It can include acts of terrorizing, isolating, corrupting, and denigrating, as well as ignoring children or other acts that signal to children that they are unwanted, worthless, or unloved. Psychological abuse often accompanies other forms of child maltreatment, but it can also take place independently. It is typically quite hard to discover, and children experiencing such maltreatment rarely get appropriate therapeutic help. Less legal attention is also paid to this kind of abuse. This is unfortunate, because research indicates that psychological abuse can have detrimental effects on children's development and well-being.

Incidence of Child Abuse

Children from birth to 3 years of age are most at risk of being victims of reported child abuse and neglect. Of all cases reported and investigated, approximately one third are supported by enough evidence for authorities to determine that abuse actually occurred. The remainder lack evidence sufficient to support legal action, which does not necessarily mean that abuse did not take place. In fact, trends in re-referral rates (i.e., children reported as maltreated on multiple occasions) suggest that many unsubstantiated cases probably represent real abuse. Furthermore, even the total number of reported cases is likely to be a serious underestimate of the actual occurrence of child abuse, because child victims are often reluctant to disclose their experiences. For example, research reveals that about a quarter of young adults who experience child sexual abuse and a third of those who experience physical abuse never tell anyone about their maltreatment. Among those who do tell, fewer than 10% report the abuse to authorities.

Throughout the 1980s, mandatory reporting laws increased the number of child maltreatment cases that were reported and that entered the child protection and criminal justice systems. Reporting levelled off during the 1990s and has even been declining in recent years. Research suggests that this decline, at least in part, reflects an actual decrease in the incidence of child maltreatment, suggesting that societal prevention efforts have been successful.

Potential Effects of Child Maltreatment

Many maltreated children are remarkably resilient and lead normal, healthy lives. Even so, child maltreatment often does have very serious short- and long-term physical and psychological consequences, leaving physical and psychological scars that can last well after the abuse or neglect has ended. Children who experience maltreatment can suffer immediate physical consequences, including broken bones, burns, bruises, abrasions, sexually transmitted diseases, pregnancy, malnutrition, declining health, or even death. Long-term psychological and behavioral outcomes can include internalizing behaviors (withdrawal, depression, anxiety) and externalizing behaviors (aggression, bullying, promiscuity). Child maltreatment can also increase the likelihood of development of serious psychopathology such as posttraumatic stress disorder (PTSD). Children who are maltreated may have difficulties establishing trusting relationships with their peers and adults. Moreover, experiencing maltreatment is associated with deficits, on average, in children's cognitive development, which, in addition to socioemotional deficits, also directly affects academic performance and school achievement. Children who have been maltreated are at an elevated risk of becoming delinquents, substance abusers, and victims of additional crimes.

Researchers struggle to identify the relations between particular forms of child abuse and specific outcomes, especially since different forms of maltreatment often co-occur. With careful analysis, however, some patterns have begun to emerge. For example, it is clear that sexual abuse is a risk factor for later substance abuse, depression, and attentional

problems. Additionally, women who are victims of child sexual abuse are more likely than women who have not been sexually abused to engage in prostitution. Physical abuse is associated with substance abuse and aggressive behaviors. Neglect victims tend to perform poorly on cognitive tests and may be socially withdrawn. Neglect is often associated with extreme poverty, which itself has detrimental consequences for children's cognitive, social, and emotional development, as well as for their academic achievement.

Many factors moderate the impact of maltreatment on children's short- and long-term outcomes, including the child's gender, the child's age at abuse onset and offset, the frequency and severity of abuse, the child's coping ability, the abuser-victim relationship, and many broader family and community factors. For instance, there is some evidence that maltreated boys have poorer outcomes than maltreated girls. Social scientists have proposed a variety of explanations for this, such as male genetic vulnerability or the fact that behavioral difficulties are more easily measured in boys, who tend to exhibit externalizing rather than internalizing problem behaviors. A younger age at abuse onset is also thought to be related to especially adverse outcomes, although a firm pattern has not been established. Children who are younger when abuse occurs may not recall as much detail about their abuse, but it may be implicitly retained and expressed in their personality development. Moreover, child outcomes may be influenced by the cumulative effects of maltreatment. A child who suffers less severe or chronic abuse may be less likely to have poor psychological or behavioral outcomes than a child who experiences more extensive, frequent, and varied types of abuse.

How does maltreatment cause these varied effects? Scientists currently propose several different mechanisms. For example, because children's brains develop more rapidly during the first year of life than at any other point, some researchers theorize that the developing brain is particularly susceptible to traumatization, which may explain the negative impact of very early abuse.

Another explanation involves the influence of abuse on children's personality development. Young children are forming key attachments with others, and if this process is challenged, children's perceptions or expectations of others can be permanently affected. That is, according to attachment theory, infants form secure or insecure attachments with their caregivers based on the caregivers' sensitivity and responsiveness. Children's early experiences with caregivers shape children's developing mental models of how they can expect to be treated by others in the future. Thus, these first key relationships influence children's later relationships with peers and romantic partners, and even their approach to work, religion, and other major facets of life. Children who grow up in an abusive or neglectful environment, which is typically characterized by an absence of or inconsistency in sensitivity and responsiveness, are quite likely to develop insecure attachment styles, such as avoidant or disorganized attachment. Research shows that children who are insecurely attached are more likely to develop poor emotion regulation abilities and deficient interpersonal skills than do children who are securely attached to their caregivers. Children with disorganized attachments are at particular risk of mental health problems.

Another common explanation for the psychological difficulties that result from maltreatment focuses on the adverse influence of PTSD on children's psychological, social, and cognitive development. Many children who experience abuse suffer from PTSD, an acute syndrome characterized by intrusive thoughts, flashbacks, and hypervigilance. PTSD occurs in some individuals who experience an extremely traumatic event or situation, typically one that threatens the individual's health and safety. Psychological research has demonstrated that PTSD is associated with deficits in certain areas of memory performance, language ability, and attentional capacity (although such deficits are not necessarily global). Of note, people who suffer from PTSD have selective attention or memory bias for information that is trauma related, which can result in particularly accurate memories of trauma experiences. PTSD does not appear to affect IQ, although IQ and other cognitive factors are thought to be related to PTSD. Some researchers currently contend that suffering from PTSD may cause neuroanatomical changes in regions of the brain associated with memory and learning (e.g., the hippocampus), in areas associated with cognitive control (e.g., the prefrontal cortex), or in the entire cerebral cortex. Yet the effects of maltreatment and PTSD on the human brain are not easy to determine, and it is unclear whether PTSD causes changes in the brain structure or whether preexisting structural anomalies or preexisting behavioral or cognitive capabilities cause PTSD.

Finally, and of particular importance, research has identified a number of factors that promote resilience

(or better than expected psychological or behavioral outcomes) in maltreated children, including having histories characterized by secure attachments and quality relationships with supportive adults or peers, an active or approach-oriented coping style, good social problem-solving skills, and greater sociability. Children who have at least one adult who cares for them in a positive way and children who receive effective therapeutic treatment are particularly likely to have the best outcomes. Understanding such factors can lead to better therapeutic interventions aimed at alleviating the effects of child maltreatment.

Causes of Child Maltreatment

The causes of child maltreatment are varied; there is likely no single cause. For instance, social learning theory suggests that child maltreatment is a learned behavior. Thus, parents who were maltreated as children may have learned, through their own childhood experiences, coercive forms of discipline or neglectful patterns rather than learning appropriate, nonabusive parenting practices. In this way, child maltreatment can be transmitted intergenerationally. In fact, a higher percentage of children who experienced maltreatment themselves, as compared with children who did not experience maltreatment, go on to abuse their own children later in life. Note that this does not mean, contrary to popular belief, that most children who have been abused go on to abuse their own children. The majority of adults who were abused as children are not abusive. Thus, there are many other potential contributors to child abuse and neglect, including an abundance of life stressors (e.g., poverty, lack of community resources, social isolation), individual personality or psychopathological traits, child-specific factors (e.g., a child's temperament or disability), cultural or community acceptance of maltreatment, and even religious beliefs about eschewing modern medical care and applying strict corporal discipline.

Prevention and Intervention

How should society act to prevent and deter child maltreatment? Characteristics of the child, the abuser, and the family, as well as the broader social context in which the abuse takes place, all play a role in causing child maltreatment. Thus, prevention efforts must take each of these factors into consideration. A host of interventions and changes are needed at the individual and societal levels to prevent child maltreatment. One obvious and effective societal-level strategy is to establish laws that make child abuse illegal. In some countries, even spanking a child is prohibited. With the current U.S. laws, if child maltreatment is discovered and reported, it may lead to the child or family's involvement with the criminal justice system and/or the child protective services system. Criminal court actions, which sometimes require the testimony of child victims, can stop existing abuse and prevent new maltreatment by sending perpetrators to jail and by deterring other potential perpetrators with the threat of similar prosecution. Child protective services actions against familial perpetrators can prevent further maltreatment through a range of actions, from requiring that parents attend parenting classes to temporary or even permanent removal of the child from its home, with parents sometimes losing parental rights and the child being put into the foster care system. If a child is young and not disabled, the likelihood is increased that he or she might be adopted into a new home. Unfortunately, however, many foster care children become immersed in juvenile court (e.g., dependency) actions and find themselves being bounced from foster home to foster home, which are sometimes themselves settings for additional abuse. Children's involvement in the legal and child welfare systems (e.g., multiple foster care placements, repeated testimony in criminal court) can have negative effects on their emotional well-being.

Other laws aimed at prevention of child sexual abuse include sex offender registration and community notification laws, which require perpetrators of sexual abuse, after they have finished serving their prison sentence, to register publicly as a sex offender everywhere they subsequently live. These laws are controversial because of civil rights issues, and there is no solid evidence that they really reduce child maltreatment. Other societal-level reform strategies involve efforts to educate the public and change attitudes, behaviors, and even public policy, often through media campaigns. For example, educational media campaigns such as those aimed at teaching parents not to shake babies have also achieved some success in the effort to decrease child physical abuse.

Whatever the means, the importance of preventing child maltreatment is underscored by the wide-ranging costs of child maltreatment, which ripple across a broad spectrum of social structures, including the medical and health systems, the legal and correctional systems, public health services, child welfare services, and educational institutions.

Given all these potential negative outcomes, some suggest that child maltreatment is one of the greatest social evils of our time, one that must be fought with a great deal of financial and human resources. Even so, as mentioned earlier, there is hope: Child maltreatment rates have begun to decline, at least in the United States. And many victims, although not unaffected by their experiences, nevertheless grow up to lead productive lives as good parents and citizens.

Bette L. Bottoms, LaTonya Harris, Else-Marie Augusti, Gail S. Goodman, Barbara A. Oudekerk, and Tisha R. A. Wiley

See also Child Abuse Potential (CAP) Inventory; Children's Testimony; Children's Testimony, Evaluation by Juries; Child Sexual Abuse; Conduct Disorder; Conflict Tactics Scale (CTS); Criminal Behavior, Theories of; Eyewitness Memory; False Memories; Intimate Partner Violence; Juvenile Offenders, Risk Factors; Mental Health Needs of Juvenile Offenders; Mood Disorders; Parens Patriae Doctrine; Parent-Child Relationship Inventory (PCRI); Parenting Stress Index (PSI); Pedophilia; Reporting Crimes and Victimization; Victimization

Further Readings

Appleyard, K., Egeland, B., Van Dulmen, M., & Sroufe, A. (2005). When more is not better: The cumulative role of risk in child behavior outcomes. *Journal of Child Psychology and Psychiatry, 3,* 235–245.

Bottoms, B. L., & Quas, J. A. (Eds.). (2006). Emerging directions in child maltreatment research. *Journal of Social Issues, 62,* 653–863.

Cicchetti, D., & Toth, S. L. (2006). A developmental psychopathology perspective on preventive interventions with high risk children and families. In A. Renninger & I. Sigel (Eds.), *Handbook of child psychology* (6th ed.). New York: Wiley.

Goodman, G. S., Emery, R., & Haugaard, J. (1997). Developmental psychology and law: Divorce, child maltreatment, foster care, and adoption. In I. Sigel & A. Renninger (Eds.), *Handbook of child psychology: Vol. 4. Child psychology in practice* (5th ed., pp. 775–876). New York: Wiley.

Myers, J. E., Berliner, L., Briere, J., Hendrix, C. T., Jenny, C., & Reid, T. (Eds.). (2002). *The APSAC handbook on child maltreatment.* Thousand Oaks, CA: Sage.

Schwartz-Kenny, B. M., McCauley, M., & Epstein, M. A. (Eds.). (2001). *Child abuse: A global view.* Westport, CT: Greenwood Press.

Sroufe, L. A., Carlson, E. A., Levy, A. K., & Egeland, B. (2003). Implications of attachment theory for developmental psychopathology. In M. Hertzig & E. A. Farber (Eds.), *Annual progress in child psychiatry and child development: 2000–2001* (pp. 43–61). New York: Brunner-Routledge.

Children's Testimony

Children may experience or witness crime and may need to provide reports to authorities. Children's eyewitness accounts can contain critical information about serious acts such as murder, domestic violence, kidnapping, and assault. Child sexual abuse is particularly likely to bring children into contact with the criminal justice system because the case may boil down to the child's word against that of the accused. Although even young children can provide accurate accounts of their experiences, including highly traumatic incidents, such children on average are both less complete in their memory reports and more suggestible than older children and adults.

Like adults' accounts, children's accounts are influenced by numerous factors, including cognitive, social, and individual ones. Developmentally appropriate interview protocols may contribute to obtaining complete and accurate accounts while reducing inaccuracies in a child's testimony. As part of a forensic interview, children may have to identify culprits from photo lineups. Children 5 years and older can perform quite well if the culprit is pictured in the lineup; however, in "target-absent" lineups, even older children have a strong tendency to guess. Children's emotional and attitudinal reactions to providing eyewitness testimony in criminal cases can be long lasting. For example, testifying multiple times, especially in severe intrafamilial child sexual abuse cases, is associated with adverse emotional and attitudinal reactions into adulthood. Children in such cases may need additional legal protections.

Memory and Suggestibility in the Child Witness

During the past several decades, there has been an exponential increase in the number of children who provide statements in legal cases, thus magnifying the need to determine the credibility of their testimony.

In general, older children are more accurate in eyewitness reports than are younger children, although even preschool-age children can provide accurate accounts of salient or personally meaningful events, including their own victimization. When asked free recall and open-ended questions, preschoolers can recall relevant and accurate information, but on average they are less responsive and provide fewer spontaneous statements than older children and adults. Because young children's free reports are generally relatively brief and incomplete, they are often exposed to specific and leading questions in forensic situations, which are indeed more likely to elicit the child's memory of an event. On the negative side, however, children are less accurate than adults in response to specific questions and more vulnerable to interviewers' implied suggestions. Particularly, closed questions, such as yes/no and forced-choice questions, can be problematic for young children, because they may guess instead of providing "I don't know" responses. Children also often have considerable difficulty in using standardized units of measurement, such as minutes and months, and in indicating the number of times highly repeated acts have occurred, even though such information can be vital in a legal case.

Usually, children's testimony is required for crimes or experiences that are negative, if not traumatic. Although this is a subject of debate, considerable research with adults suggests that for stressful compared with nonstressful events, central features (e.g., the main stressors) are retained particularly well, whereas peripheral details are less well remembered. Several studies confirm such findings for children; however, the results of developmental studies are mixed.

Child sexual abuse often involves trauma to child victims, leading to feelings of self-blame and helplessness. These characteristics have contributed to make child sexual abuse situations of special interest in debates about trauma and memory. Research suggests that memory of traumatic events, in many ways, follows the same cognitive principles as memory of distinctive nontraumatic events. However, there is debate as to whether "special memory mechanisms" (e.g., repression) are also involved.

Some of the main theoretical accounts of trauma and memory suggest that traumatized individuals remember trauma-related information particularly well. Empirical evidence confirms that traumatized individuals, especially those who have developed posttraumatic stress disorder, overfocus on trauma cues, have difficulty ignoring trauma stimuli, and remember their trauma experiences. In contrast, other theories indicate that trauma victims, such as incest survivors, may experience amnesia for the trauma and that children who have suffered a larger number of traumatic events tend to forget or remember more poorly those experiences compared with children who have been exposed to a single traumatic event.

Children's memory and testimony about negative emotional experiences also depend on individuals' coping strategies. Avoidant coping strategies lead children to evade thoughts, conversations, or reminders about the traumatic experiences. Parents' attempts to minimize or ignore their own or their children's distress facilitate avoidant coping. These postevent avoidance processes may prevent the creation of a complete, detailed, and verbally accessible account of the traumatic experience and the integration of these memories with the individual's other autobiographical memories. In contrast, positive parent-child interactions provide an opportunity for rehearsal and reactivation of event details, which may help maintain and strengthen memory traces, thus reducing the effects of decay while enhancing long-term retention. For example, children who received maternal support after disclosure of child sexual abuse and who discussed the event with their mothers provided more accurate reports, with fewer omission errors, of their maltreatment experiences years after the abuse reportedly ended compared with those who did not.

Children's suggestibility in the forensic context has been a flash point in the debate over children's testimonial competence. Suggestibility concerns the degree to which the encoding, storage, retrieval, and reporting of events can be influenced by a range of internal (e.g., developmental, cognitive, and personality) and external (e.g., social and contextual) factors. False information given before, during, and after an event can lead to difficulty in retrieving the original (true) information, alteration of true memory representations, and/or conscious acquiescence to social demands. Young children, specifically preschoolers, are disproportionately susceptible to the effects of leading questions and suggestions. However, of importance in the legal context, children are often less suggestible about negative than positive or neutral events.

Both cognitive and social factors can underlie developmental differences in eyewitness memory and suggestibility. Due to a less complete knowledge base and more limited capabilities of using memory

strategies, young children have greater difficulty recalling events on their own. Also, compared with adults' memories, children's memories of the original event may be weaker and thus more vulnerable to being altered or overwritten by the suggestions of others. "False memory" may occur when the erroneous suggestion is particularly strong, such as in multiple suggestive contexts where not only misleading questions but also an accusatory context is involved. In addition, preschoolers are less able to distinguish between different sources of memories and thus misattribute an interviewer's suggestions to actual experiences. Moreover, without understanding the ramifications of their statements, children may adopt suggestions to gain the adult investigator's approval and avoid negative reactions, perceiving pressure to conform to the suggestions of the authority figure.

Although there is consensus that misleading questions and highly suggestive contexts are to be avoided when interviewing children, such questioning does not necessarily lead to false reports. For example, if the child's memory is strong, blatantly misleading questioning in a highly misleading context can actually bolster resistance to misinformation, at least compared with the effects of such questioning after a long delay, when the child's memory traces have weakened. However, with such questioning, the risks of memory contamination are potentially great, and the child's credibility may be destroyed in the process.

Individual Difference Factors

Although chronological age is almost always the strongest predictor of suggestibility, with preschool children being the most suggestible, even adults are suggestible. Moreover, there is much variability within age groups depending on the characteristics of the individual. However, findings concerning individual differences tend to be somewhat inconsistent, and the predictive power of individual difference factors tends not to be strong. That said, global, comprehensive measures of language ability are sometimes associated with preschool-age children's suggestibility. Children with mental retardation are more suggestible than typically developing children with normal intelligence, although intelligence is not significantly related to suggestibility within the normal population. Young children with poor self-concepts or poor supportive relationships with their parents are at risk of being more suggestible. Children raised by secure and supportive parents may develop positive self-concepts, which in turn may make them resistant to suggestions that are inconsistent with their own experiences. Cultural factors may also play a role; in cultures where children are trained to be especially polite or obedient to adult authority, they may have more difficulty disagreeing with adult interviewers who falsely suggest information.

Interview Techniques and Protocols

How likely children are to disclose crimes such as child sexual abuse when simply asked free-recall and open-ended questions is the subject of debate. Researchers have developed child interview techniques and standardized child interview protocols intended to increase the likelihood of disclosure as well as the amount and accuracy of the information obtained, while reducing inaccuracies. These protocols (e.g., cognitive interview, narrative elaboration) derive from the application of mnemonic, communication, and social facilitative techniques to forensic practice and can in principle be used to interview child witnesses about a wide variety of events; however, some protocols are specifically designed for interviewing alleged child victims of child sexual abuse (e.g., the National Institute of Child Health and Human Development [NICHD] structured interview protocol). Overall, interview protocols and interview guidelines (e.g., the guidelines developed by the American Professional Society on the Abuse of Children) recommend that forensic interviewers rely as much as possible on free-recall/open-ended prompts. However, the use of some specific questioning is typically also allowed. We review a subset of the protocols/techniques next.

The cognitive interview (CI) relies on well-established principles of encoding specificity (i.e., how the items to be retrieved were encoded and stored determines the effectiveness of a particular retrieval cue) and varied retrieval. According to these principles, the original CI (developed for adults) included four mnemonic techniques: (1) "mental reinstatement" of the external and internal contexts of the experienced event; (2) the "report everything" instruction; (3) the "reverse-order-recall" instruction, which refers to recalling the event in an alternative temporal order; and (4) the "change perspective" instruction, which refers to recalling the event from an alternative perspective. Also, to avoid the common problems observed during the administration of the CI by professionals, the revised CI includes several

social techniques intended to facilitate communication (e.g., rapport building, no interruptions). Compared with control interviews, the developmentally adapted CI for children ranging in age from 4 to 12 years, tends to elicit more correct information, although the reverse-order-recall and change perspective instructions may increase the reporting of incorrect details by young children. Moreover, the mental reinstatement and report everything mnemonics appear to be useful in reducing the negative effects of misinformation even in preschool-age children (i.e., 4–5 years).

Rather than supplying specific cues derived from the event itself, narrative elaboration (NE) provides child witnesses with pre-interview training, instructions, and techniques that could be applied to any event of interest. NE's main objective is to help overcome potential developmental limitations in communication and memory, such as lack of knowledge about the expectations of the listener and ineffective use of memory search strategies, by training children about the level of detail required and by providing picture cards as external cues to report forensically important categories of information. Overall, NE is helpful in enhancing children's eyewitness recall without increasing the amount of inaccuracies provided by 3- to 11-year-old children.

Similarly, after an initial rapport-building phase, the NICHD interview protocol incorporates training of children to respond to open-ended prompts during the presubstantive phase of the investigative interview. Next, the interviewer attempts to shift the child's focus to the substantive issue in a nonsuggestive manner (e.g., "Tell me why you came to talk to me today"), so that the recollection process can begin. During this substantive phase, interviewers maximize the use of open-ended questions and probes, introducing focused questions only after exhausting the open-ended-question modes. At the end of the session, interviewers may use option-posing questions to obtain essential information. This protocol is flexibly structured and aimed to translate research-based recommendations into operational guidelines to enhance children's retrieval using recall-memory prompts. It has been extensively investigated with real alleged child victims of sexual offenses, and it appears to be useful with children 4 years and older.

Basic and applied research underlies the development of interview techniques and protocols. However, further research on the accuracy of children's eyewitness memory—for example, concerning highly emotional and embarrassing information—is necessary to elucidate how extensive these benefits are. And, of special relevance, improved strategies and tools that can be effectively used with young children (e.g., 3-year-olds) to obtain evidence about specific details of an event without compromising the accuracy of their reports are still needed.

Props and Cues

Children typically have more information in memory than they report in response to free-recall or open-ended questions. Props such as real objects, scale models, dolls, toys, photographs, and drawings can provide concrete external retrieval cues for young children. They also can potentially extend memory retrieval by engaging children in the forensic interview for a longer period than do mere verbal prompts. According to the principle of encoding specificity, the effectiveness of a particular retrieval prop or cue depends on its match with the items to be retrieved with regard to how they were encoded and stored. Especially for younger children, an optimal match should include the original sensory/perceptual features as well as a clear symbolic correspondence.

Overall, props can facilitate children's reports but also increase the number of errors children make (e.g., if they are too young to understand dual representations). The extent to which props facilitate or compromise children's testimony depends on factors such as the nature of the event and of the prop, the mode of presentation, and the time that has elapsed between the event and the interview. And the age of the child may be critical in determining the influence of these factors.

Real props have maximal overlap with event information and can effectively aid retrieval for 3- to 10-year-olds. Real props and scale models increase the correct information that children report, but they also introduce additional errors, especially for younger children. In contrast to real props, toys and dolls, including anatomically detailed dolls, can increase commission errors and decrease accuracy, especially when preschool-age children are interviewed with misleading questions or when "distractor" or play-evoking props are involved. Under certain circumstances (i.e., in combination with specific but nonleading prompts), drawings can facilitate the completeness and accuracy of 5-years-olds' and older children's accounts, although there are mixed findings in relation to the effectiveness of drawings with preschool children. Finally, human figure drawings can produce a considerable amount of new details during the interview, especially for children aged from 4 to 7 years,

but at the same time, these drawings may also increase inaccuracies in children's testimony.

In summary, research has shown that props and drawings can, under certain circumstances, facilitate memory accuracy in children older than 5 years, whereas they may add error to the reports of younger children. Although there is currently no "gold standard" method of interviewing children, different combinations of free-recall, specific, and prop-assisted questions are being researched to determine which of them facilitates the most accurate and complete memory reports from children.

Photo Lineups

When interviewed in forensic situations, children may be presented with photographic lineups to identify culprits. A lineup may include a criminal (target-present lineup) or only innocent individuals (target-absent lineup). When they are shown a target-present lineup, preschool-age children are less likely than adults to make correct identifications, although children around age 5 and above are typically comparable with adults in making correct identifications. Shown a target-absent lineup, however, even early adolescents are inferior to adults, making fewer correct rejections and more false identifications. As with leading questions, the photo lineup may entice children to guess.

Witnesses are usually shown a simultaneous lineup, in which all lineup members are presented at once and only one decision is made. This method has been criticized for encouraging a relative judgment, whereby witnesses compare all lineup members and choose the member who looks most like the criminal relative to other members. Although this strategy is successful in target-present lineups, it may lead to errors in target-absent lineups. Fortunately, fairly simple training techniques can reduce guessing on target-absent lineups in older children.

An alternative procedure is the sequential lineup, in which witnesses are shown photographs one at a time and make a decision for each photograph. Compared with simultaneous lineups, sequential lineups reduce adults' false identifications by increasing correct rejections of target-absent lineups while having a minimal effect on correct identifications from target-present lineups. When they are shown a sequential lineup, witnesses might make an absolute judgment for each photograph by comparing the photograph with their recollection of the criminal. However, target-absent errors by children are not reduced in sequential compared with simultaneous procedures.

Children in the Courtroom

As a result of involvement with legal authorities, children may experience social and emotional distress. Although repeated interviewing of children can keep accurate memories alive, child victims report that being interviewed multiple times by legal authorities is stressful for them. Speaking about traumatic experiences (particularly in open court), lack of parental support, harsh cross-examination, facing the defendant, and not being believed add to children's distress and may reduce significantly the amount of information provided by child witnesses. Moreover, in child sexual abuse cases, a child's initial disclosure of the abuse to a parent, teacher, or other trusted adult may include a more detailed account than the testimony that the child gives in court months or even years later. Although testifying may be helpful for some children, it causes others to recover from the criminal and legal experience more slowly than their nontestifying counterparts. Child sexual abuse victims who had to testify multiple times in severe intrafamilial cases tend to have the most negative long-term emotional effects and are thus most in need of protection during criminal prosecutions. To remedy these negative consequences, procedural modifications (e.g., testifying via closed-circuit television) and multidisciplinary investigations, conducted at child advocacy centers and involving teams of legal professionals (e.g., the police, prosecuting attorneys, and child protective services workers), who coordinate their efforts into a single interview of the child victim/witness, are being developed and tested in the United States and abroad.

Having an adult (e.g., a mother, social worker, or police officer) recount children's out-of-court statements (e.g., hearsay) at trial has recently attracted research and legal interest. In criminal trials regarding child sexual abuse, hearsay is often introduced in addition to the child's live testimony. Although hearsay is normally discouraged in the American legal system, there are special hearsay exceptions, some of which apply specifically to children's statements. However, a recent U.S. Supreme Court ruling suggests that if the out-of-court statement was made to an authority (e.g., a forensic interviewer) and is thus "testimonial," the authority cannot testify in place of the child.

Mock jurors find children's statements more credible when the child testifies live in court than if the child is replaced by a hearsay witness. Mock jurors also find children less credible if they testify via closed-circuit television instead of face-to-face at

trial. Both hearsay and closed-circuit television are potential ways to protect children from the stress of testifying live in court and are used in many European countries.

Pedro M. Paz-Alonso, Yoojin Chae, and Gail S. Goodman

See also Child Maltreatment; Children's Testimony, Evaluation by Juries; Child Sexual Abuse; Cognitive Interview; Expert Psychological Testimony; Eyewitness Memory; False Memories; Hearsay Testimony; Lineup Size and Bias; Postevent Information and Eyewitness Memory; Reporting Crimes and Victimization; Repressed and Recovered Memories; Simultaneous and Sequential Lineup Presentation; Witness Preparation

Further Readings

Bruck, M., & Melnyk, L. (2004). Individual differences in children's suggestibility: A review and synthesis. *Applied Cognitive Psychology*, *18*, 947–996.

Castelli, P., Goodman, G. S., Edelstein, R. S., Mitchell, E. B., Paz-Alonso, P. M., Lyons, K. E., et al. (2006). Evaluating eyewitness testimony in adults and children. In I. B. Weiner & A. K. Hess (Eds.), *The handbook of forensic psychology* (3rd ed., pp. 243–302). Hoboken, NJ: Wiley.

Ceci, S. J., & Bruck, M. (1995). *Jeopardy in the courtroom: A scientific analysis of children's testimony*. Washington, DC: American Psychological Association.

Eisen, M. L., Quas, J. A., & Goodman, G. S. (2002). *Memory and suggestibility in the forensic interview*. Mahwah, NJ: Lawrence Erlbaum.

Pipe, M.-E., Lamb, M., Orbach, Y., & Cederborg, A.-C. (2006). *Child sexual abuse: Disclosure, delay, and denial*. Mahwah, NJ: Lawrence Erlbaum.

Poole, D. A., & Lamb, M. E. (1998). *Investigative interviews of children: A guide for helping professionals*. Washington, DC: American Psychological Association.

Pozzulo, J. D., & Lindsay, R. C. L. (1998). Identification accuracy of children versus adults: A meta-analysis. *Law and Human Behavior*, *22*, 549–570.

Children's Testimony, Evaluation by Juries

When children are involved in trials as witnesses, victims, or defendants, jurors must decide whether they are credible and how to weigh their testimony in reaching a verdict. Thus, although much psychological research focuses on the *actual* accuracy of children's eyewitness testimony, it is also important to consider their *perceived* accuracy. Research reveals that jurors consider many factors when making decisions about children's testimony. In this entry, we review what is known about jurors' perceptions of testimony given by children and adolescents who are bystander witnesses, alleged child abuse victims/witnesses, and juvenile defendants.

Can jurors determine whether child witnesses are accurate or inaccurate, telling the truth or lying? Some research reveals that adults are not very adept at discerning children's actual accuracies from inaccuracies or at detecting lies from the truth, although adults can detect children's (especially older children's) lies with slightly greater than chance accuracy. Consistent with findings from the adult eyewitness literature, part of the problem is that jurors appear to overuse the dubious marker of child confidence in judging child accuracy, which is misleading because the relation between child confidence and child accuracy is not always strong. More research is needed to ensure that these results hold true in situations where children give incorrect or false testimony about events of great personal significance, which has not been the case with most research on this topic. Even so, existing research is converging on the conclusion that adults cannot detect children's actual level of accuracy well. A growing body of research has thus focused on identifying the factors other than actual accuracy that affect jurors' perceptions of children's eyewitness testimony.

Perceptions of Bystander Witnesses

Gail Goodman and her colleagues conducted the first studies of jurors' perceptions of child witnesses. They evaluated jurors' reactions to bystander testimony given in the context of vehicular homicide and murder cases. Although all jurors read the same testimony, some were told that the key prosecution witness was an adult, while others were told that the witness was a child. Individual jurors perceived child witnesses to be less credible than adult witnesses, an effect that was not tempered by jury deliberation. This research provided the first evidence that jurors—and juries—are skeptical of children's ability to provide accurate testimony, presumably because jurors doubt young children's cognitive abilities to encode and retrieve details of events accurately. Even so, witness age did

not directly affect jurors' ratings of the defendant's guilt. Instead, jurors based their verdicts primarily on witness testimony only when the witness was an adult. When the witness was a child, jurors gave greater consideration to other case evidence. Thus, although jurors often report that they consider corroborating evidence when making decisions, this is especially true when the primary source of evidence is child testimony. In fact, later research showed that jurors perceive individual child witnesses more positively when their testimony is corroborated by other credible child witnesses.

Perceptions of Alleged Victims of Child Maltreatment

After the first studies of jurors' perceptions of child bystander witnesses, research quickly turned to jurors' perceptions of child victim witnesses—specifically alleged child sexual abuse victims. This shift reflected the increased societal attention in the 1980s to child sexual abuse, as well as the fact that child sexual abuse is usually perpetrated in secret, with little corroborating evidence, making child victim testimony key to its prosecution. This research has revealed that jurors' decisions are influenced by many factors. For example, jurors generally find child sexual abuse victims who are younger than about 13 years more believable than older children. Why? Jurors' belief that younger children are less cognitively competent than older children (which hurts the perceived credibility of child bystander witnesses) actually works to the advantage of child sexual abuse victims. That is, compared with older children, younger children are perceived as sexually naive and therefore less cognitively capable of fabricating allegations of sexual abuse that did not actually occur. Younger children are also seen as more honest and therefore less likely to lie about such matters. In fact, for the same reasons, jurors perceive intellectually disabled (i.e., mentally retarded) teenaged sexual abuse victims to be more credible than children of average intelligence. In fact, intellectually disabled children are sexually victimized more often than nondisabled children, but prosecutors might hesitate to prosecute such cases, fearing that jurors will not believe disabled witnesses.

A number of other factors also influence jurors' perceptions of child sexual abuse victims, including victim and defendant factors such as gender and race, case factors such as whether the child's disclosure of abuse was portrayed as delayed or repressed, and juror individual difference factors such as gender and attitudes. For example, one of the most robust findings in this field is that compared with men jurors, women are on average more likely to convict defendants and to perceive children as credible witnesses. This may be driven by the fact that compared with men, women empathize more with child victims and have somewhat more prochild and anti-child-abuse attitudes.

Recently, attention has begun to turn to adults' reactions to children who are alleged victims of other forms of child maltreatment. For example, studies in which adults consider brief vignettes of maltreatment situations indicate that neglect is perceived to be more severe when a victim is younger rather than older, perhaps reflecting people's awareness that compared with older children, younger children are less able to care for themselves and may experience more adverse consequences from neglect. In contrast, people perceive psychological abuse to be more severe when the victim is older rather than younger, perhaps reflecting the belief that older children are more likely to experience damage to their self-concept. Perceptions of physical abuse severity are not influenced by age, suggesting that people disapprove of physically abusing children of any age. Although the possibility has not yet been tested within a mock trial paradigm, jurors may be similarly influenced by these variables in trials involving these forms of child maltreatment.

Psychologists are sometimes allowed to testify as expert witnesses in trials about issues of psychological relevance that jurors do not intuitively understand. Scholars disagree about the conditions under which expert psychological testimony about children's actual eyewitness abilities should be allowed. Surveys reveal that some portion of the jury pool is knowledgeable about children's actual memory, suggestibility, and tendency to disclose sexual abuse, but other jurors are not. Most jurors have a poor understanding of the clinical symptoms exhibited by abused and nonabused children, forensic interview techniques that increase the risk of false allegations versus those that promote true disclosures of abuse, and whether children are prone to confabulate and internalize false memories of abuse. (Women and more highly educated jurors are more knowledgeable about such issues than other jurors.) Some argue that expert testimony would be a valuable tool for countering jurors' ignorance, while others fear that expert testimony will increase unfounded skepticism about children's abilities.

Research by Margaret Kovera and her colleagues has shown that expert testimony is useful in educating jurors about at least one particular issue: the hazards of basing credibility judgments on child witnesses' nonverbal cues and countenance. That is, jurors expect abused children to be emotionally upset when testifying about their sexual victimization, and when this expectation is not met, jurors doubt the veracity of abuse allegations. Expert testimony can inform jurors that most child victims have repeated their stories so many times before appearing in court that some no longer appear emotionally distraught. Such testimony can reduce jurors' otherwise negative bias against child sexual abuse victim witnesses, which results from incorrect assumptions about the relation between emotion and accuracy.

Regardless of how they appear, testifying in court can be a traumatic experience for some child witnesses. To protect children from this potential trauma, the U.S. Supreme Court declared it constitutionally permissible under some conditions for children to testify using innovative techniques that shield them from the defendant. For example, rather than testifying in an open courtroom in front of the defendant, child victim witnesses may testify elsewhere in the courthouse while their testimony is transmitted to the courtroom via closed-circuit television (CCTV). Or child witnesses can give their testimony in court with their view of the defendant blocked by a screen. How do such accommodations affect jurors' perceptions of child testimony? Although defense attorneys fear that jurors will infer a defendant's guilt from the use of accommodations and give undue weight to testimony presented under such circumstances, ironically, mock trial research suggests that jurors perceive child witnesses to be less credible when testimony is presented via CCTV than when children testify live in court. This may result from accommodated children appearing less stressed than children who testify in full view of the court, which may signal the need for psychological expert testimony for the reasons discussed previously.

Perceptions of Child Defendants

Recent research has begun to consider jurors' perceptions of children who are accused of committing crimes. This has become increasingly important because more and more teenagers are being tried in adult criminal court instead of juvenile or family court, and their cases are being decided by jurors rather than by juvenile court judges. Unfortunately, research suggests that trying a juvenile in adult criminal court is inherently prejudicial. For example, jurors infer that juveniles tried in adult criminal court have been convicted of past crimes, and this inference increases the likelihood of conviction. In reality, most felony juvenile offenders (i.e., juveniles whose cases are most likely to go to trial in adult criminal court) have never been arrested before. Jurors' judgments are also influenced by the severity of the crime (jurors perceive juveniles as more competent and render more severe sentences when the crime and its outcome are more severe) and by inferences regarding a juvenile's intent to commit a crime, understanding of wrongfulness, and recidivism potential. Many psychologists are concerned that jurors might not understand juveniles' actual capabilities in these regards and that jurors are insensitive to the fact that juveniles are less cognitively competent and mature than adults. Research on this issue is mixed. Although some jurors appear to set lower standards of proof for juveniles tried in adult criminal court than for adults, jurors are less likely to convict younger juveniles than older juveniles, perhaps because they believe that younger juveniles are less competent to stand trial. Under some conditions, however, jurors perceive younger and older juveniles to be equally competent. Meanwhile, other research has identified juror and case characteristics that influence jurors' perceptions of child and adolescent offenders. For example, as in child sexual abuse cases, women jurors appear to have more positive perceptions of juvenile offenders than men do. Also, situational trial factors can influence trial outcomes: Attorneys' pleas for jurors to empathize with a juvenile offender lead jurors to be more sensitive to mitigating factors, perceive the juvenile to be less responsible for the crime, and render more lenient judgments relative to jurors who are not asked to empathize.

Future Research

Future research will provide an even better understanding of the factors that influence jurors' perceptions of children in the courtroom and, importantly, the processes by which those perceptions influence jurors' verdicts. Psychologists hope that this knowledge can be used to inform a legal policy that ensures justice for all parties involved in trials.

Cynthia J. Najdowski and Bette L. Bottoms

See also Child Maltreatment; Children's Testimony; Child Sexual Abuse; Hearsay Testimony; Juries and Eyewitnesses; Juvenile Offenders

Further Readings

Bottoms, B. L., Golding, J. M., Stevenson, M. C., Wiley, T. R. A., & Yozwiak, J. A. (2007). A review of factors affecting jurors' decisions in child sexual abuse cases. In M. P. Toglia, S. J. Read, D. F. Ross, & R. C. L. Lindsay (Eds.), *The handbook of eyewitness psychology: Vol. 1. Memory for events* (pp. 509–543). Mahwah, NJ: Lawrence Erlbaum.

Ghetti, S., & Redlich, A. D. (2001). Reactions to youth crime: Perceptions of accountability and competency. *Behavioral Sciences and the Law, 19,* 33–52.

Goodman, G. S., Golding, J. M., Helgeson, V. S., Haith, M. M., & Michelli, J. (1987). When a child takes the stand: Jurors' perceptions of children's eyewitness testimony. *Law and Human Behavior, 11,* 27–40.

Kovera, M. B., Gresham, A. W., Borgida, E., Gray, E., & Regan, P. C. (1997). Does expert testimony inform or influence juror decision-making? A social cognitive analysis. *Journal of Applied Psychology, 82,* 178–191.

Child Sexual Abuse

Although definitions can vary across legal, clinical, and research contexts, sexual abuse is commonly defined as sexual acts between a youth and an older person (e.g., by 5 years or more) in which the dominance of the older person is used to exploit or coerce the youth. Behaviors may include noncontact (e.g., exposure) and contact (e.g., intercourse) offenses.

The prevalence of sexual abuse is difficult to determine, but estimates suggest that as many as 20% of women and 5% to 10% of men report having been sexually abused as a child. The number of substantiated cases has dropped significantly in recent years, possibly due to a combination of factors, including changes in definitions and reporting and an actual decline in incidence. Sexual abuse occurs across all income levels and racial, cultural, and ethnic groups. Victims are identified via child self-disclosure, medical or physical evidence (e.g., trauma, sexually transmitted disease), behavioral and emotional changes that prompt inquiry, and investigations stemming from assault of other youths. Careful forensic interviews are often important for documenting abuse, protecting children, and successfully prosecuting perpetrators.

All states have mandatory reporting laws that require professionals to report suspected child maltreatment, including sexual abuse. Failure to report can lead to legal charges and ethical complaints. The statutes provide civil and criminal immunity from liabilities for reports made in good faith.

The impact of sexual abuse varies considerably, and there is no common symptom that is found in all victims. The possible consequences include internalizing (e.g., anxiety, depression, poor self-esteem) and externalizing (e.g., delinquency, substance abuse, sexual behavior) problems. Posttraumatic stress disorder (PTSD) is the most common clinical syndrome. A substantial number of young people do not show measurable clinical symptoms, although for some of them problems may appear later. Nonoffending parents and siblings may experience significant distress and may require treatment as well.

A variety of treatment approaches are used for reducing the consequences of abuse. Interventions may focus on the abused child, nonoffending parents, and nonabused siblings, in individual and group formats.

Only a small percentage of cases result in a sexually abused child testifying in court. Court preparation programs help make the experience less stressful and improve the child's participation.

Definitional Issues

Child sexual abuse is surprisingly difficult to define as no universally accepted criteria have been identified. Definitions generally consider the sexual behaviors involved and the ages of the victim and the perpetrator.

While force or coercion may occur, it is not always present. Younger children are not considered capable of consenting to sexual activities with older persons; thus, sexual acts between individuals with age differences of 5 years or more are generally seen as abusive. Legal definitions often emphasize that the perpetrator should be an adult in a position of dominance or authority over the youth for the behavior to be considered an act of abuse. Noncontact offenses include genital exposure, voyeurism, showing a child pornographic material, or having a child undress or masturbate. Contact offenses include genital touching; oral sex; and digital, object, or penile penetration (vaginal or anal).

If the perpetrator is a family member, including distant relations, in-laws, and step-relations, then the abuse is considered "intrafamilial" sexual abuse. If the perpetrator is not a family member by marriage or blood, then it is usually considered "extrafamilial."

Child sexual abuse has been challenging to define as each word in the term has been operationalized differently across legal, clinical, and research contexts.

While some behaviors are clearly sexual (e.g., intercourse), other behaviors (e.g., touching) can lie across a continuum, and the context can influence decisions regarding whether it is abusive. In clinical and research contexts, the term *sexual abuse* is sometimes used to describe the victimization of young people by similar-age peers, though in legal contexts this may be more likely to be viewed as "assault." Similarly, from a clinical and research standpoint, perpetration by an adult stranger or nonfamily member may be considered sexual abuse, but within the legal system it may be treated as sexual assault.

Incidence and Prevalence

Definitional challenges contribute to the difficulty in accurately identifying the incidence and prevalence of sexual abuse. Records from child protective services agencies in the United States in recent years indicate that approximately 1.2 children per 1,000 experience sexual abuse each year. This is an underestimate because it reflects only cases known to relevant agencies, and many instances of abuse are not identified or reported.

Overall, the number of cases of sexual abuse substantiated by child protective service agencies dropped by approximately 40% during the 1990s. This is likely due to a combination of factors, including increasing conservatism on what is substantiated as abuse, exclusion of cases that do not involve caretakers, changes in data collection methods, less reporting due to concerns about backlash, and possibly a real decline in incidence.

Although sexual abuse occurs across all income levels and racial, cultural, and ethnic groups, it is more commonly reported among families of lower socioeconomic status. Children of all ages are victimized, with risk of sexual abuse increasing around age 10. Girls are significantly more likely to experience sexual abuse than boys. In addition, children with physical or cognitive disabilities appear to be at increased risk.

Identification of Victims

Because of the covert and coercive nature of sexual abuse and the frequent absence of physical evidence, a child's self-disclosure is the primary means of identifying an abusive situation. When children do disclose sexual abuse, they are most likely to tell a parent, usually their mother.

Research has identified numerous factors that inhibit disclosure. Perpetrators often use manipulative and coercive methods to maintain their victim's compliance and silence. Children may be embarrassed, concerned about retaliation from the perpetrator or others, or worried about being blamed or punished. Unfortunately, such worries are often justified in that disclosures are sometimes met with disbelief and family upheaval. Boys are less likely to disclose due to concerns about being stigmatized if the abuse was perpetrated by a male, and they may not perceive sexual acts with older girls or women as abusive. Children are more likely to disclose if the abuse was perpetrated by a stranger. Older children are more likely to purposefully disclose (i.e., seek out someone to disclose to), while younger children may be more likely to disclose after questioning.

Medical or physical evidence sometimes leads to identification of sexual abuse. This may include trauma to the genitals or mouth, genital or rectal bleeding, sexually transmitted diseases, pregnancy, and complaints of discomfort in the genital or rectal area. In most cases, there are no physical indications of the abuse. However, positive medical findings are valuable for substantiation of an abusive act.

Sometimes there are significant behavioral or emotional changes that might provide an indication that something has happened. For example, a child might suddenly withdraw or act out, show signs of sexualized behavior, or avoid individuals or settings, and this might prompt questioning or investigation. At other times, abuse may be discovered as a result of an ongoing investigation of other victims, as perpetrators commonly have multiple victims.

Once abuse is suspected, it is common to conduct a forensic interview with the potential victim. These interviews are important for protecting children and successfully prosecuting perpetrators, and it is also important that falsely accused individuals are exonerated.

A number of techniques are used in forensic interviews, with varying degrees of documented support. It is considered acceptable to gather information about the allegation before a forensic interview, though knowledge of allegations can increase interviewer bias and result in leading questions, and allegation-blind interviews can lead to higher rates of disclosure than allegation-informed interviews. Assessing understanding of the difference between the "truth" and a "lie," and the consequences of lying, is valuable before questioning. Open-ended questions increase the length and

accuracy of responses with school-age children and adolescents. Cognitive interview techniques can also be useful, especially with older children, including recalling the event as a detailed narrative, reporting every detail of what happened, recalling the event in different sequences, and describing the event from other people's perspectives. The use of anatomically detailed dolls is controversial, with some reports of their being useful in helping children remember and describe their experience and other reports of their reducing the quality of responses and eliciting sexual play from nonabused children.

A relatively new approach to forensic interviews is the structured interview. The advantages of structured interviews are that they need limited training, use flexible and easy-to-follow protocols, and have been developed for alleged victims as well as their parents. Research has shown their utility in decreasing leading questions, increasing open-ended questions, and increasing the quality of the details elicited. Another new approach is extended forensic evaluation, in which multiple interviews are conducted to allow the child to disclose over time in a nonthreatening environment. It is recommended that interviewers be graduate-level mental health professionals with training in sexual abuse, child development, and court testimony. Stages of evaluation include gathering background information, rapport building, social and behavioral assessment, abuse-specific questioning, and review and clarification.

A promising development for improving child abuse investigations and substantiation rates is the Child Advocacy Center (CAC) model. CACs are child-friendly facilities staffed by professionals trained in forensic interviews, medical exams, and victim support and advocacy. The number of CACs has increased dramatically in recent years, with the majority of states having multiple centers.

Mandatory Reporting Statutes

All 50 states have laws that require certain professionals to report suspected child maltreatment. This commonly includes physicians, nurses, psychologists, social workers, teachers, day care workers, and law enforcement personnel. Any person may report, and many state statutes require "all persons" to report suspicions, though many individuals are unlikely to be aware of this responsibility.

Generally, mandatory reporting statutes indicate that a report is required when there is "reasonable cause" to believe that a child has been subjected to abuse or is being exposed to conditions that could result in abuse. Reports can be made via child protective services or law enforcement agencies, and 24-hour reporting is available in most states via a toll-free "hotline" phone number. Failing to report can lead to criminal penalties or civil liabilities, as well as professional ethical and malpractice complaints. The mandatory reporting requirement overrides professional confidentiality requirements.

Despite the mandatory reporting statutes, numerous studies indicate that many instances of abuse do not get reported by professionals, either because they do not recognize the situation as abusive or because they choose not to report. Research suggests that a variety of factors can influence reporting, including the perceived severity of the situation, prior success with reporting, and concerns about disrupting a therapeutic relationship.

Consequences of Sexual Abuse

A substantial amount of research has examined the potential consequences of sexual abuse. While there is no doubt that sexual abuse has serious consequences for many, the extent and nature of the impact vary considerably, and no symptom or disorder is found universally in all victims. In addition to the challenges of demonstrating experimental control, the research is faced with the presence of many potential confounding variables, such as the co-occurrence of other forms of maltreatment, domestic violence and marital dysfunction, and poverty.

Across the research on the short-term consequences, sexual abuse has been found to be associated with a number of internalizing behaviors, including anxiety, depression, suicidal ideation, problems with self-esteem, sleep disturbances, and somatic complaints. PTSD is the most commonly identified clinical syndrome found, including symptoms of reexperiencing the event, avoidance of reminders of the trauma, and arousal and hypervigilance.

Research has also demonstrated the presence of externalizing problems, including self-abusive behaviors, delinquency, and substance abuse problems. Difficulties with school performance and concentration, problems with interpersonal relationships and social competence, or increased body self-consciousness may also be found. Some children may be more interested and curious about sex and the genital areas, have

heightened sexual activity, such as masturbation and precocious sexual play, or sexually act out toward adults and peers.

A substantial portion of youths may be asymptomatic following abuse. Research indicates that as many as 20% to 50% of victims do not show measurable clinical symptoms. Most of these children remain symptom free, but there is evidence of a "sleeper effect," in which symptoms do not manifest until months or years after disclosure.

A substantial amount of research has identified potential long-term effects including anxiety, depression, self-mutilation, suicidal ideation and behavior, somatization, poor self-esteem, substance abuse, sexual dysfunction, sexual deviance, and posttraumatic stress. Research has also documented less satisfaction and comfort in relationships and more maladaptive interpersonal patterns. Increased risk of sexual assault revictimization is also a problem.

The substantial variability in consequences is not surprising given the variability in the nature and extent of sexually abusive acts and the contexts in which they occur. Research has shown that factors that may influence the impact of sexual abuse on children include characteristics of the abuse (e.g., type and severity, relationship with the perpetrator), premorbid child characteristics, family functioning, and school and community support and stressors. Research indicates that parental support after disclosure is a key factor in reducing the impact of sexual abuse.

Sexual abuse can affect the entire family system, and nonoffending parents and siblings may need support for dealing with the experience. Parents report increased strain on parent-child and spousal relationships, anger, depression, and posttraumatic stress. Siblings may experience emotional distress, including fear, helplessness, shame, guilt, anger, and resentment toward the victim.

Treatment for Victims and Families

Treatment for sexual abuse is unique in that children are generally referred for services because they have experienced the event of sexual abuse, not because of specific emotional or behavioral symptoms they are exhibiting. Many children receive services because of parental concerns about damage to their child and for prevention of future difficulties and revictimization. Thus, children in treatment are a very heterogeneous group.

Interventions range from brief psychoeducation and crisis intervention, to short-term abuse-focused treatments, to more comprehensive and longer-term interventions. The general findings are that the interventions, often based on research for treating other child difficulties, are effective for treating the symptoms exhibited by sexually abused youths.

Psychological assistance at the time of disclosure is designed to assess the child and its family's needs and to provide support, psychoeducation, and short-term training in effective coping strategies. Crisis intervention services can improve parents' effectiveness in providing support and helping their child and family address the complex, abuse-related impacts and issues. Additionally, referrals for longer-term mental health services can be made if needed. It has been routine to provide asymptomatic children with treatment, especially psychoeducation, to prevent development of problems and reduce the risk of revictimization.

Abuse-specific therapy designed to decrease trauma-related symptomatology is the most extensively researched treatment and tends to use cognitive-behavioral procedures to target symptoms of posttraumatic distress. For example, anxiety and avoidance are targeted with relaxation training, desensitization and exposure, and cognitive restructuring. Behavior problems are addressed with behavior management techniques. Some young people also need intervention for sexual behavior problems to address parental supervision, education, communication, self-control, and sexual behavior rules.

Group therapy can offer opportunities not available in individual or family therapy. It provides the victims the opportunity to share experiences and feelings with other youths who have had similar experiences, helps them reduce their sense of isolation and stigma, and provides them with a safe setting to discuss and experiment with new behaviors, including social skills, and coping and problem-solving strategies. Research suggests that group interventions can be valuable for reducing problems of anxiety, depression, fear, and sexual behaviors and for increasing self-esteem.

Research indicates the importance of therapeutic services for nonoffending parents and nonabused siblings. Treatment for nonoffending parents is important to address parental distress, parental reactions, and supportive recovery of the abused child. Nonabused siblings may need services to address emotional distress involving feelings of relief, guilt, anger, and resentment, as well as for preventing future abuse and learning coping skills. Group treatments can be beneficial to parents and siblings by providing an

atmosphere to give and receive support, share similar experiences, and resolve stressful issues.

Testifying in Court

Approximately half the substantiated cases result in criminal charges for the perpetrator, but only about half of those go through prosecution. Because only a small portion of cases actually proceed to trial, only a very small percentage of youths actually testify. The often long delays in court proceedings can be frustrating for families and delay recovery because of the continued need to face the situation in what can be challenging and stressful circumstances. Fortunately, participation in such legal proceedings does not appear to regularly lead to longer-term adjustment problems, and for some children and families participation has positive benefits (e.g., feelings of closure).

In response to the stressors caused by the court process, as well as the need for child witnesses to participate appropriately during proceedings, court preparation programs are increasingly available for sexually abused youths. The goals of court preparation include making the experience less stressful, helping the child understand the proceedings, improving the child's ability to participate accurately and truthfully, and increasing the likelihood that the child will be seen as a credible witness. Court preparation procedures familiarize children with court participants, processes, and terms; inform children of their rights and obligations and the arrangements of the courtroom; and teach stress management strategies, such as deep breathing and desensitization. Although not well established by research, court preparation programs are believed by prosecutors to be effective, and families and professionals working with the children find them useful.

In addition to preparation programs, courts have implemented other practices to help protect children, including "vertical prosecution," where one prosecutor deals with the case from investigation through trial and keeps in regular contact with the child and its family. Victim advocates also provide support and information throughout the often long, complicated process.

Courts have allowed modifications to make testifying less stressful and aid in gaining attention and participation. For example, some courts allow a child to hold a teddy bear or a doll while testifying to help the child feel comfortable, seat the child in a less intimidating location within the courtroom, or allow the child to testify with a screen that blocks the child's view of the defendant or via closed-circuit television (CCTV) from an adjacent room. Although many states have enacted statutes to allow CCTV testimony, it has not been widely used because of the lack of availability of the equipment in court rooms, concerns about legal challenges, and beliefs about the value of in-person testimony.

David J. Hansen and Kathryn R. Wilson

See also Child Maltreatment; Children's Testimony; False Memories; Sex Offender Treatment; Sex Offender Typologies

Further Readings

Cronch, L. E., Viljoen, J. L., & Hansen, D. J. (2006). Forensic interviewing in child sexual abuse cases: Current techniques and future directions. *Aggression and Violent Behavior*, *11,* 195–207.

Finkelhor, D., & Jones, L. M. (2004, January). *Explanations for the decline in child sexual abuse cases* (*Juvenile Justice Bulletin*). Washington, DC: U.S. Department of Justice, Office of Justice, Office of Juvenile Justice and Delinquency Prevention.

Kalichman, S. C. (1999). *Mandated reporting of suspected child abuse: Ethics, law, and policy* (2nd ed.). Washington, DC: American Psychological Association.

Myers, J. E. B., Berliner, L., Briere, J., Hendrix, C. T., Jenny, C., & Reid, T. A. (Eds.). (2002). *The APSAC handbook on child maltreatment* (2nd ed.). Thousand Oaks, CA: Sage.

Saywitz, K., Mannarino, A., Berliner, L., & Cohen, J. (2000). Treatment for sexually abused children and adolescents. *The American Psychologist, 55,* 1040–1049.

Wolfe, V. V. (2006). Child sexual abuse. In E. J. Mash & R. A. Barkley (Eds.), *Treatment of childhood disorders* (3rd ed., pp. 647–727). New York: Guilford Press.

Civil Commitment

Civil commitment is the legal process under which individuals with mental illness may be subjected to involuntary hospitalization. This entry discusses the impact and consequences of commitment, the justifications for the resulting intrusion on liberty, the statutory criteria for commitment, and the constitutional requirements that underlie them. It examines the requirement that candidates for commitment must be mentally ill or disordered and the psychiatric conditions that will qualify. It then considers the requirement of functional impairment imposed by these statutes and the Constitution, including incompetency

in the case of parens patriae criteria and volitional impairment in the case of police power criteria. It also discusses the kinds of danger that may satisfy police power criteria, the degree of imminence of such danger that is required, and the methods used by clinical evaluators in predicting dangerousness. It then considers the medical appropriateness and least restrictive alternative requirements for commitment. It concludes by discussing the procedural due process hearing requirements for commitment.

The Impact and Consequences of Civil Commitment

In the past 50 years, the use of civil commitment has been reduced. The census of public mental hospitals in 1955 was around 550,000. The policy of deinstitutionalization, the shift of the locus of care from the hospital to the community, and the tightening of civil commitment criteria have reduced our reliance on involuntary hospitalization. Only about 55,000 patients are now hospitalized on any particular day. However, patients once spent long periods and sometimes an entire lifetime in the hospital, whereas most patients today are discharged after 30 days or less, and many within as few as 5 days. For many patients, civil commitment has become a revolving door, whereby they experience several periods of hospitalization each year. Civil commitment thus continues to affect a large number of patients, even if the duration of hospitalization has been dramatically reduced.

Civil commitment results in a massive curtailment of liberty. It intrudes on the fundamental interest in being free of external restraint. Patients are subjected to detailed regulation of their every activity, and they are forced to submit to various forms of intrusive treatment, including psychotropic medication, which may cause severe and unwanted side effects that are lasting. Involuntary hospitalization also imposes a severe stigma, which produces continued social and occupational disabilities long after discharge. As a result, the criteria for involuntary hospitalization have been limited, and the procedural protections required before it may be imposed have been expanded.

Justifications for Civil Commitment

There are two justifications for civil commitment. The first is the government's police power interest in protecting the community from those who are predicted to be dangerous as a result of their mental illness. The second is the parens patriae interest in protecting the best interests of those whose illness deprives them of the ability to make rational decisions on their own behalf concerning their need for hospitalization and treatment. The Fifth and Fourteenth Amendment due process clauses place substantive and procedural limitations on governmental deprivations of liberty. At a minimum, such deprivations may not be arbitrary or purposeless. Because the liberty interest in being free of external restraint is a fundamental constitutional right, an exceedingly heavy burden of justification is placed on the government. To satisfy constitutional requirements, civil commitment thus must be justified as being necessary to accomplish one or more compelling governmental interests. The state's police power and parens patriae power interests are both compelling and in appropriate cases, therefore, will justify commitment. These two justifications are reflected in typical civil commitment statutory criteria. The individual will be entitled to a hearing at which the state must demonstrate satisfaction of the criteria and show that there is no less intrusive alternative method of achieving the government's interests in protecting the individual or the community. Then, commitment may be authorized for a limited time period.

Civil Commitment Statutory Criteria

Commitment statutes typically begin by requiring "mental illness or disability" but define these terms imprecisely or circularly. Often these illnesses or disabilities are described as "significant, severe, substantial, or gross impairments." Some conditions are expressly excluded from coverage, notably mental retardation, epilepsy, developmental disabilities, drug addiction, and alcoholism. Sometimes antisocial personality disorder is excluded. In practice, clinicians applying these definitions typically limit hospitalization to those with schizophrenia, major affective depression, or bipolar disorder. Other psychiatric diagnoses are sometimes thought of as justifying at least brief hospitalization—borderline personality disorder, narcissistic personality disorder, reactive depression, and anorexia nervosa, for example, at least when the patient is in crisis.

In addition to requiring mental illness, state civil commitment statutes typically specify some degree of functional impairment resulting from such illness. An overwhelming majority of statutes use the phrase

"dangerous to self or others." The avoidance of danger to self constitutes an application of the state's parens patriae power; the avoidance of danger to others constitutes an expression of its police power in protecting the community from harm.

Parens patriae commitment is paternalistic in nature. It is based on the inability of the individual, as a result of mental illness, to understand the need for care and treatment in a hospital. The purpose is to protect the individual from harm and to improve his or her health. This form of commitment contemplates both that the individual suffers from a cognitive impairment that significantly impairs rational decision making and that hospitalization would be in his or her best interests.

An essential aspect of parens patriae commitment is the incompetency of the patient. Yet some state statutes fail to explicitly require a determination of incompetency. Because such incompetency is a historic requirement for invocation of the parens patriae power, however, courts will read this requirement into the statute to satisfy constitutional requirements. Publicly labeling an individual as incompetent is stigmatizing, and it often imposes negative self-attributional effects on the patient that may undermine performance and motivation and cause a form of depression. As a result, incompetency should be narrowly defined, and a presumption should exist in favor of competency. Many state statutes so provide. The concept of competency is rarely defined with precision. It typically requires the ability to make a decision, understand treatment information, rationally manipulate it, and appreciate the implications and consequences of alternative options. Requiring a high level of ability in these respects, however, seems unreasonable, particularly since many patients who are not mentally ill lack these abilities. Mental illness alone, even schizophrenia, does not equate with incompetence. Many patients with mental illness requiring hospitalization will possess sufficient competence to make the decision for themselves. Only if they have been determined to be so grossly impaired cognitively that their decisions are not worthy of respect should patients be found sufficiently incompetent to justify parens patriae commitment.

Commitment based on dangerousness to others constitutes an application of the state's police power interest in protecting the community. Some people suffering from mental illness may be dangerous to others. Dangerousness alone cannot justify commitment, however—many people are dangerous but not mentally ill. We typically use the criminal sanction to deal with such dangerousness, requiring an adjudication of guilt before punishment may be applied. Only rarely in our constitutional system is preventive detention permitted. Police power civil commitment is one of these rare exceptions.

In addition to dangerousness, it must be shown that the individual's mental disability significantly impairs the ability to control his or her behavior. In the context of sex offender civil commitment, the Supreme Court has required that to justify commitment, the individual's disability must make it difficult to control behavior. To justify civil commitment on police power grounds, it therefore must be shown that the individual's mental disability seriously diminishes volitional control. This requirement is not reflected in typical civil commitment statutes, but courts will mandate it as a constitutional matter.

To meet the criteria for police power commitment, the individual must be both mentally ill and predicted to be dangerous. State statutes frequently are ambiguous concerning the degree of dangerousness that must be found to exist. As a constitutional matter, such dangerousness should be predicted to be likely to occur within a reasonable time in order to justify hospitalization, and the danger to be avoided must be sufficiently serious to justify this significant intrusion on liberty. Involuntary hospitalization is not justified merely to protect the community from the inconvenience or personal offense of being confronted by someone with mental illness. The danger to be avoided must be a serious one. Certainly, the prevention of physical injury would qualify. Some state statutes permit commitment based on danger to property alone, either expressly or by leaving the term *dangerousness* undefined. Some civil commitment statutes require that the danger to be prevented be imminent, but many do not. Some courts have imposed an imminence requirement, but others have declined to do so.

When dangerousness is the basis for commitment, it must be supported by the testimony of clinical expert witnesses who have evaluated the individual. Clinical prediction of dangerousness, however, is probably accurate in no more than one out of every two cases. In recent years, risk assessment instruments have increasingly been used to supplement and anchor clinical prediction, thereby producing a higher degree of accuracy.

The Medical Appropriateness Requirement

When an individual is not mentally ill and when hospitalization is not therapeutically appropriate, hospitalization should not be permitted as a matter of due process (Winick, 2005). Even though many state civil commitment statutes may not explicitly require this determination, they often will condition commitment on its being in the "best interests" of the individual or require a finding that hospitalization is appropriate in the circumstances. In any event, this limitation would seem to be required as a matter of due process. Unless the individual suffers from a treatable mental disorder, psychiatric hospitalization should not be permitted.

The Least Restrictive Alternative Principle

Even if a police power or parens patriae power rationale justifies civil commitment, hospitalization must also be found to be the least restrictive means of accomplishing the state's interests in protecting the individual or the community. This limitation is mandated by due process, as well as by a majority of state commitment statutes. Under this principle, the court must consider whether less restrictive community placements are available for the individual that would suffice to meet his and the community's needs.

Moreover, even if hospitalization is deemed to be required, once the individual's needs can be met through community treatment, the least restrictive alternative principle would require conditional release from the hospital to such community treatment. Hospitalization should be resorted to only if it is necessary. When its purposes can be accomplished through outpatient treatment, partial hospitalization, or other forms of treatment in the community, the significant deprivation of liberty that hospitalization represents would be inappropriate.

The Civil Commitment Hearing

The commitment criteria will be applied at a hearing before a judge or a hearing examiner, where the state will have the burden of persuasion concerning satisfaction of these standards. At the hearing, the individual will be given the opportunity to cross-examine the state's clinical experts and submit his or her own expert witnesses and other evidence in rebuttal of the state's case. These and other procedural elements are constitutionally required as a matter of procedural due process. State statutes typically describe the procedures that must be followed at the hearing. These include notice and a formal hearing before involuntary hospitalization may be authorized, or shortly thereafter when commitment is sought on an emergency basis. They also include the right to have an appointed attorney, the right to have a fair and impartial judge or hearing examiner, and the right to be present. The state must bear the burden of persuasion by clear and convincing evidence.

Even though state statutes require a fairly formal adversarial judicial hearing, in practice these hearings tend to be brief and informal rituals at which the judge seems overwhelmingly to defer to the state's expert witnesses. Rather than playing the adversarial role contemplated by due process, some attorneys engage in only perfunctory advocacy, with the result that the process often appears to the patient to be a farce and a sham. This undermines the purposes of due process—to increase accuracy and allow a sense of participation. The result can be an affront to the patient's dignity, producing the feeling that he or she has been treated in bad faith, with potentially negative consequences for the efficacy of hospitalization and treatment. As a result, considerations of therapeutic jurisprudence would suggest that to the extent these practices continue to exist, they be altered in ways designed to achieve the participatory and dignitary value of due process.

Bruce J. Winick

See also Forcible Medication; Mental Health Law; Patient's Rights; Risk Assessment Approaches; Sex Offender Civil Commitment; Therapeutic Jurisprudence

Further Readings

Winick, B. J. (2005). *Civil commitment: A therapeutic jurisprudence model*. Durham, NC: Carolina Academic Press.

Classification of Violence Risk (COVR)

The Classification of Violence Risk (COVR) is an interactive software program designed to estimate the risk that an acute psychiatric patient will be violent to

others over the next several months. Using a laptop or a desktop computer, COVR guides the evaluator through a brief chart review and a 10-minute interview with the patient. COVR generates a report that places the patient's violence risk in one of five categories—ranging from a 1% likelihood of violence in the first category to a 76% likelihood of violence in the highest category, including the confidence interval for the given risk estimate.

The software was constructed from data generated in the MacArthur Violence Risk Assessment Study. In brief, more than 1,000 patients in acute civil psychiatric facilities were assessed on 134 potential risk factors for violent behavior. Patients were followed for 20 weeks in the community after discharge from the hospital, and their violence to others was assessed. The software is capable of assessing the 40 risk factors for violence that emerged as most predictive of violence in the MacArthur Violence Risk Assessment Study, but in any given case, it assesses only those risk factors necessary to classify the patient's violence risk.

To combine risk factors into a preliminary estimate of risk, the COVR relies on "classification tree" methodology. This approach allows many different combinations of risk factors to classify a person as high or low risk. Based on a sequence established by the classification tree, a first question is asked of all persons being assessed. Contingent on the answer to that question, one or other second question is posed, and so on. The classification tree process is repeated until each person is classified into a final risk category. This "interaction" model contrasts with the more typical "main effects" approach to structured risk assessment, such as the one used by the Violence Risk Appraisal Guide, in which a common set of questions is asked of everyone being assessed, and every answer is weighted and summed to produce a score that can be used for the purpose of obtaining an overall estimate of risk.

The authors of the COVR administered the newly developed software to independent samples of acute civil inpatients at two sites. Patients classified by the software as high or low risk for violence were followed in the community for 20 weeks after discharge. Expected rates of violence in the low- and high-risk groups were 1% and 64%, respectively. Observed rates of violence in the low- and high-risk groups were 9% and 35%, respectively, when a strict definition of violence was used and 9% and 49%, respectively, when a slightly more inclusive definition of violence was used. These results indicated that software incorporating the multiple iterative classification tree models may be helpful to clinicians who are faced with making decisions about discharge planning for acute civil inpatients.

In the view of its authors, the COVR software is useful in informing, but not in replacing, clinical decision making regarding risk assessment. The authors recommend a two-phased violence risk assessment procedure, in which a patient is first administered the COVR and then the preliminary risk estimate generated by the COVR is reviewed by the clinician ultimately responsible for making the risk assessment in the context of additional information believed to be relevant and gathered from clinical interviews, significant others, and/or available records. Although clinical review would not revise or "adjust" the structured risk estimate produced by the COVR, and could in principle either improve or lessen predictive accuracy as compared with relying solely on an unreviewed COVR score, the authors of the COVR believed it essential to allow for such a review, for two reasons. The first reason has to do with possible limits on the generalizability of the validity of the software. For example, is the predictive validity of the COVR generalizable to Native Americans, to forensic patients, to people outside the United States, to people who are less than 18 years old, or to the emergency room assessments of persons who have not been hospitalized recently? The predictive validity of this instrument may well generalize widely. Yet there comes a point at which the sample to which a structured risk assessment instrument is applied differs so much from the sample on which the instrument was constructed and validated that legitimate questions can be raised regarding the generalizability of the validity of the instrument.

The second reason given in defense of allowing a clinician the option to review structured risk estimates is that the clinician may note the presence of rare risk or protective factors in a given case and these factors—precisely because they are rare—will not have been taken into account in the construction of the structured instrument. In the context of structured instruments for assessing violence risk, the most frequently mentioned rare risk factor is a direct threat—that is, an apparently serious statement of intention to do violence to a named victim.

John Monahan

See also HCR–20 for Violence Risk Assessment; MacArthur Violence Risk Assessment Study; Violence Risk Appraisal Guide (VRAG); Violence Risk Assessment

Further Readings

Monahan, J., Steadman, H., Appelbaum, P., Grisso, T., Mulvey, E., Roth, L., et al. (2005). *The classification of violence risk.* Lutz, FL: Psychological Assessment Resources.

Monahan, J., Steadman, H., Appelbaum, P., Grisso, T., Mulvey, E., Roth, L., et al. (2007). The classification of violence risk. *Behavioral Sciences and the Law, 24,* 721–730.

Monahan, J, Steadman, H., Robbins, P., Appelbaum, P., Banks, S., Grisso, T., et al. (2005). An actuarial model of violence risk assessment for persons with mental disorders. *Psychiatric Services, 56,* 810–815.

Clothing Bias in Identification Procedures

A bias in an identification procedure is any factor—other than recognition—that leads witnesses to select a person. *Clothing bias* can occur whenever someone is viewed in an identification procedure wearing clothing that matches the witness's description of the clothing worn during the crime. A witness may mistakenly select the suspect based on the clothing rather than the physical appearance of the person. Although there is limited research to date, clothing bias has been demonstrated to occur with all three commonly used identification techniques: mug-shot searches, lineups, and showups (the presentation of a single suspect to an eyewitness for identification purposes). This entry will review why clothing bias is a concern for these three procedures and the ways to prevent it.

Findings to date demonstrate that for adult witnesses, clothing bias generally does not affect correct identification rates for mug-shot searches, lineups, or showups. Correct identification rates increase for children in the presence of clothing bias. As with many biases, clothing bias dramatically increases the rate of false positive choices (i.e., identifications of innocent people). This increase in false identifications has been demonstrated with adults for all three identification procedures and with children for lineups.

With mug-shot searches, innocent people may be chosen simply because they happen to be wearing clothing that matches what the perpetrator was wearing. This is problematic because people identified from mug shots are often treated as suspects in the absence of any definitive proof of their innocence (e.g., a strong alibi). Mug-shot searches are hard to protect from clothing bias because the pictures already exist. To control the clothing for future mug shots, the police could take mug shots of people dressed in standard clothing (e.g., large, loose coveralls) or take pictures from the neck up to hide the clothing worn. To control the clothing in extant mug shots, the photographs could be altered (edited) to cover up (mask) clothing or reveal only the head.

Clothing bias is of great concern in a lineup. If the suspect is the only lineup member wearing clothing similar to the perpetrator's, the suspect will stand out in the lineup—a clear source of lineup bias. Additionally, if the witness selects the suspect, the police and prosecutors may treat the identification and the match between the witness's description of the clothing and the suspect's attire as corroborating evidence of the suspect's guilt. The logic of corroboration is flawed in such cases because the identification and the clothing are not independent sources of evidence if clothing bias exists in the identification procedure.

To protect a lineup from clothing bias, the clothing of all lineup members, including the suspect, should not match the description of the perpetrator's clothing given by the witness. Ideally, the lineup would consist of only head shots, or all lineup members would be dressed alike. Corroborating evidence can be obtained by creating clothing lineups and asking witnesses to attempt to identify the clothing independently of the person. Sequential lineup presentation has been shown to reduce the size of the clothing bias effect.

Showups generally occur shortly after the crime occurs. Police investigators often will use the description provided by a witness to search the immediate area for potential suspects. Since the descriptions provided by witnesses rarely are detailed enough to ensure that only the perpetrator matches the description and because clothing information often forms a substantial and distinctive portion of the information provided in descriptions, clothing cues are likely to be an important factor in apprehending suspects who appear in showups. As a result, many suspects are likely to have been apprehended near the scene of the crime, shortly after it occurred, and because their clothing was at least a reasonable match to the witness's description of the perpetrator's clothing. This can result in witnesses viewing suspects wearing clothes that closely match the description they provided, which can in turn lead to false identifications of innocent suspects. Even when the witness's description of the clothing is incorrect, innocent suspects

wearing clothing that matches the inaccurate description are at heightened risk of both apprehension and false identification. Suspects in showups wearing distinctive clothing (e.g., shirts or jackets with logos) are at greater risk of false identification due to clothing bias than those wearing common clothing (e.g., plain white T-shirts).

To protect a showup from clothing bias, the suspect should not wear clothes that match the description of the perpetrator's clothing. Sometimes it is not possible to change a suspect's clothing for showups, (e.g., when they are conducted live at the scene of a crime). In this case, the clothing of suspects could be covered in some way, such as having a blanket covering their body, so as to prevent their clothing from being a cue to the witness. However, this method has not been tested, so its effects on identification decisions are currently not known.

Conviction of innocent people for crimes can be the result of clothing bias during identification procedures. Identifications should be based on recognition of a person, not the clothing they are wearing. Clothing bias is a concern for the three commonly used methods of identification: mug shot, lineup, and showup.

Michelle I. Bertrand, Jennifer L. Beaudry, Jamal K. Mansour, and R. C. L. Lindsay

See also Estimator and System Variables in Eyewitness Identification; Identification Tests, Best Practices in; Lineup Size and Bias; Mug Shots; Showups; Simultaneous and Sequential Lineup Presentation

Further Readings

Dysart, J. E., Lindsay, R. C. L., & Dupuis, P. R. (2006). Show-ups: The critical issue of clothing bias. *Applied Cognitive Psychology, 20,* 1009–1023.

Lindsay, R. C. L., Nosworthy, G. J., Martin, R., & Martynuck, C. (1994). Using mug shots to find suspects. *Journal of Applied Psychology, 79,* 121–130.

Lindsay, R. C. L., Wallbridge, H., & Drennan, D. (1987). Do the clothes make the man? An exploration of the effect of lineup attire on eyewitness identification accuracy. *Canadian Journal of Behavioural Science, 19,* 463–478.

Cognitive Interview

Eyewitness information is the key element in solving many crimes, yet the police are often poorly trained in conducting information-gathering interviews, and they make avoidable mistakes. To rectify this situation, Ronald Fisher and Edward Geiselman developed the Cognitive Interview (CI) procedure to collect information from cooperative witnesses. The CI techniques are based on scientific principles of cognitive and social psychology and are intended to facilitate witness memory and communication between the witness and the interviewer. Laboratory and field tests have shown that the CI increases considerably the amount of information obtained from witnesses while maintaining high accuracy. This entry describes the core elements of the CI, empirical tests to validate the procedure, and its various applications and limitations.

Police investigators depend heavily on eyewitness evidence to solve crimes, and they often bemoan the fact that witnesses do not provide as much information as the police expect. Some of this cannot be controlled, as when crimes occur quickly or under poor lighting conditions. Nevertheless, the police do have some control over witness recollection, specifically by the way they conduct interviews. Because many police investigators receive minimal training on how to conduct investigative interviews with cooperative witnesses, they conduct interviews intuitively and make avoidable errors. Studies of police interviews show that they (a) ask too many closed-ended questions (e.g., How tall was the robber?) and too few open-ended questions (e.g., Describe the robber.), (b) often interrupt witnesses in the middle of their narrative descriptions, and (c) frequently ask leading questions.

To improve police interviewing procedures, Fisher and Geiselman developed an interview procedure that is based primarily on scientific, laboratory research in cognitive psychology (hence the name *Cognitive Interview*) and social psychology. The CI attempts to enhance witness recall by addressing three integral components of the interview: (a) developing effective social dynamics between the police interviewer and the witness, (b) enhancing the witness's memory retrieval and generally facilitating the witness's and the interviewer's thought processes, and (c) facilitating communication between the witness and the interviewer. The following is a thumbnail sketch of the CI's core principles.

Social Dynamics

As in all small groups, the exchange of information depends on how psychologically comfortable the group members are with one another and each person's expectations of his or her role in the group.

Developing Rapport. Witnesses, and especially victims, are often asked to give detailed descriptions of intimate, personal experiences to police officers, who are complete strangers. If anything, the police investigator's formal appearance (badge, uniform, gun) may create a psychological barrier between the police officer and the witness. To overcome this barrier, police interviewers should invest time at the beginning of the interview to develop a meaningful, personal rapport with the witness, a feature often absent in police interviews.

Active Witness Participation. The witness has extensive first-hand information about the crime. Therefore, the witness, and not the interviewer, should be doing most of the mental work. In practice, however, police interviewers often dominate the social interaction with witnesses by asking many questions that elicit only brief answers. This relegates witnesses to a passive role, waiting for the police to ask questions. Interviewers can induce witnesses to take a more active role by (a) explicitly requesting them to do so, (b) asking open-ended questions, (c) not interrupting witnesses during their narrative responses, and (d) constructing the social dynamic so that witnesses perceive themselves to be the "experts" and therefore the dominant person in the conversation. The last point is especially important when interviewing children.

Memory and Cognition

Both the witness and the interviewer are engaged in demanding cognitive tasks: The witness is attempting to recall and describe in detail a complex event; the interviewer is listening to the witness's response, generating and testing hypotheses about the crime, formulating questions, and notating the witness's answers. Because these tasks are cognitively demanding, the witness's and the interviewer's cognitive resources must be used efficiently.

Context Reinstatement. Retrieving information from memory is most efficient when the context of the original event is re-created at the time of recall. Interviewers should therefore instruct witnesses to mentally recreate their cognitive and emotional states that existed at the time of the original event (What were your thoughts and emotions during the crime?).

Limited Mental Resources. Witnesses and interviewers have only limited mental resources to process information. Hence, their performance suffers when they engage in other difficult tasks concurrently. Interviewers can minimize overloading witnesses by asking fewer, but more open-ended, questions. This also makes the interviewer's task easier by not having to formulate many questions. Interviewers can also promote a more efficient use of witnesses' limited mental resources by minimizing physical (extraneous noises) and psychological distractions (direct eye contact) during the interview.

Witness-Compatible Questioning. Each witness's mental record of an event is unique. Some witnesses may have focused on the perpetrator's face, whereas others may have focused on the weapon. Interviewers should tailor their questions to each witness's unique perceptions during the crime, instead of asking all witnesses the same set of questions. Interviewers often violate this rule by using a standardized checklist of questions for all witnesses.

The accessibility of event details varies during the course of the interview as the witness's mental images change. Event details will be most accessible when they are perceptually related to the witness's current mental image. Therefore, interviewers should be sensitive to the witness's currently active mental image and ask questions that are compatible with that image.

Multiple and Varied Retrieval. The more often witnesses search through their memories of the crime, the more new details they will recall. Interviewers can make use of this principle by (a) asking witnesses to describe the critical event several times during the interview and (b) interviewing witnesses on two or more occasions. If witnesses attempt to recall the target event repeatedly, they should be directed to think about the event in various ways, since different retrieval cues will activate different aspects of a complex event. For instance, interviewers might encourage witnesses to describe the crime both visually (describe what the people and objects looked like) and temporally (describe the sequence of events).

Minimizing Constructive Recall. Witnesses may construct memories of a crime by incorporating information derived from other sources—for example, the media, other witnesses, or even the interviewer. Interviewers should therefore be careful about not leaking information to witnesses either nonverbally (e.g., by smiling or paying increased attention when the

witness makes a particular statement) or verbally (by asking leading or suggestive questions, e.g., Was it a red car?).

Accuracy of Response. To promote high accuracy, interviewers should explicitly instruct witnesses not to guess; rather, witnesses should indicate that they "don't know." Interviewers should also refrain from applying social pressure on witnesses or otherwise encouraging them to answer questions whose answers they are unsure of. This is particularly important when interviewing children.

Communication

For police interviews to be effective, the investigators must communicate their investigative needs to the witness. Witnesses must also communicate their knowledge of the crime to the investigator. Ineffective communication will lead witnesses to withhold valuable information or provide irrelevant, imprecise, or incorrect answers.

Promoting Extensive, Detailed Responses. Police interviews require witnesses to describe people, objects, and actions in more detail than civilians normally do in casual conversation. To promote such extraordinary descriptions, police officers should convey explicitly their need for extensive detail, which they rarely do. Sometimes witnesses withhold information because they mistakenly believe that it is not relevant for a police investigation. To minimize witnesses' withholding valuable information, interviewers should instruct witnesses to report everything they think about, whether it is trivial, whether it is out of chronological order, or even if it contradicts a statement made earlier.

Investigators often direct witnesses to provide relevant information by asking many specific, short-answer questions about investigatively relevant topics—for example, the perpetrator's age, height, or weapon. This questioning style minimizes irrelevant information, but at the cost of minimizing unsolicited information and sometimes inducing incorrect responses. Rather than asking many specific questions, interviewers should explicitly instruct witnesses to generate descriptive narratives, without waiting for the interviewer to ask questions.

Code-Compatible Output. Interviewers and respondents often exchange ideas using only the verbal medium. Some people, however, are more expressive nonverbally, and some events are better described nonverbally. Ideally, the response format should be compatible with the witness's mental record of the event. If an event is inherently spatial (e.g., the location of objects within a room), then witnesses should respond spatially—for example, by drawing a sketch of the room. In general, encouraging witnesses to sketch out the crime scene should promote more extensive recall.

Sequence of the Cognitive Interview

The CI follows a designated order intended to maximize the effectiveness of the individual techniques. The recommended sequence is common to many interviewing protocols in that it progresses from asking open-ended questions to more specific follow-up probes. The CI is divided into five sections: introduction, open-ended narration, probing for details, review, and closing the interview. The introduction establishes the appropriate psychological states and interpersonal dynamics to promote efficient memory and communication during the remainder of the interview. The open-ended narration allows the witness to provide an uninterrupted narrative of his or her recollection of the crime. The interviewer follows up by probing information-rich images, initially with framed, open-ended questions and then with more specific probes. When all the information has been collected, the interviewer reviews the witness's statement to clarify any ambiguities and to resolve any contradictions. Finally, the investigator closes the interview by collecting official information (e.g., contact information) and encouraging the witness to contact him or her in the future.

Although this is the optimal sequence, interviews invariably deviate from this plan as unexpected conditions arise. In that regard, the CI is more of a general guideline for conducting an interview rather than a fixed recipe.

Empirical Testing to Validate the Cognitive Interview

The CI has been examined in approximtely100 laboratory tests, most of which were conducted in the United States, England, Germany, and Australia. In these tests, volunteer witnesses (typically, but not always, college students) observe either a live, nonthreatening event or a film of a simulated crime. Several hours or a few days

later, the witnesses participate in a face-to-face interview, which is either the CI or a control interview. The control is either a "standard" police interview or a "structured interview," which incorporates generally accepted principles of interviewing minus those techniques unique to the CI. The interviews are usually tape-recorded, transcribed, and then scored for the number of correct statements and incorrect statements. Across these studies, the CI has typically elicited between 25% and 100% more correct statements than standard or structured interviews. This effect is extremely reliable: Of the 55 experiments examined in a recent meta-analysis, 53 experiments found that the CI elicited more information than did the comparison interview (median increase = 34%). Equally important, accuracy was as high or slightly higher in the CI interviews (accuracy rate = .85) than in the comparison interviews (.82).

All the above studies were conducted in the laboratory, with nonthreatening events. Two other studies have examined the CI with victims and witnesses of real-world crimes. In both of these studies, one conducted in Miami and one in London, some experienced police detectives received training to use the CI and other experienced detectives did not receive such training. In both studies, the CI-trained police investigators elicited considerably more information than did the untrained investigators (approximately 50% more in the U.S. study).

Although most of the empirical testing has been conducted on normal, healthy adults, several studies have examined the CI's effectiveness on unusual populations, including young children, the elderly, and those with cognitive deficits. Naturally, healthy college students remembered more than these other populations. However, the CI was equally effective with all the groups, enhancing their recollections by approximately the same amount. Some have questioned the advisability of using the CI with very young children, under the age of 5 years.

Most empirical studies have tested witness recall within a few hours or a few days of the critical event. Some studies, however, have shown the CI to enhance witness recall after several months, and one study even showed a very large benefit after 35 years.

The CI has been demonstrated to work effectively in a variety of investigative interviews in addition to criminal investigation—for example, accident or public health investigation. It has not, however, been effective in identification tasks: Witnesses given a CI prior to an identification test (e.g., lineup) were no more accurate than witnesses given a control interview.

Practical Issues

Given the success of the CI in laboratory and field experiments, how does it fare in real-world investigations? The CI has been used successfully to solve several cases, including a kidnapping, a politically motivated bombing, and child molestation. Recently, an investigator from the U.S. Bureau of Alcohol, Tobacco, and Firearms reported conducting a CI with a 38-year-old woman who had witnessed a homicide as a 5-year old child. The interview elicited scores of recollections, many of which were corroborated by police records established at the time of the crime (e.g., the location of objects and furniture at the crime scene).

Offsetting these successes, the British police reported that the complete CI was sometimes difficult to implement. They noted difficulty in communicating to witnesses some of the CI's mnemonic instructions. Other police officers have reported that using the complete CI frequently requires more time than is available, and so they often use only some of the component techniques.

Other Investigative Tasks

Although the CI was developed initially to facilitate witness memory of a crime, the technique has been shown to be effective in other interview settings. Two such applications of the CI are interviewing suspects and debriefing jurors after deliberation.

Detecting Deception. Some research shows that the CI facilitates detecting whether a suspect's testimony is truthful or deceptive. Two CI components that enhance detecting deception are asking open-ended information-gathering questions (vs. accusatory questions) and encouraging suspects to take an active role. These techniques generate longer responses from suspects, thereby permitting more opportunities to identify verbal and nonverbal cues to deception, and also allow interviewers to detect the different response strategies used by truth tellers and liars. In addition, asking suspects to describe events in different sequential orders (notably, reverse order) is particularly difficult for liars.

Debriefing Jurors. Reconstructing a jury deliberation session after a trial should assist attorneys to evaluate

their trial strategies. A recent study examined the CI's efficiency in reconstructing a related decision-making task (asking a small group of people to discuss business practices that entailed ethical decisions). The CI was modified slightly to account for group decision making (considering the social dynamics of the group). Compared with the conventional method of debriefing group members, the CI elicited considerably more information and at a very high accuracy rate. Interestingly, the CI also elicited extensive information about the individual members' thought processes during the earlier decision-making task.

Componential Analysis

Although tests of the CI show that the technique, as a whole, is effective, only a few studies have isolated individual component techniques to determine which ones are effective. The results suggest that (a) each component contributes to the overall CI effect, but (b) the relative contribution of each component varies across conditions. For instance, context reinstatement is more effective when much time has passed between the original event and the interview, whereas nonverbal (code compatible) output is more effective when interviewing people with limited verbal skills.

Legal Challenges

Although the CI has been found reliably to enhance witness recollection, could it be unacceptable for forensic use? The following patterns of results suggest that the CI should be legally acceptable: (a) CI-elicited recollections are as accurate as, or slightly more accurate than, recollections from conventional interviews; (b) the CI does not render witnesses overly suggestible to leading questions—if anything, witnesses are less suggestible when interviewed with the CI; (c) witness confidence and witness credibility are not affected by the CI; (d) CI interviewers are perceived to be less manipulative than conventional interviewers; and (e) there is no carry-over effect in a preliminary interview of the type of interview conducted (CI or conventional) on the witness's later testimony.

There have been two court cases in which the CI was at issue. In a case heard by the National Court of Appeal in London (England), an earlier decision was overturned based on information collected from a witness who provided a very detailed account of the crime when interviewed with the CI. Although the Court did not mention the CI in its ruling, the ultimate decision was compatible with the information elicited by the CI. The second case entailed a pretrial hearing in California, in which the prosecution used evidence that had been elicited by a police officer trained in conducting the CI. The defense attorney claimed that the CI was similar to hypnosis and that it promoted inaccurate eyewitness testimony. (As noted earlier, accuracy is equivalent or slightly higher with the CI compared with conventional interviews, the opposite of the pattern with hypnosis.) The judge ruled against the defense's objection to the CI and permitted the CI-elicited testimony to stand.

Training in the CI

There is considerable variation across locations in the training the police receive to conduct interviews with cooperative witnesses. Several countries in Europe (England, Sweden, Norway) provide instruction in the CI as part of their basic training to all police investigators. Some regional police-training programs within the United States, Canada, and Australia also provide training in the CI, although (a) many police departments do not provide any training at all and (b) among those that do provide training in the CI, there is considerable variation in the quality. CI training is more standardized and more rigorous among some of the federal investigative agencies in the United States (e.g., FBI, National Transportation Safety Board [NTSB]). Adequate training in the CI requires, in addition to lectures and demonstration, ample opportunity for trainees to practice the techniques and receive critical feedback. Feedback from investigators has been very encouraging, especially with major, complex crimes and accidents, where the investigator has the luxury of time and resources to conduct thorough interviews.

Ronald Fisher and Nathalie Castano

See also Detection of Deception: Cognitive Load; Eyewitness Memory; Hypnosis and Eyewitness Memory; Identification Tests, Best Practices in; Instructions to the Witness; Jury Deliberation

Further Readings

Fisher, R. P., & Geiselman, R. E. (1992). Memory-enhancing techniques in investigative interviewing: The cognitive interview. Springfield, IL: Charles C Thomas.

Fisher, R. P., Geiselman, R. E., & Amador, M. (1989). Field test of the cognitive interview: Enhancing the recollection of actual victims and witnesses of crime. *Journal of Applied Psychology, 74,* 722–727.

Fisher, R. P., & Schreiber, N. (2007). Interviewing protocols to improve eyewitness memory. In M. Toglia, R. Lindsay, D. Ross, & J. Reed (Eds.), *The handbook of eyewitness psychology: Vol. 1. Memory for events* (pp. 53–80). Mahwah, NJ: Lawrence Erlbaum.

Geiselman, R. E., & Fisher, R. P. (1997). Ten years of cognitive interviewing. In D. G. Payne & R. G. Conrad (Eds.), *A synthesis of basic and applied approaches to human memory* (pp. 291–310). Hillsdale, NJ: Lawrence Erlbaum.

Kebbell, M.-R., Milne, R., & Wagstaff, G.-F. (1999). The cognitive interview: A survey of its forensic effectiveness. *Psychology, Crime and Law, 5*(1–2), 101–115.

Koehnken, G., Milne, R., Memon, A., & Bull, R. (1999). The cognitive interview: A meta-analysis. *Psychology, Crime and Law, 5,* 3–27.

Community Corrections

Over the past 15 years, the number of people under correctional supervision in the United States has more than doubled. Most of this growth is attributable to the rapidly expanding probation population, which recently reached an all-time high of more than 4 million offenders. In fact, the vast majority of all offenders under correctional supervision are supervised in the community on probation (58%) or parole (11%). Despite their rehabilitative roots, community corrections have been heavily oriented toward surveillance over the past quarter-century. However, high rates of recidivism among supervisees have prompted calls for accountability and use of evidence-based supervision. Substantial evidence indicates that surveillance models that focus exclusively on offender control are less effective than hybrid models that focus on both offender control and offender rehabilitation. For the at-risk population of supervisees with mental disorder, evidence suggests that specialty caseloads are a promising practice. Despite these clearly defined contours of evidence-based practice, most agencies are merely at the cusp of reintroducing rehabilitation in supervision. The process of doing so is likely to be slow but will be facilitated by (a) the use of new risk management technology and (b) gradual shifts in organizational values, hiring practices, and training, to create a significant cadre of officers with hybrid orientations. Officers influence outcomes more powerfully than the programs they ostensibly apply.

Developing Community Corrections and Questioning Its Performance

The roots of probation and parole lie more in social casework than law enforcement. Probation began in 1841, when John Augustus posted bail to release a "drunkard" from a Boston jail, worked with the man for 3 weeks toward rehabilitation, and convinced a judge that the man had reformed his ways and should be set free. He went on to bail more than 2,000 offenders and assist them with employment, housing, and other issues. Parole began in 1840, when Alexander Maconochie developed a "mark system" by which prisoners at Norfolk Island could earn early release for good behavior. By the 1860s, this precursor to modern parole had been adopted in the United States. Over the past 150 years, community corrections have traveled a great distance from their rehabilitative roots to embrace the "tough on crime" stance that prevails today.

In modern probation and parole, an officer is tasked with (a) protecting community safety by monitoring and enforcing an offender's compliance with the rules of conditional release from incarceration and, often to a lesser extent, (b) promoting the offender's rehabilitation with social service referrals such as substance abuse counseling and vocational support. Despite this commonality, probation and parole differ in terms of *who* is supervised. A probationer is an offender who, on conviction, is typically sentenced directly to a term of community supervision (although a minority of probationers are granted a conditional suspended sentence to incarceration). In contrast, a parolee is convicted of a relatively serious offense, serves a portion of his or her sentence in prison, and is then granted conditional early release to serve the remainder of his or her sentence in the community. Although probation is applied in the federal system and all 50 states, the federal system and at least 15 states have abolished parole in favor of determinant sentencing.

The assumption underpinning both probation and parole is that some offenders can be safely maintained in the community and will respond well to the available services. Community supervision is viewed as a cost-effective alternative to incarceration for these

offenders. Probation or parole can be revoked if an offender commits a *new offense* or a *technical violation* of the conditions governing release (e.g., reporting to one's officer, paying restitution, maintaining employment).

Although the type of supervision approach can strongly affect the rate of success (see below), the general success of modern community supervision in preventing crime and facilitating offenders' reentry into the community is modest. For example, the rates of rearrest over a 2-year period among prisoners released on parole and prisoners released unconditionally are comparable (approximately 60%) once the differences between the two groups in characteristics such as criminal history are controlled. Perhaps given their lower level of risk for re-offense, probationers (59%) are somewhat more likely to successfully complete their term of community supervision than parolees (45%). Nevertheless, many probationers and parolees fail supervision. Among policymakers, such figures have prompted many to issue a call for accountability in community corrections and some to question whether probation and parole should continue to exist in their current form.

Responding to Contemporary Challenges

The business of community corrections is challenging. Management has become results driven. Generally, inadequate budgets have tightened. Workloads have grown astronomically in size and complexity. Many offenders have substance dependence disorders and serious mental disorders, which complicates supervision. Others have been convicted of sex offenses and other violent offenses that demand close oversight. The monumental challenge is to cope with a large, complicated workload while improving the effectiveness of supervision—to do "more with less."

Given the staggering diversity across states in the organization and oversight of community supervision, there is no well-defined and homogeneous response to this challenge. Probation and parole are practitioner-led enterprises, with supervision philosophies and practices that vary considerably across agencies and officers. Despite this diversity, a few innovative responses have gained enough traction across agencies to be viewed by William Burrell as "strategic trends." These trends include creating formal partnerships with community agencies (e.g., drug courts, school-based probation) and developing specialized caseloads (e.g., for mentally ill offenders, sex offenders). They are underpinned by a larger drive toward reintroducing rehabilitation in supervision and implementing evidence-based risk assessment, risk management, and supervision strategies.

Promoting Evidence-Based Risk Assessment and Risk Management

Although many agencies have adopted a standardized assessment of offenders' risk of criminal recidivism over the past decade, relatively few use these assessments to inform supervision. Nevertheless, several progressive agencies have begun using well-validated measures to (a) inform decisions about whether to release an offender to community supervision, (b) identify an offender's changeable risk factors for recidivism (e.g., substance abuse) to target in intervention, and (c) monitor changes in an offender's risk state over time. These measures include the Levels of Services/Case Management Inventory (LS/CMI) and the Classification Assessment and Intervention System (CAIS). The accuracy of the LS/CMI in predicting general recidivism and violent recidivism rivals that of tools that are better known in forensic circles (e.g., the Psychopathy Checklist–Revised). Unlike most forensic tools, both the LS/CMI and the CAIS assess both risk status (interindividual risk compared with other offenders) and risk state (intraindividual risk compared with oneself over time) and guide community supervision from intake to case closure. Moreover, use of the CAIS has been shown to improve outcomes for probationers and parolees. For example, in a study of approximately 44,000 offenders assigned to either CAIS-supported supervision or regular supervision, the rate of revocation for CAIS supervisees was 29% lower than that for traditional supervisees.

Reintroducing Rehabilitation Efforts to Improve Outcomes

Increasing empirical support for the "risk-needs-responsivity" (RNR) principle is largely responsible for agencies' adoption of risk assessment tools and their recognition that rehabilitation should be reintroduced in supervision. Meta-analytic studies show that offenders are considerably (24–54%) less likely to recidivate when programs match the intensity of supervision and treatment services to their level of risk for recidivism (risk principle), match modes of service to

their abilities and motivation (responsivity principle), and target their criminogenic needs or changeable risk factors for recidivism (need principle). Indeed, the effectiveness of programs is positively associated with the number of criminogenic needs (e.g., attitudes supportive of crime) they target relative to noncriminogenic needs (i.e., disturbances that impinge on functioning in society, such as anxiety).

Although the *surveillance* model of supervision still dominates community corrections, empirical support for the RNR principle is helping a *hybrid* model of supervision gain ascendance in some progressive agencies. There here has long been tension in community corrections between the goals of protecting community safety ("control") and promoting offender rehabilitation ("care"). The surveillance model focuses exclusively on control, whereas hybrid models blend control and care. A growing body of research demonstrates the effectiveness of hybrid models relative to surveillance models. For example, a recent meta-analysis indicated that RNR programs significantly reduced recidivism risk ($r = .25$), whereas surveillance programs that applied sanctions without attending to risk or needs did not ($r = -.03$).

Studies of intensive supervision programs (ISPs) also suggest that rehabilitative efforts should be included in supervision. ISPs were created to reduce prison and jail crowding by having officers with reduced caseloads closely supervise relatively serious offenders in the community with prison-like controls. Traditional ISPs emphasize monitoring virtually to the exclusion of services for offenders. Evaluations of these ISPs robustly indicate that they do not reduce recidivism and sometimes exacerbate (rather than alleviate) prison crowding. For example, in an experiment that involved 14 diverse jurisdictions, offenders were randomly assigned to either traditional supervision or ISP supervision. A meta-analysis of these data indicates that, after excluding the one site in which ISP had a positive effect, ISP increased the likelihood of offenders' rearrest by 94%. Offenders in ISP were particularly likely to return to prison on technical violations. One might argue that detecting and sanctioning technical violations is an index of the surveillance model's success in preventing crime. However, there was no evidence that sanctioning technical offenses prevented new arrests.

Unlike traditional ISPs, hybrid ISPs yield positive effects. One meta-analysis indicated that ISPs that incorporated treatment (hybrids) reduced recidivism by 22%, whereas ISPs that did not (surveillance) had no effect on recidivism. Based on a matched sample of 480 parolees, Mario Paparozzi and Paul Gendreau found that those supervised in a hybrid ISP program received significantly more social services (e.g., public assistance) than those in a traditional parole program. Hybrid ISP parolees were substantially less likely to have new convictions (19% vs. 48%) and revocations (38% vs. 59%) than traditional parolees.

There is increasing recognition that the manner in which officers implement supervision has powerful effects. For example, Paparozzi and Gendreau classified 12 ISP officers' supervisory orientation into surveillance, treatment, and hybrid categories. Within ISP, parolees with hybrid officers (19%) were remarkably less likely to have their probation revoked than those with both surveillance (59%) and treatment (38%) officers. In fact, officers' orientations toward supervision affected parolees' outcomes more strongly than the particular supervision program applied (i.e., ISP vs. traditional).

Tailoring Responses to Supervisees With Mental Disorder

The process of supervision may be especially important for probationers and parolees with mental disorders (PMDs). Both PMDs and their officers describe the quality of their relationship as coloring every interaction and strongly affecting outcomes. There is some support for this notion. In a study of 90 PMDs, Jennifer Skeem and colleagues developed and validated the revised Dual Role Relationship Inventory (DRI–R) to capture relationship dimensions such as caring, fairness, and trust. DRI–R scores related coherently to observers' codes of officer-probationer interactions during a supervision session and significantly predicted violations and revocation over a 1-year follow-up period.

PMDs constitute a large and at-risk population. The prevalence of major mental disorders is 4 to 8 times higher in corrections populations than in the general population. Relative to their nondisordered counterparts, PMDs are twice as likely to fail on probation or parole. PMDs are particularly likely to have supervision revoked for technical violations, perhaps because their reduced level of functioning makes it more difficult for them to comply with standard conditions such as maintaining employment. The vast majority of PMDs have a co-occurring substance abuse disorder, which elevates their risk of rearrest. PMDs present a number of unique challenges to supervising officers, given their pronounced need for

social services (e.g., housing, social security income) and the mandate that they take psychotropic medication and participate in psychosocial treatment as a special condition of supervision.

A number of agencies have responded to these challenges by developing specialty caseloads for PMDs. These caseloads are reduced in size ($M = 48$), composed exclusively of PMDs, and supervised by an officer interested in mental health. In prototypic specialty agencies, officers advocate for services, participate in the treatment team, and tend to address noncompliance with problem-solving approaches rather than threats of incarceration. Specialty caseloads are a promising if not evidence-based practice. To date, only one relevant randomized controlled trial (RCT) has been conducted: A large matched trial is currently under way. In the RCT, PMDs in specialty probation obtained significantly more mental health services than PMDs in traditional probation, but these increased services did not translate into a reduced risk of jail rebookings during a 1-year follow-up. This echoes other studies suggesting that increased mental health services fail to reduce police contacts and rearrests. This could be because (a) the quality of the mental health services received is poor or (b) mental disorder is not the sole, or even primary, reason for PMDs' involvement in the crime. The latter notion enjoys some support. Based on a sample of 113 jail detainees with mental disorder, John Junginger and colleagues found that less than 4% had been booked for a crime directly related to their mental disorder. Given that PMDs share risk factors for crime with other offenders, hybrid models for PMDs probably will not meaningfully reduce recidivism unless they go beyond providing mental health services to target these individuals' criminogenic needs.

Looking to the Future

Evidence robustly indicates that supervision is most effective when it blends care with control. Despite increasing endorsement of rehabilitation efforts, there is little evidence that the hybrid model of supervision is being widely implemented. Surveys indicate that the vast majority of correctional treatment programs do not apply RNR and other principles of evidence-based practice. Similarly, less than 5% of probation agencies have developed specialty mental health caseloads for PMDs, and a significant number of these have pushed caseload size beyond the capacity that can conform to the prototypic hybrid model. Relatively few agencies have moved from a surveillance to a hybrid model.

The paths toward better achieving this goal include (a) use of a new generation of risk/needs assessment tools such as the LS/CMI and CAIS to direct supervision from intake through case closure, (b) extension of RNR principles to PMDs, and (c) gradual shifts in organizational values, hiring practices, and officer training to produce a larger pool of officers with hybrid orientations. The most meaningful gains likely will be made at the officer level. These gains will be gradual because a generation of officers has grown up with the law enforcement model, without exposure to rehabilitative principles. In the midst of debates about branded programs, we often lose sight of the fact that officers' orientation toward supervision and their relationships with probationers influence outcomes more strongly than the specific program they ostensibly apply.

Jennifer Skeem, Sarah Manchak, and Jennifer Eno Louden

See also Conditional Release Programs; Prison Overcrowding; Probation Decisions; Sentencing Decisions; Sentencing Diversion Programs

Further Readings

Andrews, D., Bonta, J., & Wormith, S. (2006). The recent past and near future of risk and/or need assessment. *Crime and Delinquency, 52*(1), 7–27.

Burrell, W. (2005). *Trends in probation and parole in the states*. Washington, DC: Council of State Governments. Retrieved February 16, 2007, from http://www.appa-net.org/ccheadlines/docs/Trends_Probation_Parole.pdf

Skeem, J. L., & Manchak, S. (in press). Back to the future: From Klockars' model of effective supervision to evidence-based practice in probation. *Journal of Offender Rehabilitation.*

Competence Assessment for Standing Trial for Defendants With Mental Retardation (CAST*MR)

The Competence Assessment for Standing Trial for Defendants With Mental Retardation (CAST*MR) consists of 50 questions and was designed to assess defendants' understanding of basic legal concepts, ability to assist their attorneys, and ability to relate important information regarding their own legal

circumstances. Its purpose is to assist forensic evaluators in determining competency in defendants with mental retardation. The CAST*MR demonstrated test-retest reliability and validity in several studies prior to its publication.

Competence to stand trial is critical for ensuring due process rights for defendants in the criminal justice system. The doctrine of competence to stand trial has its origins in early English common law and relates to the accepted belief that a defendant cannot be tried in absentia. It is thought that trying an incompetent defendant who cannot understand and participate in the proceedings is equivalent to trying someone in absentia. Hence, competency is essential for due process and fundamental fairness.

The criteria for judging competence to stand trial was articulated in the 1960 Supreme Court decision *Dusky v. United States*. *Dusky* states that to be competent to stand trial, a defendant must have a "rational and factual understanding of the proceedings" and be able to consult with his or her attorney with a "reasonable degree of rational understanding" (p. 402).

Application of the doctrine of competence to stand trial to defendants with mental retardation requires special consideration because of the unique nature of the disability. According to the American Association on Intellectual and Developmental Disabilities (previously AAMR), "mental retardation is a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18" (p. 1). Because of the high risk that intellectual and adaptive behavior limitations may negatively affect the necessary elements of competence to stand trial, particular care must be taken to conduct an authentic assessment in order to preserve fairness.

Description of the CAST*MR

The CAST*MR was developed by Caroline Everington and Ruth Luckasson to assist forensic evaluators in determining competency in defendants with mental retardation. The first two sections of the CAST*MR consist of 40 multiple-choice questions. This format was chosen as it provides a quick and reliable means of assessing defendants' understanding. Many persons with mental retardation have difficulty with expressive language and exhibit acquiescence in assessment situations. This format helps correct for those problems. As will be discussed later, CAST*MR results should be supplemented with additional information relevant to the defendant's competency and necessary for clinical judgment.

The first section, Basic Legal Concepts, contains 25 multiple-choice items and addresses understanding of the roles of key players in the process—for example, judge, attorney, prosecutor, witness—and important procedures such as a plea bargain and trial. In the second section, Skills to Assist in Defense, the defendants are presented with 15 scenarios that involve the choices they must make about their case or when working with their attorneys. This section is also presented in a multiple-choice format. In the final section, Understanding Case Events, the defendants must answer a series of key questions about the circumstances of their arrest and the charges.

CAST*MR Validity and Reliability

An expert appraisal process was used to develop items for the instrument. The first versions were field tested with individuals with mental retardation as well as college students. Validation studies were conducted before publication.

There have been two primary validation studies conducted on the CAST*MR. Caroline Everington conducted the first study with defendants with and without mental retardation at the pretrial level. In the first study, it was determined that the instrument successfully discriminated between groups of defendants and had an acceptable classification rate. Test-retest reliability and internal consistency analyses yielded acceptable results as well.

A second validation study was conducted by Caroline Everington and Charles Dunn using defendants with mental retardation who were referred for evaluations of competence to stand trial. The second study replicated the results of the Everington study.

Caroline Everington, Katherine DeBerge, and Daria Mauer, studying adults with mental retardation, found that CAST*MR scores were significantly correlated with language subtests on the Woodcock-Johnson Tests of Cognitive Ability and these language tests were good predictors of CAST*MR performance. This finding supports the use of assessments of language ability in competence evaluations involving persons with mental retardation.

While there are no findings regarding malingering on the CAST*MR, Caroline Everington, Heidi Notario-Smull, and Mel Horton found that individuals in the higher-IQ range of mental retardation could

alter their performance when asked to do poorly. These individuals scored lower than a group of defendants with mental retardation who had been evaluated as incompetent to stand trial and the control group of defendants with mental retardation who took the test under standard conditions. This reaffirms the need to supplement scores with additional information.

Appropriate Use of the CAST*MR

It is important that competency evaluations of persons with mental retardation include multiple sources of information. A single test score should not be the sole determinant of defendant competency. An evaluation test battery for persons with mental retardation should include an individually administered global test of intelligence and assessments of expressive and receptive language, academic skills, and adaptive behavior. Social history provides additional information on cognitive and academic skills and previous diagnoses. Interviews with key individuals who have known the defendant over time provides information relevant to competency, such as the defendant's problem-solving and decision-making skills. These sources provide corroborative information that can assist in the interpretation of CAST*MR results.

Finally, CAST*MR results should be supported with additional information on the defendant's psycholegal abilities. Other sources include information gained through questioning in the clinical interview and can include an additional assessment of competence to stand trial. It is important to check for understanding by having the defendant explain concepts in his or her own words. Decisional competency is a critical area for individuals with mental retardation. It is important to query the individual on his or her understanding of the defense strategy and his or her legal options.

The CAST*MR is published by IDS in Columbus, Ohio, and is used by evaluators throughout the United States.

Caroline Everington and Ruth Luckasson

See also Competency, Foundational and Decisional; Competency to Stand Trial; Mental Retardation and the Death Penalty

Further Readings

Dusky v. United States, 362 U.S. 402 (1960).

Everington, C., DeBerge, K., & Mauer, D. (2001). The relationship between language skills and competence to stand trial abilities in persons with mental retardation. *Journal of Psychiatry and Law, 28,* 475–492.

Everington, C., & Dunn, C. (1995). A second validation study of the competence assessment for standing trial for defendants with mental retardation. *Criminal Justice and Behavior, 22,* 44–59.

Everington, C., & Luckasson, R. (1992). *The competence assessment for standing trial for defendants with mental retardation (CAST*MR)*. Worthington, OH: IDS.

Everington, C., Notario-Smull, H., & Horton, M. (in press). Can defendants with mental retardation successfully fake their performance on a test of competence to stand trial? *Behavioral Sciences and the Law.*

Competency, Foundational and Decisional

The law in the United States requires that criminal defendants be competent to participate in the adjudicatory proceedings against them. Legal competence is a complex construct that includes both the fundamental capacities needed to participate in the process (adjudicative competence) and a degree of autonomy in making important case decisions (decisional competence). This entry examines the legal criteria for competence as well as the societal values that underlie the requirements concerning the ability of those accused of crime to participate in proceedings against them.

Criteria for Adjudicative Competence

In the United States, individuals accused of crimes are afforded certain constitutional rights and protections during the adjudicatory process. The Fifth Amendment, for example, protects defendants from being compelled by the state to testify against themselves. The Sixth Amendment provides defendants with the right to the assistance of legal counsel, the right to confront their accusers and the evidence against them, and the right to a trial by jury. To benefit from these rights, defendants must be mentally able to assert them. It is not enough that defendants be physically present during adjudicatory proceedings; they must also have the mental capacity to exercise their rights—that is, they must be "competent."

When questions are raised about a defendant's competence, it is the responsibility of the trial judge to make an inquiry and determine whether he or she has the requisite abilities to go forward to adjudication. The broad criteria for adjudicative competence were

articulated by the U.S. Supreme Court in the case of *Dusky v. United States* (1960). The trial judge must determine "whether the defendant has sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding, and whether he has a rational as well as factual understanding of the proceedings against him."

Careful scrutiny of this "test" for legal competence reveals several important features:

1. A defendant does not have to be completely competent. Only *sufficient* abilities are required (and these may vary with the complexity and demands of the case).

2. Adjudicative competence is concerned with *present* mental capacities. It is arguably irrelevant that a defendant had significant mental impairment at some point in the past or may again experience such difficulties in the distant future (the current inquiry does assume that present capacities are likely to be maintained in the near future during the course of the pending proceedings). In particular, adjudicative competence is distinguished from inquiries related to legal insanity, a retrospective judgment as to the defendant's mental state at the time of the offense.

3. Adjudicative competence is about *ability* or *capacity*. A defendant who is ignorant (e.g., lacks present *factual* understanding of the legal proceedings) may still be competent if it is determined that he or she is intellectually able to assimilate the relevant information (e.g., through education by or consultation with the attorney). Similarly, a voluntary unwillingness or reluctance (e.g., due to bad character or attitude) to perform the required legal tasks (e.g., to consult with one's attorney) is not a basis for a finding of incompetence.

4. The criteria are *functional legal abilities*. The mere presence of symptoms of mental disorder, even if substantial in nature, is not sufficient to render a defendant legally incompetent. There must be a further showing that the mental disorder adversely affects the abilities articulated in *Dusky* (i.e., to assist counsel, to factually or rationally understand the proceedings).

Societal Values and Competency

For the state to proceed against a defendant who is incompetent affronts important societal values that the constitutional rights were intended to protect. One important value is the dignity of the process; it offends the moral dignity of society for the state to proceed against an individual, whose liberty (and in capital cases, life) is at stake, when that individual is not capable of competent participation in the adversary proceedings. Proceeding against an individual who is "defenseless" due to mental incapacity conjures notions of a "kangaroo court" and conflicts with fundamental notions of fairness.

A second and perhaps more obvious value is *accuracy*. A variety of forms of mental incapacity impair basic cognitive abilities such as attention and memory. Attentional capacity is needed, for example, to hear, process, and heed advice from one's attorney or to attend to testimony by witnesses in order to identify erroneous or false statements. Intact memory is needed to recall and relate legally relevant, and potentially exculpatory, information to the attorney. Perceptual, emotional, or cognitive distortions regarding others' attitudes or intentions—for example, delusional beliefs that one's attorney is secretly working for the state—may impair the development of a cooperative working relationship, which is necessary for the preparation of a legal defense. Such impairments may result in inaccurate verdicts (i.e., wrongful convictions) and unjust punishments, with innocent individuals being incarcerated while criminals go free.

A third societal value implicated in the competence construct is *individual autonomy*. Respect for the individual and an individual's right to self-determination demands that a defendant be capable of at least a minimal degree of autonomous participation in the adjudicatory process. Although the Sixth Amendment provides for the assistance of counsel, respect for individual autonomy limits the extent to which an attorney can act independently of the defendant. It is, after all, the defendant's case. In recognition of this important value, the legal system precludes attorneys from making independent decisions regarding the waiver of constitutional rights; for a defendant to be competent, he or she must be capable of a minimal degree of autonomous participation in decisions such as whether to waive the right to trial and enter into a plea agreement, waive the protection against self-incrimination and testify as a witness, or waive the right to legal counsel and represent oneself in the proceedings.

Foundational and Decisional Competence

A theory of legal competence that reflects these societal values and encompasses the constitutional

requirements has been articulated by the University of Virginia law professor Richard Bonnie. This theory distinguishes between two aspects of legal competence: a foundational competence to assist counsel and decisional competence. Foundational competence captures the minimal conditions necessary for a defendant to participate, in a general way, in his or her defense. These conditions include (a) understanding the allegations and the basic elements of the adversary system, (b) recognizing one's own role as the accused individual whose liberty interests are at risk, and (c) having the ability to provide relevant factual information to the lawyer in order to facilitate the development of a defense. These specific functional abilities reflect the capacities articulated by the U.S. Supreme Court in *Dusky v. United States* as fundamental to competence: the ability to assist one's attorney, and the capacity to understand, both factually and rationally, the proceedings that lead to adjudication. According to Bonnie, these baseline, or fundamental, legal capacities serve the dignity and accuracy concerns that underpin the adjudicatory process.

Decisional competence, as noted above, is more specific than the foundational competence construct. It derives from the underlying value of individual *autonomy* and implicates the functional abilities needed to demonstrate a minimal degree of independence in making decisions, specifically decisions to waive constitutional protections. Defense attorneys retain autonomy for a wide variety of case-related decisions, such as the general defense theory/strategy to pursue, which witnesses to call and what questions to ask, and so forth. However, the law does not permit attorneys to independently waive their clients' constitutional rights, and the rationale for this limit on their authority is clear—all citizens, whether wrongfully accused or otherwise, would ultimately have no protection in a system that allowed any third party to sign away those rights.

When questions arise concerning a defendant's competence to proceed, the courts routinely turn to mental health professionals for assistance in determining whether, and to what extent, mental problems (often cast as "mental disease or defect") impair competence. As noted above, the Supreme Court's language in *Dusky v. United States* provided broad descriptions of the functional legal abilities relevant to foundational competence, and these have served to guide forensic examiners' evaluations about foundational competence issues. Unfortunately, there has been no parallel case that has attempted to articulate or operationalize the functional abilities related to decisional competence. A number of lower courts have required that a defendant's waiver of constitutional rights must be "knowing," "intelligent," and "voluntary," and these concerns underpin the colloquies that judges routinely conduct, for example, with defendants who decide to waive their constitutional rights (e.g., to a trial, to not testify against themselves) and accept a plea offer from the state.

Although explicit legal guidance is lacking regarding the functional abilities relevant to decisional competence, legal scholars and mental health professionals informed by Bonnie's theory have considered this issue. Approaches to assessing decisional competence abilities, some of which have been incorporated into contemporary competence assessment measures (e.g., the MacArthur Competence Assessment Tool–Criminal Adjudication), include evaluating (a) the defendant's ability to articulate the advantages and disadvantages of alternative courses of action (e.g., going to trial vs. accepting a plea agreement), (b) the defendant's ability to articulate a risks-and-benefits analysis of a proposed course of action, and (c) the plausibility of the defendant's reasons for a choice that the defendant considers most appropriate in his or her own case. Articulating these clinical strategies for assessing the functional abilities related to decisional competence makes explicit the basis for the clinical opinions that mental health experts may offer in the absence of clear legal definitions and guidelines with respect to decisional competence.

To date, Bonnie's distinction between foundational and decisional competence has had minimal impact in the highest legal circles. In *Godinez v. Moran* (1993), the Supreme Court addressed the issue of decisional competence and endorsed some of the lower courts' language requiring that a defendant's waiver of constitutional rights be "knowing" (intelligent) and "voluntary." However, the Court declined to articulate a separate criterion or standard for decisional competence and held that, generally, the standard for competency to waive constitutional rights is encompassed within the *Dusky* standard.

The Court's holding in *Godinez* notwithstanding, it is likely that Bonnie's theory of foundational and decisional competence has had an important impact on the field. It has raised awareness of the complexities of the adjudicative competence construct and encouraged forensic evaluators, whose reports and testimony inform the courts regarding defendants' competence-related abilities, to assess decision-making capacities as part of their evaluations.

Historically, pretrial competency evaluations for the courts were often captured under the rubric

"competency to stand trial," and many of the interview guides and competency assessment instruments developed for forensic examiners focused on defendants' comprehension of trial proceedings. In a sense, this emphasis was misplaced because in reality, few defendants ever go to trial. Upward of 90% of criminal cases are resolved by some form of plea bargain or plea agreement, each of which entails the waiver of one or more of the constitutional protections discussed above. Thus, Bonnie's elaboration of the decisional competence construct has stimulated clinical thinking about the mental abilities needed to intelligently weigh decisional alternatives (e.g., to be able to describe the potential risks and benefits of alternative courses of action) and ways to craft new measures for the systematic assessment of those abilities. Through careful consultation with defense attorneys about the likely case decision points, particularly those that involve the waiver of rights, psychiatric and psychological examiners may better tailor their evaluations to provide information to the courts about defendants' foundational and decisional competence abilities.

Norman G. Poythress

See also Adjudicative Competence of Youth; Capacity to Waive Rights; Competency to Stand Trial

Further Readings

Bonnie, R. (1990). The competence of criminal defendants with mental retardation to participate in their own defense. *Journal of Criminal Law and Criminology, 81,* 419–446.

Bonnie, R. (1992). The competence of criminal defendants: A theoretical reformulation. *Behavioral Sciences and the Law, 10*, 291–316.

Bonnie, R. (1993). The competence of criminal defendants: Beyond *Dusky* and *Drope*. *University of Miami Law Review, 46,* 539–601.

Dusky v. United States, 362 U.S. 402 (1960).

Godinez v. Moran, 509 U.S. 389 (1993).

Melton, G. B., Petrila, J., Poythress, N. G., & Slobogin, C. (in press). *Psychological evaluations for the courts: A handbook for mental health professionals and lawyers* (3rd ed.). New York: Guilford Press.

Competency, Restoration of

Evaluations of competency to stand trial are the most common source of referrals to forensic mental health practitioners. While the clear majority of those examined are viewed as competent to proceed, those found incompetent to stand trial (IST) may be subjected to treatment and training to enable them to proceed to trial, typically referred to as competency restoration. These individuals constitute the largest group referred for mental health treatment under the auspices of the criminal justice system, with several thousand persons hospitalized in the United States at any given time. Despite the significant variability in treatment and education efforts, as many as 9 in 10 persons originally found unfit are eventually adjudicated competent and proceed to disposition of the charges against them. There is a dearth of systematic research on the methods used to accomplish this result. Restoration efforts typically require no more than 4 months, and an increasing number of jurisdictions allow for outpatient treatment and training to minimize pretrial deprivation of liberty. Medication is often a key component of treatment for defendants with psychiatric illness. Prognosis is more guarded for restoration of cognitively impaired defendants.

Some commentators have questioned the propriety of the competency restoration programs provided by mental health practitioners. An alternative view holds that enabling impaired defendants to develop or regain the ability to participate in the resolution of their legal predicaments is ethically justified. This entry summarizes the legal and ethical context of competency restoration efforts, the presenting problems that are typically the focus of treatment, treatment methods and programs, and the outcomes of restoration efforts.

Legal and Ethical Context

All U.S. jurisdictions provide for treatment of individuals found IST. Traditionally, this was presumed to involve commitment to a government-run facility for inpatient care. In *Jackson v. Indiana* (1972), the Supreme Court clarified that such commitment must be reasonably related, in duration and circumstances, to the purpose of restoring the individual to competency. Those found not restorable within the reasonably foreseeable future may be subjected to civil commitment. Surveys suggest that nearly half the defendants referred for restoration are placed in state hospitals and receive services typical for a civil patient population. Most of the remainder are confined in high-security facilities. In view of the significant deprivation of liberty entailed in inpatient restoration, a small number of jurisdictions have created provisions for outpatient competency

restoration treatment. This innovation is also politically attractive, as the services are much less costly.

The majority of IST defendants appear to accept restoration treatment voluntarily, but significant legal and ethical conflicts arise regarding those who refuse court-mandated treatment. In *Sell v. United States* (2003), the Supreme Court considered the circumstances under which psychiatric medication could be administered against defendants' objections, for the purpose of restoring competency. The court emphasized that alternative bases for involuntary treatment should be considered first, including treatment justified by danger to self or others or treatment through guardianship procedures. In the absence of these alternative justifications, the government could seek involuntary treatment solely to restore competency in limited circumstances—namely, if the proposed treatment was medically appropriate, substantially unlikely to have competency-impairing side effects, and necessary vis-à-vis less intrusive alternatives to accomplish an important governmental interest in bringing the defendant to trial. Nonmedication treatments have been viewed as less intrusive or objectionable and have not been a source of significant litigation.

Some have argued that mental health practitioners play an ethically conflicting role as treater and evaluator in the restoration process. This view has not gained wide acceptance. Those involved in competency restoration efforts note the importance of full disclosure to the defendant of the purpose of treatment and the procedural protections afforded by judicial hearings authorizing the treatment. They also note that it is in the defendant's interest to regain competency in order to avoid potentially lengthy commitment and benefit from the panoply of procedural rights guaranteed a defendant proceeding to trial. Despite occasional negative commentary on the ethical propriety of mental health professionals' participation in the restoration process, this role remains important in the administration of justice.

Focus of Restoration Treatment

Competency restoration is often implemented on an individualized basis, though some inpatient centers offer highly structured programs. The most common model combines these elements and involves individual treatment of any underlying mental illness combined with group education and practice modules and individual coaching. There is consistent evidence that defendants referred for non-restoration-specific, general psychiatric hospital care are significantly less likely to regain competency than those receiving care in a formal restoration program, either inpatient or community based.

Defendants referred for restoration can be broadly divided into those with primarily Axis I disorders and those with mainly cognitive limitations. In practice, many incompetent defendants exhibit multiple diagnoses, particularly involving personality disorders and substance abuse. While the latter factors are rarely priorities for immediate treatment, they may complicate restoration efforts. Given the overrepresentation of linguistic and cultural minorities among the defendant population, acculturation issues and language barriers can also be significant complicating factors. Individualized treatment planning is required to manage these varied needs.

Defendants with a major mental illness are typically treated with the implicit assumption that but for their psychiatric symptoms, they would be competent. Schizophrenic-spectrum illnesses are most commonly a focus of treatment—and less frequently, mood disorders. Symptoms including delusions, hallucinations, disorganized thought or behavior, and agitation often impair defendants' understanding of their case and proceedings or their ability to collaborate with counsel, rendering them incompetent. Medication treatment to reduce these symptoms is often the mainstay of restoration efforts and may be seen as a prerequisite to other interventions that require greater cooperation and active participation by the defendant/patient. In affective disorders, increased attention and concentration and improved morale may be targets for pharmacological intervention. Consistent with case law focusing on "medical appropriateness," any proposed treatment should comport with general standards of care for the diagnosis at hand and take into account the unique psychological, medical, and other needs and limitations of the incompetent defendant. Complete remission of symptoms is typically not required to meet the practical requirements for competency.

Educational programs appear more tailored to the needs of mentally retarded or otherwise cognitively impaired defendants. These programs typically involve formal testing and retesting to assess the defendants' baseline functioning and progress. Most programs use one or more specific adjudicative competence measures and may structure a curriculum in accord with the theoretical underpinnings of that measure. Group format educational efforts are typically offered once or more per week, up to daily in some programs. These may entail lecture-like presentations,

video-recorded demonstrations, role-playing, written exercises, and handouts. Group format training offers the advantage of not only efficient service delivery but also social learning of appropriate behavior for a courtroom setting and the opportunity to assess each defendant's response to the increased stimulation of a small group setting.

Some commentators have expressed concern that mentally retarded individuals may appear to benefit from educational efforts while still lacking a more nuanced understanding of the charges and proceedings against them. This view holds that while even very limited individuals can be taught to repeat basic facts, they may yet lack the understanding and reasoning required to be a meaningful participant in the adjudication process. Practitioners should avoid "teaching to the test" used to measure progress. Alternative forms of assessment, such as open-ended questions and role-play may help differentiate those defendants who have learned basic facts from those who can apply that information in a meaningful way to the case at hand.

Restoration Success Versus Failure

The clear majority of those referred for restoration are ultimately adjudicated competent, with some centers reporting success rates of 80% to 90%. Success appears most likely for individuals with functional psychiatric illnesses that are responsive to medication treatment. Not surprisingly, individuals who show clinically significant improvement in general psychopathology are more likely to be perceived as restored to competency. There is no consensus about the factors that are predictive of restorability in primarily mentally ill defendants, and attempts to derive predictions from clinical samples have failed to generalize adequately given the rarity of nonrestorability. Half or more than half the individuals with mental retardation or acquired cognitive deficits are not restored, consistent with the intractable nature of these disorders.

It is well settled that defendants must be competent at each stage of adjudication, from arraignment through imposition of sentence. "Recidivism," which consists of a decline in functioning that warrants a return for additional restoration treatment before either trial or sentencing, is of concern in a minority of cases. These may involve the defendant's refusal of medication after discharge from a treatment program. Anecdotal evidence suggests that other causes include medication being unavailable in a jail or during transportation to court, defendants being subjected to other conditions of confinement that undermine their prior progress, or substance abuse while on bail that results in an exacerbation of symptoms. It is generally assumed that a renewal of appropriate treatment will again result in restoration or competency.

Few state statutes provide specific time limits for commitment to either inpatient or outpatient restoration treatment. Federal law provides for a 4-month inpatient commitment, with possible extensions for cause, while some states tie duration of treatment to the potential maximum sentence for the underlying charges. Many jurisdictions set no limit. With or without formal limits, the typical successful restoration occurs in 2 to 6 months. While circumstances may warrant more extended efforts in some cases, the likelihood of success beyond 3 to 4 months appears diminished.

The minority of individuals who are persistently incompetent may be subjected to civil or "quasi-criminal" commitment in lieu of further criminal proceedings. While in some jurisdictions the procedures are identical to those in the regular civil commitment statute, in the majority of states and in federal courts, special commitment procedures apply, though these must provide due process protections similar in kind to those in the regular commitment statute. Some of these are narrowly drawn to focus on danger to others or property and frequently lack provisions for commitment based on danger to self or "grave disability." The possibility of long-term commitment may discourage malingering about incompetency, particularly in jurisdictions where charges could be reinstated when the former defendant "recovers" sufficiently to warrant consideration for release.

Edward E. Landis

See also Capacity to Consent to Treatment; Civil Commitment; Competency to Stand Trial

Further Readings

Anderson, S. D., & Hewitt, J. (2002). The effect of competency restoration training on defendants with mental retardation found not competent to proceed. *Law and Human Behavior, 26*(3), 343–351.

Bertman, L. J., Thompson, J. W., Waters, W. F., Estupanian-Kane, L., Martin, J. A., & Russell, L. (2003). Effect of an individualized treatment program on restoration of competency to

stand trial in pretrial forensic patients. *Journal of the American Academy of Psychiatry and the Law, 31*(1), 27–35.

Jackson v. Indiana, 406 U.S. 715 (1972).

Miller, R. D. (2003). Hospitalization of criminal defendants for evaluation of competence to stand trial or for restoration of competence: Clinical and legal issues. *Behavioral Sciences and the Law, 21*, 369–391.

Mumley, D. L., Tillbrook, C. E., & Grisso, T. (2003). Five year research update (1996–2000): Evaluations for competence to stand trial (adjudicative competence). *Behavioral Sciences and the Law, 21*, 329–350.

Noffsinger, S. G. (2001). Restoration to competency practice guidelines. *International Journal of Offender Therapy and Comparative Criminology, 45*(3), 356–362.

Sell v. United States, 539 U.S. 166 (2003).

Competency Assessment Instrument (CAI)

The Competence to Stand Trial Assessment Instrument, often called the Competency Assessment Instrument (CAI), was developed in 1973 as a companion instrument to the Competency Screening Test (CST) and sought to standardize as well as quantify the criteria for competence to stand trial. The instrument was created by an interdisciplinary team of psychologists, psychiatrists, and lawyers at Harvard's Laboratory of Community Psychiatry during a project funded by a research grant from the Center for Studies of Crime and Delinquency, National Institute of Mental Health. The CAI addresses 13 functions related to the defendant's "ability to cope with the trial process in an adequately self-protective fashion."

Although the concept that a defendant must be competent to proceed in the trial process has been generally accepted in Western jurisprudence since the late 1700s, the current standard for competence to stand trial in the United States was laid out by the U.S. Supreme Court in *Dusky v. United States* in 1960. In *Dusky*, the Court held that for a defendant to be deemed competent to stand trial, he or she must have "sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding" and "a rational as well as factual understanding of the proceedings against him." On the basis of the standard as set forth in *Dusky* as well as reviews of appellate cases and legal literature, observations of pretrial competence hearings, and interviews of attorneys and judges, the interdisciplinary team conceptualized the standard of competence to stand trial as having three parts: the ability to cooperate with one's attorney in one's own defense, awareness and understanding of the nature and object of the legal proceedings, and understanding of the consequences of the proceedings.

As one of the first semistructured measures of trial competency, the CAI influenced the development of nearly every other instrument that has been created for competence to stand trial evaluations. The administration time of the CAI is approximately 1 hour with relatively high functioning defendants. The 13 areas of functioning addressed by the CAI are the following:

1. Appraisal of available legal defenses
2. Unmanageable behavior
3. Quality of relating to attorney
4. Planning of legal strategy, including guilty pleas to lesser charges where pertinent
5. Appraisal of the role of persons involved in a trial
6. Understanding of court procedure
7. Appreciation of charges
8. Appreciation of the range and nature of possible penalties
9. Appraisal of the likely outcome
10. Capacity to disclose to attorney the available pertinent facts surrounding the offense
11. Capacity to realistically challenge prosecution witnesses
12. Capacity to testify relevantly
13. Self-defeating versus self-serving motivation (legal sense)

In the manual, the 13 functions are conceptually defined with statements, and two or three sample questions accompany each function.

Each functional item on the CAI is to be rated on a five-point Likert-type scale, wherein a score of 1 relates to a total lack of capacity to function and a

score of 5 relates to no impairment, or adequate capacity to function. A score of 6 is given when there is insufficient information to score the respective item. The item scores are neither weighted nor summed, but rather are intended to stand alone and assist the evaluator in the formation of his or her subsequent report and potential testimony. The authors of the CAI explicitly set forth the caveat that the CAI is not meant to serve as a predictor of future trial-related abilities, since scores on the instrument may fluctuate over time. The scoring process functions under the assumptions that the defendant will be afforded adequate counsel and the forensic examiner using the CAI possesses a fundamental understanding of the realities of the criminal justice system.

Little is known about the psychometric properties of the CAI. The scoring of the CAI is not standardized, and there are no norms available for the instrument. Interrater reliability coefficients for the instrument have been found to range from .84 to .97 among experienced raters and from .43 to .96 among inexperienced raters. The CAI has been found to correlate with other instruments intended to measure the same abilities as the CAI (i.e., the Competence Screening Test and Interdisciplinary Fitness Interview), lending exiguous evidence in support of its construct validity. Research on the utility of the CAI as a classification or predictive tool is scant as well, but the research that was conducted found that many evaluators used the CAI as a conceptual tool—forgoing the quantification of the items.

Controversies that surrounded the CAI on its publication regarded biases that may be inherent in the scoring of the instrument. Specifically, bias against individuals who do not have confidence in the criminal adjudication process or bias as a result of an evaluator's assumptions about the dynamics of the circumstances surrounding a trial and attorney performances have been cited. Rebuttal of these criticisms has referred to the fact that the authors have clearly indicated that the scoring of the CAI operates under the presumptions of adequate legal counsel and a trial characterized by a legal standard of fairness. Although the CAI does not include a methodical evaluation of the defendant's specific trial circumstances, three items (Items 1, 4, and 9) evaluate the defendant's capacities or perceptions regarding his or her circumstances. However, the CAI manual does not provide any guidelines for characterizing the trial circumstances. The major contribution of the CAI was the delineation of 13 legally pertinent concepts and functional areas, a contribution that continues to influence the development of instruments created to evaluate defendants' competence to stand trial.

Gianni Pirelli and Patricia A. Zapf

See also Competency Screening Test (CST); Competency to Stand Trial; Forensic Assessment; Interdisciplinary Fitness Interview (IFI)

Further Readings

Dusky v. United States, 362 U.S. 402 (1960).

Grisso, T. (2003). *Evaluating competencies: Forensic assessments and instruments*. New York: Kluwer Academic/Plenum.

Harvard Medical School, Laboratory of Community Psychiatry. (1973). *Competence to stand trial and mental illness* (DHEW Publication No. [ADM] 77-103). Rockville, MD: NIMH, Department of Health, Education, and Welfare.

Competency for Execution

The Eighth Amendment to the U.S. Constitution prohibits cruel and unusual punishment, which, according to the U.S. Supreme Court decision in *Ford v. Wainwright* (1986), includes the execution of the insane. Thus, it is unconstitutional to execute condemned inmates who become incompetent while on death row while they remain in an incompetent state. Statutes set forth by those states that permit the death penalty often do not include specific guidelines for evaluating competency for execution, and when guidelines do exist, they vary widely. When the issue of an inmate's competency for execution arises, mental health professionals are called on to assist the court in the evaluation of competency for execution and for restoring competency in those found incompetent. Given the nature of the consequences involved, these practices often present ethical challenges and are controversial in nature.

Competency for execution, called by some commentators the "last competency" for its temporal proximity to the final resolution of an inmate's legal proceedings, is raised as an issue far less often than competency to stand trial but is no less important. The legal system in the United States and many other

countries has as one of its bases the presumption of competence. That is, all defendants are presumed competent unless this issue is called into question by one of the parties to a legal proceeding. The competence of a criminal defendant may arise as an issue at any point in the legal proceedings, from as early as initial arrest and interrogation, throughout the entire legal process, and finally to the time of sentencing or, for those who have been sentenced to the ultimate penalty of death, the time of execution. Just as an incompetent defendant is not allowed to proceed to trial, so too an incompetent defendant/inmate is prohibited from being sentenced or executed. The rationale against executing incompetent individuals is that, among other things, it is inhumane, neither deterrence nor retribution is accomplished, and incompetent individuals are unable to assist in appealing their sentence.

Legal Standards

The issue of the constitutionality of executing incompetent individuals was heard by the U.S. Supreme Court in 1986 in *Ford v. Wainwright*. The Court in *Ford* held that the Eighth Amendment, which bans cruel and unusual punishment, prohibits the execution of an "insane" (mentally incompetent) person. The Court reasoned that (a) execution of the insane would offend humanity, (b) executing the insane would not serve to set an example and would not reaffirm the deterrence value believed to exist in capital punishment, (c) any individual who is believed to be insane is also believed unable to prepare "spiritually" for death, (d) madness itself is punishment and, therefore, negates the punishment value of execution, and (e) no retributive value is believed to be served by executing the mentally incompetent.

The Court in *Ford* also ruled that when questions of competency for execution were raised, due process entitled a defendant to an evidentiary hearing. Furthermore, the Court stated that this evidentiary hearing is required only when defendants make a "high threshold showing" that their competency to be executed is in question. The justices, however, did not define the precise nature of the "high threshold." Moreover, the justices could not agree on the specific fact-finding procedures to be used in case such a threshold is met: Some agreed that a full "panoply" of trial-type procedures was required, others argued that a more relaxed hearing was acceptable if due process was ensured, and still others argued that the most minimal "pro forma" procedures were acceptable.

In addition to being divided on the fact-finding procedures, the Court also failed to specify a proper legal test of incompetence within the execution context. Only Justice Powell, in his concurring opinion, addressed the issue of the legal test for competency for execution, stating that the Eighth Amendment "forbids the execution only of those who are unaware of the punishment they are about to suffer and why they are to suffer it" (p. 2608). Furthermore, he concluded that the proper test of competency should be whether defendants can comprehend the nature, pendency, and purpose of their execution. Justice Powell argued that the retributive goal of criminal law is satisfied only when defendants are aware of the connection between their crime and its punishment and defendants can only prepare for death if they are aware that it is pending shortly. Furthermore, Justice Powell asserted that the states were free to adopt "a more expansive view of sanity" that included the "requirement that the defendant be able to assist in his own defense" (p. 2608).

Despite the charge given to individual states to develop procedures to ensure that the insane would not be executed, many states do not provide specific guidelines for evaluating competency for execution, and those guidelines that do exist vary widely. The decision in *Ford* established that it was unconstitutional to execute the insane and set the stage for psychological evaluations of death row inmates whose mental status for execution is questionable; however, the *Ford* Court left open two critical issues. First, the Court did not specify the necessary fact-finding procedures to enforce the *Ford* decision. Second, the Court failed to specify the proper legal test to be implemented in cases of competency for execution.

Although it is not legally binding, the American Bar Association, in the *ABA Criminal Justice Mental Health Standards* (1989), has also provided a legal test for determining competency for execution. This test reads as follows:

> A convict is incompetent to be executed if, as a result of mental illness or mental retardation, the convict cannot understand the nature of the pending proceedings, what he or she was tried for, the reasons for the punishment, or the nature of the punishment. A convict is also incompetent if, as a result of mental illness or mental retardation, the convict lacks sufficient capacity to recognize or understand any fact which

might exist which would make the punishment unjust or unlawful, or lacks the ability to convey such information to the court. (p. 290)

Assessment of Competency for Execution

Competency for execution, more than any other area within the field of forensic assessment, has been fraught with controversy and debate regarding whether, and to what extent, mental health professionals should become involved in this type of evaluation. Indeed, the personal outcome for the inmate who serves as the evaluee in this type of evaluation weighs heavily in this debate.

Standards for competency for execution evaluations should parallel those that apply to other types of forensic evaluations. That is, the standardized procedures that are used during the evaluation should be described to the subject of the evaluation as well as in the examiner's report, assessment measures should be relevant to the referral issue(s), and the examiner should have a sound and sophisticated conceptualization of the relevant criteria for being not competent for execution. In addition, the knowledge base of examiners should cover three domains: general legal competencies, forensic assessment methodologies, and execution-related substantive content. Finally, collateral information should be gathered. This might include (but would not be limited to) information regarding life history, psychological history and disorders, deterioration-related data, previous and current written reports, and interviews with persons who have had extensive opportunities to observe the evaluee.

Detailed information on conducting evaluations of competency for execution is beyond the scope of this entry, but the interested reader is referred to the references suggested below for further information on this topic.

Given the low base rate of incompetence for execution, there is less opportunity to conduct this type of evaluation and, therefore, even less opportunity to conduct research using a sample of inmates found incompetent to be executed or even referred for evaluations of competency for execution. As a result, the literature and commentary in this area are less well developed than they are with respect to other types of competencies (such as competency to stand trial). As was the case in the context of assessing competency to stand trial, the first assessment instruments to assist evaluators in the evaluation of competency for execution have taken the form of checklists of items that serve to structure the evaluation. While the first checklists for evaluating competency to stand trial were developed in the mid-1960s, the first checklists for evaluating competency for execution have only recently been developed. The interested reader is referred to the checklists developed by Kimberley Ackerson, Bruce Ebert, and Patricia Zapf (all cited below).

Treatment for Restoration to Competency

Given the amount of debate and controversy surrounding the role of mental health professionals in the assessment of competency for execution, it is obvious that even more controversy surrounds the role of the mental health professional in the treatment of those inmates found incompetent, for the purpose of restoring their competence to be executed. This is a complex issue about which commentators have written on both sides. Some believe that it is never permissible to provide treatment for the purpose of restoring an individual to competence when the result is execution, whereas others have indicated that this may be permissible if the incompetent inmate had expressed a desire to be restored to competence at an earlier time when the inmate was competent. In addition, others have provided further commentary regarding the situation where an inmate has indicated a preference for death by electing to undergo treatment to restore competence for the purpose of execution, calling into question the rationality of that individual. What complicates matters further is that some professional bodies, such as the American Medical Association, have put forth statements indicating that providing such treatment is considered ethically unacceptable, thus putting physicians and psychiatrists who work for the prison and correctional systems, and who are expected to treat incompetent inmates for the purpose of restoring them to competence, in the difficult situation of having to reconcile how to perform the duties required by their employers while upholding the ethical requirements of their profession. Obviously, there is no easy answer.

Research on Competency for Execution

There has been a dearth of empirical research on competency to be executed. Part of the explanation for this

may be the fact that only a handful of individuals have made successful claims of incompetency to be executed. In addition, this particular type of competency tends to evoke strong emotion in individuals, which in turn may affect the motivation of involved professionals to conduct research in this area. The limited amount of empirical research that has been conducted has been confined to surveys. No research to date has examined the issue of competency to be executed in a sample of offenders sentenced to death.

Patricia A. Zapf

See also Checklist for Competency for Execution Evaluations

Further Readings

Ackerson, K. S., Brodsky, S. L., & Zapf, P. A. (2005). Judges' and psychologists' assessments of legal and clinical factors in competence for execution. *Psychology, Public Policy, and Law, 11*, 164–193.

American Bar Association. (1989). *Criminal justice mental health standards.* Washington, DC: Author.

Brodsky, S. L., Zapf, P. A., & Boccaccini, M. T. (2005). Competency for execution assessments: Ethical continuities and professional tasks. *Journal of Forensic Psychology Practice, 5,* 65–74.

Ebert, B. (2001). Competency to be executed: A proposed instrument to evaluate an inmate's level of competency in light of the Eighth Amendment prohibition against the execution of the presently insane. *Law and Psychology Review, 25,* 29–57.

Ford v. Wainwright, 477 U.S. 399 (1986).

Heilbrun, K. S. (1987). The assessment of competency for execution: An overview. *Behavioral Sciences and the Law, 5,* 383–396.

Zapf, P. A., Boccaccini, M. T., & Brodsky, S. L. (2003). Assessment of competency for execution: Professional guidelines and an evaluation checklist. *Behavioral Sciences and the Law, 21,* 103–120.

Competency Screening Test (CST)

The Competency Screening Test (CST) was developed to address the unnecessary pretrial detention and commitment of individuals charged with crimes but likely to be judged fit to stand trial. This forensic instrument was designed and tested to provide objective measures based on the legal criteria for determination of a defendant's capacity to participate in his or her own defense against criminal charges. Psychological diagnoses of mental illness or mental retardation may indicate incompetency for trial but may not be sufficient for such a finding by a court. Therefore, this test was developed to reduce the risk of inappropriate findings based on mental state alone.

The right of a person to be mentally as well as physically present to face his or her accusers was recognized as early as 1764 in British Common Law. In 1960, for the first time, the U.S. Supreme Court enunciated the constitutional requirement of competency to stand trial in *Dusky v. United States* (1960) and spelled out the legal standard that the defendant must have "sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding" and "a rational as well as a factual understanding of the proceedings against him."

Description and Development

The CST consists of 22 items in a sentence-completion format designed as a self-reporting paper-and-pencil instrument.

The content of each item relates to some aspect of the task of a defendant preparing for and going to trial as a result of criminal charges. Each item is based on a factor within the legal definition of fitness for trial and the psychological conditions that may contribute to significant impairment of that ability.

Scores on the 22 items were subjected to a factor analysis using a varimax orthogonal rotation. Six factors emerged that were consistent with the defendant's ability to stand trial:

1. Relationship to one's attorney in establishing a defense
2. Understanding and awareness of the nature of the court proceedings
3. Affective response to the court process in dealing with accusations and feelings of guilt
4. Judgmental qualities in engaging in the strategy and evaluation of the trial
5. Trust and confidence in the attorney
6. Recognition of the seriousness of the situation

Each of the 22 items is scored on a 3-point scale, from 0 to 2, based on one or more of these factors.

A response that clearly relates to one of the legal criteria receives a score of 2. Responses characterized as redundant, circular, or impoverished but not clearly inappropriate are scored 1. A zero score would be given for an answer that reveals characteristics such as self-defeating behavior, substantial disorganization, or a thought disorder that would interfere with the ability to contribute to one's defense. For example, on Item 2, "When I go to court, the lawyer will . . .," an appropriate response is "defend me" and would be scored a 2, reflecting the nature of the proceedings and the role of the attorney. A contrasting response, "put me away," would receive a zero score. This item addresses the legal criterion of a defendant's ability to assist an attorney in his or her own defense. The psychological referent focuses on trust and the ability to engage with another, in this case the lawyer. Understanding of the role of legal representation is also an element in this item.

Scores are summated and can total in a range from 0 to 44. Qualitative differences were found at about 20; thus, a score of 20 or below is judged as incompetency for trial. Reliability by trained researchers was .93, significant at the .001 level.

As a screening instrument, the purpose of the CST is to avoid hospitalization of those defendants who may be tested in the court and most likely deemed to be competent, rather than delay the trial of those individuals. The test results of the CST and judges' decisions on return to trial were generally consistent. Focusing on the criteria for competency to stand trial also offered specific guidelines for making a judgment that could avoid pretrial detention. Several validation studies have followed the original test construction and research and have supported the efficacy of the CST.

Further Research

Additional research has been undertaken by psychologists to aid the courts in the assessment of fitness for trial. John Monahan and his colleagues at the University of Virginia have constructed an instrument based on the parameters of understanding, reasoning, and appreciation, consistent with the psychological underpinnings of the legal criteria for competency to stand trial.

Paul D. Lipsitt

See also Competency, Restoration of; Competency to Stand Trial; Georgia Court Competence Test (GCCT)

Further Readings

Dusky v. United States, 362 U.S. 402 (1960).

Lipsitt, P. D., Lelos, D., & McGarry, A. L. (1971). Competency for trial: A screening instrument. *American Journal of Psychiatry, 128*(1), 105–109.

Nottingham, E. J., IV, & Mattson, R. E. (1981). A validation study of the Competency Screening Test. *Law and Human Behavior, 5,* 329–335.

Otto, R. K., Poythress, N. G., Nicholson, R. A., Edens, J. E., Monahan, J., Bonnie, R.J., et al. (1998). Psychometric properties of the MacArthur Competence Tool–Criminal Adjudication. *Psychological Assessment, 10,* 435–443.

Randolph, J. J., Hicks, T., Mason, D. J. (1982). The Competency Screening Test: A validation study in Cook County, Illinois. *Criminal Justice and Behavior, 9,* 495–500.

Competency to Be Sentenced

The question of whether an individual is competent to be sentenced hinges on the broader question "What is competence?" In general, competence is defined within the legal arena as the mental ability to play an active role in legal proceedings. Competence to be sentenced is a specific form of legal competence that addresses an individual's ability to participate in the sentencing stage of trial and to both understand and appreciate the ramifications of the sentence that is imposed. The term *competence to be sentenced* has been used interchangeably with *competence to be executed*, but the former expression is more inclusive than the latter. Psychologists assist the courts by providing evaluations of competency to be sentenced, although there are minimal assessment guidelines and no accepted measures to guide their assessments.

The general standard for competency was defined by the Supreme Court in *Dusky v. United States* (1960) as the defendant's "sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding" and "a rational as well as factual understanding of the proceedings against him." This protection has been deemed to include the stages from the time of arrest through the end of the trial. However, sentencing is separate from trial, and jurisdictions differ on whether the *Dusky* standard extends to the sentencing phase. In some jurisdictions, defendants need only have a minimal level of competency to be sentenced (e.g., a defendant need only understand

why he or she is being sentenced). Other jurisdictions hold that sentencing is part of the trial, therefore the defendant must meet the more exacting *Dusky* standard before he or she may be sentenced. Overall, the literature suggests that the competency to be sentenced standard is less stringent than the competence to stand trial standard.

The purposes behind the guarantee of competency to be sentenced are generally argued to be threefold. First, defendants are guaranteed competency to protect their individual rights. For example, in some cases, the defendant has the right to allocution at sentencing. The right of allocution refers to a defendant's right to speak before the sentence is pronounced in order to address any legal cause why the sentence should not be pronounced or provide mitigating information that may reduce the sentence. Without the mental ability to participate in the proceedings, this right would be meaningless. Second, society has an interest in guaranteeing fair results and the dignity of the trial process. If a defendant does not appear to be a lucid participant in his or her trial and sentencing, the process loses these qualities. Third, to be competent to be sentenced, defendants should comprehend the duration and severity of the sentence. This understanding is a prerequisite for the sentence to meet its goals of punishment and deterrence from future crime. If defendants cannot rationally comprehend the reason why they have been sentenced, the punishment cannot have its desired effect on the psyche or act as a deterrent.

If a genuine doubt concerning the defendant's competency to be sentenced arises, the defense, the prosecution, or the judge may raise the issue. If there is sufficient evidence that the defendant's competency is questionable, the judge may order an examination by a mental health professional, such as a psychologist or a psychiatrist. When the evaluation is completed, the expert provides an opinion to the court in the form of a report and, possibly, testimony. The judge makes a decision regarding the competency of the defendant. If the defendant is found to be competent, the sentencing proceeds. If the defendant is found to be not competent, he or she is sent for treatment to restore competency before sentencing.

Psychologists have researched the issue of competency to stand trial, developed assessment strategies, and implemented treatment approaches to restore individuals' overall competence. The defendant's cognitive functioning is of central importance in evaluating any form of competence. Similarly, a defendant's ability to communicate mitigating factors effectively to his or her attorney is essential. Many measures have aided in the evaluation of an individual's overall competency. These include the Competency Screening Test (CST), the Competency Assessment Instrument (CAI), the Georgia Court Competency Test (GCCT–MSH), the Interdisciplinary Fitness Interview (IFI), the Fitness Interview Test (FIT–R), the MacArthur Competence Assessment Tool–Criminal Adjudication (MacCAT–CA), and the Evaluation of Competence to Stand Trial–Revised (ECST–R). These measures provide a clinician with information relevant to an individual's competence to stand trial; however, there are minimal assessment guidelines and no accepted measures to evaluate competence to be sentenced. A comprehensive evaluation should be conducted to assess a defendant's intellect, his or her personality, and any underlying psychopathology, in addition to the basic competency criteria. As mentioned above, if a defendant is found not competent to be sentenced, the question of possible restoration to competence must be dealt with. Restoration to competence may achieved by the use of psycho-education, medication, or individual therapy.

Individuals with mental retardation or metal illness, juveniles, and people suffering from dementia are at higher risk of being found incompetent to be sentenced. These groups are identified as "at risk" due to limitations in rational understanding and abstract thinking. By definition, individuals with mental retardation have below-average intellectual abilities and impaired adaptive behavior, which affect all aspects of competency. Juveniles are labeled at risk because they are considered developmentally and psychosocially immature. Children typically develop higher-order processing and reasoning abilities as they mature. Although there is no exact age at which children develop this reasoning ability, the idea that juvenile offenders should be treated differently from adult offenders has long been an accepted legal premise. Research has focused on determining whether a juvenile possesses the minimal reasoning ability required to be found legally competent. The findings indicate that juveniles who lack developmental and psychosocial maturity (a) may not fully appreciate the long-term consequences of their decisions, (b) may yield to peer influence, and (c) may minimize the ramifications and risk of being found guilty. These limitations would lead to impaired decision making. People with

mental illness and/or dementia, on the other hand, sometimes lose their ability to reason abstractly and to understand legal processes.

Kimberly A. Larson, Michael P. Griffin, and J. Gregory Olley

See also Competence Assessment for Standing Trial for Defendants With Mental Retardation (CAST*MR); Competency, Restoration of; Competency Assessment Instrument (CAI); Competency for Execution; Competency Screening Test (CST); Competency to Stand Trial; Competency to Waive Appeals; Competency to Waive Counsel (Proceed Pro Se)

Further Readings

Cunningham, M. D., & Goldstein, A. M. (2003). Sentencing determinations in death penalty cases. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 407–436.). Hoboken, NJ: Wiley.

Dusky v. United States, 362 U.S. 402 (1960).

Melton, G. G., Petrila, J., Poythress, N. G., & Slobogin, C. (1997). *Psychological evaluations for the courts: A handbook for mental health professionals and lawyers* (2nd ed.). New York: Guilford Press.

Competency to Confess

Competency to confess refers to a suspect's ability to make a knowing, intelligent, and voluntary waiver of the *Miranda* warnings at the time of police questioning. Confessions that are given after a suspect waives his or her *Miranda* rights are sometimes challenged on the basis that the suspect was not competent to confess, meaning that the suspect was not capable of making a knowing, intelligent, and voluntary waiver of the *Miranda* rights and therefore could not have understood, appreciated, and willingly waived those rights. A confession that is successfully challenged cannot be used in court against the defendant. Assessment of competency is therefore performed after the confession is given. This assessment is performed by a mental health professional (often a forensic psychologist) and takes into account the defendant's ability at the time of the interrogation to understand the warnings and make intelligent use of them and the psychological factors that could be relevant to the court in assessing the voluntariness of the waiver.

In the 1966 *Miranda v. Arizona* case, the U.S. Supreme Court ruled that any statement arising from the custodial interrogation of a suspect would be presumed involuntary and thus inadmissible unless the police provide the suspect with four warnings: (1) the suspect has the right to remain silent, (2) any statements made by the suspect can be used in court against him or her, (3) the suspect has the right to the presence of an attorney before and during the interrogation, and (4) an attorney will be provided free of charge if the suspect does not have the ability to pay for one. Many jurisdictions have added a fifth prong, that these rights can be invoked at any time during the interrogation process and that once they are invoked, the questioning must cease until an attorney is present. The U.S. Supreme Court in the *Miranda* decision opined that these rights must be waived *knowingly, intelligently*, and *voluntarily.* Case law has clarified the meaning of these three prongs.

The term *competency to confess* is a misnomer because it explicitly refers to one's ability to understand and appreciate the significance of the *Miranda* rights at the time of police questioning. It also refers to the psychological characteristics of a defendant that have an impact on the voluntariness of the *Miranda* waiver. Thus, this competency differs from other competencies (e.g., competency to stand trial, competency to consent to treatment) in that the mental health professional must examine the individual's competence at some point in the past. The court is not concerned with current or future competency with respect to *Miranda* warnings; rather, the court is concerned about whether the defendant was able to make a knowing and intelligent waiver at the time he or she was questioned by the police.

Also, not all three prongs needed to effectuate a valid *Miranda* waiver can be addressed completely by the mental health professional. Case law clearly indicates that for a waiver of rights to be deemed involuntary, there must be a showing of police misconduct. It has to be shown that the police were unduly coercive and overstepped their bounds in extracting a *Miranda* waiver. It is beyond the scope of a mental health expert's expertise to determine whether and how that threshold was crossed. Yet psychological expertise can be useful to the court in determining whether a suspect possesses psychological characteristics that increase his or her susceptibility to the effects of police conduct. Such characteristics include interrogative suggestibility, compliance, intellectual functioning, anxiety, memory, and sleep deprivation. There are

a number of specialized tests that can assist the clinician in evaluating the psychological factors relevant to the voluntary prong of the *Miranda* waiver.

It is within the realm of the mental health professional's expertise to opine directly on the knowing and intelligent prongs of the *Miranda* waiver. A knowing waiver of rights is defined as the individual's understanding or comprehension of the rights combined with the manner in which the rights were administered by law enforcement. For example, one would expect different levels of understanding in illiterate suspects if they were required to read the rights on their own versus having the rights read to them. An intelligent waiver of rights is different from a knowing waiver of rights. The former involves knowledge of the rights, decision-making capacity, and appreciation of the significance of the rights based on one's knowledge of how the legal system works. Thus, while suspects may understand that they have a right to defense counsel, an intelligent waiver of the right to counsel cannot be made if they erroneously believe that a defense attorney would only work on behalf of innocent defendants.

Evaluation of a defendant's competency to confess requires a comprehensive forensic evaluation. An extensive clinical history, examination of mental status, and record review are generally combined with psychological testing to assess a defendant's cognitive and emotional functioning. The focus is directly on the psychological functioning that would have been displayed at the time of the police questioning. Given that the evaluation must be functionally based—that is, clinically relevant data should be integrated with the appropriate legal criteria (i.e., knowing, intelligent, and voluntary), the mental health professional must specifically assess behavior relevant to the legal criteria. Thomas Grisso developed four psychological tests to aid in the assessment of a juvenile's or an adult's ability to make a knowing and intelligent waiver of rights. Although these tests (like any other test) are subject to misuse, if used properly as part of a comprehensive competency assessment, they can provide useful data to the clinician and, ultimately, to the trier of fact.

The assessment of competency to confess must also take into consideration the complexity of the wording of the rights. In general, the *Miranda* warnings are written at approximately the seventh-grade level of reading comprehension. Yet the complexity of the wording of the rights varies greatly within and between jurisdictions.

Research has shown that 23% of adults do not understand at least one of the four *Miranda* rights. Moreover, 70% of adult nonoffenders and 43% of adult offenders erroneously believe that the right to remain silent is revokable by the judge. Juveniles aged 14 years and below do not understand their rights as well as older juveniles and adults. With juveniles and adults, intelligence is positively correlated with *Miranda* comprehension.

I. Bruce Frumkin

See also Capacity to Waive Rights; Confession Evidence; Grisso's Instruments for Assessing Understanding and Appreciation of *Miranda* Rights; Reid Technique for Interrogations

Further Readings

Cloud, M., Shepherd, G., Barkoff, A., & Shur, J. (2002). Words without meaning: The constitution, confessions, and mentally retarded suspects. *University of Chicago Law Review, 69,* 495–624.

Frumkin, I. B. (2007). Psychological evaluation in *Miranda* waiver and confession cases. In R. Denny & J. Sullivan (Eds.), *Clinical neuropsychology in the criminal forensic setting*. New York: Guilford Press.

Grisso, T. (2003). *Evaluating competencies: Forensic assessment and instruments* (2nd ed.). New York: Kluwer Academic.

Miranda v. Arizona, 384 U.S. 436 (1966).

Competency to Stand Trial

The legal standard for competency to stand trial in the United States was articulated by the U.S. Supreme Court in *Dusky v. United States* (1960), wherein the Court determined that a defendant must have "sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding" and a "rational as well as factual understanding of the proceedings against him" (p. 402). Mental health professionals are called on to assist the courts by evaluating defendants' competency to stand trial, often aided by assessment tools designed specifically for this purpose, and by providing treatment for the restoration of competency in incompetent defendants. Psychological research in this area has examined the reliability of competency assessments, the characteristics of defendants deemed incompetent to stand trial, and the characteristics associated with restorability.

Competency to stand trial is the most common type of criminal forensic evaluation, with approximately 60,000 evaluations conducted annually in the United States. That is, between 2% and 8% of all felony defendants are referred for evaluations of competency to stand trial each year. The issue at stake in an evaluation of competency to stand trial is the defendant's *current* mental functioning; this is often confused with criminal responsibility (insanity), wherein the issue at stake is the defendant's mental state at the time of the offense. The prohibition against trying an incompetent defendant dates back to at least the 17th century and serves the dual purpose of ensuring a fair trial for the defendant and preserving the dignity of the adversarial process.

Competency to stand trial is but one type of competency that falls under the larger, more encompassing headings of adjudicative competence or competency to proceed. The issue of a defendant's competence may be raised at any point in the proceedings before a verdict is rendered; thus, competency to confess (waive *Miranda* rights), competency to plead guilty, competency to waive the right to counsel, and competency to stand trial all fall under the umbrella of adjudicative competence or competency to proceed. Furthermore, the U.S. Supreme Court in *Godinez v. Moran* (1993) indicated that the standards for the various types of criminal competencies (pleading guilty, waiving counsel, and standing trial) were to be the same. Thus, in light of the decision in *Godinez* as well as the fact that upward of 90% of criminal cases are resolved through the plea bargaining process rather than by going to trial per se, evaluations of competency to stand trial necessarily include evaluation of the defendant's ability to plead guilty and to engage in the plea bargaining process. The term *competency to stand trial* has begun to be replaced by the term *competency to proceed* in some states, but for the purpose of remaining true to the literature and commentary that have developed up to this point, the term *competency to stand trial* is used in this entry.

Legal Standard and Procedures

Since 1960, every state has adopted the *Dusky* standard either verbatim or with minor variations in the wording. In addition, some states have elaborated their competency statutes to include articulated standards wherein various specific factors that must be addressed by evaluators in a competency evaluation are set out.

The issue of a defendant's competency to stand trial may be raised by any party to the proceedings (the defense, the prosecution, or the court more generally), although in the vast majority of cases the issue is raised by the defense. A formal inquiry into a defendant's competency to stand trial must take place if a "bona fide doubt" about his or her competency exists, as all defendants are presumed competent.

Competency evaluations historically occurred in inpatient settings; however, the majority of competency evaluations now occur in community-based settings, including mental health centers, private practice offices, and jails. Research has indicated that approximately 20% (although this varies by jurisdiction) of all defendants referred for competency evaluation are deemed incompetent; thus, the vast majority of referred defendants are competent to stand trial. Various explanations for the high rate of competence have been put forth, including defense attorneys using the referrals as "fishing expeditions" to attempt to gather information that may be helpful in their defense or to investigate the feasibility of a later insanity plea. Others suggest that these referrals are made to prolong the amount of time it takes to get to trial, thus giving the defense (or perhaps the prosecution) more time to prepare the case; to have a mentally ill defendant hospitalized or treated when he or she will not voluntarily undergo hospitalization or treatment; or so that prosecutors and/or defense attorneys may guard against the possibility of a later appeal on the grounds that an individual with a known history of mental illness was allowed to proceed to trial under the presumption of competence. It is unclear how often the aforementioned reasons serve as the primary rationale for requesting a competency evaluation. In addition, it is important to acknowledge that the procedures used in various jurisdictions may account for the differing rates of incompetence. For example, in jurisdictions that use a screening process to eliminate those who are clearly competent from further evaluation, a higher rate of incompetence would be expected among defendants who undergo a formal evaluation of competency to stand trial.

Depending on the jurisdiction, one or more mental health professionals will evaluate a defendant's competency to stand trial and submit the results of this evaluation to the court in the form of a written report. A hearing on the issue of competency may take place; however, in most instances, this does not occur. Instead, the court usually renders a decision regarding the defendant's competency on the basis of the mental

health professional's report. Although the determination of a defendant's competency status is a legal decision, research has shown that the courts typically concur with the opinion of mental health professionals. In fact, some research has indicated rates of agreement between the court and the evaluator to be greater than 95%.

Defendants who are found competent by the court will proceed with their case, whereas those who are found incompetent will, in most instances, be ordered by the court to undergo treatment for the purpose of restoration of competency. Treatment for restoring a defendant's competency to stand trial most often occurs on an inpatient basis, although some states have moved toward a "least-restrictive" alternative, which allows for the possibility of outpatient treatment. Generally, most defendants are restored to competency within a 1-year period. Once restored, the defendant resumes with his or her legal proceedings. Those defendants who cannot be restored to competency will generally have their charges dismissed or nolle processed.

Until the 1970s, incompetent defendants were often committed to lengthy periods of confinement in state maximum-security units, even though they were neither tried nor convicted of a crime. In 1972, the U.S. Supreme Court in the case of *Jackson v. Indiana* decided that incompetent individuals could not be held for "more than a reasonable period of time necessary to determine whether there is a substantial probability" that they will regain competency in the foreseeable future (p. 738). The Court, however, did not give any indication as to what might be considered a "reasonable" period of time. As a result of the *Jackson* decision, many states amended their statutes to include either language similar to *Jackson* or specific timelines for determining whether someone might be restored to competency.

With respect to the issue of medication, the U.S. Supreme Court in a series of decisions has indicated that a defendant may be forcibly medicated to restore competency under certain conditions, including an "overriding justification and a determination of medical appropriateness" (*Riggins v. Nevada*, 1992); its being essential to the safety of the defendant or the safety of others (*Riggins v. Nevada*, 1992; *Washington v. Harper*, 1990); or a finding that the medication is likely to restore competency and will not result in side effects that might affect a defendant's ability to assist counsel and alternative and less intrusive methods are not available (*Sell v. United States*, 2003). Thus, for the purpose of restoring competency, it seems that the right of a defendant to refuse medication is significantly limited. In this instance, it appears that the government's interest in trying a competent defendant carries more weight than a defendant's right to refuse medication.

Competency Evaluation

At its most basic, the evaluation of a defendant's competency to stand trial involves an assessment of the psycholegal abilities required of the defendant (as per the relevant legal statutes of the jurisdiction), an assessment of the current mental status of the defendant, and a determination of whether a linkage exists between any psycholegal deficits that may be evident and any mental disease or defect that may exist. Thus, a mental disease or defect serves as a prerequisite for a determination of incompetency, and any deficits in the relevant psycholegal abilities must be linked to this mental disease or defect. In addition, the evaluation of these components must occur within the specific context of the defendant's particular case. That is, the complexities of the particular case must be considered as well as, and in conjunction with, the specific abilities of the particular defendant.

Numerous forensic assessment instruments have been developed to aid in the evaluation of competency to stand trial. A full review of these instruments is beyond the scope of this entry, but the interested reader is referred to the cross-references listed below for more information. The instruments that have been developed range from simple checklists with little to no empirical support to detailed measures that have been developed and investigated with the highest level of scientific rigor. Some tools, such as the Fitness Interview Test–Revised, can be used either as a screen to help systematically identify individuals in need of further evaluation or as a means of structuring a more detailed competency evaluation. Others, such as the MacArthur Competence Assessment Tool–Criminal Adjudication or the Evaluation of Competence to Stand Trial–Revised, provide for a detailed assessment of competency-related abilities, to be used in conjunction with additional assessment with respect to the defendant's particular case. In addition, other instruments have been developed for use with specific populations of defendants, such as the Competence Assessment for Standing Trial for Defendants With Mental Retardation.

Research has demonstrated that there is generally good agreement among evaluators with respect to overall decisions regarding competency; however, examiner agreement falls significantly when specific psycholegal deficits are examined. Research has indicated that examiner agreement reaches 80% or higher for overall decisions regarding competency but that it falls to about 25% across a series of competency domains. Of course, it is the more difficult cases, the gray-area cases in which competency is truly a serious question, that are of the greatest concern and for which no research is available.

Given the low base rate of incompetence, high levels of agreement among examiners on the issue of a defendant's overall competence are to be expected; however, high levels of reliability do not ensure that valid decisions are being made. Validity is difficult to assess because of the criterion problem; that is, there is no true criterion for competency and thus no way to determine whether decisions that have been made about a defendant's competency are accurate. It is impossible to fully assess predictive validity as only those defendants who are considered competent are allowed to proceed; thus, we have no way of knowing whether a defendant who was considered incompetent was actually unable to perform the abilities required of him or her.

Characteristics of Incompetent Defendants

The vast majority of the research that has been conducted on competency to stand trial has examined the characteristics of and differences between competent and incompetent defendants. The constellation of characteristics held in common by defendants referred for evaluations of competency include being male, single, or unemployed; living alone; having a history of contact with both the criminal justice and the mental health systems; and being diagnosed with a major mental disorder.

The individuals who are found incompetent to stand trial generally show the following characteristics: poor performance on psychological tests that measure a defendant's legally relevant functional capacities, a diagnosis of psychosis, and psychiatric symptoms indicative of severe psychopathology. In addition, diagnoses of schizophrenia, mental retardation, mood disorders, and organic brain disorders have all been found to be strong predictors of incompetency.

Direct comparisons of competent and incompetent defendants reveal that incompetent defendants are significantly more likely to be single, unemployed, charged with a minor offense, and diagnosed with a psychotic disorder and significantly less likely to be charged with a violent crime and to have substance use disorders than are competent defendants.

Competency Restoration

In light of the Supreme Court's decision in *Jackson* (discussed above), most jurisdictions now require evaluators to provide an opinion regarding the restorability of a defendant who is considered incompetent to stand trial. In general, evaluators are usually required to provide information to the court on whether the defendant can be restored to competency (or the probability of restoration occurring) and what the available treatment options are for the defendant. In addition, some jurisdictions require the evaluator to provide an estimate of the time frame required for restoration. Generally, many defendants are restored to competency within 6 months, and the vast majority are restored within a 1-year period.

Although a full discussion of competency restoration is beyond the scope of this entry, some research has examined the characteristics of restorable and nonrestorable incompetent defendants. In general, this research has indicated that those defendants considered to be restorable tend to be younger and are more likely to have a previous criminal history and a nonpsychotic diagnosis than their unrestorable counterparts.

Patricia A. Zapf and Virginia G. Cooper

See also Competency, Foundational and Decisional; Competency, Restoration of; Competency Assessment Instrument (CAI); Competency Screening Test (CST); Competency to Waive Counsel (Proceed Pro Se); Evaluation of Competence to Stand Trial–Revised (ECST–R); Fitness Interview Test–Revised (FIT–R); Georgia Court Competence Test (GCCT); Interdisciplinary Fitness Interview (IFI); MacArthur Competence Assessment Tool for Criminal Adjudication (MacCAT–CA)

Further Readings

Dusky v. United States, 362 U.S. 402 (1960).

Godinez v. Moran, 509, U.S. 389 (1993).

Grisso, T. (2003). *Evaluating competencies: Forensic assessments and instruments* (2nd ed.). New York: Kluwer Academic/Plenum.

Jackson v. Indiana, 406 U.S. 715 (1972).

Melton, G. B., Petrila, J., Poythress, N. G., & Slogobin, C. (1997). *Psychological valuations for the courts: A handbook for mental health professionals and lawyers* (2nd ed.). New York: Guilford Press.

Riggins v. Nevada, 504 U.S. 127 (1992).

Roesch, R., & Golding, S. L. (1980). *Competency to stand trial.* Chicago: University of Illinois Press.

Roesch, R., Zapf, P. A., Golding, S. L., & Skeem, J. L. (1999). Defining and assessing competency to stand trial. In A. K. Hess & I. B Weiner (Eds.), *The handbook of forensic psychology* (2nd ed., pp. 327–349). New York: Wiley.

Sell v. United States, 539 U.S. 166 (2003).

Washington v. Harper, 494 U.S. 210 (1990).

Zapf, P. A., & Roesch, R. (2006). Competency to stand trial: A guide for evaluators. In I. B. Weiner & A. K. Hess (Eds.), *The handbook of forensic psychology* (3rd ed., pp. 305–331). New York: Wiley.

Zapf, P. A., Viljoen, J. L., Whittemore, K. E., Poythress, N. G., & Roesch, R. (2002). Competency: Past, present, and future. In J. R. P. Ogloff (Ed.), *Taking psychology and law into the twenty first century* (pp. 171–198). Kluwer Academic/Plenum.

Competency to Waive Appeals

Appellate review of a felony conviction is a constitutional right. The validity of a relinquishment of this or any other constitutional right rests on whether the waiver is made knowingly, intelligently, and voluntarily. There are two distinct arenas where waivers of appeals are encountered: plea bargains in criminal cases and death-sentenced inmates "volunteering" for execution. Though waivers of appellate review in plea bargains are legally complex, they are not philosophically, ethically, or forensically problematic. This is largely because the defendant makes an election that, viewed from both subjective and external perspectives, is in his self-interest. A waiver of appellate review by a death-sentenced inmate, however, is fraught with philosophical and ethical dilemmas, as well as forensic evaluation ambiguities. This situation is compounded because the U.S. Supreme Court has not articulated clear standards or procedures for evaluation of the competency of death-sentenced inmates to waive appellate review. Accordingly, forensic evaluations of this issue by mental health professionals are at best comprehensive and highly descriptive in nature.

Waiver of Appeals in Plea Bargains

Depending on the jurisdiction, a waiver of the right to appellate review may be required of a defendant as a condition for a plea bargain. A waiver under these circumstances can be viewed as analogous to the defendant entering into a contract that is perceived to be most beneficial (or least onerous) to the defendant, as well as contributing to a more efficient administration of justice. Critics, however, note that a waiver of appeals as a precondition for securing a plea bargain is inherently coercive. Furthermore, such a waiver is invariably unknowing, as at the time of the waiver, the defendant may not yet have been sentenced or may not recognize limitations in the effectiveness of counsel, sentencing in excess of the statutory maximum, racially based sentencing, and so forth.

Though these opposing considerations result in a complex legal analysis, waivers of appeals in a plea bargain are not forensically, philosophically, or ethically problematic. Forensic evaluations of the competency to make such a waiver are routinely subsumed within the broader consideration of competency to stand trial. There is little philosophical tension, as the defendant making this election is typically acting in rational self-interest—that is, to secure a less severe sentence. Furthermore, this plea bargain and the associated waiver of appeals are usually accomplished with the advice, participation, and assistance of defense counsel, whose role of facilitating the most advantageous outcome for the defendant is ethically straightforward.

Complexities in Waiver of Appeals Among Death-Sentenced Inmates

Waivers of appellate review among death-sentenced inmates are notably different from those routinely encountered at plea bargaining. Whereas the defendant in a plea bargain may quite rationally waive appeals as part of obtaining a more favorable sentence, such a waiver by a death-sentenced inmate represents an acceleration of the arguably more onerous punishment of execution. This volunteering, as it were, for death cuts against basic expectations of self-preservation and, accordingly, immediately raises questions regarding the rationality and motivations of such a determination. Equally problematic, the volunteering death-sentenced inmate is at cross-purposes with appellate counsel, who are likely to regard that they are ethically bound to delay or seek relief from

the death sentence. Not uncommonly, the desire of the death-sentenced volunteer to accelerate execution is not shared by his or her family, who may seek standing to intervene as a "next friend" and continue with the appellate review.

A decision by a death-sentenced inmate to functionally accelerate execution by forgoing appeals creates significant tension between competing rights and imperatives. On the one hand, competent adults (including death-sentenced inmates) are accorded some self-determination regarding their own mortality. For example, an individual can elect to forgo or discontinue medically indicated treatment even if death is the predictable result but is barred from committing suicide or seeking physician-assisted death. There is an analogous conundrum of determining where a rational determination that solitary confinement awaiting an inevitable death is more onerous than death stops and state-assisted suicide begins.

Counterbalancing the right to self-determination among death-sentenced inmates, Justice John Marshall expressed in his dissenting opinion in *Whitmore v. Arkansas* (1990) that society has an interest in preserving the integrity of the criminal justice system and safeguarding the reliability of the application of capital punishment. Meaningful appellate review was made central to the reliable administration of the death penalty in *Gregg v. Georgia* (1976). How is the death penalty as a legitimate sanction preserved if a death-sentenced inmate who is innocent or who has been sentenced in a constitutionally flawed trial is allowed to "volunteer" in order to escape the travails of confinement?

Finally, there is tension between the complexity of appellate review and the limited literacy and legal sophistication of most capital offenders. Both direct appeals and postconviction review are extended, complicated, and tortured processes. Capital offenders may have difficulty in fully comprehending the associated legal issues or realistically evaluating their potential for success, rendering the "knowing and intelligent" condition illusory. Similarly, the concrete and rigid thinking associated with limited intelligence or neuropsychological deficits may interfere with effective problem solving and a realistic appraisal of available options, even while making "logical" arguments.

The "voluntary" factor is also a complex consideration among death-sentenced inmates who seek to waive their appeals. This complexity is a function of both internal and external experience. A history of family dysfunction, substance dependence, and neuropsychological insults and findings as well as limited intelligence and literacy deficits are common among death-sentenced inmates. Such a background would be expected to reduce resilience. Not surprisingly, rates of depression and other psychological disorders among death-sentenced inmates are relatively high. Furthermore, the chronic stress of being under a sentence of death is not insignificant. These psychological experiences leave logic intact but significantly intrude on the death-sentenced inmate's "free will."

These internal reactions may be aggravated by the arduous conditions of confinement on death row. Quite simply, many death-sentenced inmates who seek to end their appeals do so because they find the conditions on death row to be intolerable. This is not a surprising reaction. In most jurisdictions in the United States, death-sentenced inmates are held in solitary confinement in cramped cells, in death-segregated units, with severe restriction of activities or interaction with others. These conditions have been identified as both psychologically destabilizing and inherently coercive. The coercive implications of death row confinement in waivers of appeal have gained additional salience from research by Cunningham and colleagues demonstrating that death-sentenced inmates who were mainstreamed in the Missouri Department of Corrections with non-death-sentenced inmates were not a disproportionate source of violence. The combined effects of premorbid psychological vulnerability, depression, chronic stress, and extraordinarily restrictive confinement have been identified by international courts (e.g., *Soering v. United Kingdom*, 1989) as giving rise to "death row syndrome," a legal rather than psychological classification intended to reflect the coercive totality of circumstances impinging on death-sentenced inmates.

Supreme Court Guidance on Competence to Waive Death Sentence Appeals

The U.S. Supreme Court has not provided a clear standard for determining the competence of death-sentenced inmates to waive their appeals. In *Rees v. Peyton* (1966), the Court opined that the inquiry should be directed to

> whether he has capacity to appreciate his position and make a rational choice with respect to continuing or abandoning further litigation or on the other hand

> whether he is suffering from a mental disease, disorder, or defect which may substantially affect his capacity in the premises.

Unfortunately, the Court did not define "rational choice" or specify the procedures the lower court should use to determine if this standard has been met. Subsequently, in *Gilmore v. Utah* (1976), the Court did not reference the *Rees* decision, instead simply concluding that Gary Gilmore had made a knowing and intelligent waiver. Though the knowing and intelligent factors implicated an inherent autonomous decision-making consideration, an explicit "voluntary" factor was incorporated by the Supreme Court in 1990 in *Whitmore v. Arkansas.* Some additional guidance is available from *Rumbaugh v. Procunier*, a 1985 U.S. Court of Appeals for the Fifth Circuit decision that the U.S. Supreme Court let stand by denying the petition for a writ of certiorari. *Rumbaugh* sought to structure the *Rees* criteria with the following questions:

- Is the person suffering from a mental disease or defect?
- If the person is suffering from a mental disease or defect, does that disease or defect prevent him from understanding his legal position and the options available to him?
- If the person is suffering from a mental disease or defect that does not prevent him from understanding his legal position and the options available to him, does that disease or defect, nevertheless, prevent him from making a rational choice among his options?

Although these questions are helpful in providing a decision tree, they do not define the critical terms. Furthermore, they do not specify the procedures that should be employed to elicit answers to these questions.

Evaluations of Death-Sentenced Inmates for Competence to Waive Appeals

As is the case with most forensic evaluations, assessments by mental health professionals of competence to waive appeals by a death-sentenced "volunteer" are mostly descriptive rather than conclusionary. This is particularly important in light of the absence of a clear definition of many of the critical elements of competence. A descriptive approach also acknowledges that determinations of incompetence by the courts have significant variability in the nature and severity of the qualifying psychological disorder, as well as the relationship of that disorder to rational decision making. Such a highly descriptive narrative should provide a careful analysis of the motivations for waiving appeals. The motivations underlying such a waiver may be far more complex and less obvious than the stated rationale of the volunteer. Thus, it is important not only to engage the capital inmate in discussion regarding the available options but also to gather information on any current or historical psychological disorders. Depressive symptoms and associated suicidal ideation are a particularly important focus, as is any paranoia. Many of the considerations explored in a competency-for-execution evaluation are also relevant to a waiver assessment, as these illuminate the capital inmate's understanding of his or her own impending death. Specific attention should be paid to the conditions of confinement on the respective death row and how these affect mood, future perspective, and waiver decision making. Throughout this extensive interview with the volunteering inmate, careful attention should be directed to rationality, logic, insight, and coherence of thought.

Interviews should also be held with appellate counsel, as well as prison staff, family members, and other relevant third parties. Psychological testing, including personality and cognitive assessment, may be helpful in some cases to assess aspects of the inmate's functioning that contribute to his or her understanding and motivations with respect to the waiver.

Mark Douglas Cunningham

See also Checklist for Competency for Execution Evaluations; Competency for Execution; Competency to Stand Trial

Further Readings

Blank, S. (2006). Killing time: The process of waiving appeal in the Michael Ross death penalty cases. *Journal of Law and Policy, 14,* 735.

Cunningham, M. D., & Vigen, M. P. (2002). Death row inmate characteristics, adjustment, and confinement: A critical review of the literature. *Behavioral Sciences & the Law, 20,* 191–210.

Gilmore v. Utah, 429 U.S. 1012 (1976).

Gregg v. Georgia, 428 U.S. 153 (1976).

Lyon, A. D., & Cunningham, M. D. (2006). Reason not the need: Does the lack of compelling state interest in maintaining a separate death row make it unlawful? *American Journal of Criminal Law, 33,* 1–30.

Norman, M. T. (1998). Standards and procedures for determining whether a defendant is competent to make the ultimate choice—death; Ohio's new precedent for death row "volunteers." *Journal of Law and Heath, 13,* 103.
Rees v. Peyton, 384 U.S. 312 (1966).
Rumbaugh v. Procunier, 753 F. 395 (2d 5th Cir. 1985).
Soering v United Kingdom, 11 E.H.R.R. 439 (1989).
Whitmore v. Arkansas, 495 U.S. 149 (1990).

Competency to Waive Counsel (Proceed Pro Se)

In the United States, it is permissible, with the approval of the judge, for a criminal defendant to act as his or her own attorney when the case goes to court. Legal and clinical issues related to the defendant's being competent to waive the right to legal representation are discussed in this entry.

In the United States, defendants accused of criminal charges are entitled to rights and protections by the Constitution. One important right articulated in the Sixth Amendment is that every accused person is entitled to representation by a legal counsel. Like other constitutional rights, the right to counsel is guaranteed—that is, no one, including even the judge, can deprive the defendant of this right. However, a defendant may request a waiver of the Sixth Amendment right to legal representation and permission of the court to represent himself or herself—in legal parlance, to proceed pro se.

Waiving some constitutional rights is a common occurrence. The overwhelming majority of criminal cases (more than 90%) are resolved through a plea agreement between the defendant and the state, and to enter a guilty plea, a defendant must waive the constitutional rights to a trial and to confront the evidence. When it is required that the defendant provide a factual basis or justification for the plea, he or she may further have to waive the Fifth Amendment right against self-incrimination.

In the context of entering a guilty plea, defendants' waiver requests typically occur after consultation with, and with the advice and consent of, their attorneys. Furthermore, by their nature, plea agreements are about disposition of the case; thus, defendants are commonly well-informed about the personal consequences of these waivers. In contrast, the request to waive the right to counsel more often marks a rift between the client and the attorney, and the potential impact on case outcome is usually not known. However, it is almost universally agreed that the likely impact is not good, as reflected in the adage that a defendant who proceeds pro se "has a fool for a client and an idiot for a lawyer." But in the most exceptional cases, criminal defendants likely disadvantage themselves because they might lack the litigation skills needed to present their cases most effectively. Nevertheless, the judge may approve a request if he or she determines that the defendant is competent to waive counsel.

Case law has articulated the qualities that must be present with respect to *competent* waivers of constitutional rights. Although there are minor variations in language across cases, generally, the judge must determine that the waiver is made *knowingly, intelligently*, and *voluntarily*. One court stated that the judge must determine whether the waiver was "made with full awareness of both the nature of the right being abandoned and the consequences of the decision to abandon it." The courts have not further articulated the specific functional abilities (i.e., behavioral indicators) that are required for a defendant to demonstrate that his or her request meets these qualitative criteria. However, the case law is clear as to what is *not* required: It is not required that the judge deem the defendant's decision to be a prudent one, nor does the competence determination hinge in any way on a demonstration that the defendant has litigation skills.

When a defendant expresses the desire to waive the right to counsel, the court, either on its own motion or on the motion of the defense attorney, may order a clinical evaluation of the defendant's mental competence. Presently, there are no standardized methods for psychiatrists or psychologists to use to evaluate competence to waive counsel, and most such evaluations will be based on unstructured interviews, the substance and process of which may vary widely across examiners. An interviewing strategy used in evaluating competence to plead guilty is embedded in the MacArthur Competence Assessment Tool–Criminal Adjudication and may offer some guidance for evaluations of competence to proceed pro se. Briefly, this strategy involves having the defendant articulate what the choices are—in this instance, proceeding with an attorney in charge of presenting the defense or proceeding pro se. The defendant is then asked to describe both the potential advantages and the potential disadvantages of each alternative. Subsequent queries require that the alternatives be compared and contrasted (e.g., "Explain why Alternative a might be better than Alternative b. Are there some ways in which Alternative b might be better

than Alternative a?"). A query as to the final choice and the reasons for that choice solicits the defendant's beliefs about his or her case and situation, enabling the clinician to formulate a judgment of the plausibility or rationality and coherence of the defendant's thinking.

Ultimately, it is the judge's decision whether to permit the waiver of the right to counsel. Even if the request to waive representation by counsel is granted and the case proceeds with the accused having primary responsibility for the defense, the judge may still order that a lawyer be present during subsequent proceedings and available as a consultant to the defendant. Providing for such consultation, whether or not the defendants makes use of it, is a positive gesture by the court that attempts to ensure fairness and preserve the dignity of the adjudicatory process.

Norman G. Poythress

See also Adjudicative Competence of Youth; Capacity to Waive Rights; Competency, Foundational and Decisional; Competency to Stand Trial

Further Readings

Litwack, T. R. (2003). The competency of criminal defendants to refuse, for delusional reasons, a viable insanity defense recommended by counsel. *Behavioral Sciences and the Law, 21*, 135–156.

Mossman, D., & Dunseith, N. W., Jr. (2001). "A fool for a client": Print portrayal of 49 pro se criminal defendants. *Journal of the American Academy of Psychiatry and the Law, 29,* 408–419.

Perlin, M. (1996). "Dignity was the first to leave": *Godinez v. Moran*, Colin Ferguson, and the trial of mentally disabled criminal defendants. *Behavioral Sciences and the Law, 14,* 61–81.

Skeem, J., Golding, S. L., & Emke-Francis, P. (2003). Assessing adjudicative competency: Using legal and empirical principles to inform practice. In W. T. O'Donohue & E. R. Levensky (Eds.), *Handbook of forensic psychology: Resource for mental health and legal professionals* (pp. 175–211). Amsterdam: Elsevier.

Complex Evidence in Litigation

Complex litigation tends to get framed as a problem for the jury system, but it is more properly viewed as a problem for any fact finder—juror, judge, arbitrator, expert panel—and for the litigants and their attorneys. Still, the jury framing is useful because it brings into focus some of the resources a fact finder needs to tackle the problem: attention, memory storage and retrieval, education and training, and life experience. In these respects, groups are advantaged over individuals, and experts are advantaged over nonexperts. Since judges have greater average expertise but juries act as groups, it is difficult to identify a net advantage either way. And, of course, accuracy is only one criterion by which we evaluate legal judgment; a full assessment requires considerations of efficiency, fairness, legitimacy, and community representation.

The task of studying the topic of complex litigation recapitulates the key features of the problem. Complex litigation produces a vast and gnarly multidimensional search space, yet legal fact finders and jury researchers alike attempt to draw inferences from only fragmentary glimpses of isolated regions of that space. As a result, legal fact finders and jury researchers each combine sparse data with inferences that go beyond the data given. Theory is always important in sociolegal research, but for this topic, it is essential if we are to say much at all.

This entry presents a theoretical framework for evaluating expertise and collective decision making and describes the research done in this area. It also examines the types of complexity with respect to the number of parties and issues in a dispute and the amount and complexity of the evidence presented in the trial.

Theoretical Issues

Expertise

The typical jury is obviously far less expert than the judge in one key respect—expertise on the law as it pertains to the case. But because juries do not provide a rationale for their verdict, we only rarely know that a jury has made a "mistake" on the law, and juries may not feel particularly hindered by their lack of legal expertise. What may matter far more is expertise with respect to the technical issues that may arise at the trial, involving the economic analysis of market power, the engineering of heavy machinery, the etiology of a disease, or the epidemiology of toxic exposure. Here, judges may outperform the average juror; judges are above average in education and intelligence, and they may have relevant experience from past trials. But we shouldn't overestimate either intelligence or experience. Studies of expertise show that it can take a decade or more of concerted effort to

develop true mastery of a technical skill. Graduate students are highly intelligent and still struggle for months to successfully complete their more technical graduate courses. And today's judges are likely to have far less actual trial experience than their predecessors of earlier generations. As a sample of the community, the jury may collectively have more relevant expertise in nonlegal issues than the relevant judge.

Groups as Information Processors

In the 1950s, Irving Lorge and Herbert Solomon deduced that, ceteris paribus, groups are better situated than their individual members to find correct answers. If p is the probability that any given individual will find the "correct" answer, then the predicted probability P that a collectivity of size r will find the answer is $P = 1 - (1 - p)^r$. More recently, Lu Hong and Scott Page have derived theorems proving that cognitively diverse groups—defined with respect to the perspectives and schemas they use to tackle a problem—can outperform even their best members. But this model, like that of Lorge and Solomon, proves group competence, not group performance. Empirically, we know that performance often falls short of competence.

Both models hinge on a key premise: If at least one member finds the answer, it will be accepted as the collectivity's solution—in short, "truth wins." This can occur only if group members recognize the "correctness" of a solution once it is voiced. Unfortunately, there are two problems with this assumption. First, Garold Stasser and his collaborators have shown that not all relevant facts get voiced; group discussion tends to focus on shared rather than unshared information. Second, even when voiced, correct answers are not always recognized as such. At best, "truth supported wins"—at least some social support is needed for a solution to gain momentum, indicating that truth seeking is a social as well as an intellective process. But even that occurs only for some tasks. One such task appears to be recognition memory; research has shown that groups outperform their members on memory tasks. But for more complex inferential tasks, members need a shared conceptual scheme for identifying and verifying solutions. When they lack such a scheme, the more typical influence pattern is *majority amplification*, in which a majority faction's influence is disproportionate to its size, irrespective of the truth value of its position. In other words, strength in numbers trumps strength in arguments.

In theory, collective decision making (or the statistical aggregation of individual judgments) is well suited for reducing *random error* in individual judgments. But *bias* is a different story. Biases can be produced by content—inadmissible evidence or extralegal factors such as race and gender—or by process, as when jurors rely on an availability heuristic (overweighting what comes most readily to the mind), an anchoring heuristic (insufficiently adjusting away from an arbitrary starting value), confirmatory bias, or hindsight bias. Analyses by Norbert Kerr, Robert MacCoun, and Geoffrey Kramer suggest that under a wide variety of circumstances, collective decision making will *amplify* individual bias rather than attenuate it. The collective will tend to amplify individual bias when there is "strength in numbers," such that large factions have an influence disproportionate to their size, as will occur explicitly in a "majority rules" system and when the case at hand is "close" rather than lopsided. A case can be close for several reasons, and each may pose different challenges for the fact finder. Facts can be ambiguous and vague; they can be clear but may contradict each other; or they can seem clear to each perceiver, but the perceivers may disagree on which side the "clear" facts support. The latter is particularly likely in an adversarial setting, where jury factions may form favoring each side of a dispute.

Defining Complexity

In 1987, Robert MacCoun postulated a preliminary taxonomy of three basic categories of complexity: dispute complexity (the number of parties and number of issues in a dispute), evidence complexity (the quantity, consistency, and technical content of evidence), and decision complexity (the complexity of the law and the complexity of the inferential steps and linkages required to render a verdict). In the 1990s, Heuer and Penrod conducted the first systematic statistical analysis of trial complexity in a field study of 160 criminal and civil trials. Judges were asked to rate the trials on a wide array of attributes. Factor analyses suggested three underlying dimensions, roughly overlapping MacCoun's categories: evidence complexity, legal complexity, and the quantity of information presented at trial. As in earlier work, it was found that judge ratings of complexity were unrelated to judge-jury agreement rates.

Both analyses treated quantity as a problem for the fact finder. On reflection, that doesn't necessarily follow. Large trials are extended over long time

periods. Citizens who are able to track the plot complexities of soap operas such as *All My Children* or the team lineups of the NBA clearly have the resources to track large arrays of factual data. Indeed, inductive inference often gets easier with additional data, not harder. What probably matters more is the internal structure of the evidence—the inconsistencies and contingencies and interdependencies.

Evidence Complexity

We know very little about evidence complexity in the trial context, but there are much larger bodies of research on deductive and inductive inference in nonlegal tasks. In approaching this literature, it is useful to keep two distinctions in mind. One is between the two criteria for validity: correspondence versus coherence. Correspondence considers whether our inferences match the empirical facts; coherence considers whether our inferences "hang together" in a manner consistent with the normative standards of deductive logic, Bayesian updating, and the like. The second distinction is between competence and performance. Competence describes what we are capable of achieving; performance describes what we actually achieve. A disproportionate amount of work has been done in the "coherence/performance" cell. We know that people routinely violate normative inference standards for even fairly simple tasks, and they do so systematically rather than randomly, through the use of heuristics. But various lines of evidence from the other three cells suggest that people—and honeybees, birds, and other organisms—are competent to perform inferences of remarkable complexity and sophistication in some settings. This work suggests that competence may exceed the performance we often observe and that the structure and sampling of evidence (and the match of data to our specific competencies) may be what closes that gap. So the applied challenge is to discover ways of restructuring fact-finding procedures to bring performance closer to competence.

David Schum (using a Bayesian perspective) and Nancy Pennington and Reid Hastie (using narrative schemas or "stories") have done much to elucidate how the internal structure of evidence gets cognitively represented and analyzed by fact finders. (Much of this work has been collected in Hastie's edited volume *Inside the Juror.*) Schum's work shows that people can sometimes perform better when tackling small, piecemeal inferences rather than larger, more global inferences. Pennington and Hastie show how the temporal ordering of evidence at trial can facilitate (or interfere with) fact finders' ability to form coherent narratives. Unfortunately, the adversarial setting poses difficulties very different from those one might encounter when mastering skills such as reading or learning to use a computer program. Evidence structures aren't neutral; some favor one litigant at the expense of another. Indeed, lawyers with weak cases may even seek to undermine clarity.

Highly technical evidence involving statistics, chemistry, engineering, or economics poses additional problems. The amount of time experts spend in explaining highly technical concepts at trial falls well short of the time one spends learning in a semester-long course (without prerequisites!), though it still greatly exceeds what we can usually simulate in a mock jury experiment. Nevertheless, it seems likely that fact finders rely heavily on heuristic cues ("lots of charts," "sure looked smart") to compensate for their limited understanding of the material. Thus, Joel Cooper and his colleagues found that jurors were influenced by the content of expert testimony on the medical effects of polychlorobiphenyls (PCBs) when it was relatively simple but relied on the witness's credentials when the testimony was complex.

Dispute Complexity

Much of what we know about how juries handle dispute complexity comes from an important program of research by Irwin Horowitz and his collaborators. They found that mock jury verdicts are systematically influenced by the size and configuration of the plaintiff population. Aggregating multiple plaintiffs into a single trial appears to increase the likelihood that the defendant will be found liable, but each plaintiff's award may be smaller than in a consolidated trial. There are similar trade-offs involved in trying all the issues together versus bifurcating (or trifurcating) the trial into segments addressing causation and liability versus compensatory versus punitive damages—unitary trials may increase liability but lower damages. These effects are not neutral with respect to the parties, but bifurcation may be justified on procedural grounds because it appears to improve the quality of the decision process.

Conclusions

If judges clearly outperformed juries as legal fact finders in complex cases, we would face a dilemma. But we don't. Neither theory nor research indicates that

judges are superior to juries in complex cases; it is safe to say that both need all the cognitive help we can give them to cope with an increasingly complex world.

Research on complexity suggests that jurors may be better able to cope with complexity if they are encouraged to use the same strategies used by students who take notes and ask questions in class. Although the cognitive advantages of treating fact finders like active information processors may seem obvious, some attorneys and judges are reluctant to cede control over the case, in whatever small measure. But research shows that while these innovations help only modestly, they also do little or no observable harm.

Robert MacCoun

See also Jury Competence; Jury Decisions Versus Judges' Decisions; Jury Deliberation; Jury Reforms; Statistical Information, Impact on Juries

Further Readings

Cooper, J., Bennett, E. A., & Sukel, H. L. (1996). Complex scientific testimony: How do jurors make decisions? *Law & Human Behavior, 20,* 379–394.

ForsterLee, L., Horowitz, I. A., & Bourgeois, M. (1994). Effects of notetaking on verdicts and evidence processing in a civil trial. *Law & Human Behavior, 18,* 567–578.

Hastie, R. (Ed.). (1993). *Inside the juror.* Cambridge, UK: Cambridge University Press.

Heuer, L., & Penrod, S. (1994). Trial complexity: A field investigation of its meaning and its effects. *Law & Human Behavior, 18,* 29–51.

Horowitz, I., & Bordens, K. S. (2002). The effects of jury size, evidence complexity, and note taking on jury process and performance in a civil trial. *Journal of Applied Psychology, 87,* 121–130.

Kerr, N., MacCoun, R. J., & Kramer, G. (1996). Bias in judgment: Comparing individuals and groups. *Psychological Review, 103,* 687–719.

Lempert, R. O. (1981). Civil juries and complex cases: Let's not rush to judgment. *Michigan Law Review, 80,* 68–132.

MacCoun, R. J. (1987). *Getting inside the black box: Toward a better understanding of civil jury behavior.* Santa Monica, CA: RAND.

Computer-Assisted Lineups

Many people are familiar with the live lineups and photo lineups shown in television crime dramas. Increasingly, however, police departments are making use of computer technology to construct lineups and administer them to witnesses. Computer technology can be used to build better lineups by tapping into larger databases of faces to provide better choices to witnesses as well as to provide flexibility and efficiency to officers in the office or the field. Computer-assisted lineups can be administered either simultaneously or sequentially, and they have the added benefits of being programmed exactly to department policy and preserving lineup administration procedures and choices.

Lineup Construction

Researchers at the University of Northern Iowa have developed a Web-based program that allows officers to construct a lineup in the office or in the field. Internet capability (via modem, cable, wireless, or cell phone) allows the computer to link to a central database of faces that can be searched on the basis of a description of the perpetrator. The officer can then construct the lineup. Researchers use a method to evaluate lineups in order to determine if nonsuspect lineup members are serving as adequate fillers. This is referred to as a mock witness evaluation, and it involves providing a person who is not the actual witness with a description of the suspect. The mock witness is then given a lineup and asked to pick out the suspect. If mock witnesses can pick out the suspect at a greater than chance rate, the lineup is said to be biased. Typically, the realization that a lineup is biased occurs well after the lineup administration procedure, usually at the criminal trial. However, the computerized method allows for a mock witness test to be conducted during the course of the investigation, and in the event that the lineup is biased, new lineup members can be selected, thereby avoiding biased lineups being shown to witnesses. The police can accomplish this by sending the lineup and the description of the suspect to officers not associated with the case (across the hall or the state), providing for the lineup to be evaluated prior to administering it.

Lineup Presentation

Police lineups in the United States have traditionally been administered by presenting the witness a photo array, typically arranged six photos to a page. (These are sometimes referred to as "6-packs.") In this type of lineup, photos are presented simultaneously, and the witness chooses a photo by pointing at or stating the

position number of the lineup member. There has been a recent movement toward administering lineups sequentially, so that witnesses see only one photo at a time. Unlike the simultaneous lineup, in which there is only one lineup decision, witnesses make a decision for each photo in the sequential lineup ("yes" or "no"). One benefit of the sequential lineup is that it has been demonstrated to reduce false identifications of innocent individuals.

Administrator Bias

An additional benefit of the sequential method is that the photos can be randomized so that the administrator does not know which photo the witness is looking at, reducing the likelihood of administrator bias. Administrator bias occurs when the administrator inadvertently gives cues to which photo belongs to the suspect. When neither the administrator nor the witness knows who the suspect is, the procedure is referred to as "double-blind" administration. Computer-assisted lineups provide for reduced interaction between administrator and witness, which greatly reduces the unintentional cues that can pass from the administrator to the witness.

Policy and Procedures

Law enforcement agencies typically have procedures for how lineups should be administered. However, deviations in procedure can easily occur when using traditional hard-copy lineup administration. Not only do computers have the capability to monitor and collect an enormous amount of information, they can also be programmed to administer the lineup exactly in accordance with policy and procedures. The administrator needs only to start the program and then can minimize his or her presence. Computers have the additional benefit of providing both written and audio instructions in any language. Lineups can be administered either simultaneously or sequentially. Lineup members can be randomly assigned to new positions each time the lineup is presented, with the administrator keeping accurate track of the position of each lineup member while recording the time taken to make each lineup decision. Many computers are equipped with condenser microphones and video cameras, thus enabling recording of the exact cursor location as well as audio and video of the event. Depending on the procedures, confidence can be measured for each lineup decision or after the lineup is complete.

Lineup Preservation

Once a lineup decision has been made, the identification information must be recorded and preserved. A multitude of problems can occur in the preservation of hard-copy lineup information: Information about where the photos were gathered from and who the photos represent, along with administration information (who administered the lineup, the date and time, etc.), can easily get lost or not be recorded at all. Evidence obtained using computers can be better preserved than evidence from traditional hard-copy lineups. Lineup evidence in the form of data, photos, audio, and video (including a replay of the entire identification event) can be stored on the computer and automatically copied to a DVD, and it can be uploaded to a departmental server and stored on backup drives for later review by researchers, law enforcement personnel, attorneys, or jurors.

Showups

Many identifications occur shortly after the commission of a crime because law enforcement officers often apprehend suspects in the vicinity of the crime. When this occurs, the law enforcement personnel will either bring the witness to the location where the suspect was apprehended or take the suspect to the witness. Either way, this is referred to as a showup. Showups are problematic because both the law enforcement officer and the witness know who the suspect is. Researchers at the University of Northern Iowa have begun experimenting with using handheld personal digital assistants (PDAs) in lieu of showups. PDAs have the ability to take a photo of the suspect and send the photo to a centralized location, either by phone or by WiFi. Technicians at the centralized location can then construct a lineup around the photo and transmit the lineup back to the PDA, allowing the officer to administer a sequential lineup to the witness. One added benefit is that the lineup can be transferred from the suspect's location to the witness's location, involving less physical transfer of people and PDAs. The handheld PDA has many of the capabilities of desktop or laptop computers, including playing sound instructions, audio recording the witness's identification, and transferring the evidence back to a centralized location for preservation.

Otto H. MacLin

See also Lineup Filler Selection; Showups; Simultaneous and Sequential Lineup Presentation

Further Readings

MacLin, O. H., Meissner, C. A., & Zimmerman, L. A. (2005). PC_Eyewitness: Administration and applications for research in eyewitness identification psychology. *Behavior Research Methods, 37,* 324–334.

MacLin, O. H., & Phelan, C. (in press). PC_Eyewitness: Evaluating the New Jersey method. *Behavior Research Methods.*

MacLin, O. H., Zimmerman, L. A., & Malpass, R. S. (2005). PC_Eyewitness and the sequential superiority effect: Computer based lineup administration. *Law & Human Behavior, 29*(3), 303–321.

Conditional Release Programs

Conditional release programs for persons acquitted by reason of insanity (not guilty by reason of insanity or NGRI) are designed to maximize public safety while meeting the courts' mandate that some individual liberties be protected. These programs developed as a result of the state and federal court decisions in the 1960s, which required that this population be provided with commitment procedures similar to civil commitment. Prior to these decisions, persons found NGRI were given an automatic, indefinite "life sentence" to maximum-security state psychiatric hospitals for crimes ranging from shoplifting to murder. Under the new laws, persons committed as NGRI had to meet the commitment requirements of civil patients—that is, mental illness and dangerousness. Their continued commitment had to be periodically reviewed, and if they no longer met the commitment standards, they were to be released. Concerned with releasing what were believed to be "dangerous" offenders with mental illness into the community, states created a new category of posthospitalization supervision—conditional release. Research suggests that both goals were met in that insanity acquittees no longer languished in hospitals with no hope of being released and those who remained dangerous and mentally ill remained in a secure facility.

The other major watershed event that affected the insanity defense, especially release procedures, was the NGRI acquittal of John Hinckley from the charge of attempting to assassinate President Ronald Reagan in 1981. Following Hinckley's 1982 acquittal, the most common type of legal change in this area of law was in postacquittal procedures. Most states responded by providing shared responsibility between the trial court and the clinicians responsible for the day-to-day inpatient treatment of the committed population. Until then, hospital clinicians or the county court where the hospital was located had made the release decisions. Hinckley's acquittal further decreased the already declining popularity of the insanity defense among the public. He eventually received a number of 1-day conditional releases under the supervision of his parents in 2003, more than 22 years after his actions. His release was widely opposed by the victims' families, the Justice Department, and many others.

Conditional release programs are often referred to as "mental health parole or probation," but they significantly differ from traditional criminal justice aftercare supervision. The major differences between the two types of programs are in the length of the supervision period, the due process requirements for revocation, and the agency responsible for supervision. In most states, conditional release can be extended for any number of reasons, including clinical concerns, such as medication compliance; safety concerns; and lack of adequate community placement. For most parolees or probationers, their supervision time is finite. A few states limit the duration of conditional release to the maximum sentence that would have been given by the court had the defendant been convicted, reducing the utility of conditional release for less serious offenders. More often, conditional release is a relatively unrestrained and extensive period of community supervision and consequently makes the insanity defense a lesser plea and outcome.

Revocation of conditional release is less difficult than in the criminal justice system. Few states require a formal due process hearing to revoke conditional release, unlike criminal justice postrelease programs. Typically, conditional release can be revoked if the individual simply violates any term of the release. While some states have in place more procedural safeguards, they are still minimal compared with other aftercare programs. A final difference that highlights the special circumstances of the population acquitted NGRI is in the agency responsible for supervision. These programs often bisect the mental health and criminal justice systems due to the legal status of persons acquitted NGRI. Because an insanity plea is an affirmative defense, defendants admit to factual guilt but are legally not responsible due to lack of mens rea. Consequently, while their treatment and confinement are provided within the mental health system across all states, their release might be controlled to some

extent by the criminal justice system, in particular the county's criminal court of commitment. This dual responsibility can cause professional conflict and confusion, making the release of insanity acquittees a complex legal and procedural process. None of this confusion surrounds parole or probation.

While in most states an NGRI finding leads to an automatic inpatient evaluation, this is not the case in all states. A few states allow the judge discretion in bypassing an order for hospitalization. Following an NGRI commitment, periodic reviews are conducted at intervals designated by state law: commonly 30 days, 60 days, 90 days, 1 year, and then annually. At this review, the treating psychiatrist or patient advocate can recommend or request conditional release. This application sets in motion the state's conditional release procedures, which range from a simple approval by a judge in the county where the acquittal was recorded to a complex, multilayered process in which hospital, state, and court officials are required to approve the petition. In some states, the county judge and/or district attorney have to approve even internal security changes, such as from closed to open unit, or grounds privileges. The complexity of the release procedures has an impact on the likelihood of release, who is released, and the length of time between approval and actual release. An important component of conditional release is the availability of community programs to provide services to this forensic population.

An innovative program developed in Oregon in 1978 and established in Connecticut in 1985 sought to gain greater control over persons found NGRI. The Psychiatric Security Review Board (PSRB) is a multidisciplinary independent board with full responsibilities for persons found NGRI. Decision making is highly centralized, and this board grants and revokes conditional release and sets the terms of release. This model has never been attempted in states with large populations.

Most persons found NGRI and subsequently placed on conditional release draw little, if any, public attention, and the petitions are usually supported by the courts. Who supervises the persons on conditional release programs varies from state to state. Many states, in particular larger states with larger NGRI populations, have special intensive case managers who have experience or special training with forensic clients. Their caseload is often smaller than in traditional aftercare programs. This common model for conditional release leads to decentralized supervision and decision making once the person is released. In addition to possible revocation, conditional release can be extended by the court, or the person can be discharged from all supervision.

Lisa Callahan

See also Treatment and Release of Insanity Acquittees

Further Readings

Appelbaum, P. S. (1994). *Almost a revolution: Mental health law and the limits of change*. New York: Oxford University Press.

Callahan, L. A., & Silver, E. (1998). Factors associated with the conditional release of persons acquitted by reason of insanity: A decision tree approach. *Law & Human Behavior, 22,* 147–163.

Steadman, H. J., McGreevy, M. A., Morrissey, J. P., Callahan, L. A., Robbins, P. C., & Cirincione, C. (1993). *Before and after Hinckley: Evaluating insanity defense reform*. New York: Guilford Press.

Conduct Disorder

Conduct disorder (CD) is a repetitive and persistent pattern of behavior that violates the rights of others or age-appropriate norms and causes significant impairments in various domains of functioning. CD accounts for a substantial number of youths who enter into mental health facilities in the United States and Canada, and for this reason it is an important disorder for researchers to investigate and for clinicians to treat. Although CD continues to be problematic for the individual and society, remarkable progress has been made in our understanding of CD. Subtyping approaches have helped reduce some of the heterogeneity of the disorder and provide a better understanding of the potential etiologies associated with various types of CD. In addition, intervention programs have been developed that have been shown to be effective. These treatment programs tend to be intensive and multimodal, focusing on working with the youth to reduce CD symptoms but also providing parent training to improve attachment as well as parental monitoring and supervision practices. It is hoped that future research focusing on further refining the subtypes of CD and determining interventions that

are most effective with specific subtypes of youth will assist mental health professionals in reducing CD symptoms and the concomitant costs to society.

Definition and Subtypes

According to the *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition, text revision; *DSM-IV-TR*), CD is a repetitive and persistent pattern of behavior that violates others' rights or age-appropriate norms and causes clinically significant impairments in various domains of functioning. For example, symptoms of CD may include aggression, damaging property, and lying. For a diagnosis of CD, the youth must have evidenced 3 of the 15 symptoms within the past 12 months, with at least 1 symptom being present for the past 6 months.

Because youths with CD are a heterogeneous group, various attempts have been made to identify subtypes of CD for informing etiology and intervention strategies. Earlier versions of the *DSM* differentiated between socialized versus undersocialized and aggressive versus nonaggressive dimensions. The socialized subtype was characterized by covert and overt antisocial behavior committed within the context of groups, whereas the undersocialized subtype was characterized by assaultive behavior that was carried out alone.

The current version of the *DSM* in part incorporates Terrie Moffitt's taxonomy and differentiates subtypes based on the age of onset: The childhood-onset and adolescence-onset subtypes are defined by characteristics of the disorder being present before and after the age of 10, respectively. This classification is intended to distinguish the life-course-persistent antisocial youth from the adolescence-limited antisocial youth, a potentially less serious subtype of CD. In support of this distinction, research by Paul Frick and Jeffrey Burke and colleagues has found that childhood-onset CD is associated with temperament and family dysfunction, whereas adolescence-onset CD is associated with delinquent peer affiliation. Furthermore, early onset is associated with the persistence of CD and an increased likelihood of violent and criminal behavior.

Two other classification systems include differentiating CD into overt and covert subtypes and on the basis of two common co-occurring disorders, attention deficit hyperactivity disorder (ADHD) and anxiety. Research by Jeffrey Burke and colleagues and Paul Frick and colleagues suggests that there is some evidence for the utility of these distinctions. The presence of covert symptoms is associated with the persistence of CD, and youths with both CD and ADHD engage in a greater variety of delinquent behaviors and are more violent. In contrast, youths with both CD and anxiety display fewer impairments in peer relationships and have fewer police contacts.

Prevalence and Impact

According to the *DSM-IV-TR*, the prevalence of CD ranges from 1% to more than 10% in the general population. Large-scale population studies report prevalence rates ranging from 3% to 10% in nonclinical samples. Prevalence rates by gender are reported to range from 2% to 16% in boys and 1% to 9% in girls. The differences in prevalence rates are likely due to differences in the age of the youths sampled, CD criteria, time frame, and method of assessment.

The negative consequences associated with CD affect a variety of domains, including education (e.g., poor academic performance), employment (e.g., increased likelihood of the need for financial assistance), relationships (e.g., peer rejection), mental health (e.g., substance abuse), and criminality. Second, a diagnosis of CD can increase one's risk for other psychiatric and emotional disorders. The most well-established outcome is the link between CD and antisocial personality disorder (APD) in adulthood, on the assumption that there is a developmental progression between the disorders. Research by Lee Robins suggests that between 25% and 40% of children with CD will meet the diagnostic criteria for APD.

Finally, CD is one of the most costly diagnoses in terms of involvement with mental health services and the criminal justice system. Youths with CD use a variety of services, including additional school resources, social services, general health services, inpatient and outpatient mental health services, and juvenile justice services. Research by Michael Foster and Damon Jones indicates that the cost of services used by the average youth with CD exceeds $14,000 per youth by the end of adolescence and the cost of total expenditures across adolescence is approximately $70,000 more than for youths without any behavioral disorders. Research by Stephen Scott and colleagues indicates, in more general terms, that children with CD cost 10 times more than those without CD.

Conduct Disorder and Psychopathy

Research by Paul Frick and Donald Lynam suggests that psychopathy and a callous and unemotional

interpersonal style may identify a subtype of childhood-onset CD. More important, the presence of callous-unemotional traits may provide the necessary developmental link between CD and psychopathy. Cross-sectional studies have found that antisocial youths with callous-unemotional traits exhibit a greater number, variety, and severity of conduct problems and more severe forms of aggression. Children with CD and callous-unemotional traits also evidence a preference for thrill-seeking activities, possess a reward-dominant response style, and demonstrate less anxiety. Further support for this distinction is the finding that genetic factors appear to play a larger role in those with callous-unemotional traits. Finally, callous-unemotional traits are predictive of a number of negative outcomes, including a greater number and variety of conduct problems, higher levels of proactive aggression and self-reported delinquency, more police contacts, and a diagnosis of APD in adulthood.

Prevention and Intervention

CD is typically regarded as a disorder that is not very amenable to treatment efforts. In fact, earlier research suggested that the majority of early treatment efforts have been found to be largely ineffective. Second, treatment of CD is difficult owing to noncompliance. Finally, certain interventions, such as peer group strategies, can have iatrogenic effects and increase the level and severity of antisocial behavior. Despite these generally negative early findings with respect to the treatment of CD, a number of interventions have been found to be effective, including medication and various psychosocial treatments.

For very severe cases of CD, some have suggested that psychopharmacology may be indicated. Jeffrey Burke and colleagues suggest that drugs such as lithium, risperidone, and methylphenidate may be effective for youths with severe CD. More specifically, LeAdelle Phelps and colleagues suggest that haloperidol, clonidine, methylphenidate, and risperidone may be effective in reducing severe aggression in youths with CD. However, psychopharmacology is not recommended as the primary treatment for CD because there is a lack of evidence that medication can alter the symptoms of CD per se and the medications do not have a prophylactic effect on CD symptoms. Rather, it appears that medication is most effective in reducing severe conduct problems in difficult cases. Although we note these recommendations for severe CD, we do so with caution given the lack of sound methodological studies on the effectiveness of psychopharmacological treatments for youths with CD. Mental health professionals should carefully weigh the costs and benefits of administering drugs in the treatment of CD.

A number of effective behavioral and psychosocial interventions for treating CD have been reviewed by Alan Kazdin and Paul Frick. One of the most effective interventions is parent management training (PMT). The focus of PMT is to reduce problem behaviors and increase prosocial behaviors by educating parents in techniques such as positive reinforcement, consistent discipline, and effective supervision. There is evidence suggesting that PMT is effective in the short term in clinical populations, reduces deviant behavior across multiple domains, and is able to reduce problematic behaviors to within the levels of normative youth, with benefits evident 1 to 3 years after treatment. Similarly, intervention strategies that use appropriate parenting strategies and attachment principles have also proved effective in terms of decreasing externalizing and internalizing problems in adolescents with CD. However, it can be difficult to motivate parents to complete treatment programs, and there is evidence that parent training is not always effective with severely dysfunctional families.

Another effective treatment strategy adopts a cognitive-behavioral approach, which targets deficits in social cognition and problem solving, largely through inhibiting impulsive or angry responding by altering the processing of social information. A variant of this approach is child social skills training, which focuses on addressing interpersonal problems through techniques such as anger control and coping skills. There is some evidence for the effectiveness of social skills training in terms of decreases in aggression and antisocial behavior, increases in prosocial behavior in the short term, and improved interactions with peers. However, it can be difficult to maintain the skills over long periods and in domains outside the therapeutic setting. Therefore, some researchers recommend booster sessions to maintain the effects of treatment.

A promising approach is that of multimodal interventions such as multisystemic therapy (MST), which addresses risk at the individual, family, peer, school, and neighborhood levels. MST involves a comprehensive assessment to determine how the various levels influence the youth's problem behavior, and this information is then used to develop an individualized, intensive treatment plan. For example, parents may be educated in how to improve communication, and

youths may be encouraged to increase their association with prosocial peers. There is some evidence of the effectiveness of MST in terms of reduction in aggressive behavior, lower rearrest rates, and fewer days of incarceration, with the benefits maintained for as long as 5 years posttreatment.

As noted by Paul Frick and Eva Kimonis, the general conclusions regarding intervention for CD are that treatment is more effective with younger children, who exhibit less severe conduct problems; treatment effects do not generalize across settings; and it is difficult to sustain improvements over time. Bearing in mind these concerns, future efforts should be directed toward determining which treatments are the most effective at different developmental stages and for specific subtypes of youth.

In addition to developing and administering appropriate intervention strategies, efforts should also be directed toward the prevention of CD symptoms. Interventions focus on mental illness with the goal of reducing or ameliorating impairment, whereas prevention focuses on mental health with the goal of developing adaptive, prosocial functioning. Generally, prevention programs do not address CD directly but address the risk factors related to CD and target youths identified as being at high risk for developing CD. Promising prevention programs include early family-based interventions that provide support and services to women during and after pregnancy, school-based interventions that provide additional intensive classroom programs, and community-based interventions that provide programs and activities in the community to promote prosocial behavior. Some examples include the Triple-P positive parenting program, the Fast Track program, and the Incredible Years parenting program. Follow-up studies with youths who received these types of interventions found that they resulted in less aggression, fewer acting-out behaviors, lower arrest and recidivism rates, and less severe criminal offenses.

Zina Lee and Randall T. Salekin

See also Juvenile Offenders; Juvenile Offenders, Risk Factors; Juvenile Psychopathy; Mental Health Needs of Juvenile Offenders

Further Readings

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Kazdin, A. E. (1995). *Conduct disorders in childhood and adolescence* (2nd ed.). Thousand Oaks, CA: Sage.

Kazdin, A. E. (2002). Psychosocial treatments for conduct disorder in children and adolescents. In P. E. Nathan & J. M. Gorman (Eds.), *A guide to treatments that work* (2nd ed., pp. 57–85). New York: Oxford University Press.

Lynam, D. R. (1996). Early identification of chronic offenders: Who is the fledgling psychopath? *Psychological Bulletin, 120,* 209–234.

Moretti, M. M., Emmrys, C., Grizenko, N., Holland, R., Moore, K., Shamsie, J., et al. (1997). The treatment of conduct disorder: Perspectives from across Canada. *Canadian Journal of Psychiatry, 42,* 637–648.

Salekin, R. T., & Frick, P. J. (2005). Psychopathy in children and adolescence: The need for a developmental perspective. *Journal of Abnormal Child Psychology, 33,* 403–409.

Confession Evidence

Confession evidence is highly potent, and its incriminating effects are difficult to erase. This entry describes the impact of confessions on jury verdicts, examines three concerns about the way in which juries evaluate confession evidence, and considers the steps that can be taken to ensure that jurors assess such evidence appropriately.

In cases where a confession is disputed, a judge determines the voluntariness and admissibility of the confession during a preliminary hearing. In the American criminal justice system, if a confession is deemed voluntary, it is then submitted for consideration to the jury. In some states, the jury is specially instructed to make an independent judgment of voluntariness and to disregard statements found to be coerced; in other states, the jury receives no such instruction. Either way, it is clear that jurors faced with evidence of a confession, and the defendant's claim that it was false, must determine the credibility and weight of that evidence in reaching a verdict.

Mock jury studies have shown that confession evidence has a greater impact on jury decision making than other forms of human evidence, such as eyewitness identification and character testimony. Confessions are so difficult to overcome that mock jurors tend to trust them even when it is not legally and logically appropriate to do so. In a study that illustrates this point, Saul Kassin and his colleague presented mock jurors with one of three versions of a murder trial. In the

low-pressure version, the defendant had confessed to the police immediately on questioning. In the high-pressure version, he was interrogated aggressively by a detective who waved his gun in a menacing manner at him. In the control version, there was no confession in evidence. Faced with the high-pressure confession, participants reasonably judged the statement to be involuntary and self-reported that it did not influence their decisions. Yet when it came to verdicts, this confession significantly boosted the conviction rate. This pattern appeared even in a situation in which subjects were specifically admonished by the judge to disregard confessions that they found to be coerced.

Criminal justice statistics reinforce the point that confessions tend to overwhelm other exculpatory evidence, resulting in a chain of negative legal consequences—from arrest through prosecution, conviction, and incarceration. Archival analyses of actual cases that contained confessions that were later proved false innocent have thus shown that when innocent confessors plead not guilty and proceed to trial, jury conviction rates range from 73% to 81%.

There are three bases for concern about the way in which juries can be expected to evaluate confession evidence in support of conviction. First, commonsense leads people to trust behaviors that do not appear to serve a person's self-interest, such as confessions. Most people believe that they would never confess to a crime that they did not commit and do not expect that others would either. Indeed, in a wide range of contexts, social psychologists have found that in perceiving the behaviors of others, people tend to overestimate the influence of dispositions and underestimate the influence of situational factors—a phenomenon known as fundamental attribution error.

A second basis for concern is that people, including professional lie catchers, are not typically adept at distinguishing between truth and deception. For example, although it is common to assume that "I'd know a false confession if I saw one," a recent study has shown that neither college students nor police investigators were able to differentiate between true and false confessions made by male prisoners. Hence, there is reason to believe that lay jurors would have difficulty in distinguishing between true and false confessions when presented as evidence.

Third, jurors do not typically see the corruptive process of interrogation by which confessions are elicited. In many cases of proven false confessions, the statements that were presented in court often contained accurate details about the crime, statements of motivation, apologies and expressions of remorse, and even corrections to errors that the suspects had supposedly identified. Typically presented with an oral, written, or taped confession but not the questioning that preceded it, however, jurors are not in a position to evaluate the source of these details. False confessions thus tend to appear voluntary and the product of personal knowledge, masking the coercive processes through which they were produced.

It is clear that additional safeguards are needed when confession evidence is presented in court. There are two possibilities in this regard. One is for trial courts to permit psychologists to testify as experts—a practice that is common but not uniform across states. The purpose of this testimony is to assist juries by informing them about the processes of interviewing and interrogation, the phenomenon of false confessions, the psychological factors that increase the risk of a defendant making a false confession, and other general principles (the purpose in these cases is not for the expert to render an opinion about a particular confession, a judgment that juries are supposed to make).

A second important mechanism is to ensure that judges and juries can observe the process by which confessions are produced by videotaping entire interrogations. A videotaping policy would have many advantages: The presence of a camera would deter interrogators from using highly coercive tactics, prevent frivolous defense claims of coercion, provide a full and accurate record of how the statement was produced, and perhaps even increase the fact-finding accuracy of judges, who must rule on voluntariness (they will observe for themselves the suspect's physical and mental state, the conditions of custody, and the interrogation tactics that were used), and juries, who must render a verdict (they will see how the statement was taken and from whom the crime details originated).

Importantly, interrogations should be videotaped with an "equal focus" visual perspective, showing both the accused and the interrogators. In numerous studies, Daniel Lassiter and colleagues have found that lay people, juries, and even trial judges are more attuned to the situational factors that draw confessions when the interrogator is on camera than when the sole focus is on the suspect.

Julia C. Busso and Saul M. Kassin

See also False Confessions; Interrogation of Suspects; Videotaping Confessions

Further Readings

Kassin, S. M., & Sukel, H. (1997). Coerced confessions and the jury: An experimental test of the "harmless error" rule. *Law and Human Behavior, 21,* 27–46.

Lassiter, G. D., Geers, A. L., Handley, I. M., Weiland, P. E., & Munhall, P. J. (2002). Videotaped confessions and interrogations: A change in camera perspective alters verdicts in simulated trials. *Journal of Applied Psychology, 87,* 867–874.

Confidence in Identifications

The confidence that eyewitnesses express in their decision at an identification test or lineup has long been recognized within the criminal justice system as an indicator of the likely reliability or accuracy of the witness. In contrast, psychology researchers have downplayed the diagnostic value of eyewitness identification confidence. Although only a relatively small proportion of the variance in identification accuracy is associated with variance in confidence, recent research using what is known as a confidence-accuracy (CA) calibration procedure suggests that confidence—measured immediately after the identification decision—can provide a useful (but not infallible) pointer for crime investigators to the likely accuracy of positive but not negative (i.e., lineup rejections) lineup decisions. This conclusion definitely does not apply, however, to confidence judgments expressed in the courtroom as, by this time, there has been an opportunity for postidentification influences (such as feedback from lineup administrators or other witnesses) to shape any subsequent confidence judgments. Nor is the conclusion applicable to judgments expressed by witnesses prior to having viewed a lineup. A major challenge for future research in this area will be to define the boundary conditions for obtaining robust CA calibration, which, in turn, will enhance the capacity to diagnose the likely accuracy of identification decisions.

Eyewitnesses will often provide some sort of expression of confidence in their memory when they examine a police lineup or photo spread or when they testify in court about the identity of the offender. Their degree of confidence is known to exert a strong influence on assessments made by the police, lawyers, and jurors about the likely reliability of their testimony. Yet it is known that eyewitness confidence is sometimes an extremely misleading cue to the likely accuracy of an identification. The following sections examine when identification confidence is informative about the offender's identity and when it is likely to mislead.

Eyewitness confidence has been of major interest because confidence is an easily obtainable index that could potentially provide a guide for the criminal justice sector as to the likely reliability of an eyewitness identification response. Given the crucial role that identifications can play in some investigations and trials, together with the overwhelming evidence of eyewitness fallibility provided by DNA exoneration cases and experimental simulations of identification tests, knowing how much weight should be attached to witnesses' confidence estimates is an important forensic issue.

Even prior to attending an identification test, witnesses may express a particular degree of confidence in their capacity to identify the offender, with the confident witness likely to impress police investigators. These assessments are likely to be influenced by a variety of factors such as witnesses' evaluations of the strength of the memorial image for the offender, their recollections of the quality of view they had of the offender at the time of the crime, their perceptions of how good a recall they displayed when interviewed by the police, and so on. To date, there is no evidence to indicate that such preidentification test confidence assessments should be considered as a guide to the likely accuracy of an identification.

Factors for and Against a Confidence-Accuracy Relationship

There is now a sizable literature on the relationship between confidence, when expressed after an identification decision, and identification accuracy. Researchers have mounted compelling arguments both for and against expecting a strong relationship between identification confidence and accuracy. For example, in recognition memory theories and research, the strong link between memory signal strength and recognition accuracy and confidence provides firm grounds for expecting a meaningful CA relationship. Furthermore, witnesses with very strong memories of the offender are likely to make a rapid identification, with the apparent ease or speed of the identification providing a potentially reliable cue to confidence. Other support comes from research on psychophysical discrimination, indicating that confidence may well regulate, rather than be a result of, the decision process.

Arguments against a strong CA relationship have, however, been much more consistently advanced, with these views reinforced by demonstrations of overconfidence in various domains of human judgment. Some of the grounds for questioning a meaningful CA relationship include our (a) inability to review all factors that should shape confidence; (b) tendency to focus too heavily on confirmatory evidence for a decision; (c) problems with translating subjective judgments of confidence into some kind of numerical confidence value; (d) reliance on cues to confidence that, while sometimes veridical, may also be misleading (e.g., a face in a lineup may seem very familiar not because it is that of the offender but because it had been seen in the context of the event previously, or witnesses may infer that the face in the lineup that seems most familiar must be the offender because they got an excellent view of the offender at the crime); and (e) almost inevitable exposure to postidentification social influences that produce malleable confidence judgments.

Confidence-Accuracy Correlation

For some time the dominant view among eyewitness memory researchers has been that postidentification confidence does not provide a particularly informative guide to the likely accuracy of an identification decision. It has been generally accepted that the CA relationship is best described as lying between weak (at worst) to modest (at best) for witnesses who make a positive identification (i.e., choosers) from either a culprit-present lineup or a culprit-absent lineup—indicated by CA correlations that seldom exceed 0.3—and virtually nonexistent (correlations around 0) for witnesses who reject either of these lineups (nonchoosers). Note, however, that the correlations for choosers have been shown to be higher when, for example, (a) the encoding and test stimuli have been allowed to vary as they do in the real world, (b) stimulus encoding conditions were optimal, and (c) witnesses were encouraged to be self-aware with respect to their preidentification decision behaviors by being asked to view a video of their own identification decision before giving a confidence assessment.

Although the finding of a modest CA correlation is clearly a reliable one, it does not provide the complete picture regarding the CA relationship. This requires supplementing the correlation between confidence and the identification decision outcome (accurate, inaccurate) with an examination of other characteristics of the CA relation—specifically, an examination of CA calibration and patterns of overconfidence/underconfidence. The correlation coefficient reflects the variance in decision accuracy associated with variations in confidence. For the eyewitness identification paradigm, which typically involves a witness making a single identification decision, this therefore reflects variance explained at the level of the group but is not informative about the likely accuracy of a witness's decision accompanied by a specific level of confidence (e.g., 70% confident or 90% confident). Information about the latter is, however, obtainable by applying the calibration approach to the examination of the CA relationship and, since the late 1990s, a number of studies of the CA relationship in eyewitness identification have used this approach.

Confidence-Accuracy Calibration

At a conceptual level, the procedure is quite simple, with the proportion of accurate identification decisions determined for each level of identification confidence (10%, 20%, etc.). This provides the basis for plotting a calibration curve and the derivation of calibration, overconfidence/underconfidence, and resolution statistics. Inspection of the calibration curve provides a direct indication of the levels of identification accuracy expected in association with varying degrees of confidence; for example, judgments made with 100% confidence might be characterized by 85% accuracy. Perfect calibration is, of course, characterized by 0% accuracy at 0% confidence, 10% accuracy at 10% confidence, right through to 100% accuracy at 100% confidence. Any departure from perfect calibration is not only illustrated by comparing the obtained and ideal calibration curves but can also be captured in a calibration statistic (varying from 0 to 1, with 0 indicating perfect calibration) and an overconfidence/underconfidence statistic (varying from 0 ± 1, with increasing positive and negative departures from 0 denoting increasing overconfidence and underconfidence, respectively). In addition to the guide provided by the calibration procedure to the likely accuracy of identification decisions made with particular levels of confidence, it also provides a resolution statistic that (like the correlation coefficient) indicates variance in decision accuracy associated with confidence.

A number of studies have now applied the calibration approach to the study of the CA relation within the eyewitness identification paradigm. While these

studies have sampled only a limited range of forensically relevant variables and, indeed, a limited array of levels on each of those variables, they have at least used several different sets of stimulus materials and events (including both central and peripheral targets) that have given rise to different rates of correct and false identifications, different retention intervals between encoding and test (with the longest being 1 week); varied the similarity of lineup targets and foils; and varied the lineup instructions.

Studies with adult participants have presented calibration curves, for positive identification responses (or choosers), that roughly parallel the ideal calibration curve. In other words, as confidence increases so too does accuracy in a systematic manner, a pattern not suggested by the typically modest CA correlations reported in these same studies. Generally, however, the curves indicate some degree of overconfidence, with accuracy rates at the high end of the confidence scale (i.e., 90% to 100% confident) typically around the 75% to 90% level. In contrast, no such systematic patterns have been detected for participants who rejected the lineup (i.e., nonchoosers). Three other findings are also noteworthy. First, in association with confidence estimates of 90% to 100%, diagnosticity ratios—indicating the ratio of hits to false alarms—were substantially higher than for lower confidence estimates. Second, participants whose identification responses were very fast were better calibrated than those whose identifications were slow. The latter finding is to be expected given that participants with an exceptionally strong memory for the culprit should not only identify the culprit when present in the lineup, and be appropriately confident, but should also be less likely to falsely identify an innocent suspect, thereby reducing the likelihood of confident, incorrect responses. Third, there is some evidence that interventions designed to improve adults' scaling of confidence judgments (by causing them to reflect carefully on the encoding and identification test conditions or the possibility that their identification decision could be mistaken) can reduce overconfidence and improve CA calibration.

It is encouraging that similar patterns of CA calibration findings have also been reported in a number of studies using various forms of a face recognition paradigm, the basic requirement of which is to judge whether or not faces presented at test had been among an array of faces that had previously been presented in a study phase. Specifically, these studies have demonstrated robust CA calibration for positive (but not negative) decisions in both absolute and relative judgment versions of the face recognition paradigm, but with overconfidence more pronounced as task difficulty increased (e.g., shorter stimulus exposure durations at either study or test).

One feature of the calibration studies that must be highlighted is that the confidence judgments from participant witnesses were obtained immediately after the identification response, thereby ensuring that they were not affected by any postidentification influences (e.g., from the lineup administrator or other witnesses) that are known to exert a profound influence on confidence judgments quite independent of the accuracy of the identification response. Thus, while the calibration studies illustrate meaningful CA relations, eyewitness researchers are in strong agreement that confidence assessments provided after some delay (e.g., in the courtroom) are potentially highly misleading about the likely accuracy of an identification.

Not all the evidence on the CA relation obtained with the calibration approach is positive about the CA relation. For example, research done with samples of children aged 10 to 13 years highlights poor CA calibration and extreme overconfidence, illustrated by accuracy rates sometimes as low as 30% in association with confidence judgments of 90% to 100%. Furthermore, children's overconfidence in their identifications has, thus far, proven resistant to interventions designed to reduce it.

Applied Implications

While there is still much to be done in terms of testing the generality of findings obtained via the calibration approach across a variety of forensically relevant conditions, the present findings are, nevertheless, important from an applied perspective. As indicated earlier, while the CA correlation addresses the group-level variance in accuracy explained by confidence, the calibration approach provides the additional insight into the likely accuracy of particular identifications made with some specific level of confidence. The available data strongly suggest that police investigators should pay close attention to witnesses' confidence estimates solicited at the time of the identification and, hence, not subject to any social influence. Specifically, extremely confident (and rapid) identifications of the suspect in the lineup, while by no means guaranteed to be accurate, should signal to police investigators that there is a very real chance that the suspect is the culprit and, thus, stimulate a closer search for supportive

evidence. When, however, the identification of the suspect is not made with extremely high confidence, and is perhaps made in a ponderous manner, it should signal real doubts about whether the suspect is the culprit and act as a reminder to investigators that they should strongly consider alternative hypotheses about the culprit's identity. In contrast, investigators should not attempt to interpret the likely accuracy of witnesses' rejections of a lineup based on the associated confidence levels. Although lineup rejections have diagnostic value with respect to the guilt or innocence of the suspects, the witnesses' confidence levels do not assist in that diagnosis.

Encouragingly consistent with these conclusions that are based on experimental simulations are some analyses of findings from real criminal cases. In this archival work, when there was strong incriminating (nonidentification) evidence against a suspect (which admittedly does not prove that the suspect was the culprit), very confident witness identifications much more strongly pointed to the police suspect than to the innocent lineup foils.

Barriers to the Use of the Calibration Approach

Application of the calibration approach to the study of the CA relation in eyewitness identification has clearly been valuable. Unfortunately, there is one major obstacle to the more widespread application of the approach. As the published work shows, use of this approach in the eyewitness identification context requires extremely large sample sizes. The typical eyewitness identification task simulates the real-world investigation: The witness observes a crime, views a lineup, and either makes a positive identification or rejects the lineup. In other words, only one data point is provided by each participant witness. However, stable calibration curves and statistics (for choosers or nonchoosers) require approximately 200 to 300 data points for each experimental condition examined. Thus, the existing published studies with an identification paradigm are characterized by sample sizes considerably in excess of what many laboratories find practical to achieve. In contrast, an old-new face recognition paradigm allows for a large number of repeated measures and, in turn, derivation of calibration statistics for each participant. One consequence of this sample size problem is that future research into how calibration varies over forensically relevant conditions is likely to proceed quite slowly.

Confidence Malleability

The issue of social influences on identification confidence and the malleability of confidence have already been mentioned—and these issues are also discussed specifically elsewhere. Some further discussion of these issues is required here, however, to round out the discussion of identification confidence.

As has been indicated, the empirical evidence shows that witness confidence judgments are informative about the likely accuracy of positive identification decisions if they are solicited at the time of the identification. But from the time of the identification through to the end of a trial, witnesses may have a variety of further interactions with the police, other witnesses, and lawyers, culminating often in a courtroom appearance. Although none of these interactions can have any bearing on the accuracy of the decision that was indicated at the identification test, they do have the potential to influence significantly any subsequent expression of confidence in that decision. This may mean, for example, that any confidence judgment expressed in the courtroom may be quite different from the one that was made at the time of the actual identification test. In turn, whereas confidence at the time of the identification decision may be informative about identification accuracy, these subsequent expressions of confidence may not be.

Some of the key variables that have been shown to influence postidentification judgments of confidence include confirming and disconfirming feedback about the accuracy of the identification provided, for example, by a lineup administrator or another witness. This feedback may be in the form of explicit verbal feedback from one of these sources or may involve more subtle verbal or nonverbal cues. Regardless of when and how the feedback is delivered, its impact will be to make a witness appear more credible or believable if it is confirming feedback and thus inflates confidence or less credible if it disconfirms and deflates confidence. In other words, cues that can affect confidence judgments but not the underlying judgmental accuracy can render a witness more or less believable to jurors. Thus, a witness who falsely identifies an innocent police suspect may not be particularly confident at the time of making an identification but may be exceptionally confident at some later stage in a courtroom. It is for these reasons that eyewitness researchers have strongly endorsed the collection of any assessments of confidence at the time of the identification—for it is then that the confidence judgments are maximally

informative about accuracy—and have little faith in the probative value of identification confidence judgments that witnesses may express in the courtroom.

Neil Brewer

See also Confidence in Identifications, Malleability; Optimality Hypothesis in Eyewitness Identification; Response Latency in Eyewitness Identification

Further Readings

Brewer, N. (2006). Uses and abuses of eyewitness identification confidence. *Legal and Criminological Psychology, 11,* 3–24.

Brewer, N., & Wells, G. L. (2006). The confidence-accuracy relationship in eyewitness identification: Effects of lineup instructions, foil similarity and target-absent base rates. *Journal of Experimental Psychology: Applied, 12*, 11–30.

Cutler, B. L., & Penrod, S. D. (1989). Forensically relevant moderators of the relation between eyewitness identification accuracy and confidence. *Journal of Applied Psychology, 74,* 650–652.

Juslin, P., Olsson, N., & Winman, A. (1996). Calibration and diagnosticity of confidence in eyewitness identification: Comments on what can be inferred from the low confidence-accuracy correlation. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 22*, 1304–1316.

Kassin, S. M., Tubb, V. A., Hosch, H. M., & Memon, A. (2001). On the "general acceptance" of eyewitness testimony research: A new survey of the experts. *American Psychologist, 56*, 405–416.

Keast, A., Brewer, N., & Wells, G. L. (in press). Children's metacognitive judgments in an eyewitness identification task. *Journal of Experimental Child Psychology*.

Lindsay, D. S., Read, J. D., & Sharma, K. (1998). Accuracy and confidence in person identification: The relationship is strong when witnessing conditions vary widely. *Psychological Science*, *9*, 215–218.

Sporer, S. L., Penrod, S. D., Read, J. D., & Cutler, B. L. (1995). Choosing, confidence, and accuracy: A meta-analysis of the confidence-accuracy relation in eyewitness identification studies. *Psychological Bulletin, 118*, 315–327.

Confidence in Identifications, Malleability

Eyewitnesses are often asked to indicate how confident they are in the accuracy of their identification and other testimony-relevant judgments. These reports are highly influential in evaluations of identification accuracy. Unfortunately, eyewitnesses' confidence reports are highly malleable, easily influenced by myriad variables. The solution is to record witnesses' confidence in their identification and report of crime details immediately, so as to preserve whatever useful information confidence provides.

A witness's confidence in the accuracy of his or her identification is perhaps the most studied of all variables related to eyewitness decision making—for good reason. Eyewitness confidence is the most intuitively appealing variable for use in assessments of accuracy. Indeed, it is specially highlighted by the U.S. Supreme Court for use in such evaluations. This recommendation is consistent with lay assumptions of what variables predict identification accuracy: People believe that a confident witness is an accurate one. This assumption does have empirical support. Under certain circumstances, there is a strong, positive correlation between confidence and accuracy. For example, when viewing conditions are disparate, a strong confidence-accuracy relationship emerges: Witnesses who see a culprit under difficult viewing conditions are less confident compared with those who see a culprit under optimal viewing conditions. Other research confirms the existence of a useful relationship between confidence and accuracy. One meta-analysis determined that the confidence-accuracy correlation for witnesses who made choices from lineups or photo spreads was moderate ($r = .41$). These investigations are highly valuable in clarifying the maximum possible utility of confidence reports in assessing accuracy.

These investigations capture confidence reports under the best possible circumstances. Because no external variables have been introduced (e.g., photospread administrator influence), they are, in some sense, pure measures of the extent to which confidence is related to accuracy. Therefore, it is possible to think of these confidence reports as the *estimator* versions of this variable because they derive from factors outside the control of the justice system. For example, the system cannot ensure that a witness has a good view of the culprit. Therefore, to the extent that the quality of the witness's view determines how confident he or she is, the justice system has no hand in a witness's confidence.

In other ways, the justice system has a substantial role in the level of confidence an eyewitness expresses in his or her identification. This influence is driven by

system variables—those variables the justice system can control. Many system variables have been implicated in confidence inflation. This influence has been demonstrated across three different categories of confidence reports: current confidence in the identification decision (e.g., How confident are you in the accuracy of your identification right now?), retrospective confidence in the identification decision (e.g., How confident *were* you when you made your identification?), and reports about details of the witnessed event (e.g., What kind of disguise was the culprit wearing?). As described below, the malleability of confidence in each of these three categories can be attributed to system variables.

Confidence in Reports of Crime Details

Although confidence malleability is most prominently studied in relation to identification accuracy, some researchers have focused on its malleability in the context of crime detail recollections. In one investigation, eyewitnesses questioned over the course of 5 weeks reported significantly elevated confidence levels at the end of that period, without any corresponding increase in the accuracy of their reports. The same elevation occurred when eyewitnesses were questioned over the course of 5 days. In addition, a manipulation as simple as the context in which a confidence report is given can influence the magnitude of an eyewitness's certainty. Witnesses who give reports about crime details in public provide significantly lower confidence ratings than do those witnesses who give reports privately, even though the accuracy in both groups is equivalent. The number of times a witness is interviewed and the context of the interview are both variables under the control of the investigating officers to a certain extent.

Current Confidence in Identification Accuracy

In many crimes, many people witness the same event. Some of the crimes for which innocent people were wrongfully convicted include up to five individuals all identifying the same person. In one of the most elaborate empirical examinations of the effect of cowitnesses, witnesses saw a live staged crime in pairs. Witnesses were then separated for the identification attempt and confidence report. Finally, witnesses were randomly assigned to learn one of four types of information about their cowitness's decision. Those who learned that their cowitness identified the same person they did or identified an implausible other reported the highest levels of confidence. Those who learned that their cowitness either identified someone else or did not make an identification all had confidence levels that were significantly lower than witnesses in a control (no cowitness information) condition. Information from a cowitness can also alter confidence in reports of crime details. In one study, witnesses' confidence in whether an accomplice was present at the scene of a crime changed depending on their partner's report of whether that accomplice was present. The justice system has limited control of whether cowitnesses speak to one another. At the very least, cowitnesses should be separated until each has provided an identification decision, complete report of crime details, and indicated the confidence in each judgment.

Cowitnesses are not the only source of contamination for current confidence reports. Photospread administrators have long been targeted as a potential source of influence in eyewitnesses' decisions. Initially, concerns centered on the ability of a photospread administrator to affect an eyewitness's choices; research does suggest this is a worthy concern. Recently, however, concerns have expanded to include the problem of administrators influencing an eyewitness's confidence. In one demonstration of this problem, eyewitnesses attempted identifications in two conditions. In one condition, the photospread administrator knew who the suspect was. In the other condition, the photospread administrator did not know who the suspect was. Eyewitnesses who made identifications under the first condition reported higher confidence in their accuracy than did eyewitnesses who made identifications in the second condition. The influence inherent in this situation is easily solved by ensuring that the person administering a set of photos to an eyewitness does not know who the suspect it; the system can control whether this safeguard is adopted.

Retrospective Confidence in Identification Accuracy

Malleability in retrospective confidence reports is perhaps the most problematic of the three categories, in part because this category is specifically highlighted by the U.S. Supreme Court for use in determining accuracy. The Court indicates that the relevant confidence report is from the "confrontation," suggesting that they recognized the possibility for confidence to

increase over time. Unfortunately, profound distortions in witnesses' memories of how confident they were at the time of the identification are easy to create with postidentification feedback. Witnesses who hear that their identification was correct report remembering with greater certainty at the time of the identification compared with witnesses who heard nothing about their accuracy. Because this effect occurs for eyewitnesses who have made false identifications, the manipulation produces a set of highly confident, but wrong, eyewitnesses. As with the other system variables described above, this one has an easy solution. If confidence reports are collected immediately after an identification is made, eyewitnesses' confidence reports will not be vulnerable to influence by the photospread administrator.

Implications of Confidence Malleability

As noted above, there is a nontrivial, positive relationship between confidence and accuracy under certain circumstances. However, because confidence is malleable, the significant relationship between the two variables can easily be compromised or even eliminated. One way in which the confidence-accuracy correlation is eliminated is by suggesting to witnesses that they prepare for cross-examination. In such a situation, witnesses who have made inaccurate identifications often inflate their confidence to the point where their confidence is indistinguishable from that of accurate witnesses. Postidentification feedback has a similarly devastating effect on the confidence-accuracy correlation: Witnesses who hear that their identification was correct report equivalent levels of confidence, regardless of whether their actual identification was accurate or inaccurate.

The implications of confidence inflation are profound because a witness's confidence in the accuracy of his or her identification carries enormous weight in judgments of accuracy, often trumping other variables. In one set of studies, mock jurors were provided with information about 10 variables, all of which influence identification accuracy (e.g., the culprit's disguise). None of the 10 variables influenced mock jurors' assessments except confidence. In another experiment, jurors who participated disregarded the quality of a witness's view, evaluating him or her positively as long as confidence was high. This reliance on confidence is unproblematic except that eyewitnesses routinely produce highly confident reports about identifications that are incorrect. Ample real-world evidence suggests that this is a significant problem. Many individuals exonerated by DNA evidence were convicted on the basis of confident eyewitness identifications.

Future Research on Confidence Malleability

Even though confidence malleability is a well-studied phenomenon, there are many unanswered questions. For example, researchers do not yet know for how long confidence is malleable. Some research suggests that postidentification feedback still influences retrospective certainty reports even when it is given 48 hours after an event is witnessed. These results are provocative—suggesting that confidence may be malleable for extended periods of time. However, because few studies include manipulations of time, the extent to which confidence is malleable is not well understood. The reason for the susceptibility of confidence to external influences is also not well understood. One contributing factor may be that confidence reports are derived from many sources. One other factor is undoubtedly the extent to which the stimulus matches the witness's memory (i.e., ecphoric similarity). Another factor is the desire of witnesses to determine whether their judgment is correct (i.e., the desire for informational influence). In at least one study, the tendency to conform eyewitness decisions to others was highest when the witnessing conditions made identification difficult (i.e., the stimulus was in view for a very short time) and the task was important.

Remedies for Confidence Malleability

The most obvious remedy for confidence inflation is to record witnesses' reports immediately after an identification is made or a crime is reported. This solution is appealing for three reasons. First, providing a confidence report may in fact inoculate witnesses against future inflations. In one study, witnesses who provided a private retrospective confidence report were less affected by postidentification feedback than were witnesses who did not. Second, records of confidence reports would allow defense attorneys to challenge subsequent inflation through cross-examination at trial. This is likely to be difficult, as one study demonstrated that mock jurors are resistant to attempts to undermine a witness's confidence report

by providing evidence that it has inflated over time. Finally, recording confidence is easy. It does not require specialized equipment or training. It can easily be incorporated into interviews with witnesses. Should immediate confidence reports not be recorded, another common suggestion is to introduce expert testimony on the malleability of confidence. This solution is less appealing because research has demonstrated that mock jurors are relatively insensitive to testimony impugning the correlation between confidence and accuracy. In some studies, jurors persist in using confidence reports even after being told that they are only minimally useful in assessing accuracy. Therefore, the most reasonable solution is to prevent eyewitnesses' confidence from inflating in the first place. The best way to do this is to collect immediate records of confidence reports in both identification accuracy and crime details.

Amy Bradfield Douglass

See also Confidence in Identifications; Estimator and System Variables in Eyewitness Identification; Expert Psychological Testimony on Eyewitness Identification; Eyewitness Memory; Identification Tests, Best Practices in; Juries and Eyewitnesses; *Neil v. Biggers* Criteria for Evaluating Eyewitness Identification; Postevent Information and Eyewitness Memory; Wrongful Conviction

Further Readings

Baron, R. S., Vandello, J. A., & Brunsman, B. (1996). The forgotten variable in conformity research: Impact of task importance on social influence. *Journal of Personality and Social Psychology, 71*(5), 915–927.

Bradfield, A., & McQuiston, D. E. (2002). When does evidence of eyewitness confidence inflation affect judgments in a criminal trial? *Law and Human Behavior, 28*(4), 369–387.

Bradfield, A. L., Wells, G. L., & Olson, E. A. (2002). The damaging effect of confirming feedback on the relation between eyewitness certainty and identification accuracy. *Journal of Applied Psychology, 87*(1), 112–120.

Lindsay, S. D., Read, J. D., & Sharma, K. (1998). Accuracy and confidence in person identification: The relationship is strong when witnessing conditions vary widely. *Psychological Science, 9*(3), 215–218.

Luus, C. A. E., & Wells, G. L. (1994). The malleability of eyewitness confidence: Co-witness and perseverance effects. *Journal of Applied Psychology, 79,* 714–724.

Sporer, S., Penrod, S., Read, D., & Cutler, B. L. (1995). Choosing, confidence, and accuracy: A meta-analysis of the confidence-accuracy relation in eyewitness identification studies. *Psychological Bulletin, 118,* 315–327.

Conflict Tactics Scale (CTS)

Two general types of incidence surveys exist: the Conflict Tactics Scale (CTS) and the Crime Victim Surveys (CVS). The former requires people to indicate what actions they have taken to resolve family conflicts; the latter requires people to indicate by what crimes they have been victimized. The CVS find the rates of reporting wife assault to the police comparable with the reporting rates for other assaults. However, these surveys have a filtering problem such that people who do not consider their abuse victimization to be a crime do not respond in the affirmative. Hence, incidence rates of reported spousal abuse, which are not defined as criminal by the victim, are low. To circumvent this filtering problem, Straus, Gelles, and Steinmetz devised the CTS, which asks respondents to report modes of conflict resolution in the family. This avoids the problem of whether the respondent defines the action as criminal or not and, therefore, attempts to obtain more accurate estimates of the frequency and incidence of domestic assault in a general population. Straus found violence incidence rates with the CTS were 16 times greater than with the CVS. Presenting the CTS in the context of normal conflict rather than a criminal act reduces filters against reporting.

Surveys of Incidence: Conflict Tactics Surveys

Several surveys using the CTS have been completed. They include (a) a nationally representative U.S. sample of 2,143 interviewed in 1974 by Response Analysis Corporation; (b) a survey of spousal violence against women in the state of Kentucky, which interviewed 1,793 women; (c) a second national survey completed by Straus and Gelles in 1985; and (d) a sample of 1,045 for the Province of Alberta, Canada. These were each obtained by a survey that interviews a representative sample drawn from a general population about experiences of being victimized by violence during family conflicts and the type of actions used to resolve

these conflicts. These rates refer to the use of violence at any time in the marriage and may include both unilateral and reciprocal violence. Straus reported approximately equal perpetration rates by gender. This common measure enables some direct comparison between these surveys.

Kennedy and Dutton used a combination of face-to-face meeting and random-digit dialing techniques to survey 1,045 residents in Alberta, Canada, leading to a comparison of American and Canadian rates of wife assault. The "minor" violence rates for the two countries are virtually identical, but the American "severe violence" rates were higher than the Canadian rates. By way of comparison with these North American data, Kim and Cho reported that the Korean intimate partner violence rate was 37.5% for wife assault (any violence) in the preceding year versus 11.6% reported by Straus et al. In 1985, Fumagai and Straus found a lifetime incidence of wife assault in Japan of 58.7% versus 22% in the United States.

Fals-Stewart, Birchler, and Kelley asked 104 men in a spousal violence treatment program and their partners to keep a weekly diary identifying days of physical aggression and a daily CTS checklist for violence. Male-to-female agreement on "violence days" was better after treatment than before, perhaps because couples were aware of tracking. Interestingly, the women were violent on more days than the men, regardless of whose report was read.

Moffitt et al. confirmed Straus's point in one of the best methodological studies of intimate violence to date, the Dunedin study. When asked about "assault victimization," they found that respondents reported rates of male violence that were much higher than the rates of female violence, and both rates were quite low. When they asked the same respondents about "relationships with partners," the rates reported by both genders were much higher and equivalent.

Criticisms

Some criticisms have been made about the CTS: (a) the CTS ignores the context in which the violence occurred, (b) differences in gender size between men and women make acts scored the same on the CTS quite different in reality, (c) impression management or social desirability factors may preclude people from answering the CTS accurately, and (d) the CTS queries violence occurring in a conflict and may miss "out of the blue" violence.

Straus's rejoinders to these criticisms are as follows. First, the assessment of context should be done separately because there are so many context variables that they could not all be included on the CTS. The CTS is designed in such a way that any special set of context questions can be easily added. Second, a similar problem, Straus notes, is that repeated slapping is highly abusive and dangerous but gets counted as Minor Violence on the CTS. Straus argues that while it is possible to weight actions by differences in size between perpetrator and victim, or to construct an upper limit after which slapping gets counted as Severe Violence, such weightings have rarely led to changes in research results. Third, the social desirability criticism was answered, in part, by a study by Dutton and Hemphill, which correlated scores on two measures of social desirability (the tendency to present a "perfect image" on self-report tests) and scores on the CTS. Social desirability is measured by a test called the Marlowe-Crowne test (MC), which assesses the tendency to present the self in a socially acceptable manner. MC scores did correlate significantly; the higher their social desirability score, the lower their reported rates of verbal abuse. However, it did not correlate with their reports of physical abuse, nor with any reports of abuse (verbal or physical) made against them by their wives. Hence, it seems that reports of physical abuse are largely uncontaminated by socially desirable responding. This means that the incidence survey rates are probably fairly accurate as far as image management is concerned. Finally, the vast majority of violent acts are perceived as emanating from conflict. While the CTS may miss an out-of-the-blue attack, it more than makes up for this with its increased sensitivity over crime victim surveys.

Donald G. Dutton, Jessica Broderick, and Makenzie Chilton

See also Domestic Violence Screening Instrument (DVSI); Intimate Partner Violence; Spousal Assault Risk Assessment (SARA)

Further Readings

Browning, J., & Dutton, D. G. (1986). Assessment of wife assault with the Conflict Tactics Scale: Using couple data to quantify the differential reporting effect. *Journal of Marriage and the Family, 48,* 375–379.

Straus, M. A., & Gelles, R. J. (Eds.). (1990). *Physical violence in American families.* New Brunswick, NJ: Transaction.

Straus, M. A., Hamby, S. L., & Boney-McCoy, S. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17,* 283–316.

Conformity in Eyewitness Reports

Eyewitness research has repeatedly shown that exposure to postevent information can affect a witness's ability to accurately report details of an originally encoded event. In everyday life, postevent information might be encountered when individuals who have shared the same experience discuss this with one another. Even when each person has witnessed the same event, their memories are likely to differ because of naturally occurring differences in the details attended to at the time, as well as differences in each person's ability to accurately remember those details. Despite initial differences in recollections of an event, when people talk about their memories they can influence each other such that their subsequent individual memory reports become similar. The phenomenon of people's memory reports becoming similar to one another's following a discussion has been referred to as "memory conformity." This entry discusses the ways in which researchers have investigated conformity in eyewitness reports, typical research findings, and current theoretical explanations for the memory conformity effect.

When memory conformity occurs in the context of a forensic investigation, there can be serious implications. For example, it might be assumed that seemingly corroborative witness statements are a product of independent witnesses with consistent versions of events, when in fact memory conformity might be responsible for the similarities if there has been some form of interaction between cowitnesses. Therefore, it is important that the police take care not to give undue weight to the consistency of statements from witnesses who may have talked when judging the accuracy of an eyewitness account.

A typical paradigm used to investigate memory conformity in eyewitness reports involves pairs of participants being led to believe that they have encoded the same stimuli (often a simulated crime event shown on video or slides), when in reality they are shown stimuli that bear a similarity but differ in critical ways. These critical differences can take the form of added items (where one dyad member sees an item that his or her partner did not and vice versa) or contradicting items (where both dyad members see the same item, but details of this item differ in terms of color or product). This manipulation allows different features of the encoded stimuli to be observed by each participant. Dyad members are then given time to discuss what they have seen. An individual recall test for the originally encoded stimuli is then administered to examine the effects of cowitness discussion on memory. The dependent variable of interest is whether, and how often, witnesses report an item at test that they have encountered from a cowitness as opposed to seeing with their own eyes.

Alternative procedures to investigate memory conformity include using a confederate to act as a cowitness and purposefully introduce items of misleading postevent information into the discussion. Other experiments have presented cowitness information indirectly by incorporating it into a recall questionnaire, or the experimenter reveals responses that have purportedly been given by other witnesses.

A common finding for memory conformity research, regardless of procedure or stimuli used, is that social influences encountered in the form of postevent information from a cowitness can mediate accuracy in joint recall and recognition tasks, with individuals often exhibiting conformity to the suggestions and judgments of others. Significant conformity effects are also evident following a delay in postdiscussion memory tests that are performed alone.

Theoretical explanations for conformity in eyewitness reports share strong parallels with those accounting for the effects of postevent information on memory. For example, research has shown that source misattributions account in part for conformity in eyewitness reports, as individuals sometimes claim to remember seeing items of information that have actually been encountered from a cowitness. Informational motivations to report accurate information at test are also thought to play a role. Here, individuals choose to report the postevent information encountered from a cowitness at test if it is accepted as veridical. Informational motivations to conform are often evident in situations where individuals doubt the accuracy of their own memory or when the information encountered from another individual convinces them that their initial judgment was erroneous. In support of this,

research has found that the influence exerted by one person on another's memory judgments can be modulated by person perception factors. For example, tendencies to conform can be increased (or decreased) by manipulating the perceptions of each individual regarding the relative knowledge each has of stimuli they encoded together as a dyad. Similar effects can be obtained by manipulating the perceived relative competence of each individual or the overt confidence with which individuals make their assertions to each other.

Research continues to explore which factors can increase, decrease, and possibly eliminate the longer-term effects of conformity on memory. However, progress in addressing such issues has been hampered by the complexity of the phenomenon itself, due to the inherently dynamic and variable nature of realistic interactions between individuals. Despite this, new paradigms to investigate conformity in eyewitness reports are being developed and refined so that the effects of naturalistic interactions on subsequent memory reports can be investigated with full experimental control.

Fiona Gabbert

See also Eyewitness Memory; False Memories; Postevent Information and Eyewitness Memory; Source Monitoring and Eyewitness Memory

Further Readings

Gabbert, F., Memon, A., & Allan, K. (2003). Memory conformity: Can eyewitnesses influence each other's memories for an event? *Applied Cognitive Psychology, 17,* 533–543.

Roediger, H. L., Meade, M. L., & Bergman, E. T. (2001). Social contagion of memory. *Psychonomic Bulletin & Review, 8,* 365–371.

Shaw, J. S., Garven, S., & Wood, J. M. (1997). Co-witness information can have immediate effects on eyewitness memory reports. *Law and Human Behavior, 21,* 503–523.

Wright, D. B., Self, G., & Justice, C. (2000). Memory conformity: Exploring misinformation effects when presented by another person. *British Journal of Psychology, 91,* 189–202.

Consent to Clinical Research

Informed consent practices have evolved over time after instances were documented in which research participants were not treated fairly or respectfully, were not informed, or were subjected to unnecessary harm. Current federal regulations support the ethical treatment of persons in the research setting in that the participation is voluntary, that the risks outweigh the benefits, and that all people are given an equal chance to participate. When a researcher invites a participant into the research setting, the researcher is required to provide the necessary information, to ensure that the participant fully understands the information, and to stop the research if it is felt that these standards have not been met. Prior to enrollment in a research study, that candidate must provide valid consent for participation. That is, the participant must be fully informed about the research purposes, risks, benefits, freedom to withdraw consent, and other relevant information; must enter voluntarily into the research; and must be capable of making an informed decision. Informed consent to clinical research is important in the field of psychology and law, because psychological researchers must be aware of the requirements of conducting research and must protect themselves and also their research participants from any ethical breaches. Clinical research refers to studies conducted in a setting where clinical conditions, either medical or psychiatric, are diagnosed and treated. This entry provides a historical basis for the evolution of informed consent, the requirements of informed consent, and will end with a brief discussion of the capacities of potentially vulnerable individuals who may have compromised ability to give a valid consent by virtue of impaired capacity or lack of voluntariness.

Historical Perspective

In research settings, individuals are protected by the doctrine of informed consent, which has evolved through policies, regulations, and professional codes. In the 1940s, unspeakable acts were committed when medical experiments on human subjects were conducted in concentration camps in Nazi Germany. In response to the atrocious experiments, the first formal document for conveying the ideas of protection of persons as human subjects and informed consent was developed. The Nuremberg Code set forth 10 guidelines for the ethical treatment of persons involved in research. The first statement of the Nuremberg Code states that the voluntary consent of the human subject is absolutely essential. Before an affirmative decision by the person can be made, one must know the nature, duration, and purpose of the experiment; the method and means in which it is conducted; and the reasonable inconveniences expected, which may possibly

come from participation. The Nuremberg Code further states that experiments should only be conducted by scientifically qualified persons, that the results should yield fruitful results for the good of society, that all harm to the participant should be avoided, and that the participant may end the experiment at any time. The Nuremberg Code was expanded when the World Medical Association adopted the Declaration of Helsinki in 1964. The Code established independent ethical review committees to oversee all experimental procedures, which set the stage for the later development of institutional review boards (IRBs).

Although the Nuremburg Code helped to identify basic ethical principles of research, there were still instances in which egregious ethical breaches continued. The Tuskegee Syphilis Study, which began in 1932 and ultimately ended in 1972, was a research study in which medically ill patients were not offered effective medical treatment, which became available during the course of the research. In 1972, the unethical manner of the research project was made public and this ultimately led to the 1974 Research Act. The National Research Act was signed into law, thereby creating the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The charge of the commission was to identify the basic ethical principles that should underlie research involving human subjects and to develop guidelines that should be followed in accordance with the described principles. The 1979 Belmont Report emerged as a product of this work group and mandated that all researchers gain approval from an IRB before proceeding with any type of experimentation.

Principles of Beneficence, Justice, and Respect

The Belmont Report specified the three basic ethical principles governing scientific research. These include respect for persons, beneficence, and justice. Respect for persons specifies that individuals should be treated as autonomous persons, and those whose decision making is compromised should be given special protections and safeguards. Furthermore, participants must enter into a research setting voluntarily and with adequate information. Beneficence is applied in the research setting in that persons are entitled to participation that is free from harm and that maximizes possible benefits and minimizes possible harm. The principle of justice dictates that individuals should be treated fairly and equally in the research setting, according to their need, effort, contribution, and merit, and that all persons must share the responsibility of research.

The three principles of the Belmont Report are translated into informed consent by maintaining that persons are participating of their own free will and that the benefits to the person outweigh the risks. The Belmont Report served as the basis for the Code of Federal Regulations, which was approved in 1978. In addition, in 1993, the International Ethical Guidelines for Biomedical Research Involving Human Subjects were developed. In 2005, the Department of Health and Human Services released a revised edition of the Federal Code of Regulations on the Protection of Human Subjects. Title 45, part 46 of the U.S. Code of Federal Regulations upholds the application of the Belmont Report principles and is now generally accepted as the uniform policy for the protection of research participants. Outlined are specific definitions and statements as they apply to both federally and nonfederally funded research projects.

Requirements of Informed Consent

The theory of informed consent to research is that a research participant is both voluntary and fully informed about the nature and consequences of an experimental situation before giving consent to participate. There are three essential elements to the doctrine of informed consent: voluntariness, information, and competency. The first element is that the person voluntarily consents to the procedure, in that the individual chooses freely to participate. To be voluntary, the person must consent without the presence of coercion, fraud, or duress, which may hinder the person's decision-making ability. Stanley and Guido further elaborate that when an individual is consenting to participate in psychological research, one must consider the environment to ensure that the participant's voluntary status is not compromised by the setting (e.g., prison, hospital, school).

Second, an individual must be fully informed of the proposed research setting to which he or she is consenting. The disclosure of information, which is provided in a formal informed consent document to the research participant, should include a description of the proposed procedures, its purpose, duration of the research procedure, the risks and benefits of participation, alternatives to participation, and the voluntariness of participation. Other issues that should be disclosed are that the individual has the opportunity to

withdraw from the research setting at any time, issues of confidentiality, and any other pertinent information such as how to contact the main investigator.

The final element required to obtain informed consent is competency, which refers to the functional capacity to give valid consent to participate in research. Grisso and Appelbaum note that those persons who cannot use the disclosed information because of a lack of certain cognitive abilities are not capable of participating in an informed consent procedure. When the impairment reaches a certain level of severity, a determination can be made of incompetence. In legal terms, a de facto incompetence determination is made when inquiries into the person's actual capacities reveal a sufficient lack in cognitive functionality.

When making a judgment about one's decision-making capacities, three types of information are usually required as delineated by Grisso and Appelbaum: (1) the person's clinical condition, (2) the person's degree of functioning in tasks involving decision-making abilities, and (3) the situation-specific demands. There are four legal standards for assessing decision-making competence, which include the ability to communicate a choice, the ability to understand relevant information, the ability to appreciate the circumstances and likely outcome, and the ability to rationally manipulate the information. Grisso and Appelbaum also note that although four standards have been proposed, not all courts and jurisdictions apply all concepts in a determination of competency. Also of importance is that a person's status on the four abilities is not all-or-none. A person usually possesses all the abilities but in varying degrees and one must consider the complexity of the decision being made in relation to the condition of the person making that decision.

For researchers it is important to provide all the necessary information to the potential participant so that he or she is able to make an informed decision. The information of the purposes, procedures, benefits, risks, and voluntary nature of participation must be outlined in a written document and signed by both parties. It is the responsibility of the researcher to ensure that the participant understands the information and is not being coerced in any way to participate.

Competency of Special Populations

When conducting research with normal healthy populations, researchers tend to presume that the participant is capable of understanding the material in the informed consent document and capable of making an autonomous decision of whether to participate or not. However, when conducting research with potentially vulnerable populations, the same assumption cannot necessarily be made. Potentially vulnerable populations include children and adolescents, who are vulnerable because of their developmental level and their susceptibility to coercion; prisoners and other institutionalized individuals by virtue of their lack of voluntary status; medical patients who may have impaired cognitive function ranging from being comatose to some memory impairment; and psychiatric patients as a result of possible compromised capacity to consent. Several empirical studies have examined the ability of psychiatric patients to provide informed consent; a brief summary of the findings follows. In persons with schizophrenia and psychotic disorders, mixed results have been produced. The consensus is that these types of patients, on the whole, perform more poorly than their non-ill counterparts on tests of competency. Several studies, however, have further noted that even with this divide, there is much heterogeneity among the schizophrenic patients and many are able to perform at a level similar to non-ill persons. Research on persons with affective disorders is somewhat more promising, with this group performing at a level similar to non-ill persons in most of the published studies. Finally, elderly patients with Alzheimer's disease seem to be the population at the greatest risk for having impaired levels of cognitive processing and thus a diminished ability to provide informed consent.

Elizabeth Arias and Barbara Stanley

See also Capacity to Consent to Treatment; Capacity to Consent to Treatment Instrument (CCTI); MacArthur Competence Assessment Tool for Clinical Research (MacCAT–CR)

Further Readings

Appelbaum, P., Lidz, C., & Meisel, A. (1987). *Informed consent.* New York: Oxford University Press.

Meisel, L., & Lidz, C. (1977). Toward a model of the legal doctrine of informed consent. *American Journal of Psychiatry, 134*(3), 285–289.

Stanley, B., & Galietta, M. (2006). Informed consent in treatment and research. In I. Weiner & A. Hess (Eds.), *The handbook of forensic psychology* (3rd ed., pp. 211–239). Hoboken, NJ: Wiley.

Stanley, B., & Guido, J. (1996). Informed consent: Psychological and empirical issues. In B. H. Stanley, J. E. Sieber, & G. B. Melton (Eds.), *Research ethics: A psychological approach* (pp. 105–128). Lincoln: University of Nebraska Press.

Government Printing Office. (1949). *Trials of war criminals before the Nuremberg Military Tribunals under Control Council Law* (No. 10, Vol. 2, pp. 181–182). Washington, DC: Author.

Coping Strategies of Adult Sexual Assault Victims

Coping strategies of adult rape victims refers to the ways in which rape victims respond to an assault. Most of this research focuses on female victims because most sexual assault victims are women. Although the term *coping* implies that someone is adjusting well, coping strategies can actually be either helpful or unhelpful. Less helpful strategies include avoiding dealing with the assault, withdrawing from others, using drugs and alcohol to self-medicate, blaming one's self, and focusing on the past and on why the assault occurred. Among the more helpful strategies reported are seeing the assault in a more positive light, relying on one's religious beliefs, and focusing on what currently is controllable. Disclosing the assault can lead to either positive or negative reactions from others. Positive reactions are more common, although negative reactions have a greater impact.

Knowledge about the strategies victims use to deal with an assault is relevant to several kinds of professionals who work with victims. For example, knowledge about which strategies have been helpful or unhelpful is useful to those who provide direct services to victims (e.g., psychologists, social workers, advocates). This information also might be used by a psychological expert in a sexual assault case to help explain the effects of the rape on a victim to a judge or jury. It is important, however, to keep in mind that most rapes are not reported and, of those that are reported, many are not charged and few go to trial.

Specific Coping Strategies

In the general research literature on coping, nine primary forms of coping have been identified: cognitive restructuring, problem solving, support seeking, distraction, avoidance, social withdrawal, emotional regulation/expressing emotions, rumination, and helplessness. Several studies have assessed the frequency with which rape victims use these strategies and the relationship between the use of the strategy and the postrape symptoms of distress. Typical symptoms of distress among rape victims include those associated with posttraumatic stress disorder (PTSD), depression, and anxiety. Of the studies that have assessed one of these forms of coping among rape victims, avoidance and social withdrawal are generally associated with greater distress. Avoidance involves trying not to think about or deal with the assault (e.g., trying to block it out), and social withdrawal, of course, involves withdrawing from others. The strategies associated with better adjustment fall mainly within the category of cognitive restructuring, which refers to trying to see the assault in a different or more positive light. Although this might seem unlikely, many victims do actually report positive changes in their lives following an assault, such as that they appreciate life more. Teaching coping skills such as cognitive restructuring also has been found to reduce symptoms in experimental studies. The results of studies assessing emotional regulation/expressing emotions are mixed, partly because of methodological problems with the studies. However, the general research literature on coping suggests that expressing emotions is associated with better adjustment. Another coping strategy not included in this categorization scheme is religious coping, which generally is associated with lower distress levels among victims.

Another way in which victims may try to cope with the assault is by drinking or using drugs. Several studies indicate that victims report more alcohol and drug abuse and dependence than do nonvictims. Because drinking and drug use are risk factors for sexual assault, it is important to try to determine if the substance use came before or after the assault. Studies that attempt to assess the timing of the substance abuse relative to the sexual assault generally indicate that the substance abuse started after the assault. Alcohol and drug use by victims is related to higher distress levels; thus, victims may be using substances to self-medicate their distress.

Social Support

Although support seeking is considered one of the primary forms of coping, research on support processes in

rape victims goes beyond the examination of support seeking as a coping process. For example, one issue for rape victims is whether and to whom to disclose the assault. Although disclosing the assault may not necessarily be for the purpose of seeking support, unlike other events that are more public (e.g., bereavement), victims only receive supportive or unsupportive reactions from others if they disclose the assault to them. The act of disclosing the assault or of seeking support also should be distinguished from the supportive or unsupportive reactions of others to the victim regarding the assault. Thus, research in this area has focused on whether and to whom victims disclose, what kinds of reactions they receive, and how those reactions are related to victims' distress levels. This research suggests that although most rape victims do not report the assault to the police, most disclose to someone, such as friends or family members. In general, victims indicate that they received mostly positive and supportive reactions from others. However, negative reactions, such as being blamed or treated differently, also occur and appear to be more common from formal (e.g., the police, physicians) than from informal (e.g., friends, family) support providers. Negative social reactions tend to be more associated with distress than positive social reactions are associated with well-being. Nonetheless, being believed and being listened to by others, especially friends and family, is associated with better adjustment among rape victims. Many friends and victims report that the assault had a positive effect on their relationships (e.g., it brought them closer).

Attributions About the Cause of the Rape

Individuals who have been sexually assaulted often struggle to regain a sense of control over their lives. One way to do this is to try to identify the cause of the assault (i.e., make a causal attribution) and thus recognize how the assault could have been prevented. For rape victims, this may involve trying to identify what they could have done differently to avoid being raped. Much of the research on the relations among attributions and posttrauma distress has been guided by the theory that behavioral self-blame, which involves attributing the assault to one's past behavior, is an adaptive response to rape because it is associated with the belief that future rapes can be avoided. In contrast, characterological self-blame, which involves attributing the rape to some stable aspect of one's self that cannot be changed, is thought to be maladaptive because it is not associated with a sense of future control. This theory has been described as dominating research on attributions and adjustment for more than two decades and as being widely accepted as having implications for interventions with trauma survivors.

Although this theory suggests that behavioral self-blame is adaptive, behavioral self-blame consistently is associated with more, rather than less, distress among survivors of rape. In addition, behavioral self-blame generally is unrelated to perceived future control among victims of rape. In other words, behavioral self-blame does not appear to foster the belief that future rapes can be avoided, which was the proposed mechanism for its adaptive value. Characterological self-blame is also consistently related to higher distress levels. Indeed, the two types of self-blame are highly correlated with each other. Experimental studies suggest that reductions in self-blame in treatment are associated with reductions in PTSD symptoms.

Research on attributions has tended to focus on self-blame, perhaps because of the predominance of the aforementioned theory. However, other kinds of blame, such as blaming the rapist or other external factors, tend to be more common than self-blame. These other types of blame also are associated with more distress. It appears that focusing on the past and on why the assault occurred is associated with higher distress levels. It is less adaptive to focus on the past and on why the assault occurred, or even on how future assaults can be avoided, than to focus on aspects of the assault that are currently controllable, such as the recovery process.

Patricia A. Frazier

See also Child Sexual Abuse; Rape Trauma Syndrome; Victimization

Further Readings

Filipas, H., & Ullman, S. (2001). Social reactions to sexual assault victims from various support sources. *Violence and Victims, 16,* 673–692.

Frazier, P. (2003). Perceived control and distress following sexual assault: A longitudinal test of a new model. *Journal of Personality and Social Psychology, 84,* 1257–1269.

Frazier, P., Mortensen, H., & Steward, J. (2005). Coping strategies as mediators of the relations among perceived control and distress in sexual assault survivors. *Journal of Counseling Psychology, 52,* 267–278.

Ullman, S. (2000). Psychometric characteristics of the Social Reactions Questionnaire: A measure of reactions to sexual assault victims. *Psychology of Women Quarterly, 24,* 257–271.

Ullman, S., Filipas, H., Townsend, S., & Starzynski, L. (2005). Trauma exposure, posttraumatic stress disorder and problem drinking in sexual assault survivors. *Journal of Studies on Alcohol, 66,* 610–619.

Criminal Behavior, Theories of

When crime is truly the product of rational choice, the offender commits the act for reasons of personal gain or gratification. His or her behavior is under his or her complete control. How and to what degree, however, might other factors intrude on and compromise his or her ability to exercise free will? The response to this question has come in the form of innumerable theories, each purporting to explain criminal behavior in terms of specific factors. Broadly speaking, these theories involve three categories of factors: psychological, biological, and social. In fact, human behavior is the product of complex interactions among many factors. Rather than providing a summary of myriad theories, this entry focuses on the main factors involved in the expression and suppression of criminal behaviors.

Social Factors

There is a vast criminological literature that identifies a wide range of environmental factors as causally linked to criminal behavior. These include developmental, social, and economic factors. For example, poverty is often cited as a socioeconomic condition linked to crime. The stress, strain, and frustration experienced by those lacking the financial resources to meet their needs and fulfill their desires through legitimate means renders them more inclined to commit crime than affluent individuals with ready access to legitimate means. Poor nutrition is an especially troubling aspect of poverty. Nutritional deficiencies can result in or exacerbate problems such as learning disabilities and poor impulse control. Such cognitive dysfunctions have been identified as precursors to delinquency and adult criminality. Thus, one's position in the social structure of society—as operationalized by variables such as level of income—can be a significant contributing factor in the criminal activities of some individuals by virtue of its impact on brain function.

Growing up in a household where parental displays of violence are commonplace can shape the behavior of children so as to make them more likely to respond to their own problems with violent means. While aggression and violence are not synonymous, that they are correlated is undeniable. Psychologist Albert Bandura demonstrated the importance of social learning in the development of aggressive behavior. Exposure to a violent role model may operate as a trigger of preexisting psychological and biological factors that predispose that individual to aggressive behavior. This may explain why only one of the two sons whose father assaults their mother grows up to beat his own wife—there were additional factors that rendered him more readily influenced by the violent model; or, conversely, the nonviolent son was resistant to the influence by virtue of individual "protective" factors, such as high IQ.

There is a substantial literature on a "cycle of violence" whereby victims of childhood abuse and neglect are predisposed to engage in violent behavior in adulthood, thus passing the violence from one generation to the next. Other research has examined the effects of being bullied during formative years, finding that the victims in turn become victimizers. In animal experiments, exposure to conditions of inescapable threat has been found to alter specific chemicals in the brain involved in aggression and the inhibition of aggression, with the result that formerly docile animals go on to display inappropriate and excessive aggression, attacking smaller, weaker animals whenever presented with them. In essence, they become the "playground bully." Thus, a change in the environment—exposure to inescapable threat—leads to changes in biology, which lead to the changes in behavior. Empirical studies on the effects of child maltreatment reveal that in addition to psychological problems actual structural and functional damage to the developing brain may occur. These neurobiological effects may be an adaptive mechanism for living in that dangerous environment. Regardless, they also tend to predispose the individual to a range of psychiatric conditions, aggressive behaviors, and stress-related illnesses. Resilient children, so called because of their ability to thrive under high-risk conditions, appear to have cognitive capabilities (notably higher verbal intelligence) that enable them to adapt to their stressful environment. Understanding the mechanisms

that underlie resilience may reveal deficits in those who succumb to the harmful effects of their disadvantaged or abusive childhood—often becoming delinquent and criminal as a result.

Of course, the majority of poor people are not criminals, and the majority of those growing up in abusive homes or who are bullied do not go on to become criminals, raising the question: What it is about those who commit crime that distinguishes them from others who experience similar circumstances but are law abiding? Furthermore, why would individuals who do not experience such adversity commit crime? The answer to these questions is that social factors affect different people differently. By and large it is the psychological and biological makeup of an individual that determines how and to what extent external forces affect his behavior. Psychological and biological factors interact to render an individual more or less vulnerable to adverse social conditions. This should not be taken to diminish the influence of social factors on criminal behavior, for indeed they have a significant role, but rather to highlight the fact that the effect they have depends on the psychological and biological makeup of the individual. Ultimately, it is the individual who acts—criminally or otherwise.

Psychological Factors

By virtue of the requirement of mens rea, criminal courts are concerned with the psychological elements that underlie criminal behavior. Research teaches, however, that the psychology of the offender emanates from a biological substrate. And, one's psychological states affect various aspects of his or her biology. Mind and brain have an indelible connection. An individual's psychological state or mental status—whether at the scene of a crime or in a courtroom—involves biological mechanisms.

Psychopathology—the study of diseases/disorders of the mind—constitutes a major area of preparation for the forensic psychologist. While the vast majority of individuals with mental disorder do not commit crimes, it is estimated that rates of serious mental disorder among prison inmates are three to four times greater than they are for members of the general population. Although this cannot blindly be taken to mean that the crimes of mentally disordered inmates were due to their psychopathology, or that mental disorder predated their incarceration, their disproportionate numbers relative to the general population nonetheless confer significance to mental disorder as a contributing factor in criminal behavior.

The relationship between criminal behavior and mental disorder is complex. Individuals who experience false perceptions (i.e., have hallucinations such as hearing voices that have no basis in objective reality) and/or hold false beliefs (i.e., have delusions such as "people are out to kill me") are considered to have a major mental disorder, or psychosis. Recent research has linked schizophrenia, a psychosis, to an increased risk of committing violent crime—usually against significant others in their lives (not the randomly encountered strangers portrayed in popular media). While it is understandable how someone who is out of touch with reality can harm another as a result (e.g., by having a delusion that he has a divine mission to cleanse the streets of vermin—say, by killing homeless people), the majority of psychotic individuals do not commit crimes.

Research on hallucinations in schizophrenics reveals that the basis for their false perceptions is brain dysfunction. For example, the occurrence of auditory hallucinations coincides with the firing of neurons in brain regions normally involved in processing sound—but in this case in the absence of sound. Instead of asking the nebulous question, "Why does a schizophrenic hear voices?" we are now positioned to ask why neurons in particular regions of the brain misfire in the absence of external stimuli. Thus, the impetus for violence in a schizophrenic individual—when he attacks because the voices say the other person intends harm—appears to arise out of aberrant neural activity.

Of the mental disorders currently recognized by clinicians and researchers, most are not deemed psychoses. Rather, they are disorders of personality, impulse control, and the like. Psychopathy, a form of personality disorder, is exhibited as a cluster of specific affective, interpersonal, and socially deviant behaviors. Although psychopaths make up only about 1% of the general population, they are estimated to comprise approximately 25% of prison populations. The nature of their disorder—lacking remorse for their antisocial actions and emotional empathy for those whose rights they violate—makes them especially well suited for criminal activity. While most psychopaths are not criminal (nonetheless behaving in ways that disregard consideration for others), of those who are, recidivism rates tend to be significantly higher than for nonpsychopathic offenders.

Although psychopaths are not psychotic, the neurobiological mechanisms that normally impart emotion to cognitions, thoughts, and attitudes appear to be dysfunctional in the psychopath. The psychologist Robert Hare suggests that whereas genetic (and other biological) factors determine the aberrant personality structure, the environment may shape how the disorder is expressed as behavior. Positron emission tomography and single-photon-emission computed tomography scans have identified a number of specific regions in the brains of violent psychopaths that do not function normally. In particular, the prefrontal cortex—part of the frontal lobes of the brain largely responsible for rational decision making and impulse control—appears to be underaroused, rendering it incapable of effectively managing emotional urges. Impulsive behaviors, including crimes, are the result.

However cognitive abilities are defined, certainly they have a major role in criminal behavior. Where research has used IQ as a measure of intelligence, by and large offenders have lower scores than nonoffenders. Typically, individuals with low intellectual ability have difficulty delaying gratification, curbing their impulses, and appreciating the alternative means to get what they want. With substantial intellectual impairment, they tend to be less inhibited from doing harm because they lack the appreciation for the wrongfulness of their conduct. Although environment can facilitate or suppress the development and expression of one's cognitive abilities, research indicates that these have a substantial heritable component.

The concept of emotional intelligence holds considerable promise for a more comprehensive understanding of chronic criminality. Those with low emotional intelligence—people who lack insight into their own behavior and empathy toward others—are less inhibited about violating the rights of others. Injury to the (ventromedial) prefrontal cortex has been linked to the onset of reckless and antisocial behavior (including violence) without remorse, suggesting our moral compass is rooted in specific frontal lobe functions that for the chronic offender are defective.

Much neglected in the mainstream literature on criminal behavior are the effects of traumatic events in early childhood from a psychoanalytic perspective. Twenty-first century technology provides for—should we choose—a recasting of Freudian constructs as specific neurobiological factors. The id, responsible for generating unconscious and primitive urges, may correspond with the limbic system—which includes brain structures involved in basic emotions, motivation, and memory. The aspect of the personality Sigmund Freud referred to as the ego mediates the self-centered demands of the id. The ego develops in childhood and grounds the individual in reality. It would be this rational aspect of personality that negotiates with the emotional and impulsive id. Read frontal lobes here. As for Freud's superego, the moral aspect of personality may well "reside," at least partially, in the ventromedial prefrontal cortex. Remorseless antisocial behavior follows damage to this area of the brain. Reconceptualizing Freudian constructs in this manner need not negate their validity, for the basic tenet—relating defects of personality to early trauma—remains intact. Rather, a neurobiological interpretation of psychoanalytic processes affords them something they heretofore lacked—the ability to be empirically validated.

While we refer to disordered mental states or diseased mind, frequently understated or unstated are the neurobiological processes that underlie them. Whatever the psychological problem, we can no longer speak of the psychological factors associated with criminal behavior without also discussing biological factors—virtually in the same sentence.

Biological Factors

The numerous and varied social and psychological factors that increase the risk of criminal behavior are mediated by biological processes.

Proper diet is essential to optimal brain function. For example, complex carbohydrates are broken down to make glucose—the basic fuel for the brain. Many nutrients are involved in converting that glucose into energy. A deficiency in any one of these essential nutrients compromises brain function by lowering the available energy. The frontal lobes of the brain, responsible for rational thinking, organizing behavior, and moderating emotional impulses, require approximately twice the energy as the more primitive regions. If energy levels are depleted, higher functions become impaired leaving lower brain activity uninhibited. Effectively, our emotions will have their way with us. Beyond basic energy needs, specific nutrients are required for the synthesis of neurotransmitters. It is, therefore, understandable how malnutrition compromises cognitive function and, in so doing, facilitates antisocial and aggressive behaviors.

Of the diagnosed illnesses associated with violent behavior, substance abuse ranks highest. The disinhibiting effects of alcohol are evident in police

reports—replete as they are with accounts of domestic violence, aggravated assault, murder, and rape under its influence. Substance abuse has a particularly deleterious effect on individuals with preexisting mental disorder, exacerbating their dysfunction. It is not that alcohol causes violent behavior; rather, it appears to trigger violence in those already prone to behave violently by virtue of other factors.

Exposure to toxic agents in the environment such as pesticides and lead can delay or impair an individual's intellectual development and thus affect behavior and its regulation. In this regard, teratogens—factors that interfere with normal embryonic development—have a particularly important role in predisposing some individuals to a life of crime. The legacy of cognitive deficits and behavioral sequelae due to, for example, prenatal exposure to drugs and alcohol, are well documented in the literature.

Neurotransmitters are responsible for conducting electrochemical impulses within and across regions of the brain (as well as throughout the body). Many psychiatric disorders have been linked to imbalances in neurotransmitter systems. Serotonin is involved in a number of brain functions, including regulation of emotional states. In laboratory experiments, lowering the serotonin levels results in the onset of impulsive and aggressive behavior. That abuse and neglect in childhood can result in permanently reduced levels of serotonin is therefore an important observation for our understanding of the etiology of violence.

Hormones function in much the same way as neurotransmitters except they are released into the bloodstream rather than between neurons. Abnormally high levels of circulating testosterone—a sex hormone associated with the drive to dominate and compete—have been linked to excessive aggression. The phenomenon of "roid rage" in body builders who use anabolic steroids and exhibit extreme and uncontrollable violence attests to this effect. Such observations, as well as research on stress hormones correlating, for example, low levels of salivary cortisol with severe and persistent aggression, show the importance of hormonal contributions to criminal behavior.

Research on skin conductance, heart rate, and brainwave activity has linked low arousal to criminal behavior. In fact, in young children, these psychophysiological conditions have been reported to portend later delinquency with a high degree of accuracy. What these and the aforementioned studies suggest is that the brains of chronic offenders work differently. As we proceed to identify more of the factors linked to criminal behavior, we will take with us one particular question, the answer to which will have implications that at once generate fear and optimism: To what extent are the factors genetically determined?

A variety of methodologies—examining twins and adoptees, chromosomal abnormalities, and DNA polymorphisms—have been applied to evaluate the role of genetic factors in criminal behavior and aggression. Although it is not anticipated that a "crime gene" will ever be discovered, it is clear there are genes that code for specific neurochemicals linked to different kinds of behavior. To illustrate, a specific—albeit rare—mutation has been identified in a gene that holds the recipe for a particular enzyme known to affect the level of certain neurotransmitters in the brain. This defect has been linked to a propensity toward impulsive and excessive aggression and violence in each of the men of the family who has this mutation.

Studies in behavioral genetics support the contention that aggressive behavior is moderately heritable. Aggressive behaviors confer advantage to the males of a species as they compete for territory and access to females. Evolutionary psychology holds that aggressive traits that increase reproductive success will be selected and carried across successive generations. Primatologist Ronald Nadler contends that sexual aggression is inherent in the behavioral repertoires of great apes—animals that are among our closest biological affiliates. Human males, as a function of their drive to procreate, would be naturally inclined to have sex with as many different partners as possible, maximizing the probability that the species will survive and also that their own genes will be transmitted to the next generation. The fact that most males do not rape is in large measure due to their socialization; rapists are males who have not been effectively socialized in this regard. We can appreciate through this example how specific psychosocial risk factors (e.g., low intelligence) can increase the probability of criminal and violent behavior—in this case, rape.

The long tradition of assuming crime to be the product of volition, unencumbered by aberrant psychological or biological processes, is under attack. In the end, we may find it is psychologist Adrian Raine's bold conceptualization of criminality as a clinical disorder that best fits what we learn. To embrace this position, however, would require us to revisit our notions of crime and punishment—and treatment. If criminal behavior, at least impulsive violent criminal

behavior, is inherently pathological, the implications are legion. In their determinations of culpability, the courts are thus wise to proceed with caution. As behavioral science research and technology advance, it is likely that the critical mass of the data will, ultimately, persuade.

Candice A. Skrapec

See also Criminal Responsibility, Assessment of; Forensic Assessment; Mens Rea and Actus Reus; Psychopathy; Psychotic Disorders

Further Readings

Hare, R. D. (1993). *Without conscience: The disturbing world of the psychopaths among us.* New York: Pocket Books.

Raine, A. (1993). *The psychopathology of crime: Criminal behavior as a clinical disorder.* New York: Academic Press.

Salovey, P., & Mayer, J. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*(3), 185–211.

Strueber, D., Lueck, M., & Roth, G. (2006, December). The violent brain. *Scientific American,* pp. 20–27.

Teicher, M. H. (2002, March). Scars that won't heal: The neurobiology of child abuse. *Scientific American,* pp. 68–75.

Widom, C. S. (1989). The cycle of violence. *Science, 244,* 160–166.

Criminal Responsibility, Assessment of

Mental health professionals are frequently asked to evaluate criminal defendants to assist the courts in determining whether those individuals may have been legally insane (i.e., not criminally responsible) at the time of their crimes. This entry discusses the legal concept of and criteria for insanity, as well as the challenges that forensic experts face in conducting these evaluations.

In contemporary Western society, prohibited behaviors are typically codified in the criminal law, and most citizens are held to be responsible to obey these laws. Individuals who violate the law may be prosecuted and, if convicted, punished for their behavior. Such individuals are said to be "criminally responsible," a label that reflects the moral and legal judgment that the person had neither a justification nor an excuse for his or her behavior, should have known better, and must endure the punishment as a corrective mechanism intended to discourage the recurrence of such behavior.

As the last sentence indicates, behavior that on its face appears to be criminal may in some circumstances not warrant the legal and moral conclusion that the actor is "guilty" or "criminally responsible." For example, under most circumstances, it is unlawful to take the life of another person, yet doing so in "self-defense" (the victim was threatening the life of the actor) may constitute a justification that precludes a finding of guilt. Similarly, taking money from another person (robbery), when performed under duress (a third-party threatens to kill the actor's child unless the money is taken), may be seen as justified because of the greater harm (death of the child) that was avoided by robbing the victim.

There are other individuals, or classes of individuals, who may be exempt or excused from judgments of "criminally responsible," not because of extraordinary or justifying circumstances, but because of individual characteristics or features that render them, in society's eyes, incapable of making the appropriate moral and legal judgments required to behave appropriately and (perhaps also) incapable from benefiting from punishment as a corrective measure. For our purposes, two such classes of individuals will be mentioned, both of which have been recognized in Western cultures, literally for centuries, as inappropriate targets for judgments of moral and legal culpability.

The first class of individuals is children, who, because of youthful age, lack of life experience, and mental or emotional immaturity, are considered not accountable as moral actors in the way that adults are held accountable for their behavior. Although exceptional cases may be found, the law has generally considered it an *unrebuttable assumption* that children at the age of 7 years and younger may not be held to adult standards of criminal responsibility, whereas there is a *rebuttable assumption* that children between the ages of 7 and 14 years are not moral agents to be held to adult standards of criminal responsibility.

The second group or class of individuals, and the one of primary focus here, comprises individuals with significant mental disorders whose symptomatology contributes to their "criminal behavior" in specific ways that society deems excuses them from moral culpability (criminal responsibility). In more common legal parlance, these individuals are considered "legally insane" or "not guilty by reason of insanity."

The insanity defense is generally unpopular in public opinion because of misperceptions about how it is used. Survey studies reveal public beliefs that the insanity defense is both frequently used and often successful. Such beliefs are likely distortions that result from the high degree of publicity surrounding notorious cases such as those of Patty Hearst, David Berkowitz ("Son of Sam"), Jeffrey Dahmer (none of whom was judged legally insane), and John Hinckley (who was found insane). However, neither belief is correct. Research shows that the insanity defense is asserted in less than half of 1% of criminal cases and more often than not it fails. Furthermore, when the insanity defense is successful, it is not the result of clever lawyers pulling the wool over the eyes of naive jurors. Most successful insanity defenses are not seriously challenged by the prosecution; more often it is clear to all parties that the defendant was insane at the time of the offense (according to criteria discussed below) and should not be held legally and morally responsible for his or her actions. Thus, many successful insanity defenses result, in effect, from plea agreements.

The following sections discuss (a) the criteria for legal insanity, (b) the legal calculus for determining when a defendant meets these criteria, and (c) the methods used by mental health professionals to gather evidence and formulate opinions about the mental state of a defendant at the time of an offense.

Criteria for Legal Insanity

Historians of Western law point to the influence of Henry de Bracton, whose writings on English law in the 13th century introduced notions of mental capacity and intent into deliberations about guilt and moral culpability. Early language referenced notions such as "infancy" or reasoning capacity not far removed from that of a "wild beast" as potentially exculpating mental states. The most influential English case was the *M'Naghten* case (1843), which established as the test for insanity that the accused

> was laboring under such defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing; or, if he did know it, that he did not know he was doing what was wrong.

The emphasis in *M'Naghten* on impairment in the ability to "reason" or to "know" clearly made judgments about a defendant's *cognitive* capacities central to the legal determination of insanity. This emphasis has survived in modern formulations that reference a defendant's "ability to appreciate the wrongfulness of his conduct." However, over the course of time modern psychiatry has influenced the law to consider *volitional* as well as cognitive impairments as potential bases for legal insanity. Thus, formulations in some jurisdictions refer to insanity resulting from criminal behavior that was due to an "irresistible impulse" or impaired capacity "to conform one's conduct to the requirements of the law" irrespective of the presence of cognitive impairment.

Finally, some formulations specify quantitative, albeit imprecise, levels of impairment for the insanity test to be met. Thus, it may be that not merely "impaired capacity" but "*substantially* impaired capacity" must be established to excuse the defendant from being criminally responsible for his or her behavior.

The Calculus of Legal Tests for Insanity

In jurisdictions that allow the insanity defense, judges and juries must apply the relevant legal test. The structure of all such tests requires three findings by the trier of fact. First, there is a predicate mental condition from which the defendant must have been suffering at the time of the offense. In the M'Naghten formulation above, the requisite condition is a "disease of the mind." More modern formulations reference the presence of "mental disease or defect" or similar language. It is important to note that in virtually all formulations, the legal definition for the predicate mental condition is neither highly precise nor tied explicitly to clinically recognized categories of mental illness or other mental impairments. (It is the case, however, that in many jurisdictions certain clinical conditions are explicitly barred by law as a basis for an insanity defense, most commonly (a) states of intoxication due to voluntarily consumed drugs or alcohol and (b) "disorders" defined almost exclusively on the basis of a history of antisocial behavior, such as antisocial personality disorder or sociopathy.)

The second component in the legal test is that the criminal act was affected by (loosely, "caused" by) the predicate mental condition. In other words, merely having a "disease of the mind" or a "mental disease or defect" alone is not sufficient to excuse the defendant from being criminally responsible. Mentally ill people may commit crimes for all the noncrazy reasons that

other people do; they may steal because they are greedy, fight because they are angry, or drive poorly because they are intoxicated. To sustain an insanity defense, the mental impairment must have contributed to the occurrence of the criminal behavior.

Finally, the link between the predicate mental impairment and the criminal behavior must specifically be of the type prescribed in the legal test. As noted above, depending on the legal jurisdiction, the test for insanity may reference either cognitive or volitional impairments. Imagine a scenario in which a person with a well-established diagnosis of generalized anxiety disorder ("mental disease") suddenly felt extremely anxious in a situation where the only means of escaping was to take another person's car and drive away. He is not confused as to the ownership of the car (i.e., he "knows" that it belongs to another person), does not think that he has that person's permission to take the car (i.e., has no illness-related delusion that he has the authority or approval to take the car), and is aware of, and maybe even consciously anxious about, the possibility that he could be arrested for taking the car. Under a purely cognitive insanity formulation that focuses on "knowing" or "appreciating" the wrongfulness of his behavior, there is little to suggest that the actor's illness (acute anxiety symptoms)—although it motivated his decision to take the car—impaired his cognitive abilities in the way prescribed by the legal test. Alternatively, under a volitional formulation that referenced impaired control of impulses or capacity to conform conduct, the sudden strong urge to flee, arguably animated by his anxiety disorder, might support a finding of insanity.

Clinical Assessment of Criminal Responsibility

When the defense decides to pursue a defense of insanity, mental health professionals, commonly psychiatrists or psychologists, are hired by the prosecution and defense and/or appointed by the court to evaluate the defendant's mental condition and to provide reports and/or testimony as to the defendant's criminal responsibility. This is one of the most challenging types of evaluation for mental health professionals in their roles as forensic examiners because it is different, in so many ways, from the ordinary evaluations that they conduct in clinical (nonlegal) settings.

Clinical diagnostic assessments are imperfect even under optimal conditions—that is, when the clinician is working with a voluntary, candid, and willing client and the focus is on present mental functioning and treatment planning. Such conditions are almost never present when evaluations for criminal responsibility are being conducted. Because the insanity evaluation focuses narrowly on a specific point in time in the past, this inevitably diminishes the utility of commonly used clinical measures, such as psychological tests or other diagnostic procedures. Instead, insanity evaluations rely to a large extent on reviews of investigative evidence collected by the police, interviews with defendants, and information collected from third parties who may have knowledge relevant to the defendant's behavior and functioning at or near the time of the offense. Thus, investigative reporting, rather than traditional clinical assessment, is perhaps a better conceptual model for criminal responsibility evaluations.

The challenges faced in conducting criminal responsibility evaluations include the following:

The Evaluation Is Retrospective. It is not uncommon for insanity evaluations to be conducted weeks or months after the defendant's arrest. Furthermore, the time window between the crime and the clinical evaluation may be extended considerably if the arrest is made only after a prolonged investigation. Much can happen during this interval to distort the reconstructed picture of the defendant's prior mental state, including the following:

1. The defendant has a mental illness that has deteriorated over time; the clinician interviews the defendant in this more disturbed state and may attribute more psychopathology at the time of the offense than was actually present.
2. The defendant has a mental illness that improves either spontaneously, due to the cyclical nature of the disorder, or to treatment received (e.g., in jail); the clinician interviews the defendant in this less disturbed state and may attribute less psychopathology at the time of the offense than was actually present.
3. Although not symptomatic at the time of the offense, the defendant may have developed symptoms subsequent to the offense (e.g., a reaction to the nature of the crime itself, to events that occurred at arrest or in the jail, or in anticipation of serious consequences); the clinician may attribute some of this symptomatology as being present at the time of the offense.

4. Information obtained by interviewing the defendant or third-party sources (e.g., witnesses, family members), even if offered "honestly," may be less accurate due to deterioration of memory over time.

Concerns About Information Validity. Most people who provide information to the forensic examiner have a personal or professional interest in the opinions and findings that the examiner will reach. Thus, concerns about the validity of information are greater in insanity evaluations (and other forensic assessments) than with evaluations conducted for standard clinical and therapeutic purposes.

A defendant may view a successful insanity defense as his or her only hope for avoiding a lengthy prison sentence and thus be motivated to exaggerate or fabricate symptoms of mental disorder in describing behavior and motivations at the time of the offense. Family members sympathetic to the defendant's plight may distort information in ways that they believe are helpful to the case. The attorney(s) may be selective in the investigative information made available to the clinician, withholding that which they believe might lead the clinician to an unfavorable opinion. Evidence may be gathered and provided by the police in ways that provide a misleading picture of the defendant's prior mental functioning. For example, a defendant who is mentally confused and verbally incoherent may be cajoled into signing a "confession," drafted in perfectly organized and sensible language by an arresting officer, that belies the extent of psychopathology present at the time of arrest.

Translating Clinical Findings for Legal Consumers. Based on information gathered from the defendant, the police, and available third-party sources, the forensic examiner attempts to reconstruct an account of the defendant's mental state at the time of the offense that considers whether, and the extent to which, symptoms of mental disorder may have contributed to the alleged crime. However, as noted above there is no direct translation of clinically recognized mental disorders, which can vary from relatively benign (e.g., nicotine use disorder) to severely incapacitating conditions (e.g., schizophrenia, manic disorder), into legal terms such as *disease of the mind* or *mental disease or defect*.

Similarly, various formulations of the legal criteria for insanity require qualitative or quantitative determinations of either the nature of the functional legal impairment (e.g., ability to "know" or to "appreciate" wrongfulness of conduct) or the extent of impairment (e.g., categorically "*did not* know" vs. "*lacked substantial capacity* to know") for which there is no clinical or scientific technology.

That there is no scientific basis for translating clinical findings into specific legal conclusions poses a challenge to forensic examiners who are often pressured by the attorneys, if not also the courts, to give conclusory opinions under the mantra of "reasonable medical (or scientific) certainty." Mental health professionals have no "capacimeters" for determining whether the specific nature or extent of impairment in a given case is sufficient to excuse the defendant from his or her moral obligation to obey the rules. These constructs are legal terms of art that, in any individual case, have meaning only as expressed in the eventual social and moral judgment of the judge or jury when the verdict is reached. The status of an individual *being legally insane* (i.e., "not criminally responsible") is a social construction that has no meaning prior to, or independent of, the jury's pronouncement.

This is not to say that clinical evaluations of criminal responsibility cannot be helpful to legal decision makers. Rather, the challenge for forensic examiners is to collect information relevant to a defendant's legal functioning and to describe it to the triers of fact in ways that facilitates *their* ultimate judgments, but without offering moral judgments of their own under the guise of scientific expertise.

To illustrate with an example, one defendant who had a long and well-documented history of mental disorder experienced a recurrence of symptoms that included the delusional belief that he had been appointed to the position of deputy director of the FBI (in reality, the individual had worked in a factory for 20 years). On the basis of this belief, and the further notion that he was urgently needed in Washington, D.C., on matters of national security, he boarded a Greyhound bus and, without license or permission, drove it away from the bus depot. He was arrested and charged with unlawfully driving away a motor vehicle.

In this case, a forensic examiner might report that at the time of the offense the defendant experienced symptoms (i.e., delusions—strongly held but erroneous beliefs) of a well-recognized mental disorder (schizophrenia) with which he had been diagnosed for a number of years. Although the objective evidence is that the defendant is a factory worker, the manifestation of his illness at the time of the offense included a set of beliefs that distorted his perceptions of reality

with respect to his occupation (i.e., objectively he was not an FBI official) and his rights and duties associated with his occupation (i.e., objectively he did not have the authority to commandeer a public transportation vehicle in the interest of national security). The nature of these distortions impaired his ability to judge correctly with respect to the action of taking control over the bus.

This formulation lacks a conclusive opinion as to whether or not the defendant's symptoms at the time of the offense satisfy the required predicate condition ("he suffered from a mental disease"). Also absent is any conclusory opinion that the symptoms categorically did, or did not, relate to the criminal act in the prescribed way (i.e., "he did not know that what he was doing was wrong"). However, the formulation does provide a plausible accounting of the relationship between the defendant's symptoms and the criminal behavior, but leaves it to the jury to "connect the dots," so to speak, in a fashion congruent with their collective social and moral intuitions as to whether or not an individual so disturbed should be held criminally responsible.

Norman G. Poythress

See also Automatism; Criminal Responsibility, Defenses and Standards; Forensic Assessment

Further Readings

De Pauw, K. W., & Szulecka, T. K. (1988). Dangerous delusions: Violence and misidentification syndromes. *British Journal of Psychiatry, 152,* 91–96.

Dreher, R. H. (1967). Origin, development and present status of insanity as a defense to criminal responsibility in the common law. *Journal of the History of the Behavioral Sciences, 3,* 47–57.

Goldstein, A. M., Morse, S. J., & Shapiro, D. L. (2003). Evaluation of criminal responsibility. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 381–406). Hoboken, NJ: Wiley.

Morse, S. J. (1994). Causation, compulsion, and involuntariness. *Bulletin of the American Academy of Psychiatry and the Law, 22,* 159–180.

Morse, S. J. (1994). Culpability and control. *University of Pennsylvania Law Review, 142,* 1587–1655.

Poythress, N. G. (2004). "Reasonable medical certainty": Can we meet *Daubert* standards in insanity cases? [Editorial]. *Journal of the American Academy of Psychiatry and the Law, 32,* 228–230.

Slobogin, C. (2007). *Proving the unprovable: The role of law, science, and speculation in adjudicating culpability and dangerousness.* New York: Oxford University Press.

Criminal Responsibility, Defenses and Standards

Although the insanity defense is numerically insignificant, it remains profoundly important to the criminal justice system as the focal point of the ongoing debate on the relationship between legal responsibility, free will, mental illness, and punishment. The insanity defense has substantially survived in spite of persistent philosophical and political criticism. Its history reflects a balance and tension between changes in attitudes toward developments in psychiatry and psychology and changes in attitudes toward criminal justice, incapacitation, and the desire to punish. Probably no other area of criminal law and procedure reflects a jurisprudence that is so driven by myths as that of the insanity defense. Yet only a handful of American jurisdictions have legislatively abolished it.

Insanity defense issues have concerned the courts and legislative bodies for hundreds (perhaps thousands) of years. As the various tests have developed—M'Naghten, irresistible impulse; Durham, the test proposed in the American Law Institute's Model Penal Code (ALI-MPC); the federal Insanity Defense Reform Act, diminished capacity—and as efforts are made to limit the scope and use of the defense, either by use of a "guilty but mentally ill" verdict or by outright abolition, it is clear that the symbolic values of the insanity defense must be considered carefully at all times. No area of our legal system has engendered a more intense level of debate than the role of the insanity defense in the criminal justice process. On the one hand, this difficult subject is seen as a reflection of the fundamental moral principles of the criminal law, resting on beliefs about human rationality, deterrability (i.e., whether the punishment of a person whose profound mental illness leads him to commit what would otherwise be a criminal act would serve as a deterrent to others), and free will, and as a bulwark of the law's moorings of condemnation for moral failure. On the other hand, it is castigated by a former attorney general of the United States as the major stumbling block in the restoration of "the effectiveness of Federal law enforcement" and as tilting the

"balance between the forces of law and the forces of lawlessness." Yet the percentage of insanity defenses pled is small (at the most 1%), the percentage of those successful is smaller (1/4 of 1%), and the percentage of those successful in *contested* cases is minuscule (1/10 of 1/4 of 1%).

Notwithstanding the defense's relative *numerical insignificance,* it touches—philosophically, culturally, and psychologically—on our ultimate social values and beliefs; it is rooted in moral principles of excuse that are accepted in both ordinary human interaction and criminal law; and it continues to serve as a surrogate for resolution of the most profound issues in criminal justice. Although the defense has been significantly narrowed in many jurisdictions in the past 25 years—a condition intensified by the verdict in the John Hinckley case (which involved the attempted assassination of President Ronald Reagan) as well as several other unpopular or "wrong" jury verdicts in cases involving sensationalized crimes or public figure victims—reports of its demise are, to a great extent, exaggerated and, in spite of public outrage, the doctrine has remained alive in most jurisdictions.

The insanity defense has been a major component of the Anglo-American common law for more than 700 years. Rooted in Talmudic, Greek, and Roman history, its forerunners actually can be traced back to more than 3,000 years. The sixth-century Code of Justinian explicitly recognized that the insane were not responsible for their acts and also articulated the early roots of the temporary insanity and diminished capacity doctrines. By the ninth century, the "Dooms of Alfred" (a code of laws compiled by Alfred the Great) acknowledged that an impaired individual—who could not acknowledge or confess his offenses—was absolved from personally making restitution. In pre-Norman England, the law similarly shifted reparations responsibility in the event that a "man fall out of his senses or wits, . . . and kill someone."

The defense's "modern" roots can be traced at least as far back as 1505, the first recorded jury verdict of insanity, but it is clear that even prior to that case, juries considered "acquittal to be the appropriate result" in certain insanity defense cases. Furthermore, William Lambard's late-16th-century text on criminal responsibility (*The Eirenarcha*) suggested that the insanity defense was already well settled in England, and Sir Edward Coke's 1628 treatise, *Institutes of the Laws of England*, gave the law the familiar maxim that the " madman is only punished by his madness."

Early Developments

In the early 18th century, English judges began the process of attempting to define for juries that condition of the mind which would excuse, as a matter of law, otherwise criminal behavior. In *Rex v. Arnold* (1724), the first of the historically significant insanity defense trials, Judge Tracy charged the jury in the following manner:

> That is the question, whether this man hath the use of his reason and sense? If he . . . could not distinguish between good and evil, and did not know what he did . . . he could not be guilty of any offence against any law whatsoever. . . . On the other side . . . it is not every kind of frantic humour or something unaccountable in a man's actions, that points him out to be such a madman as is to be exempted from punishment: *it must be a man that is totally deprived of his understanding and memory, and doth not know what he is doing, no more than an infant, than a brute, or a wild beast, such a one is never the object of punishment.*

The law of criminal responsibility evolved further in 1800, in the case of James Hadfield, which envisioned insanity in the following manner:

> That a man could know right from wrong, could understand the nature of the act he was about to commit, could manifest a clear design and foresight and cunning in planning and executing it, but if his mental condition produced or was the cause of a criminal act he should not be held legally responsible for it.

This trend toward a more liberal defense continued in the case of *Regina v. Oxford* (1840), which concerned the attempted assassination of Queen Victoria, in which the jury charge combined portions of what would later be known as the "irresistible impulse" test and the "product" test.

M'Naghten Case

The most significant case in the history of the insanity defense in England (and perhaps in all common-law jurisdictions) arose out of the shooting by Daniel M'Naghten of Edward Drummond, the secretary of the man he mistook for his intended victim, Prime Minister Robert Peel (as with all the other cases already discussed, the victim was a major political

figure). Enraged by the jury's insanity verdict, Queen Victoria questioned why the law was of no avail, since "everybody is morally convinced that [the] malefactor . . . [was] perfectly conscious and aware of what he did," and demanded that the legislature "lay down the rule" so as to protect the public "from the wrath of madmen who they feared could now kill with impunity."

In response to the Queen's demand, the House of Lords asked the Supreme Court of Judicature to answer five questions regarding the insanity law; the judges' answers to two of these five became the M'Naghten test (1843):

> The jurors ought to be told in all cases that every man is presumed to be sane, and to possess a sufficient degree of reason to be responsible for his crimes, until the contrary be proved to their satisfaction; and that to establish a defence on the ground of insanity, it must be clearly proved that, at the time of the committing of the act, the party accused was labouring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing; or, if he did know it, that he did not know he was doing what was wrong.

There are three main features of this formulation: First, it is predicated on proof that the defendant was suffering from a "defect of reason, from disease of the mind." From the time of *M'Naghten* until today some finding of "mental disease or defect" has been a necessary predicate for the insanity defense. Second, once such a "disease" is shown, the inquiry focuses on what the defendant was able to "know." That is, the interest of the law under this test is in the ability of the defendant to "know" certain things. It is for this reason that the inquiry is sometimes referred to as a "cognitive" formula. Third, the M'Naghten test focuses on two things the defendant must be able to "know" to be guilty of a crime. One is "the nature and quality" of the act that was committed. The other is that the act "was wrong." In both instances, the question is whether the defendant was "capable" of knowing these things, that is, whether the mental illness had robbed the defendant of the capacity to know what "normal" people are able to know about their behavior. The idea, in sum, is that people who are unable to know the nature of their conduct or who are unable to know that their conduct is wrong are not proper subjects for criminal punishment. In commonsense terms, such persons should not be regarded as morally responsible for their behavior.

This test has been severely criticized as rigid and inflexible, based on outmoded views of the human psyche, of little relation to the truths of mental life, reflecting antiquated and outworn medical and ethical concepts. Furthermore, the use of language such as "know" and "wrong" was criticized as "ambiguous, obscure, unintelligible, and too narrow." Donald Hermann and a colleague have argued, by way of example, that the cognitive aspect of one's personality cannot be seen as the sole determinant of one's subsequent behavior (and the basis of one's ultimate criminal guilt) because the psyche is an integrated entity.

Critics also maintain that the narrow scope of the expert testimony required by the M'Naghten test deprives the jury of a complete picture of the psychological profile of the defendant as the test ignores issues of affect and control.

Nevertheless, American courts readily adopted the M'Naghten formulation and codified it as the standard test, "with little modification," in virtually all jurisdictions until the middle of the 20th century.

Irresistible Impulse

In a partial response to criticisms of the M'Naghten test, several courts developed an alternative test that later became known as the "irresistible impulse" test, adapted from a test first formulated in 1883 by Lord Stephen:

> If it is not, it ought to be the law of England that no act is a crime if the person who does it is at the time . . . prevented either by defective mental power or by any disease affecting his mind from controlling his own conduct, unless the absence of the power of control has been produced by his own default.

This rule allowed for the acquittal of a defendant if his mental disorder caused him to experience an "irresistible and uncontrollable impulse to commit the offense, even if he remained able to understand the nature of the offense and its wrongfulness." It was based, in the words of Abraham Goldstein, one of the leading legal scholars on the history of the insanity defense, on four assumptions:

> First, that there are mental diseases which impair volition or self-control, even while cognition remains relatively unimpaired; second, that the use of M'Naghten alone results in findings that persons suffering from such diseases are not insane; third, that the law should

> make the insanity defense available to persons who are unable to control their actions, just as it does to those who fit M'Naghten; fourth, no matter how broadly M'Naghten is construed, there will remain areas of serious disorder which it will not reach. (p. 67)

At its high-water mark, this test had been adopted in 18 jurisdictions, but today, far fewer states follow its teachings.

The Product Test

Charles Doe, a mid-19th-century New Hampshire State Supreme Court judge, first crafted what became known as the *product test*: "If the [crime] was the offspring or product of mental disease in the defendant, he was not guilty by reason of insanity" (*State v. Pike*, 1870). This test first entered the legal public's consciousness in 1954, when it was adopted by the District of Columbia in *Durham v. United States*, rejecting both the M'Naghten and the irresistible impulse tests as based on "an entirely obsolete and misleading conception of the nature of insanity," one that ignored the reality that "the science of psychiatry now recognizes that a man is an integrated personality and that reason, which is only one element in that personality, is not the sole determinant of his conduct" (p. 871) and that a far broader test would be appropriate.

Durham held that an accused would not be criminally responsible if his "unlawful act was the product of mental disease or mental defect" (pp. 874–875). This test would provide for the broadest range of psychiatric expert testimony, "unbound by narrow or psychologically inapposite legal questions" (Weiner, 1985, p. 710). The case was the first modern, major break from the M'Naghten approach and created a feeling of intellectual and legal ferment. It was adopted, however, in fewer than a handful of jurisdictions and became the topic of fairly rigorous criticism, that it allegedly failed to provide helpful guidelines to the jury and that it was—at its core—a "nonrule," providing the jury with no standard by which to judge the evidence; that it misidentified the moral issue of responsibility with the scientific issues of diagnosis and causation; and that it was too heavily dependent on expertise, leading to the usurpation of jury decision making by psychiatrists. Within a few years after the *Durham* decision, the court began to modify and—ultimately—dismantle it, culminating in its decision in *United States v. Brawner* (1973), the most important of the many federal cases that had rejected M'Naghten and adopted instead the ALI-MPC test.

American Law Institute's Model Penal Code Test

In an effort to avoid the major criticisms of M'Naghten, the irresistible impulse test, and Durham, the ALI couched the substantive insanity defense standard of its MPC in language that focused on volitional issues as well as cognitive ones. According to the ALI-MPC standard, a defendant is not responsible for his criminal conduct if, as a result of mental disease or defect, he "lacks substantial capacity either to appreciate the criminality of his conduct or to conform his conduct to the requirements of law" (§ 4.01(1)). Under this formulation, the term mental disease or defect specifically excluded "an abnormality manifested only by repeated criminal or otherwise antisocial conduct"(§ 4.01(2)).

Although the ALI-MPC test was rooted in the M'Naghten standard, there were several significant differences. First, its use of the word *substantial* was meant to respond to case law developments that had required a showing of total impairment for exculpation from criminal responsibility. Second, the substitution of the word *appreciate* for the word *know* showed that a sane offender must be emotionally as well as intellectually aware of the significance of his or her conduct and that mere intellectual awareness that the conduct is wrongful when divorced from an appreciation or understanding of the moral or legal import of behavior can have little significance. Third, by using a broader language of mental impairment than had M'Naghten, the test captured both the cognitive and affective aspects of impaired mental understanding. Fourth, its substitution in the final proposed official draft of the word *wrongfulness* for *criminality* reflected the position that the insanity defense dealt with an impaired moral sense rather than an impaired sense of legal wrong.

Although there were some immediate criticisms of the ALI-MPC test, principally due to the attempt to bar "psychopaths" or "sociopaths" from successfully using the defense, the test was generally applauded as encouraging adjudication based on reality and the practical experience of psychiatrists by recognizing that both the volitional and the cognitive processes of an individual may be impaired. The test was subsequently adopted by more than half of the states and, in some form, by all but one of the federal circuits. Perhaps most significant, the District of Columbia Court of

Appeals, in overruling its "product" test of *Durham v. United States* in *United States v. Brawner*, adopted the ALI-MPC test.

Insanity Defense Reform Act

Slightly more than a decade after *Brawner,* in the wake of John Hinckley's failed attempt to assassinate U.S. President Ronald Reagan, Congress enacted the federal Insanity Defense Reform Act. This law had the effect of returning the insanity defense in federal jurisdictions to status quo ante 1843: the year of *M'Naghten*. The bill changed the federal law in several material ways:

1. It shifted the burden of proof to defendants, by a quantum of clear and convincing evidence.
2. It articulated, for the first time, a substantive insanity test, adopting a more restrictive version of M'Naghten, thus discarding the ALI-MPC test previously in place in all federal circuits.
3. It established strict procedures for the hospitalization and release of defendants found not guilty by reason of insanity.
4. It severely limited the scope of expert testimony in insanity cases.

Diminished Capacity

One of the most difficult concepts in substantive insanity defense formulation is that of diminished capacity, a doctrine that holds that evidence of reduced mental capacity tending to show the absence of any mental state essential to the alleged crime should be accepted by the trial court, whether or not an insanity plea was entered (*People v. Wells*, 1949, pp. 63–70). There seems little question that the diminished capacity doctrine was developed to be used in murder cases to mitigate the harshness of a potential death penalty by raising the question of whether the defendant could sufficiently appreciate the nature of his or her act so as to sustain a first-degree murder conviction. In addition, use of the doctrine has been justified as a means to ameliorate defects in a jurisdiction's substantive insanity defense test criteria and as a means of permitting juries to make more accurate individualized culpability judgments.

This doctrine, however, has been routinely criticized for its difficulty and arbitrariness in application, leading to uneven and inequitable outcomes, and while it had been endorsed in some form in nearly 25 jurisdictions, it has failed to capture major support and has even lost the support it previously enjoyed.

"Guilty but Mentally Ill"

Perhaps the most significant development in substantive insanity defense formulations in the past 20 years has been the adoption in more than a dozen jurisdictions of the hybrid "guilty but mentally ill" (GBMI) verdict. It received its initial impetus in Michigan, as a reflection of legislative dissatisfaction with and public outcry over a state Supreme Court decision that had prohibited automatic commitment of insanity acquittees. There, legislation was enacted that provided for a GBMI verdict—as an alternative to the not guilty by reason of insanity (NGRI) verdict—if the following were found by the trier of fact beyond a reasonable doubt:

1. That the defendant is guilty of an offense
2. That the defendant was mentally ill at the time of the commission of the offense
3. That the defendant was not legally insane at the time of the commission of the offense

The rationale for the passage of the GBMI legislation was that the implementation of such a verdict would decrease the number of persons acquitted by reason of insanity and ensure treatment of those who were GBMI within a correctional setting. It was conceived that once a defendant were to be found GBMI, he or she would be evaluated on entry to the correctional system and provided appropriate mental health services either on an inpatient basis as part of a definite prison term or, in specific cases, as a parolee or as an element of probation. This model was followed—in large part—in most of the other states that have adopted the GBMI test.

Most academic analyses have been far more critical, rejecting it as conceptually flawed and procedurally problematic and as not only superfluous but also dangerous. By way of example, in practice, the GBMI defendant is not ensured treatment beyond that available to other offenders. Thus, Christopher Slobogin (one of the leading current scholars in this area of the law) suggests, it is "not only misleading but dangerous to characterize the [GBMI] verdict either as a humane advance in the treatment of mentally ill

offenders or as a more effective way of identifying offenders in need of treatment." The GBMI verdict, he concludes, is "a verdict in name only" (p. 515).

Insanity Defense Myths

The empirical research has revealed that at least half a dozen myths about the insanity defense had arisen and have been regularly perpetuated but were all disproven by the facts. The research showed that the insanity defense opens only a small window of nonculpability, that defendants found that NGRI does not "beat the rap," and, perhaps most important, that the tenacity of these misbeliefs in the face of contrary data is profound.

Myth 1: The insanity defense is overused. All empirical analyses have been consistent: the public, legal profession, and, specifically, legislators dramatically and grossly overestimate both the frequency and the success rate of the insanity plea. This error undoubtedly is abetted by media distortions in presenting information on persons with mental illness charged with crimes.

Myth 2: The use of the insanity defense is limited to murder cases. In one jurisdiction where the data have been closely studied, slightly less than one third of the successful insanity pleas entered over an 8-year period were reached in cases involving a victim's death. Furthermore, individuals who plead insanity in murder cases are no more successful in being found NGRI than persons charged with other crimes.

Myth 3: There is no risk to the defendant who pleads insanity. Defendants who asserted an insanity defense at trial and who were ultimately found guilty of their charges served significantly longer sentences than defendants tried on similar charges but did not assert the insanity defense. The same ratio is found when exclusively homicide cases are considered.

Myth 4: NGRI acquittees are quickly released from custody. Of all the individuals found NGRI over an 8-year period in one jurisdiction, only 15% had been released from all restraints, 35% remained in institutional custody, and 47% were under partial court restraint following conditional release.

Myth 5: NGRI acquittees spend much less time in custody than do defendants convicted of the same offenses. Contrary to this myth, NGRI acquittees actually spend almost double the amount of time that defendants convicted of similar charges spend in prison settings and often face a lifetime of postrelease judicial oversight.

Myth 6: Criminal defendants who plead insanity are usually faking. This is perhaps the oldest of the insanity defense myths and is one that has bedeviled American jurisprudence since the mid-19th century. Of 141 individuals found NGRI in one jurisdiction over an 8-year period, there was no dispute that 115 were schizophrenic (including 38 of the 46 cases involving a victim's death), and in only three cases was the diagnostician unable to specify the nature of the patient's mental illness.

Abolition and Limitation Proposals

In the past two decades, state legislatures in Idaho, Montana, Kansas, and Utah have abolished the insanity defense, and in those jurisdictions, state supreme courts have subsequently held that abolition of the defense did not violate due process. Arizona stopped barely short of abolishing the insanity defense by creating a "guilty except insane" verdict that eliminates the "nature and quality of the act" prong from the M'Naghten test. In one instance (Nevada), such abolition was struck down as unconstitutional in *Finger v. State of Nevada* (2001), with the majority of the sharply divided court finding that legal insanity was a "fundamental principle" entitled to due process protections. The court reasoned as follows:

> Mens rea is a fundamental aspect of criminal law. Thus it follows that the concept of legal insanity, that a person is not culpable for a criminal act because he or she cannot form the necessary mens rea, is also a fundamental principle. (p. 80)

The U.S. Supreme Court recently addressed questions raised in Arizona's insanity defense:

> Whether due process prohibits Arizona's use of an insanity test stated solely in terms of the capacity to tell whether an act charged as a crime was right or wrong; and whether Arizona violates due process in restricting consideration of defense evidence of mental illness and incapacity to its bearing on a claim of insanity, thus eliminating its significance directly on the issue of the mental element of the crime charged (known in legal shorthand as the mens rea, or guilty mind). (*Clark v. Arizona,* 2006)

In both instances, the Court held there was no violation of due process.

Michael L. Perlin

See also Criminal Responsibility, Assessment of; Guilty but Mentally Ill Verdict; Insanity Defense, Juries and; Insanity Defense Reform Act (IDRA); Mental Health Law; Treatment and Release of Insanity Acquittees

---

This entry is largely adapted from Perlin, M. L. (2002). *Mental disability law: Civil and criminal* (2nd ed., chap. 9). Newark, NJ: Matthew Bender.

Further Readings

American Law Institute. (1962). *Model penal code*. Philadelphia: Author.

Clark v. Arizona, 548 U.S. ____ 126 S. Ct. 2709 (2006).

Durham v. United States, 214 F.2d 862 (D.C. Cir. 1954) (overruled in *United States v. Brawner*, 471 F. 2d 969 (D.C. Cir. 1972).

Finger v. State of Nevada, 27 P.3d 66 (Nev. 2001).

Goldstein, A. S. (1967). *The insanity defense*. New Haven, CT: Yale University Press.

Low, P. W., Jeffries, J. C., & Bonnie, R. J. (2000). *The trial of John W. Hinckley, Jr.: A case study in the insanity defense* (2nd ed.). New York: Foundation Press.

Morris, N. (1984). *Madness and the criminal law*. Chicago: University of Chicago Press.

People v. Wells, 202 P. 2d 63 (Cal. 1949).

Perlin, M. L. (1989/1990). Unpacking the myths: The symbolism mythology of insanity defense jurisprudence. *Case Western Reserve Law Review*, *40*, 599–731.

Perlin, M. L. (1994). *The jurisprudence of the insanity defense*. Durham, NC: Carolina Academic Press.

Perlin, M. L. (1997). "The borderline which separated you from me": The insanity defense, the authoritarian spirit, the fear of faking, and the culture of punishment. *Iowa Law Review*, *82*, 1375–1426.

Perlin, M. L. (2002). *Mental disability law: Civil and criminal* (2nd ed., Vol. 4). Newark, NJ: Matthew Bender.

Regina v. Oxford, 173 Eng. Rep. 941 (1840).

Rex v. Arnold, 16 How. St. Tr. 695 (1724).

Slobogin, C. (1985). The guilty but mentally ill verdict: An idea whose time should not have come. *George Washington Law Review*, *53*, 494–527.

State v. Pike, 49 N.H. 399, 442 (1870).

United States v. Brawner, 471 F.2d 969 (1973).

Weiner, B. A. (1985). Mental disability and criminal law. In S. J. Brakel, J. Parry, & B. A. Weiner (Eds.), *The mentally disabled and the law* (3rd ed., pp. 693–773). Chicago: American Bar Association.

Crisis and Hostage Negotiation

Since the 1970s, some clinical psychologists (often referred to as operational psychologists) have become more actively involved in the resolution of critical incident situations, which are classified as either hostage situations or crisis intervention situations. Police psychologists are valuable contributors to the training of tactical and crisis/hostage negotiators. On-scene responsibilities for operational psychologists include providing professional consultation on the potential behavioral effects of psychopathology and psychopharmacology, selection of primary and backup negotiators, suggestions and input regarding the actual negotiation process, and operational consultation to the tactical commander. Research shows that police departments that employ psychologists during special operation responses have significantly fewer casualties of both hostages and hostage takers and more incidents that are peacefully resolved via a negotiated surrender than by a tactical entry or violent confrontation. Police psychologists, in providing cogent consultation and robust training dynamics to specialized police crisis response teams, have made a dramatic contribution to reducing the risk of injury and death for all participants in these critical events.

Hostage and Crisis Negotiation

Within both federal and local law enforcement environments, a hostage situation has become defined as any situation in which individuals are being held via active coercion by another person or people and demands are being made by the hostage taker(s). These demands are by design established by the hostage taker(s) to gain compliance as well as establish an inherent power by the hostage taker(s) over the responding law enforcement agency. Typically, a hostage situation results from the interruption of a criminal act in which the perpetrators take hostages with an ultimate goal of forcing law enforcement to comply with their demands for escape. At the other end of the continuum are hostage situations initiated by a terrorist group whose goal is to communicate their political agenda via media exposure. The terrorists attempt to actualize this confrontation by using the hostages as political pawns, as the terrorists have the option of choosing martyrdom for themselves and/or death to the hostages if their demands are not met.

As hostage negotiation developed over the decades of the 1970s and 1980s, it was observed that the majority of negotiator incidents were either initiated by an individual or within some family dyad. As such, the typical negotiator intervention entailed interaction with a barricaded subject, a suicidal individual, or a couple who were engaged in a violent domestic confrontation. These incidents required the application of crisis-intervention techniques and active listening skills. The overall principle in crisis negotiation is that time is on the side of the negotiator in that the passage of time will provide a "cooling off" period for the individual who is seen as a victim rather than as a perpetrator. Over time, the emotional lability of the individual will dissipate, which allows for the introduction of active listening techniques by the negotiator. This system of communication provides a spectrum of responses that facilitate viable, objective problem-solving options to the individual in crisis.

Team Composition and Tactics

A hostage/crisis negotiation event is a complicated and potentially dangerous undertaking for any law enforcement agency. Almost all these situations demand the response of a two-pronged team, the special weapons and tactics team (SWAT). The SWAT team consists of a heavily armed and specially trained group of police officers, while the second component of the team is the group of police negotiators. The primary function of the tactical team is for the protection of the SWAT team, especially the negotiators, the victims of the event, the general public, hostages (if any), and, lastly, the subject(s). The tactical team is also responsible for initiating any proactive or reactive options during the progression of the event. The negotiator team is responsible for the acquisition of any on-scene information deemed relevant to both the tactical and negotiator teams. The second primary function of the negotiators is, obviously, the active negotiation process.

On the arrival of the SWAT team, the tactical members will diligently establish an inner perimeter that allows for the establishment of a safe (within the constraints of the actual situation) environment for the tactical operations center (TOC). The TOC is the central decision and command area for the supervisory personnel. The TOC consists of the tactical commander, typically a lieutenant; a tactical team leader (sergeant); a negotiator team leader (lieutenant or sergeant); and the police psychologist. These individuals have been trained in the dynamics of critical events and usually are certified tactical commanders, with the police psychologist having received at least 80 hours in specialized courses in hostage and crisis negotiation. In major metropolitan police departments, such command and supervisory personnel have responded to more than 300 to 1,200 of these SWAT callouts to date. The responsibility of the TOC is to initially determine if the presence of the SWAT team at the specific scene is legal and/or necessary. A second task is to develop an initial action plan. Third, the TOC is responsible for maintaining an ongoing acceptable and risk-effective course of action. Within this action plan are typically four options: immediate assault on the location, selected sniper fire (an exigent situation to prevent the loss of life to innocent participants), introduction of chemical agents, and a negotiation process. It should be noted that these four options are fluid in nature and can be used in combination and in no specific order. The decision process to use any option is predicated on the anticipated *outcome* following the initiation of any one or more of these actions.

Most negotiation teams consist of a lead and backup negotiator, an electronics technician/negotiator, several support negotiators, a team leader, and a mental health consultant. Unless there is an exigent situation, the mental health consultant is never the lead negotiator (for ethical reasons), nor does just one negotiator initiate and maintain the negotiation process (for safety reasons). The lead negotiator is the police officer responsible for speaking directly to the subject and for developing and maintaining active listening skills and verbal tactics that will increase the likelihood for a successful resolution of the crisis. The most effective negotiators are those who are the best *listeners*, for it is only through listening that the negotiator will begin to understand and emotionally connect with the subject. The secondary negotiator is responsible for physically protecting (typically by preventing the lead negotiator from gradually placing his body and head in the line of fire while distracted by the negotiation process) the lead negotiator, monitoring the radio frequency, and listening to the negotiation process and relaying information and suggestions (typically made by the mental health professional) back to the lead negotiator. If necessary, during a protracted negotiation process, the backup negotiator may relieve the primary negotiator. The electronics technician/negotiator is responsible for maintaining all negotiator equipment, setting up all the required equipment at the scene, and interfacing with local telephone companies and national cellular companies,

as well as coordinating the dispatch and arrival of the local power/utility company crew (in the event the tactical commander decides to cut the electrical power in the subject dwelling). The support negotiators are responsible for gathering all relevant information regarding the subjects (e.g., physical description, clothing, weapons, prescription/nonprescription medications, contact phone numbers, and arrest and psychiatric history). This is done via records checks and interviewing on-scene family members, friends, and witnesses. The support negotiators also maintain a running log of times and relevant events during the SWAT callout. A final responsibility of the support negotiators is to interview/debrief any hostages who are released during a hostage situation. The negotiator team leader assists the mental health consultant in the assignment of team responsibilities for the specific callout as well as providing consultation at the TOC. The mental health consultant provides assistance to the negotiator team leader in negotiator assignments, provides psychological personality assessment, psychotropic consultation, monitors negotiator team performance and stress reactions, and provides dispositional consultation to the TOC.

Once the team responsibilities are determined, the TOC commander, tactical and negotiator team leaders, and the mental health consultant determine the communication mode by which the primary negotiator will attempt to make contact with the subject. This decision is predicated on officer safety first and the type of crisis situation. There are four means by which to communicate with the subject: police vehicle public address (PA) system, parabolic PA, telephone (landline, cell phone, throw phone), or voice to voice. If the situation is a criminal, barricaded subject with no hostages, then either PA system is typically used for officer safety as well as the commanding tone of the PA. For all other situations, it is preferable to use some form of phone system and optimally establish tactical presence to support the use of voice to voice (the negotiator and subject are close enough to one another to communicate by simply speaking in a conversational tone to one another) for the resolution phase.

The Effects of Time and the Stockholm Syndrome

Hostage and crisis negotiation is an extremely complicated process incorporating three basic principles. First is the concept of time, in which, during most critical events, the extension of time invariably works in favor of successful resolution. During this so-called 60- to 90-minute rule, the passage of time allows for the ventilation of extreme emotional responses (for the subjects, hostages, and police officers). This dissipation of emotion allows for the introduction of more logical and rational problem solving, the influence of physiological needs, as well as, in the hostage situation, the opportunity for the hostages to escape.

However, it should never be assumed that hostages, if given the opportunity, will proactively initiate an escape or will assist the SWAT team in the successful resolution of the crisis. The underlying process, which is extremely powerful in most hostage situations, has become known as the Stockholm syndrome. This gradually occurs as a natural process of the passage of time (typically over hours and days); however, if there is significant violence at the onset of the taking of hostages, this syndrome compels an immediate and powerful influence. This syndrome compels one of the following behaviors: The hostages will begin to have positive feelings toward the hostage takers, the hostages will begin to develop negative feelings toward law enforcement, and the hostage takers will begin to develop positive feelings toward their hostages. The effect of the Stockholm syndrome on the negotiation process is rather consistent for the hostage takers and the hostages. The positive dynamic is that as time elapses, and if the hostage takers have begun to develop positive feelings toward their hostages, they are actually less likely to harm, much less kill, their hostages, whom they now begin to see as humans and not just objects for barter. However, negative aspects include the hostages' inability to self-initiate their escape, communication by hostages of unreliable information to the negotiators either on release or during captivity, or hostages' interference with the rescue operation. In rare cases, if the Stockholm syndrome is not severe, some hostages have been known to exaggerate the motives and weaponry of the hostage takers to the negotiators, with the intent of having the SWAT team conclude the hostage takers were more dangerous than in fact they were, and the tactical team eventually would feel compelled to initiate an active entry and perhaps kill the hostage takers.

The Influence of Power Tactics and Face-Saving

The second component in the negotiation process is incremental display of power, in the hope of avoiding its actual use during the negotiation process. A highly

visible tactical containment combined with the third component, the presentation of face-saving issues, becomes the most integral component of the negotiation process. The process of negotiation and active listening assumes that the interchange among individuals even within a crisis situation possesses rewards and costs for both factions. The goal is to maximize mutual benefits while concurrently minimizing costs—an interaction in which the lead negotiator emphasizes a process of quid pro quo (something for something). Face-saving techniques allow both law enforcement and the subjects to maintain some semblance of control while agreeing on options of mutual gain. For example, a barricaded subject may have agreed to resolve the crisis by meeting the tactical officers outside his home, but the media have positioned their cameras where he will easily be videotaped being taken into custody. A face-saving negotiation is for both the TOC personnel and the subject to agree that he or she will be taken into custody at the back of his or her home to avoid the humiliation of his or her arrest being filmed by the local media.

Active Listening and the Resolution Process

The successful negotiator is highly skilled in active listening, the ability to focus on what the subject is speaking and to accurately process not only what the subject is saying but also the accurate emotional content that is actually being communicated. In other words, active listening is a technique to maximize an empathic exchange between the negotiator and the subject. There are 14 identified communications techniques within the active listening process. Experience has established that the most effective techniques are those of clarification and paraphrasing, primary-level empathy, and especially self-disclosure. Clarification and paraphrasing are most typically used during the initial contacts with the subject so that during these more emotionally laden contacts, the likelihood of miscommunication and misunderstanding is minimized. For example,

Negotiator:	By "old lady," do you mean your wife?
Subject:	Yeah, that's right, her.
Negotiator:	So, it sounds like things have been going very badly between you two today.

Now, over time, the negotiator will begin to insert primary-level empathy and self-disclosure:

Negotiator:	Boy, it sure sounds like everything appears to be falling apart, and you're pretty angry and scared.
Subject:	Yeah, but you really don't know what it's like for me now!
Negotiator:	Maybe, maybe not, but I know that I was feeling really hurt and scared when I was going through my divorce a few years ago.

The relatively long process of establishing an empathic rapport between the lead negotiator and the subject is known as the "hook." The hook is the point at which the negotiator has established a position of trust with the subject and is now able to lead the subject through the concrete process of either releasing hostages and/or being taken into custody. In all situations, once the subject is taken into custody by the SWAT team, the individual is arrested and taken to jail or, in the case of a crisis situation (suicidal subject), he or she is transported to the nearest crisis response unit.

The negotiation process for hostage and barricade incidents is the responsibility of highly trained and experienced SWAT teams. Communication, a clearly articulated and flexible plan, creativity, and patience are the key components predictive of a successful outcome. The negotiator's application of active listening skills and the demonstration of empathic communication are critical skills for the successful resolution of critical incidents.

Scott W. Allen

See also Critical Incidents; Police Psychologists; Police Psychology

Further Readings

Allen, S. W. (1991). Assessment of personality characteristics related successful hostage negotiators and their resistance to post-traumatic stress disorder. In J. T. Reese, J. M. Horn, & C. Dunning (Eds.), *Critical incidents in policing* (Rev. ed., pp. 1–16). Washington, DC: U.S. Dept. of Justice, Federal Bureau of Investigation.

Butler, W. M., Leitenberg, H., & Fuselier, G. D. (1993). The use of mental health professional consultants to police hostage negotiation teams. *Behavioral Sciences and the Law*, *11*, 213–221.

Fuselier, G. D. (1988). Hostage negotiation consultant: Emerging role for the clinical psychologist. *Professional Psychology: Research and Practice*, *19*, 175–179.

Hatcher, C., Mahondie, K., Turner, J., & Gelles, M. G. (1998). The role of the psychologist in crisis/hostage negotiations. *Behavioral Sciences and the Law*, *16*, 455–472.

Lancely, F. J. (1999). *On-scene guide for crisis negotiators.* Boca Raton, FL: CRC Press.

McMains, M. J., & Mullins, W. C. (2000). *Crisis negotiations: Managing critical incidents and hostage situations in law enforcement and corrections.* Cincinnati, OH: Anderson.

Critical Incidents

This entry examines the causes of critical incident stress in law enforcement officers. It discusses how, by identifying critical incident stressors and the personal, team, and organizational factors that render them meaningful, law enforcement agencies can proactively influence officers' critical incident stress outcomes. To appreciate how this can be accomplished, it is necessary to understand the role of mental models in the etiology of critical incident stress.

Through their training and operational experiences, officers develop mental models that determine their ability to adapt to and impose meaning on the incidents they attend. Furthermore, officers respond to incidents as members of law enforcement organizations whose culture (through interaction with colleagues, senior officers, and organizational procedures) influences the development and maintenance of mental models and thus how challenging critical incident experiences are made sense of. An incident becomes critical when its characteristics fall outside expected operational parameters and officers' mental models are unable to make sense of and adapt to the novel, challenging circumstances that ensue.

Law enforcement officers experience critical incidents regularly. These can range from multivehicle traffic accidents and mass homicides to natural disasters and acts of terrorism. While traditionally viewed as a precursor to posttraumatic pathology (e.g., posttraumatic stress disorder [PTSD]), growing recognition of a link with positive outcomes (e.g., posttraumatic growth) have implications for how critical incident stress in law enforcement is conceptualized and managed.

Conceptualizations of critical incident stress must encompass how officers' mental models can either increase vulnerability to adverse stress reactions or increase their resilience and their capacity to experience posttraumatic growth, with each outcome being influenced by prevailing approaches to critical incident stress management. With regard to the latter, the dominant approach has involved critical incident stress management or debriefing. In addition to issues regarding the efficacy of debriefing, growing evidence for significant team and organizational influence on posttrauma outcomes calls for more comprehensive and proactive approaches to critical incident stress management.

Two approaches to managing critical incident stress are discussed here. The first involves developing officers' mental models to increase the range of circumstances they can adapt to. Because officers will continue to experience challenging incidents, the second involves developing their capacity to render novel experiences meaningful.

Developing Mental Models

Incidents become critical when their circumstances (e.g., deliberately flying a passenger aircraft into a building) and associated levels of uncertainty (e.g., regarding the nature and duration of a threat, length of involvement), personal danger (e.g., being secondary targets of terrorist attacks, exposure to biological or radiation hazards), or operational demands (e.g., performance expectations, crisis decision making, interagency role stress) fall outside the expected parameters of officers' operational mental models.

By incorporating these characteristics into training programs, it is possible to increase the range of critical experiences officers can render meaningful, reduce levels of posttrauma pathology, and contribute to officers realizing a sense of personal and professional growth from critical incident work. Training can also increase officers' knowledge of stress reactions and how to use support mechanisms to create positive emotions.

Although training can reduce critical incident stress risk, a need to prepare for the unexpected means that critical incident stress management must also proactively develop officers' capacity to adapt to critical circumstances and reduce their vulnerability to adverse reactions (e.g., PTSD). Research has identified several personal and team and organizational factors that inform how these goals can be accomplished.

Personal Factors

Vulnerability to adverse critical incident stress outcomes has been linked to, for example, preexisting psychopathology (which increases vulnerability directly) and social skills and problem-solving deficits that have an indirect effect by reducing officers' ability to develop solutions to novel problems or limiting their ability to effectively use available social support. In contrast, officers characterized by their relatively high levels of extraversion, hardiness, and self-efficacy are more resilient and better able to render novel, challenging experiences meaningful. Training not only plays an important role in developing hardiness and self-efficacy but it also helps socialize officers into the fabric of the organizational culture, introducing a need to consider how sense making occurs in teams and in relationships with senior officers.

Team Factors

Although generally considered to ameliorate stress reactions, if demands on a social network occur at a time when all its members have support needs, social support mechanisms can increase officers' vulnerability to experiencing posttrauma stress reactions. This problem can be managed by developing a supportive team culture. Renee Lyons and colleagues coined the term communal coping to describe how cohesive teams contribute to stress resilience through, for example, facilitating cooperative action and collective efficacy to resolve problems associated with responding to critical incidents. Realizing the full benefits of personal and team resources, however, is a function of the quality of the organizational culture in which officers work.

Organizational Factors

The severity of stress reactions is greater if officers experience them in an organizational culture that discourages emotional disclosure and that attributes blame for response problems to officers. Similarly, cultures characterized by poor consultation and communication and excessive paperwork increase vulnerability to posttrauma pathology. In contrast, police organizations that delegate responsibility to and empower officers, and encourage senior staff to work with officers to identify the strengths that helped them deal with an incident and to use this knowledge to develop future capabilities, increase officers' stress resilience.

Finally, predicting all the eventualities that law enforcement officers could encounter is impossible. Consequently, support procedures must be in place to manage any residual posttrauma reactions. This can include counseling strategies designed to facilitate positive resolution and coworker and peer support provided within a supportive team and organizational culture.

Exposure to critical incidents will remain a reality for law enforcement officers. Critical incident stress management involves both reducing vulnerability (e.g., enhancing problem-solving skills, reducing inappropriate operational procedures) and increasing resilience (e.g., increasing hardiness, developing team mental models, delegating operational responsibility). By developing personal and team competencies and support resources and ensuring they are enacted within a supportive organizational culture, law enforcement agencies can act proactively to positively influence the critical incident outcomes officers will experience.

Douglas Paton

See also Police Occupational Socialization; Police Stress; Police Training and Evaluation; Posttraumatic Stress Disorder (PTSD); Terrorism

Further Readings

Paton, D., Violanti, J. M., & Smith, L. M. (2003). *Promoting capabilities to manage posttraumatic stress: Perspectives on resilience.* Springfield, IL: Charles C Thomas.

Violanti, J. M., & Paton, D. (2006). *Who gets PTSD? Issues of vulnerability to posttraumatic stress.* Springfield, IL: Charles C Thomas.

Cross-Race Effect in Eyewitness Identification

The *cross-race effect* (CRE, also referred to as the *own-race bias* or *other-race effect*) is a facial recognition phenomenon in which individuals show superior performance in identifying faces of their own race when compared with memory for faces of another, less familiar race. Over three decades of research on the CRE suggests a rather robust phenomenon that carries practical implications for cases of mistaken eyewitness identification, particularly in situations that involve a poor opportunity to encode other-race faces and when

a significant amount of time occurs between observation of the perpetrator and a test of the witness's memory. While the CRE has not generally been observed in the accuracy of descriptions for own-race versus other-race faces, research has found that individuals often attend to facial features that are diagnostic for own-race faces and misapply these feature sets when attempting to identify and describe other-race faces. As such, theorists have proposed that encoding and representational processes are largely responsible for the CRE, including the role of interracial contact and perceptual categorization processes. This entry summarizes this research on the CRE, including how it operates in eyewitness identification and person descriptions, the influence of certain social and cognitive psychological mechanisms that may underlie the effect, and the potential role of training programs for improving other-race face identification.

Laboratory Studies of the CRE

Research in cognitive and social psychology over a span of three decades has examined the CRE, providing a substantial body of work demonstrating the reliability and robustness of the effect. The vast majority of the research has focused on individuals' attempts to identify both own-race and other-race faces. Across studies, a "mirror effect" pattern is generally observed, such that individuals demonstrate both significantly greater correct identifications of own-race faces (referred to as "hits") and significantly fewer false identifications of own-race faces (referred to as "false alarms"). Overall, participants are 1.40 times more likely to correctly identify an own-race face, while they are 1.56 times more likely to falsely identify an other-race face. Composite signal detection measures of discrimination accuracy (i.e., the ability to distinguish between faces seen previously and novel faces) and response criterion (i.e., the tendency for responding "yes" versus "no" to faces regardless of whether they have been seen before or not) have also been used to describe the CRE. As might be expected, discrimination accuracy is better for own-race faces, and individuals generally demonstrate a more liberal response criterion for other-race faces (indicating that they are more likely to say "seen before" to such faces).

Several factors have been shown to moderate the CRE. For example, studies have shown that shorter viewing times are more likely to produce the effect such that under brief encoding conditions performance is superior on own-race faces. As viewing time increases, however, the CRE reduces in size such that performance can become equivalent on own-race and other-race faces with a sufficient opportunity for encoding. Retention interval, or the time between stimulus presentation and test, has also been shown to moderate the effect. Studies indicate that as the retention interval increases, participants' response criterion becomes more liberal for other-race faces, thereby producing a CRE on measures of response criterion. As such, participants are more willing to identify other-race faces (i.e., to respond "seen before") when a lengthy delay occurs between study and test phases.

Studies have evidenced the CRE across a wide variety of ethnic and racial groups. While the original research in this area dealt primarily with Whites and Blacks in the United States, more recent studies have included samples from Canada, Great Britain, Germany, Turkey, South Africa, and parts of the Middle East and Asia. Whites, Blacks, Asians, Hispanics, Natives/Indians, Jews, and Arabs, among others, have been included in these studies with each demonstrating a CRE in face identification performance. Research has shown that, in general, Whites demonstrate a larger CRE than Blacks with respect to measures of discrimination accuracy and that "majority-group" individuals demonstrate a more robust CRE than do "minority-group" individuals.

The CRE in Eyewitness Identification and Person Descriptions

Laboratory research on the CRE has suggested a rather robust phenomenon with some practical implications, particularly with regard to witnesses in real cases who may be confronted by an assailant of a different race or ethnicity. The question naturally arises whether such situations could lead to an increased risk of mistaken identification and/or failures to identify the perpetrator. Studies that have investigated eyewitness identification suggest that the CRE occurs just as frequently in laboratory "facial recognition" paradigms as they do in simulated "eyewitness identification" paradigms involving a single "perpetrator" at study and a six- or eight-person "lineup" presented at test. As such, researchers have suggested that the CRE is likely to be seen in real cases of eyewitness identification, especially when the opportunity to view the perpetrator is limited and when a significant amount of time passes between the crime event and the attempted lineup identification (consistent with

the moderating factors discussed above). Along these lines, researchers have examined whether mistaken eyewitness identification, and the CRE in particular, may play a critical role in cases of wrongful conviction. Data from these studies indicate that nearly 40% of cases involving mistaken identification result from the CRE. Archival studies of real cases have also indicated that the likelihood of identifying an own-race suspect is significantly greater than that of an other-race suspect, particularly when there is strong evidence to suggest his or her culpability.

Witnesses to a crime are frequently asked to provide a verbal description of the perpetrator they viewed. These descriptions are then used by investigators in attempting to identify a suspect in the immediate vicinity. Given the robustness of the CRE in face identification, researchers have also investigated whether a similar effect might be evidenced in person descriptions. To date, only a handful of studies have examined this possibility, with the majority concluding that no differences exist in the *accuracy* of descriptions provided for own-race versus other-race faces. However, researchers have found that individuals of different races/ethnicities often report different features when differentiating faces and further that these features are most useful for characterizing faces of their own race. For example, caucasians frequently use hair color, hair texture, and eye color to distinguish faces, whereas African Americans rely on face outline, eye size, eyebrows, chin, and ears. While it is clear that we try to distinguish faces of other races by the facial features that are distinguishable within our own race, the problem appears to lie in that those same features are generally less useful when applied to other-race faces.

Theoretical Underpinnings of the CRE

Several theoretical mechanisms have been identified with regard to the CRE, including interracial contact and social attitudes, encoding and representational processes, perceptual-memory expertise, and perceptual categorization. First, racial contact and attitudes have been implicated as moderators of the CRE. Across studies, interracial contact has been shown to account for a small, but significant, amount of variance in performance on other-race faces such that greater interracial contact tends to reduce the size of the observed CRE. Furthermore, studies have suggested that the form of interracial contact may be important to its influence on face identification such that individuals must be motivated to individuate other-race members through contact (i.e., social utility). The properties of natural social environments that foster the development of high performance levels with other-race faces are presently unknown. While social attitudes have not been shown to directly moderate the CRE, an indirect relationship appears to exist such that social attitudes may account for the amount of interracial contact one engages in and thereby influence the CRE. For example, individuals who profess prejudiced attitudes toward other-race groups are less likely to have significant amounts of contact with such individuals and, as a result, appear more likely to demonstrate the CRE. However, the causal direction of the contact-attitude relationship is more difficult to identify and could work in either direction.

A great deal of research suggests that encoding and representational processes may be responsible for recognition differences in the CRE. As noted above, individuals of different races/ethnicities appear to rely on different feature sets when encoding faces, and these feature sets appear to be most useful when encoding faces of one's own race. In addition, individuals have been shown to attend to greater numbers of features for own-race faces and to group or "chunk" these features when representing the face. As a result, own-race faces are better differentiated in memory based on these feature sets, while other-race faces appear to be more clustered and less differentiated. This encoding and representational advantage allows individuals the ability to better "recollect" own-race faces at test based on those features identified and selected at encoding. In contrast, the clustering of other-race faces in memory leads to poorer recognition performance at test and, prominently, a greater likelihood of falsely identifying a novel other-race face.

Studies that have validated the role of encoding and representational processes in the CRE also suggest that individuals' processing of own-race faces might be likened to that of an "expert" perceptual-memory skill. One such theory proposes that faces may be encoded with respect to individual features or isolated aspects (i.e., "featural" processing) and with regard to configural or relational aspects among features (i.e., "configural" processing). Studies suggest that "experts" encode objects (such as faces) in a more configural manner, while "novices" encode objects on a more featural basis. Using a variety of paradigms, researchers have demonstrated that own-race faces

appear to be processed in a more configural manner (consistent with expert-level processing), while other-race faces are processed with respect to individual features (consistent with novice-level processing).

Research studies have also noted that the CRE may be due to a process of racial categorization. In particular, individuals appear to process other-race faces at a superficial level that is consumed with a focus toward racial categorization. As a result of these categorization processes, other-race faces are coded with an emphasis on category-related information (stereotypes) and less with regard to individuating information. Researchers have demonstrated that such categorization processes can both influence our perception of a face (i.e., stereotype consistent) and lead to deficits in performance consistent with the CRE.

Improving the Recognition of Other-Race Faces

Given the bulk of research suggesting that the CRE may be a product of interracial contact and the role of encoding-based mechanisms (e.g., perceptual learning), researchers have attempted to develop a variety of training programs over the years to improve participants' recognition of other-race faces. While some of these studies included forms of positive and negative feedback, others have focused on improving participants' ability to distinguish between other-race faces and teaching participants to identify "critical" feature sets that are useful for discriminating such faces. Taken together, these studies have generally met with some success in producing short-term improvements in recognition performance; however, when participants are tested at longer posttraining retention intervals, this improvement in performance tends to diminish. Nevertheless, these studies suggest that individuals may be trained to improve their face recognition performance to a certain extent, and researchers continue to develop training protocols that might be employed by government agents or business professionals who may be sent abroad.

Jessica L. Marcon, Christian A. Meissner, and Roy S. Malpass

See also Estimator and System Variables in Eyewitness Identification; Expert Psychological Testimony on Eyewitness Identification; Exposure Time and Eyewitness Memory; Eyewitness Descriptions, Accuracy of; Eyewitness Identification: Field Studies; Eyewitness Memory; Training of Eyewitnesses

Further Readings

Brigham, J. C., Bennett, L. B., Meissner, C. A., & Mitchell, T. L. (2006). The influence of race on eyewitness memory. In R. Lindsay, D. Ross, J. Read, & M. Toglia (Eds.), *Handbook of eyewitness psychology: Memory for people* (pp. 257–281). Mahwah, NJ: Lawrence Erlbaum.

Meissner, C. A., & Brigham, J. C. (2001). Thirty years of investigating the own-race bias in memory for faces: A meta-analytic review. *Psychology, Public Policy, & Law, 7,* 3–35.

Sporer, S. L. (2001). Recognizing faces of other ethnic groups: An integration of theories. *Psychology, Public Policy, & Law, 7,* 36–97.

CSI Effect

The *CSI* effect refers to the belief that jurors' expectations about forensic evidence at trial are changing due to the popularity of crime investigation programming such as CBS's *CSI: Crime Scene Investigation.* Much of the support for this effect comes from anecdotal evidence. The limited empirical evidence on this topic indicates that *CSI* may influence some of jurors' case perceptions but has no effect on verdict decisions.

CSI is one of the most popular shows on network television, consistently ranking high in the Nielsen ratings and spawning several spin-off shows. These shows depict crime scene investigators using highly technical procedures to recover microscopic evidence that ultimately reveals the details of the crime, including the perpetrator. Criminal investigations in real life differ markedly from this representation. In actuality, forensic evidence such as DNA and fingerprints are not always available from a crime scene, and when they are available, they may only be analyzed in important cases or in larger departments due to the expense. Furthermore, forensic laboratories may take weeks to return results that are less than conclusive. According to attorneys and the media, inaccurate portrayals put forth by programs such as *CSI* are causing jurors to expect more, and stronger, forensic evidence at trial. The concern is that when prosecutors fail to present this evidence, jurors are being more lenient, providing fewer convictions.

Belief in the *CSI* effect is pervasive among the legal and media communities. According to news reports, evidence of the *CSI* effect has been found in courtrooms around the country. For instance, in Phoenix,

Arizona, jurors in a murder trial voiced concern that a bloody coat introduced as evidence had not been tested for DNA, even though tests were not considered necessary because the defendant had admitted being at the murder scene. Some observers have attributed the 2005 acquittal of actor Robert Blake, charged with murdering his wife, Bonnie Bakley, to the *CSI* effect. Even though the prosecutor presented more than 70 witnesses against Blake in this case, it is believed that the jury wanted to see forensic evidence such as blood splatter or gunpowder residue and found Blake not guilty when such evidence was not presented. Attorneys have even begun questioning potential jurors about their viewing habits during voir dire and warning jurors about the fictional nature of *CSI*.

The *CSI* effect is most commonly defined as leading to a prodefense bias, as the above examples illustrate. In this sense, exposure to crime investigation programming serves to raise jurors' conviction threshold, requiring more incriminating evidence to find guilt. However, this effect can also be conceptualized in another way. Some commentators note that crime investigation programming enforces the belief that forensic science is infallible and can provide definitive evidence of guilt. Adherence to this belief would actually work *for* the prosecution, leading to more convictions when any type of forensic evidence is presented, regardless of quality. In this way, crime investigation programming may actually lower jurors' conviction threshold, requiring less incriminating evidence to find guilt.

To date, little empirical research has examined the impact of crime investigation programming on jurors' verdicts and case perceptions. The little research that does exist, consisting of a few law reviews and conference presentations, typically examines this effect by measuring mock jurors' exposure to crime investigative programming (e.g., hours per week) and having them read through a case summary and answer various questions about the case, including verdict.

The results of these preliminary studies are mixed, but most suggest that watching crime investigation programming does not influence verdict. In three studies, mock jurors who report watching *CSI* a lot were no less (or more) likely to find a defendant guilty than are mock jurors who watch little or no *CSI*. However, one study did find the predicted prodefense effect, such that more hours of TV watching was related to a perception of less strength in the prosecution's case, which was related to more acquittals. Also, most studies have found that the more a mock juror finds the shows to be believable and realistic, the more likely the juror is to favor the prosecution and find the defendant guilty. Thus, whether jurors believe the shows are realistic may be a better predictor of decisions than how much the juror watches the shows. Finally, there is also some suggestion that prosecution's warning against *CSI*-caliber evidence may produce a backfire effect, weakening the prosecution's case among jurors who do not watch *CSI*.

Why is there no direct relationship between *CSI* and verdict? Intuitively, it seems like such programming should have an effect on jurors' expectations for evidence. There is a large body of research identifying the media as an important source of knowledge and expectations, particularly for events for which people have little experience, such as a trial. Should a relationship between exposure to criminal investigation programming and juror behavior truly exist, there are a variety of possible reasons a clear effect has not emerged in research. As already noted, there are at least two possible effects viewing *CSI* can have on juror behavior: It can make jurors expect high-quality forensic evidence and therefore raise the conviction threshold, or it can lead jurors to believe that all forensic evidence is infallible, thereby lowering the conviction threshold when forensic evidence is present. It is plausible that both effects may be occurring simultaneously, such that jurors are coming to require forensic evidence at trial but at the same time are finding any forensic evidence sufficient for guilt. These two effects may therefore be working against each other, leading to no noticeable change in verdict.

Another possibility is that *CSI* programming may only influence the behavior of certain types of people. It has been suggested by Tom Tyler that the overvaluing of forensic evidence caused by exposure to *CSI* may be strengthened among those greatly in need of closure or belief in a just world. Similarly, jurors who do not have much need for cognition may be more likely to rely on expectations generated by crime investigation programming as a cognitive heuristic.

In conclusion, empirical research has yet to identify a clear *CSI* effect, at least as conceptualized by the legal community and the media. Research efforts continue in an attempt to ascertain what influence, if any, such programming has on juror expectations and behavior.

Margaret C. Reardon and Kevin M. O'Neil

See also Jury Competence; Pretrial Publicity, Impact on Juries; Statistical Information, Impact on Juries

Further Readings

Tyler, T. R. (2006). Viewing *CSI* and the threshold of guilt: Managing truth and justice in reality and fiction. *Yale Law Journal, 115,* 1050–1085.

Cybercrime

There is no agreed precise definition of the term *cybercrime*, but in a general sense, it has been used to describe any illegal activities conducted through the use of a computer or network of computers. Some researchers have emphasized that it is crime that takes place on the Internet, which has led to a more comprehensive definition of illegal computer-mediated activities that often take place in global electronic networks. Such crime includes computer hacking, Internet fraud, identity theft, and the illegal transfer of technologies. Increasingly, psychological research in this area also makes reference to cyberstalking, cyberterrorism, and Internet child pornography as examples of cybercrime.

Much of what is referred to as cybercrime might be thought of as traditional crime that is committed through the use of new tools. If we think of cybercrime in this way, we can see that many traditional crimes can be conducted with the Internet as a source of communication—for example, the sharing of pedophile information. The Internet has also opened up new opportunities for other traditional crimes, such as fraud and deception. In both these instances, the criminal activity is not dependent on the new technologies but is certainly aided and possibly transformed by them. There are many newer crimes that can only be perpetrated within cyberspace, among which are intellectual property theft, identity theft, and spamming. As new technologies occupy an increasingly large space in our lives, criminals are increasingly using them to engage in criminal activities. It may also be the case that the nature of the technologies, in particular the Internet, is a catalyst for the emergence of some criminal behaviors that might otherwise not have been evidenced.

Although there is lack of agreement as to what precisely constitutes a cybercrime, one element common to most definitions is that it involves the use of a computer. The computer may be the focus, or target, of the crime—for example, hacking or the use of a virus to infect a computer network. It may also be the tool used to commit the crime, such as downloading or distributing child pornography, or fraud. It may also be a medium for the use of materials gained through criminal activity, such as copyright theft of DVDs, where the person using the computer did not commit the original illegal act but subsequently engages in illegal activity. In this way, the computer might also be a source of invaluable forensic evidence.

The emergence of cybercrime has mirrored the development of the new technologies. A survey conducted in 2002 by the U.S. Federal Bureau of Investigation and the Computer Security Institute suggested that in the previous 12 months, 90% of business respondents had detected security breaches, from which 80% had suffered financial loss. It is of concern that a substantial number of these breaches were from people within the organization, and this has become a focus for some of the emerging research. What is it about the new technologies that increases the likelihood of people taking risks, breaching moral or ethical codes, and committing crimes? Such is the concern about the potential for widespread criminal activity that in 2001, 30 countries, including the United States, signed the Council of Europe Cybercrime Convention, which was the first multilateral instrument drafted to address the problems posed by the spread of criminal activity on computer networks. This Convention requires parties to establish laws against cybercrime, ensure that law enforcement agencies have the necessary procedural authority to investigate and prosecute cybercrime offenses, and provide international cooperation to other parties in the fight against computer-related crime.

Major Types of Cybercrime

Cybercrime has been broadly divided into two types, which might lie at opposite ends of a spectrum. The first type of cybercrime is often experienced as a discrete event by the victim and is facilitated by the introduction of crimeware programs, such as viruses or Trojan horses, into the user's computer. Examples of this type of cybercrime might include identity theft and bank or credit card fraud based on stolen credentials. The second type of cybercrime, which lies at the other end of the spectrum, includes activities such as cyberstalking, child solicitation, blackmail, and corporate espionage. Viewed in this way, cybercrime represents a continuum ranging from crime that is almost entirely technological in nature to crime that is largely related to people. Sarah Gordon and Richard Ford divide cybercrime into two distinct categories: Type I cybercrime, which is mostly technological in nature,

and Type II cybercrime, which has a more pronounced human element. The following is a brief description of some of the major types of cybercrime.

Computer hacking refers to the unauthorized access to a computer or computer network, which may or may not result in financial gain. For example, hackers may attack a network solely to protest against political actions or policies or simply to show that they can do it, but equally, it can be used to access bank accounts or data banks. The level of disruption caused may be localized within a given organization or may, for example, in extremis, potentially disrupt the availability of power to a large geographical area. Were this to occur, it would result in widespread social disruption, which may be motivated by ideology and which traditionally may have been seen as terrorist activity.

The illegal transfer of technology, or piracy, includes industrial espionage and the piracy of software, logo, and hardware designs. The perpetrator may be an individual (a young person sharing a program with a friend) or a network (a company installing software on multiple computers for which it owns a restricted license), and it may be enabled by others (such as a government). Its intended use may be financial, recreational, or for military or terrorist activities, and it may be motivated by a complex array of factors. The theft can breach contracts, trade secrets, and national and international laws involving copyrights.

Identity theft is broadly defined as the unlawful use of another's personal identifying information (name, address, social security number, date of birth, registration number, taxpayer identification number, passport number, driver's license information, or biometric information such as fingerprint, voiceprint, or retinal image). Such information is obtained in a variety of ways. Low-technology routes include theft of wallets or handbags or sifting through garbage to look for bank statements, utility bills, and so on. High-technology methods include skimming, where offenders use computers to read and store information encoded on the magnetic strip of an ATM or credit card. This information can be re-encoded onto another card with a magnetic strip. Identity thieves steal identities to commit an array of crimes, such as taking out loans, cash advances, and credit card applications, which may include large-scale operations such as taking control of entire financial accounts.

Spamming has also been identified as a cybercrime, although most of us would not generally consider it to be so. Spamming is the distribution of unsolicited bulk e-mails that contain an array of messages, including invitations to win money; obtain free products or services; win lottery prizes; and obtain drugs to improve health, well-being, or sexual prowess. David Wall has argued that spamming embodies all the characteristics of cybercrime in its global reach: networking capabilities; empowerment of the single agent through the (re)organization of criminal labor; and use of surveillant technologies, which creates small-impact bulk victimizations. Currently, over half of all e-mails are spam, and this constitutes a major obstacle to effective use of the Internet and its further development.

Cyberstalking generally refers to using the new technologies to harass or menace another person by engaging in behavior that persists in spite of another's distress or requests that it should stop. It can take many forms, such as unsolicited hate mail, e-mail whose content is obscene or threatening, malicious messages posted in newsgroups, e-mail viruses, and electronic junk mail or spam. It is analogous to other forms of stalking but uses technology to achieve its aims and is motivated by a desire to gain control over the victim.

Online pornography is considered a cybercrime only when its content is illegal (such as abusive images of children). Criminal activity may relate to downloading, trading, and producing such images, although the criminality of the act will depend on the geographical location of both the material and the person accessing or distributing it. Some countries do not have laws that criminalize child pornography, and therefore an individual producing such images within that jurisdiction would not be seen to engage in cybercrime, but another individual in a country where such laws exist may access the images and thereby commit a criminal act. This highlights one of the difficulties in relation to cybercrime, in that while the Internet has no boundaries, legislation does. This has probably been the main impetus for the European Convention on Cybercrime.

Cybercriminals

It has been suggested that cyberspace opens up infinitely new possibilities and that with the right equipment, technical know-how, and inclination, you can go on a global shopping spree with someone else's credit card, break into a bank's security system, plan a demonstration in another country, and hack into the Pentagon—all on the same day. As Yvonne Jewkes and Keith Sharp note, going online undermines the

traditional relationship between physical context and social situations, and this is coupled with perceived anonymity, access, and affordability. As a consequence, this increases disinhibition and risk taking, in part because through the new technologies we can constantly re-create ourselves. The Internet has also changed the boundaries of what constitutes acceptable, problematic, or deviant behavior.

Cybercriminals are not a homogeneous group, and while some criminal activities (such as stalking and engagement with child pornography) are more likely to be carried out by males, psychologists have noted that students, terrorists, amateurs, and members of organized crime have also been identified as being involved in cybercrime. The motivations for such criminal activities include revenge, a desire for notoriety, the technical challenge, monetary gain, or the promotion of ideology. As previously noted, the largest proportion of cybercrime is perpetrated by a company's own employees and includes people with highly sophisticated technical skills and those who are relative novices.

Attempts to generate profiles or taxonomies of computer criminals have been limited in their scope. There is little empirical research in this area, but analyses of cybercrime subjects suggest that the majority are male, have at least a high school education, commit their crimes alone, and are students within the 18- to 23-year age range.

Responses to Cybercrime

The emergence of cybercrime has resulted in changes in legislation within and between jurisdictions, mirroring the fact that the new technologies are not limited by geographical boundaries. Indeed, the location of the offender in relation to the scene of the crime is an important characteristic. In traditional crime, such as burglary, the criminal is physically present at the scene of the crime. This is very different from cybercrimes, in which offenders not only are often not present but also may be located in another country. Cybercrime has also opened up many gray areas in terms of what constitutes a crime. For example, many people may engage in activities that they do not even realize are criminal, such as pirating software from a friend.

There are many challenges for the future in relation to cybercrime. Criminal activities on the Internet are not analogous to similar behavior in the physical world. The Internet enhances the potential for criminal and deviant behavior in several ways. The first of these relates to the dramatic increase in access to the Internet worldwide, providing limitless opportunities for criminal behavior and a vast marketplace for such activities. The Internet also provides a sense of anonymity or disconnectedness for the offender, lowering the risk of detention and reducing the level of physical risk normally associated with criminal activity. It also challenges traditional concepts of time and space.

Ethel Quayle

See also Pornography, Effects of Exposure to; Stalking; Terrorism; Victimization

Further Readings

Gordon, S., & Ford, R. (2006). On the definition and classification of cybercrime. *Journal in Computer Virology, 2*(1), 13–20.

Jewkes, Y., & Sharp, K. (2002). Crime, deviance and the disembodied self: Transcending the dangers of corporeality. In Y. Jewkes (Ed.), *Dot.cons: Criminal and deviant identities on the Internet* (pp. 1–14). Cullompton, UK: Willan.

Speer, D. L. (2000). Redefining borders: The challenges of cybercrime. *Crime, Law & Social Change, 34,* 259–273.

Taylor, M., & Quayle, E. (2003). *Child pornography: An Internet crime.* Brighton, UK: Routledge.

Wall, D. S. (2004). Digital realism and the governance of spam as cybercrime. *European Journal on Criminal Policy and Research, 10,* 309–335.

D

Damage Awards

Damage awards function as a remedy for wrongdoing in civil lawsuits; they constitute money awarded to an injured party as compensation for injuries or other losses ("compensatory" damages). They can also serve as punishment for the wrongdoer ("punitive" damages). These awards are made mostly by juries and occasionally by judges who previously determined that a wrongdoer was liable for damages. Determining damages—especially for intangible injuries such as pain and suffering—can be difficult, and juries have been criticized for issuing awards that seem extravagant and unpredictable. Although some of the criticisms are unfounded (e.g., jurors are not especially sympathetic toward plaintiffs), jurors occasionally do experience difficulty in applying jury instructions and following procedures that blindfold them to the consequences of their verdicts. Reforms intended to address these issues should be based on empirical analysis, and psychologists are well-positioned to provide the relevant data.

Various Kinds of Damage Awards

Damage awards are of two general types, compensatory and punitive, and they serve different functions. Compensatory awards are intended to return an injured person or entity (e.g., a business, agency, or corporation) to pre-injury levels of functioning—that is, to restore that party to the position it was in prior to the injury or harm. For example, a person injured in an automobile accident may receive a compensatory damage award to cover any medical costs, lost wages, and pain and suffering related to the injuries sustained in the accident. As another example, a business may receive a compensatory damage award to cover any revenues lost to competitors involved in price-fixing, trademark infringement, or sharing of trade secrets.

Compensatory damage awards are themselves of two sorts: economic and noneconomic. Economic damages are intended to cover the financial or economic costs incurred by the injured party. These can include past and future lost wages, past and future expenses related to medical care and rehabilitation, past and future lost profits, and loss of reputation or business opportunity. In theory, these awards should be relatively easy to gauge because they are generally tied to objective data such as hospital bills, costs of property repairs, and amount of time away from work. In fact, even these losses are difficult to assess because they require jurors to make predictions about the future and then to discount their awards to present value (i.e., the injured party is given an economic damage award now that will, over time, grow to equal the amount that the jury has deemed appropriate). In addition, they may require a jury to agree on economic uncertainties such as future interest rates, the likelihood that injured persons would have been promoted or received raises or that businesses would have been profitable had they not been harmed, and projected life expectancies for persons who require lifelong care.

Determining noneconomic damages can be even more problematic. Their function is to compensate the injured party for "pain and suffering," including bodily harm; emotional distress, such as fear, depression, and anxiety; loss of enjoyment of life; and pain and

disfigurement. For example, after the drug manufacturer Merck was found liable for the death of a Houston man who had been taking the painkiller Vioxx, it was required to pay millions of dollars to the man's widow to compensate her for pain and suffering. Noneconomic damages are especially difficult to assess because they have no obvious metric: There is no cost accounting of one's pain and suffering. Juries have sometimes been criticized for being capricious and unpredictable in determining damages (as described below), and criticism often focuses on an unexpected award for pain and suffering.

Punitive damage awards are intended not to compensate for injuries but rather to punish wrongdoers for malicious and egregious behavior or gross negligence and to deter that party and others from similar conduct in the future. For example, juries have assessed large punitive damage awards against tobacco companies after finding that the companies knew about the health risks of cigarette smoking long before they made those risks known to the public. As another example, juries have awarded billions of dollars in punitive damages in cases stemming from the 1989 grounding of an Exxon oil tanker in Prince William Sound, Alaska, which devastated miles of shoreline, destroyed wildlife habitats, and financially ruined the local fishing industry. Punitive awards are usually not made in the absence of compensatory awards, and appellate court decisions require some reasonable relationship between the two.

Size of Damage Awards

The examples provided above were of large damage awards in high-profile cases; jurors have often been criticized for assessing damages of these magnitudes. In fact, though, multimillion dollar awards are atypical. According to data compiled by the Bureau of Justice Statistics from the 75 most populous counties in the United States in 2001, the median damages awarded to plaintiffs who prevailed at trial (only approximately half of all plaintiffs who went to trial) was a modest $27,000. Awards varied considerably by type of case. For example, the median awards in automobile negligence and medical malpractice cases were $16,000 and $422,000, respectively. Awards in excess of $1 million were rare, given in only 8% of cases in which plaintiffs prevailed.

Punitive damage awards were also rare and, when provided, were modest. According to the Bureau of Justice data, only 6% of winning plaintiffs were awarded punitive damages, and these awards were given only in certain kinds of cases: tort cases involving slander/libel or intentional wrongdoing and contract cases involving partnership disputes, employment discrimination, and fraud. Punitive damages are rare in personal injury cases. The median punitive damages awarded in jury trials in 2001 was $50,000 ($83,000 in contract trials and $25,000 in tort trials), and only 12% of plaintiff winners who received punitive damages were awarded $1 million or more.

Despite the fact that the median damage award is modest, some damage awards—particularly punitive damage awards—are indeed very large and contribute to the perception that juries are erratic and capricious in the manner in which they assess damages. Indeed, this perception has gelled into significant criticism of jurors' ability to be fair and impartial in the awarding of damages, and on several occasions the U.S. Supreme Court has considered appeals based on the apparent excessiveness of a punitive damage award.

Controversy Surrounding Decisions About Damages

Criticism regarding damage award decision making has centered on two concerns: first, that juries are overly sympathetic to plaintiffs in awarding excessive sums of money, especially for punitive damages, and second, that they are biased against wealthy or deep-pocketed defendants. Valerie Hans and colleagues have examined both of these assumptions empirically by interviewing jurors who served in civil cases and by conducting laboratory-based research studies. Their data indicate that rather than favoring plaintiffs, most jurors tend to be skeptical of their motives. For example, the majority of jurors agreed that there are far too many frivolous lawsuits and that people are too quick to sue. When questioned about their own deliberations, jurors indicated that they questioned the legitimacy of plaintiffs' complaints and scrutinized their motives. Jurors said they looked unfavorably on plaintiffs who did not seem as badly injured as they claimed or who had preexisting medical conditions. Jurors also scrutinized whether plaintiffs might have contributed to their own injuries and were unsympathetic to those who did little to mitigate their injuries. In fact, some jurors described themselves as acting as a defense against illegitimate grievances and frivolous lawsuits. So, far from being overly sympathetic to plaintiffs, jurors apparently tend to be skeptical of their claims.

The second concern is that juries are biased against wealthy defendants, including large corporations, and act as a sort of "equalizer" in transferring monies from wealthy defendants to poor or needy plaintiffs. There is some evidence that awards tend to be higher in cases that involve corporate defendants than in cases with individual defendants. Other data suggest, however, that this finding may not be the result of the defendant's financial well-being. Rather, juries apparently treat corporations differently than individual defendants because they hold the former to a higher standard than the latter (a "reasonable corporation" standard) and reason that corporations are better positioned than individuals to anticipate harms and to work to minimize or prevent them.

In general, these concerns may be related to the fact that jurors have relatively little guidance from their jury instructions about how to assess damages or translate their judgments onto a monetary scale. The laws of damages are relatively vague, leading some critics to suggest that this situation allows jurors' biases to operate freely and that extravagant and unpredictable awards are the result. The problem is especially acute in areas of the law that are still developing or that lack precision: sexual harassment claims, libel actions, and cases involving intentional infliction of emotional distress.

Some commentators have suggested that a solution to the unbounded nature of jury decisions on damages is to make judges responsible for determining punitive damages. Judges already have occasion to award damages in bench trials and can control damage awards in jury trials through the mechanisms of additur and remittitur, which allow them to add to or reduce damage awards to the levels that they deem appropriate. In some states, only judges can assess punitive damages. An obvious question, then, is how punitive awards issued by judges compare with those assessed by juries. Data suggest that in most cases (particularly in cases with modest punitive awards), juries' and judges' awards are of similar size and variability and that both are based on the actual and potential severity of harm to the plaintiff.

Determining Jury Damage Awards

Psychologists have been especially interested in analyzing the factors that influence jurors' decisions about damage awards. In part, this reflects an objective of much psycholegal research conducted to assess the validity of legal assumptions about human behavior. In the context of damage awards, the law assumes that particular factors will be considered by jurors in their decisions about compensatory damages and that different factors will be considered in decisions about punitive damages. Psychologists have asked whether jurors are able to compartmentalize their decision making in this way.

The data on this topic are mixed; many studies suggest that jury awards are influenced by variations in legally relevant evidence, yet simulation studies show that jurors occasionally consider information that is theoretically unrelated to the decision at hand. For example, though most studies show that evidence of a defendant's egregious conduct appropriately influences punitive but not compensatory damage awards, a few studies have found that it is sometimes considered (inappropriately) by jurors in assessing compensation. Similarly, though most studies have found that the severity of the plaintiff's injuries appropriately influences compensatory but not punitive damage awards, a few studies have shown that jurors inappropriately factor injury severity into their judgments of punitive damages, at least in cases involving medical defendants.

Interestingly, jurors' intuitions about what normally or typically occurs in various injury-producing situations also influence their awards. Injuries that are perceived as atypical (e.g., suffering a whiplash after a fall) evoke greater sympathy in jurors than do typical injuries (e.g., suffering a broken bone in a fall) and result in greater compensation.

There are many ways in which damages can be assessed; some data suggest that jurors assimilate their awards to the monetary figures provided by the attorneys during the trial. The *ad damnum* is the amount of money requested by the plaintiff; defense attorneys sometimes counter this with their own suggested amounts. These suggested figures (sometimes referred to as "anchors") are likely to influence jurors because people tend to doubt their abilities to attach monetary values to unquantifiable injuries. According to the pioneering jury researcher David Broeder, the *ad damnum* does "yeoman service as a kind of damage jumping-off place for jurors" (Broeder, 1959, p. 756). More recent studies have shown that, in general, the higher the *ad damnum,* the larger the award. There is an upper limit to this effect, however; damage awards boomerang if the request is wildly excessive and out of line with the evidence.

Another way in which jurors assess damages involves evaluating separate components of a plaintiff's request (e.g., lost wages, loss of future earning capacity, loss of life's pleasures), attaching monetary

values to each of these components, and then summing them to arrive at a total compensatory damage award. Jurors are forced to perform a componential analysis in courts that use special verdict forms that require them to answer specific questions about the facts of the case and to calculate awards related to each set of facts.

Finally, some data suggest that rather than analyzing the components of an injury, jurors reason more holistically by agreeing on a general figure that "seems" right. Interviews with jurors who served in tort and contract cases revealed that approximately one third of juries determined damages by picking a number that seemed fair and just.

A peculiar aspect of some civil jury trials is the application of "blindfold rules," which prohibit disclosure to jurors of the implications of their verdicts. Judges sometimes blindfold the jury regarding information such as attorneys' fees, the tax consequences of damage awards, the insurance carried by the parties, and the possibility of additions to or reductions in damage awards by appellate courts. The rationale for these rules is that with blindfolds in place, jurors will not become confused by complex evidence or influenced by evidence that is lacking in probative value.

In fact, there is substantial evidence that blindfolding rules may result in, rather than prevent, verdicts based on misinformation. Jurors are naturally inclined to consider information to which they are blindfolded even when this information is not presented in court. On occasion, these discussions involve explicit reference to these so-called "silent topics." A large percentage of jurors interviewed about their deliberations report that their juries discussed factors such as attorneys' fees and the defendant's insurance. Even if these factors are not explicitly talked about, jurors' implicit beliefs (not always correct) can influence their verdicts on damages. As a result, awards are sometimes unpredictable and inconsistent. Research suggests that it may be preferable to treat jurors like the careful and thoughtful arbiters they usually are and to provide them with clear and complete instructions, at least about those facets of damage awards on which all parties agree.

Reforming Jury Damage Awards

Given the controversial nature of some jury damage awards, it is not surprising that proposals for changing the system have been offered, primarily by groups interested in tort reform. In fact, during the 1980s and 1990s, a majority of state legislatures implemented laws aimed at reducing jurors' discretion and reining in large awards. Among the reforms are laws that cap damage awards at some specified amount (primarily for noneconomic and punitive damages) or eliminate them altogether (for punitive damages), clarify the elements of damage award decisions, bifurcate the trial into two segments so that jurors are presented with discrete questions and sets of evidence in each segment and cannot consider irrelevant evidence, require some portion of a damage award to be paid to a governmental or charitable organization rather than to the injured party, and (as previously mentioned) move punitive damage assessments from the jury to the judge.

Importantly, many of these reforms were instituted without empirical backing; as a result, their implications are only now being understood. But recently conducted studies have brought into focus some unintended consequences, at least in terms of caps on damages. For example, mock jury research has shown that in cases with injuries of low to moderate severity, limits on awards for pain and suffering actually increased both the size and the variability of the awards. Other research has shown that although caps on punitive damage awards certainly reduce the size of punitive awards, they also increase the size and variability of compensatory awards. Similarly, caps on noneconomic damages result in larger economic damages, which are unbounded. Further research suggests that if jurors are altogether prevented from awarding punitive damages, the compensatory award may be augmented as a way to punish the defendant. These findings reflect the holistic reasoning notion described previously. Sometimes, jurors have a sense of "total justice"—an idea of what they think is fair in terms of compensation for the injured party and payment by the injurer—and, lacking clear guidance on the complementary functions of various kinds of damage awards, do what they can to deliver it.

Psychologists have much to offer in this realm, particularly by conducting sophisticated psycholegal research that mirrors jurors' actual task demands and that can illuminate the effects of these reform laws on jurors' judgments. Carefully conducted empirical research studies can show how jurors manage the difficult task of awarding damages and what procedural changes can help them function more effectively.

Edith Greene

See also Jury Competence; Jury Decisions Versus Judges' Decisions; Jury Reforms

Further Readings

Broeder, D. (1959). The University of Chicago jury project. *Nebraska Law Review, 38,* 744–760.

Diamond, S., Saks, M., & Landsman, S. (1998). Juror judgments about liability and damages: Sources of variability and ways to increase consistency. *DePaul Law Review, 48,* 301–325.

Greene, E., & Bornstein, B. (2003). *Determining damages: The psychology of jury awards.* Washington, DC: American Psychological Association.

Hans, V. (2000). *Business on trial: The civil jury and corporate responsibility.* New Haven, CT: Yale University Press.

Vidmar, N. (1998). The performance of the American civil jury: An empirical perspective. *Arizona Law Review, 40,* 849–899.

Danger Assessment Instrument (DA)

The Danger Assessment Instrument (DA), in its current form, is a 20-item actuarial test designed to assess the risk of serious or lethal intimate partner violence. It is intended for use with adult women who have suffered physical abuse at the hands of men who are their current or former intimate partners. Although originally developed to assist in safety planning conducted by people delivering services to victims, the DA more recently has been used by some law enforcement agencies to help manage the risks posed by perpetrators. Systematic review of the DA is complicated by the fact that it has been used in several different forms for a variety of different purposes and by the lack of a formal test manual.

Description and Development

Development of the DA began in the early 1980s. The DA differs from other tests designed to assess the risk of intimate partner violence—such as the Spousal Assault Risk Assessment Guide (SARA) and the Domestic Violence Screening Instrument (DVSI)—in that its development focused specifically on risk of serious or lethal violence. In its original form, it comprised 15 risk factors that were identified in retrospective studies of intimate partner homicide—cases in which battered women killed or seriously injured their abusive partners or in which battered women were killed or seriously injured by their abuser partners. In 2004, the DA item pool was revised and expanded to 20 items, based on the findings of a multisite study that compared risk factors for life-threatening (lethal or near lethal) versus less serious intimate partner violence. Some of the items reflect the nature or severity of intimate partner violence in the victim's relationship with the perpetrator, such as a history of threats to kill, forced sex, or strangulation; some reflect characteristics of the victim, such as whether she has children from a previous relationship or has a history of suicidal threats or attempts; and others reflect characteristics of the perpetrator, such as whether he has a history of problems with employment or substance use.

The DA can be completed independently or in collaboration with a service provider. Administration of the DA begins with a calendar assessment, in which the victim reviews a calendar to determine the nature of frequency of intimate partner violence experienced by the victim in the previous year. The victim identifies the approximate dates of any abuse and rates the seriousness of each incident using a 5-point scale (1 = slapping, pushing; no injuries and/or lasting pain to 5 = use of weapon; wounds from weapon). This history taking gathers information that is useful when rating the 20 risk factors, but it also is intended to decrease the extent to which victims minimize the intimate partner violence that they have experienced.

Next, victims are asked to rate the presence of the 20 risk factors on a 2-point scale (0 = no, 1 = yes). Some are rated on the basis of lifetime presence, whereas others are rated on their presence in the past year. Items ratings are then summed using a simple unit-weighting procedure to yield total scores that range from 0 to 20; alternatively, a more complex differential weighting procedure can be used that yields total scores ranging from –3 to 37. Total scores can be classified into four categories that reflect the risk of life-threatening violence: <7 = variable danger, 8 to 13 = increased danger, 14 to 17 = severe danger, and >18 = extreme danger. The risk categories are associated with suggested intervention strategies and directions regarding what should be communicated to the victim. For example, if a victim's DA score falls in the severe danger category, the service provider is advised to inform the victim that she is in severe danger, engage in assertive safety planning with her, and recommend a high level of supervision for the perpetrator.

Psychometric Evaluation

The psychometric properties of different versions of the DA have been evaluated only to a limit extent and solely within the framework of classical test theory.

Evaluations of structural reliability have reported Cronbach's alpha averaging about .75 to .80, and evaluations of short-term test-retest reliability have reported correlations averaging about .90. Given that the DA is an actuarial test of violence risk, these findings are actually somewhat disappointing: First, they indicate that the risk factors included in the test are at least moderately correlated, which suggests that they are likely to be substantially redundant as predictors of intimate partner violence. Second, they indicate that the DA is apparently insensitive to short-term changes or fluctuations in violence risk.

Little or no information is available concerning the interrater reliability of the DA—that is, agreement between victims and evaluators or agreement among evaluators with respect to the item or total scores.

There have been no studies evaluating the psychometric properties of the DA within the framework of modern test theory.

Validity

Some support for the validity of the DA comes from retrospective studies that found a significant association between total scores and measures of the seriousness of past intimate partner violence. Some research has attempted to determine whether the DA can discriminate between victims of lethal (or life threatening) versus nonlethal intimate partner violence, with disappointing results; but this may be because the DA must be scored on the basis of information provided by collateral informants (e.g., relatives, friends) when victims are deceased, possibly resulting in decreased validity of test scores.

There is also some research supporting the predictive validity of the DA with respect to intimate partner violence. First, indirect evidence comes from studies that found moderate to high correlations, typically between .55 and .75, between DA total scores and scores on other measures related to risk of intimate partner violence, such as the Conflict Tactics Scale and the Index of Spouse Abuse. Second, direct evidence comes from prospective studies that have found a moderate association between DA total scores and repeated intimate partner violence. Although there have been few direct comparisons, the predictive validity of the DA appears to be about the same as that of other procedures for assessing risk of intimate partner violence. To date, there has been no investigation of the predictive validity of the DA specifically with respect to life-threatening violence, the purpose for which it was originally developed.

Recommendations

The DA can be useful as part of a comprehensive assessment of risk of intimate partner violence. It has two important strengths: It systematically gathers information from victims, who can provide a unique perspective on the history of violence in the relationship and on the perpetrator's background and psychosocial adjustment, and it considers victim vulnerability factors that are relevant to safety planning.

The DA also has some important limitations. There is no formal manual to guide proper administration, scoring, and interpretation or that provides the technical information necessary to undertake a comprehensive review of the test. There is a lack of information concerning the interrater reliability of DA item and total scores. There is a lack of systematic research on the predictive validity of the DA with respect to intimate partner violence in general and no research with respect to life-threatening intimate partner violence. At the present time, then, it may be best to use the DA as structured professional guidelines for risk assessment rather than as a quantitative or actuarial test.

Stephen D. Hart and Kelly A. Watt

See also Domestic Violence Screening Instrument (DVSI); Intimate Partner Violence; Spousal Assault Risk Assessment (SARA); Violence Risk Assessment

Further Readings

Campbell, J. C. (1995). *Assessing dangerousness.* Thousand Oaks, CA: Sage.

Campbell, J. C., Webster, D., Koziol-McLain, J., Block, C., Campbell, D., Curry, M., et al. (2003). Risk factors for femicide in abusive relationships: Results from a multisite case control study. *American Journal of Public Health, 93,* 1089–1097.

Death Penalty

Most countries have abolished the death penalty. The United States retains the death penalty, although it has attempted to make executions more humane. The

Supreme Court has restricted use of the death penalty based on the type of crime and the characteristics of the criminal. Psychologists and other social scientists have conducted research on issues such as whether the death penalty serves as a deterrent, what drives public support for capital punishment, how jurors decide whether to sentence a defendant to life in prison or death by execution, and the possibility of wrongful convictions and executions.

The International Context

Killing is one of the oldest forms of punishment for criminal behavior, and even today, executions are widespread. Worldwide, shooting, hanging, beheading, lethal injection, and stoning are the most frequently used methods of execution. According to Amnesty International, China currently leads the world in the annual number of executions, followed by Iran, Saudi Arabia, the United States, and Pakistan. The United States and Japan are the only industrialized democracies that still execute criminals. There is a clear international trend toward abolition—between 1985 and 1995, 37 counties abolished the death penalty; and between 1995 and 2005, another 22 countries did so. More than half the countries in the world have now eliminated capital punishment or have ceased to carry out executions. Once abolished, capital punishment is rarely reinstated. Only four countries have reinstated the death penalty (Gambia, Nepal, Papua New Guinea, and the Philippines) after abolishing it, and of those, two have since abolished it again.

American Methods of Execution

The three "modern" methods of execution practiced in the United States—electrocution, poisonous gas, and lethal injection—were developed in an effort to make executions more civilized. Prior to the first electrocution in 1890, hanging was the dominant means of execution in the United States. Hangings were often botched, resulting in gruesome spectacles. Government officials wanted not only to end such spectacles but also to put an end to hangings, which were strongly associated in the public mind with lynching and vigilante justice. Each time a new method of execution was developed—first the electric chair, then the gas chamber, then lethal injection—the main argument was that the new method would be more humane and reliable than its predecessor. Of course, no method of killing is completely humane or reliable. Lethal injection, the method now used in 37 of the 38 states that impose the death penalty, has been challenged on the grounds that it can cause great pain, although the condemned prisoner's suffering is masked by the paralyzing drugs that are part of the execution process. As some commentators have noted, discussions of whether the death penalty is humane must take into account not only the actual killing of the prisoner but also the long process preceding an execution, including the years spent waiting on death row and the rituals leading up to the execution.

The Supreme Court and the Death Penalty

The constitutionality of capital punishment has been challenged on the grounds that it violates the Eighth Amendment's prohibition against "cruel and unusual punishment" or the Fourteenth Amendment's guarantee of "equal protection" under the law. In the 1972 case of *Furman v. Georgia,* in a 5:4 decision, the Supreme Court held that because of the "uncontrolled discretion of judges or juries," the death penalty was being "wantonly and freakishly" applied. Capital punishment—as administered at the time—was ruled unconstitutional. However, by 1976, the Court had approved a series of reforms aimed at controlling the discretion of judges and jurors (*Gregg v. Georgia*). The most important reforms included bifurcated capital trials, where guilt is decided in the first phase and, if the defendant is found guilty, a second "penalty phase" is conducted to determine whether the person found guilty should be sentenced to death or life in prison. More recent decisions by the Supreme Court have placed further restrictions on the penalty of death. The Court has held that mentally retarded murderers cannot be put to death (*Atkins v. Virginia*, 2002), only juries (not judges) can decide whether a convicted murderer should be sentenced to death, and those who commit their crimes as juveniles cannot be sentenced to death (*Roper v. Simmons*, 2005). In states that authorize the death penalty, only "aggravated" murder or murder with "special circumstances" is eligible for the death penalty. State laws vary, but examples of capital crimes include murder for hire, murder during the commission of a robbery or rape, murder of a police officer, or kidnapping and murder. The federal crimes of espionage and treason can also result in a death sentence.

The Capital Murder Trial

Many researchers have explored how the unique features of capital murder trials affect guilt and sentencing. One such unique feature is the death qualification process. During jury selection, potential jurors in capital cases are asked whether they would be willing to consider imposing a sentence of death if the defendant is eventually found guilty of capital murder. Prospective jurors who say they would be unwilling to vote for a sentence of death are not permitted to serve on capital juries. Research has shown that the process of death qualification results in a less demographically representative jury (e.g., fewer females and fewer non-White jurors) as well as a jury that is more receptive to the prosecution and more likely to impose a sentence of death. A second distinctive feature of capital trials concerns the penalty phase instructions to jurors. In most states, jurors are instructed to weigh or balance aggravating factors that support a sentence of death against mitigating factors that support a sentence of life. Based on postverdict interviews with hundreds of capital jurors, the Capital Jury Project has found that jurors have great difficulty in understanding both the concept of "mitigation" and the concept of "weighing." In addition, many jurors often wrongly assume that unless they vote for a death sentence, the defendant will be eligible for parole and may eventually be released from prison. Like the death qualification process, the ambiguity of penalty phase instructions tends to increase the probability of a death sentence.

Deterrence

Deterrence—the theory that the existence of the death penalty will prevent potential murderers from actually committing murder—was one the earliest justifications for executing criminals. Barbarous forms of execution such as breaking at the wheel, burning at the stake, decapitation, and disemboweling were thought to be especially effective at creating the fear necessary to deter those who might consider committing a capital crime. Despite the intuitive appeal of this theory, research does not support a deterrent effect for the death penalty. The introduction of the death penalty does not suppress murder rates, and its abolition does not cause murder rates to rise. Scores of studies have investigated whether capital punishment has a deterrent effect. These studies have looked at homicide rates in jurisdictions with and without the death penalty (e.g., adjacent states) or examined homicide rates over time when the death penalty is abandoned or reinstated. In examining the possibility of a deterrence effect, social scientists have attempted to control statistically for factors that are known to contribute to rates of violence—for example, size of the police force, number of young males in the population, and unemployment rates. Specific analyses have also been conducted to determine whether only crimes punishable by death (e.g., aggravated murder) are deterred, and studies have been conducted to determine whether it is the actual number of executions (as opposed to whether the death penalty is an available punishment) that deters. The overall finding of more than 40 years of research is that the death penalty does not deter murderers. Although some researchers have found a deterrent effect for some jurisdictions over a specific period of time, other researchers have found what has been called the "brutalization effect"—a small but consistent increase in the number of murders in the weeks following an execution.

Research on deterrence tends to rely on large data sets collected over long periods of time. But the theory of deterrence also relies on a psychological explanation of what happens in the minds of potential killers. For capital punishment to effectively deter, potential murderers would need to believe that there is a high probability of being caught, convicted, sentenced to death, and eventually executed for their crimes. And if the availability of the death penalty is to have a deterrent effect beyond that provided by life in prison, the potential killer would also need to judge the possibility of eventual execution as substantially more frightening than the prospect of spending the rest of his or her life in prison. Even a rational analysis of these probabilities would not necessarily deter a potential killer, and because most murders are committed under the influence of drugs or powerful emotions, it seems implausible that murderers rationally weigh out alternatives.

Public Opinion

Media coverage often emphasizes that a majority of Americans support capital punishment. It is true that when Americans are asked the general question, "Do you favor or oppose the death penalty for persons convicted of murder?" approximately 66% of respondents indicate their support. This support has fluctuated over time. In 1966, support for capital punishment dropped to 42%, but by 1988, support had risen to 79% of the

public. Overall, males are significantly more supportive than females, Whites are more supportive than Blacks, and Republicans are more supportive than Democrats. While responses to a broad question about support for or opposition to the death penalty may give a rough indication of American attitudes at a particular time, such general responses can be misleading. More detailed survey research reveals that support often rests on mistaken assumptions about issues such as cost, fairness of application, or deterrence. In addition, support falls when alternative punishments are mentioned. The public is about evenly divided if respondents are asked to choose between the option of "the death penalty" or "life in prison without the possibility of parole" for "persons convicted of murder." When the punishment of "life without parole plus restitution" is offered as an alternative to the death penalty, a majority of Americans endorse it.

Wrongful Conviction and Execution

Decisions about who is guilty of capital murder and who should be executed are entrusted to a fallible legal system. The possibility of wrongful conviction and execution of an innocent defendant has always been part of the public debate over capital punishment, but the emergence of DNA as a means of criminal identification has made this argument much more prominent. During the past 30 years, more than 120 people have been released from death row because of new evidence or reanalysis of existing evidence. It is important to note that the number of wrongful convictions exposed by DNA analysis is only a fraction of the total. Such DNA-based exonerations are only possible if biological evidence (e.g., blood, semen, skin cells) has been collected at the crime scene and preserved for later testing. It is impossible to know how many prisoners currently on death row are actually innocent. For most death row inmates, there is clear evidence of guilt. And many who claim to be innocent could be lying. But it is likely that there are also cases where wrongfully convicted death row inmates are unable to prove their innocence because of lack of evidence or lack of resources.

More than 1,000 condemned prisoners have been executed since the reinstatement of the death penalty in 1976. It is impossible to know exactly how many of these prisoners were actually innocent. Once a prisoner has been killed, courts rarely entertain claims of innocence, and lawyers, investigators, and journalists turn their attention to cases where possibly innocent prisoners can still be saved. Despite the difficulty of conclusively proving wrongful executions, there are a handful of cases where there is persuasive evidence that the wrong man was executed (e.g., Ruben Cantu, Gary Graham, Larry Griffin, James O'Dell, Leo Jones). The reality of wrongful conviction and wrongful execution raises the issue whether retention of the death penalty is so valuable that it justifies occasionally sending an innocent person to death row and perhaps to the execution chamber.

If the decision to retain or abandon capital punishment was based solely on research findings, it would have been abolished long ago. However, like many important social policies, the decision is driven by emotional and political as well as empirical considerations.

Mark Costanzo

See also Aggravating and Mitigating Circumstances, Evaluation of in Capital Cases; Aggravating and Mitigating Circumstances in Capital Trials, Effects on Jurors; American Bar Association Resolution on Mental Disability and the Death Penalty; Competency for Execution; Death Qualification of Juries; Juveniles and the Death Penalty; Mental Illness and the Death Penalty; Mental Retardation and the Death Penalty; Moral Disengagement and Execution; Racial Bias and the Death Penalty

Further Readings

Atkins v. Virginia, 536 U.S. 304 (2002).

Bedau, H. A. (2004). *Killing as punishment*. Boston: Northeastern University Press.

Costanzo, M. (1987). *Just revenge: Costs and consequences of the death penalty.* New York: St. Martin's Press.

Dow, D. R. (2005). *Executed on a technicality.* Boston: Beacon Press.

Furman v. Georgia, 408 U.S. 238 (1972).

Gregg v. Georgia, 428 U.S. 153 (1976).

Myers, B., & Greene, E. (2004). The prejudicial nature of victim impact statements: Implications for capital sentencing policy. *Psychology, Public Policy, and Law, 10,* 492–515.

O'Neil, K. M., Patry, M. W., & Penrod, S. D. (2004). Exploring the effects of attitudes toward the death penalty on capital sentencing verdicts. *Psychology, Public Policy, and Law, 10,* 443–470.

Osofsky, M. J., Bandura, A., & Zimbardo, P. G. (2005). The role of moral disengagement in the execution process. *Law and Human Behavior, 29,* 371–393.

Roper v. Simmons, 543 U.S. 551 (2005).
Zimring, F. E. (2003). *The contradictions of American capital punishment*. New York: Oxford University Press.

Web Sites

Death Penalty Information Center:
http://www.deathpenaltyinfo.org

Death Qualification of Juries

Death qualification is a unique form of jury selection that is used only in capital cases. Potential jurors are screened beforehand on the basis of their attitudes toward death penalty, and persons holding "disqualifying" attitudes or beliefs about capital punishment are dismissed from further participation. In the late 1960s, the U.S. Supreme Court established the standard by which prospective jurors could be constitutionally excluded from service on a capital jury as one of "unequivocal opposition" (i.e., if the prospective juror said that he or she could never impose the death penalty no matter what the facts or circumstances of the case). Since then, the process of death qualification has been the subject of extensive legal commentary and social science research, as well as the focus of a number of constitutional challenges and revisions in the legal standard of exclusion itself.

The Nature and Effect of Death Qualification

In modern death penalty jurisprudence, all capital trials are bifurcated. If a capital defendant is convicted of a crime for which the death penalty is a possible punishment (first-degree murder plus some special circumstance or feature that is found to be present in the case), a second sentencing or penalty phase of the trial is held. In this phase, the capital jury decides whether to sentence the defendant to death or some lesser punishment (typically life in prison without possibility of parole). To accommodate the state's interest in having only those jurors serve who can consider imposing the death penalty in the second part of the capital trial, should one occur, the law permits the screening of all potential jurors on the basis of their death penalty views. However, this selection or screening process transpires at the very outset of the trial, before any evidence has been presented and, perforce, before the actual jury has decided whether the defendant is guilty or not. Because it occurs so early in the trial, death qualification may have a significant impact on all of the jury's subsequent decision making.

In fact, social science research has established the fact that death-qualified juries are significantly different from non-death-qualified juries in a number of important ways. For one, death qualification produces juries that are less representative than non-death-qualified juries. That is, because women and minorities (especially African Americans) are more likely to oppose the death penalty, they are more likely to be excluded from death-qualified juries. Also, because attitudes toward the death penalty tend to be correlated with other attitudes about the criminal justice system, researchers have found that death qualification produces juries that hold a more homogeneous perspective than other juries, where attitudinal diversity would be more likely to occur. Among other things, death-qualified juries are generally more favorable to the perspectives of prosecutors and law enforcement, more susceptible to things such as potentially prejudicial pretrial publicity and aggravating evidence that may be introduced at trial, and simultaneously more oriented toward "crime control" goals and less committed to "due process" values.

Perhaps not surprisingly—given the way death qualification skews the composition of the group deemed eligible to serve, death-qualified juries also tend to be "conviction prone." That is, based on the same set of case facts and circumstances, research shows that they are more likely to find a defendant guilty than are non-death-qualified juries. Of course, because they are selected precisely on the basis of their willingness to impose the death penalty, they also are "death prone"—that is, they are more likely to render death verdicts than a non-death-qualified jury would be.

In addition, research has shown that the process of death qualification itself produces biasing effects among persons exposed to it. That is, because it requires jurors to consider the issues that would be germane only after they had found the defendant guilty (e.g., whether they actually could impose the death penalty) and to commit themselves to a course of action that would occur only in the sentencing phase of the trial (i.e., pledge to consider all punishment options, including the death penalty)—before any evidence has been presented, the process of death qualification itself appears to increase prospective jurors'

belief in the defendant's likely guilt. The nature of the questioning that occurs during death qualification also has the potential to desensitize jurors to the issue of imposing the death penalty, to lead some jurors to believe that they have committed themselves to actually imposing the death penalty if they find the defendant guilty, and to imply that death penalty imposition is the legally approved sanction in the penalty trial of their case. Obviously, these process-related biases occur in addition to the effects that death qualification has on the composition of the capital jury.

There is one additional aspect of death qualification that continues to have legal and social scientific significance. The process of excluding potential jurors from participation in capital trials solely on the basis of their feelings about the death penalty has implications for an important legal judgment that courts make about the scope of death penalty support in the United States. In particular, as Justice John Paul Stevens and others have acknowledged, one of the key "societal factors" that the U.S. Supreme Court has continued to look to "in determining the acceptability of capital punishment to the American sensibility is the behavior of juries" (*Thompson v. Oklahoma*, 1988, p. 831). Thus, the behavior of capital juries, each one of which has been created through a process that includes death qualification, continues to serve as a measure of the "national consensus" on the death penalty and an important index of the extent to which certain death penalty laws offend evolving standards of decency, the hallmark of an Eighth Amendment analysis. However, because death-qualified juries are selected precisely on the basis of their willingness to actually impose the death penalty, and therefore differ from non-death-qualified jurors on this dimension (as well as many others), their death-sentencing behavior is unlikely to be representative or reflective of the true "American sensibility" with respect to capital punishment.

Legal Challenges to Death Qualification

Social science research documenting the range of biasing effects produced by death qualification has served as the basis for a number of constitutional challenges arguing that the unrepresentative and conviction-prone nature of the capital jury compromises the fair trial rights of capital defendants. In one of the first of these cases, the U.S. Supreme Court raised the threshold of legal exclusion from one of mere "scruples" against the death penalty (which had been the operative death qualification standard for more than 100 years) to "unequivocal opposition"—a belief strong enough to preclude the juror from ever returning a death verdict. (See *Witherspoon v. Illinois*, 1968.) However, the social science data offered in support of the petitioner's claim that death qualification was unconstitutional were deemed too "tentative and fragmentary" to support such a ruling.

A little more than a decade later, a major challenge to death qualification was lodged in California. It relied on a large body of more recently assembled social science data and was based on state constitutional grounds. Although the state Supreme Court cited and discussed the numerous social scientific studies that were introduced in an evidentiary hearing in the case, the court stopped short of prohibiting death qualification, at least as it was practiced in California. However, the court did seek to minimize the biasing effects of the process of death qualification itself by requiring that it be conducted on an individual, sequestered basis (to minimize the extent to which any one juror was repeatedly exposed to it; see *Hovey v. Superior Court*, 1980).

In *Lockhart v. McCree* (1986), the U.S. Supreme Court rejected a federal constitutional challenge that was based on many of the same studies that had been introduced in the California case. The Court questioned the validity of the relevant social science research, noting that none of the studies was methodologically perfect and, of course, could entirely recreate the "felt responsibility" of an actual capital jury. In addition, however, the Court ruled that, even if valid, the research was not dispositive since juries biased in the ways that death-qualified juries appeared to be could have arisen by chance. Specifically, Justice Rehnquist wrote for the majority that "it is hard for us to understand the logic of the argument that a given jury is unconstitutionally partial when it results from a State-ordained process, yet impartial when exactly the same jury results from mere chance" (p. 178).

Changes in the Legal Standard of Exclusion

The legal standard that is used in the death qualification process has changed several times. As noted earlier, in 1968, the U.S. Supreme Court modified the operative standard that had been in use for more than a century. In addition, however, some 17 years after this

decision, the Supreme Court again revised the threshold for excluding jurors from participation in capital cases—this time broadening it from unequivocal opposition to merely holding death penalty attitudes that would "prevent or substantially impair the performance of his [or her] duties as a juror in accordance with his [or her] instructions and oath" (*Wainwright v. Witt*, 1985, p. 852). The significance of the *Witt* opinion was acknowledged by legal practitioners and scholars alike, who suggested that the less precise language and seemingly broader scope of the *Witt* formulation would result in a substantial increase in the size of the excludable group as well as complicate the precise application of the legal standard of exclusion.

Finally, the death qualification standard underwent yet another doctrinal change in 1992, when the U.S. Supreme Court ruled that persons whose *support* of the death penalty is so strong that it would "prevent or substantially impair" the performance of their duties (sometimes called "automatic death penalty" or "ADP" jurors) also should be legally disqualified from serving in capital cases. (See *Morgan v. Illinois*, 1992.) Thus, "modern" death qualification now operates to exclude persons whose death penalty attitudes would merely "impair" the performance of their functions in a capital trial, and it eliminates persons on the basis of both support for as well as opposition to extreme death penalty. In practical terms, the intended "balancing" of the standard of exclusion (by including extreme death penalty supporters as well as opponents) does not seem to have significantly altered the biasing effects brought about by death qualification. Scholars and practitioners acknowledge that extreme death penalty supporters are not as readily identified as the comparable group of death penalty opponents. As a result, death-qualified juries continue to suffer from many of the biases identified in the earlier research and relied on as the basis for constitutional challenges (albeit, in some jurisdictions, on an attenuated basis).

Craig Haney

See also Death Penalty; Jury Selection; Voir Dire

Further Readings

Allen, M., Mabry, E., & McKelton, D. (2004). The impact of juror attitudes about the death penalty on juror evaluations of guilt and punishment. *Law and Human Behavior, 22,* 715–731.

Bersoff, D. (1987). Social science data and the Supreme Court: *Lockhart* as a case in point. *The American Psychologist, 42,* 52–58.

Haney, C. (Ed.). (1984). Death qualification [Special issue]. *Law and Human Behavior, 8*.

Haney, C., Hurtado, A., & Vega, L. (1994). "Modern" death qualification: New data on its biasing effects. *Law and Human Behavior, 18,* 619–633.

Hovey v. Superior Court, 28 Cal. 3d 1 (1980).

Lockhart v. McCree, 476 U.S. 162 (1986).

Morgan v. Illinois, 504 U.S. 719 (1992).

Thompson, W. (1989). Death qualification after *Wainwright v. Witt* and *Lockhart v. McCree*. *Law and Human Behavior, 13,* 185–215.

Thompson v. Oklahoma, 487 U.S. 815 (1988).

Wainwright v. Witt, 469 U.S. 412 (1985).

Witherspoon v. Illinois, 389 U.S. 1035 (1968).

Delusions

Delusions are firmly held false beliefs. They are associated with numerous disorders, including schizophrenia and delusional disorder, but can also be found in patients with affective disorders and dementia. Several different types of delusions are recognized, including erotomanic delusions, grandiose delusions, jealous delusions, persecutory delusions, delusions of control, nihilistic delusions, delusions of guilt or sin, somatic delusions, and delusions of reference. Assessment of delusions involves determination of the etiology as well as the severity and tenacity of symptom presentation. Treatment is dependent on the etiology of the symptoms and can include antipsychotic, antidepressant, or mood-stabilizing medications as well as cognitive therapy.

Definition of Delusions

Delusions are fixed beliefs that are false and have no basis in reality. Delusions can be either bizarre, such as thinking that aliens are controlling your thoughts and behaviors, or nonbizarre, such as believing that one is being watched or spied on. In addition, delusions can be mood congruent, in which the delusion is consistent with the emotional state—such as depression or mania, or mood incongruent, whereby the delusion is not consistent with the emotional state. An example of a mood-congruent delusion would be believing oneself to be God during the height of a manic episode; an

example of a mood-incongruent delusion would be a depressed person's belief that his or her thoughts are being controlled by the Central Intelligence Agency. For a belief to be considered a delusion, it must be pathological in nature.

Disorders Associated With Delusions

Delusions are symptoms of several psychological disorders and are indicative of a psychotic mental illness. Along with hallucinations, delusions are the most recognizable symptoms of schizophrenia. However, the presence of delusions alone is not sufficient to warrant a diagnosis of schizophrenia. In schizophrenia, the delusions can be either bizarre or nonbizarre.

Delusions are the predominant symptom of delusional disorder, which is a mental disorder in which the person holds one or more nonbizarre delusions in the absence of any other psychopathology. In addition, the person must not have ever met any of the diagnostic criteria of schizophrenia. In many instances, a person with delusional disorder can function normally in most aspects of life, and the only indication of mental illness is the behavior that results directly from the delusional belief. For example, a person could believe that he or she is being spied on through the electrical outlets in his or her house, so that person covers all the outlets with electric tape. With the exception of this behavior, which is directly related to the delusional thought, the person is able to maintain a job and relationships. Historically, delusional disorder was referred to as paranoia.

Delusions have also been associated with dementia, severe depression, and the manic phase of bipolar disorder.

Types of Delusions

There are several different types of delusions, such as erotomanic delusions, delusions of grandiosity, jealous delusions, persecutory delusions, delusions of control, nihilistic delusions, delusions of guilt or sin, somatic delusions, and delusions of reference.

Erotomanic Delusions

An erotomanic delusion is a delusion in which the individual believes that he or she has a special, loving relationship with another person, who is usually a famous individual or someone of high standing. The subjects of delusions are often popular media figures such as politicians, actors, and singers. In certain instances, the delusional individuals believe that the subject of their delusion is communicating secret love messages to them through signals such as gestures and body posture. As part of the delusion, the delusional individuals believe that their feelings are reciprocated by the subject of their delusion. In the case of celebrities, these gesture are usually transmitted to the delusional individual through the radio or television. In most cases, the subject of the delusion has no contact with, or awareness of, the delusional individual. Erotomanic delusions are most often found in individuals diagnosed with schizophrenia or delusional disorder.

Erotomanic delusions can lead to stalking or other potentially dangerous behaviors. In some extreme cases, the delusional individual has broken into the house of the subject of the delusion and even killed the person. A number of widely reported crimes have been associated with erotomanic delusions: in 1989, Rebecca Schaeffer, a young actress, was shot and killed at her home by an individual who had an erotomanic delusion about her. Also, it was reported that the assassination attempt on the former U.S. president Ronald Reagan was driven by an erotomanic delusion: John Hinckley Jr. shot Reagan in the deluded belief that this action would cause the actress Jodie Foster to publicly declare her love for him.

There is some controversy about the prognosis for those who are diagnosed with erotomanic delusions. According to some researchers, such individuals respond poorly to treatment, while other researchers view the delusions as symptomatic of an underlying psychotic disorder that generally will respond to antipsychotic medications and supportive psychotherapy. There is some evidence that individuals with delusional disorder have poor compliance with treatment, as they are often so enthralled with the subject of their delusion that they cannot be persuaded to take medications that may diminish the symptoms.

Grandiose Delusions

Individuals who have delusions of grandiosity often have an exaggerated sense of self-importance or inflated worth. They may be convinced that they possess superior knowledge or skills or that they have a special relationship to a deity or a celebrity. In certain cases, the delusional individuals may actually believe that they themselves are a deity (such as Jesus Christ)

or a famous person. More commonly, those with delusions of grandiosity may believe that they have achieved a great accomplishment for which they have not received sufficient appreciation and respect.

Some theorists believe that delusions of grandiosity result as a consequence of low self-esteem and negative emotions. This is known as the delusion-as-defense hypothesis. Other researchers argue that the delusions of grandiosity are an exaggerated manifestation of the individual's true emotions and belief. This is known as the emotion-consistent hypothesis. One study investigated both hypotheses in a sample of 20 patients with grandiose delusions and found that there were no differences between covert and overt self-esteem in the sample. The authors of the study concluded that the grandiose delusions may be exaggerations of the emotional state of individuals. Grandiose delusions can be associated with schizophrenia or delusional disorder and are a common symptom of the manic phase of bipolar disorder.

Jealous Delusions

Jealous delusions, or delusions of infidelity, involve the false belief that the delusional individual's spouse or sexual partner is unfaithful or having an affair. Delusional jealousy can involve stalking or spying on the spouse/lover as the delusional individual seeks evidence to confirm the existence of the affair. This type of delusion often stems from pathological jealousy and can seriously affect romantic relationships, and in certain cases the delusional individual's jealousy can escalate into violence and even murder.

Persecutory Delusions

Individuals with persecutory delusions believe that specific individuals, or people in general, are "out to get them." Individuals with delusions of persecution suspect that others are participating in intricate plots to persecute them. In some cases, they may believe that they are being spied on, drugged, or poisoned. In more extreme cases, the individuals may believe that they are the subject of a conspiracy and someone (often a government agency) wants them dead. Some delusions of persecution are vaguer and more general, such as the false belief that one's coworkers are giving one a hard time. In other cases, the delusions can be a network of numerous well-formed false beliefs that are highly intricate and involved, such as an elaborate governmental conspiracy that can explain every aspect of the individual's life.

Persecutory delusions are a hallmark symptom of several disorders, including paranoid schizophrenia; delusion disorder, paranoid type; and paranoid personality disorder. Paranoid delusions have also been noted in cases of severe depression and dementia.

Other Delusions

Other types of delusions include delusions of control, nihilistic delusions, delusions of guilt or sin, somatic delusions, and delusions of reference. Those with delusions of control have the false belief that someone else is controlling their thoughts, emotions, and behaviors. This can include the belief that outside forces are inserting or removing thoughts from their mind, that their thoughts are being broadcast out loud, or that someone is controlling their bodily movements. Nihilistic delusions refer to false beliefs that the world is coming to an end. Delusions of sin or guilt refer to intense feelings of guilt or sin for something the person has not done; for example, individuals with such delusions may falsely believe that they have committed a horrible crime for which they should be punished or that they are somehow responsible for natural disasters, even though this is impossible. Somatic delusions usually involve the false belief that the individual has a medical disorder or a physical deformity. These beliefs differ from hypochondriasis, as somatic delusions are often very specific and in some cases quite strange. Finally, individuals who experience delusions of reference believe that they may be receiving special messages from the television, newspaper, radio, or the way things are arranged around them. Individuals with this disorder may believe that people are talking about them or taking special notice of them even when that is not the case.

Delusions of control, nihilistic delusions, and delusions of reference are considered bizarre delusions. However, persecutory delusions, somatic delusions, grandiose delusions, as well as most delusions of jealousy and guilt are generally considered nonbizarre.

Assessment of Delusions

If a delusional disorder is suspected, an individual should be evaluated by a physician to rule out any organic etiology (such as dementia). This may include a thorough medical history, a review of the medications the patient is taking, blood workup, and possibly brain

scans. If the delusions do not appear to be related to an organic cause, then the patient should undergo an evaluation by a psychiatrist or a psychologist. This evaluation will generally involve an interview and psychological assessment. There are several instruments that are used by psychologists to assess delusions. These include the MacArthur-Maudsley Delusions Assessment Schedule, the Brown Assessment of Beliefs Scale, the Positive and Negative Syndrome Scale, and the Scale for the Assessment of Positive Symptoms.

Treatment of Delusions

Delusions that are symptoms of schizophrenia will generally respond to treatment with antipsychotic medications such as thioridazine, clozapine, haloperidol, or risperidone. Delusions that are not associated with schizophrenia may not respond to antipsychotic medications, and in those cases, medications other than, or in addition to, antipsychotic medications should be used. Delusions that are symptoms of a mood disorder should be treated with antipsychotic medications as well as antidepressants or mood stabilizers. If the etiology of the delusions is medical, then resolution of the medical disorder should alleviate the delusional symptoms. Additionally, cognitive therapy has been recommended as an adjunctive therapy for individuals who experience delusions.

Elizabeth L. Jeglic

See also Hallucinations; Mental Health Courts; Police Interaction With Mentally Ill Individuals; Violence Risk Assessment

Further Readings

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision). Washington, DC: Author.

Appelbaum, P. S., Robbins, P. C., & Monahan, J. (2000). Violence and delusions: Data from the MacArthur Violence Risk Assessment Study. *American Journal of Psychiatry, 157,* 566–572.

Eisen, J. L., Phillips, K. A., Baer, L., Beer, D. A., Atala, K. D., & Rasmussen, S. A. (1998). The Brown Assessment of Beliefs Scale: Reliability and validity. *American Journal of Psychiatry, 155*(1)*,* 102–108.

Leeser, J., & O'Donohue, W. (1999). What is a delusion? Epistemological dimensions. *Journal of Abnormal Psychology, 108,* 687–694.

Mullen, P. E., & Pathe, M. (1994). The pathological extensions of love. *British Journal of Psychiatry, 165,* 614–623.

Smith, N., Freeman, D., & Kuipers, E. (2005). Grandiose delusions: An experimental investigation of the delusion as defense. *Journal of Mental Disorders, 193*(7), 480–487.

Detection of Deception: Cognitive Load

Cognitive load interview protocols are designed to make interviews more demanding for suspects. This increased demand has a greater effect on liars than on truth tellers because liars already find being interviewed more mentally taxing than do truth tellers. The result is that cognitive load interview protocols facilitate discrimination between liars and truth tellers.

Lying in an interview setting is often more cognitively demanding than truth telling. First, formulating the lie itself is cognitively taxing. Liars need to make up their stories while monitoring their fabrications so that they are plausible and adhere to everything the observer knows or might find out. In addition, liars must remember their earlier statements and know what they told to whom, so that they appear consistent when retelling their story. Liars should also avoid making slips of the tongue and should refrain from providing new leads to investigators. Second, liars are typically less likely than truth tellers to take their own credibility for granted, in part because truth tellers typically assume that their innocence will shine through. As such, liars will be more inclined than truth tellers to be conscious of, and hence monitor and control, their demeanor so that they will appear honest to the lie detector. Monitoring and controlling one's own demeanor are cognitively demanding. Third, because liars do not take their credibility for granted, they may monitor the interviewer's reactions more carefully to assess whether they are getting away with their lie. Carefully monitoring the interviewer also requires cognitive resources. Fourth, liars may be preoccupied with the task of reminding themselves to act and role-play, which requires extra cognitive effort. Fifth, liars have to suppress the truth while they are lying, and this is also cognitively demanding. Finally, whereas activating the truth often happens automatically, activating a lie is more intentional and deliberate and thus requires mental effort.

Many sources support the premise that lying is cognitively demanding. First, in police interviews with real-life suspects, lies are accompanied by increased pauses, decreased blinking, and decreased hand/finger movements, all of which are signs of cognitive load. Second, police officers who saw videotapes of suspect interviews reported that the suspects appeared to be thinking harder when they lied than when they told the truth. Third, participants in mock-suspect experiments directly assessed their own cognitive load during interviews and reported that lying is more cognitively demanding than truth telling. Finally, deceiving is associated with activating executive, "higher" brain centers (such as the prefrontal cortex), which are typically activated when high cognitive load is experienced.

By using protocols that introduce additional cognitive load, investigators can exploit liars' higher cognitive demand to facilitate discrimination between liars and truth tellers. For example, interviewees could be asked to recall their stories in reverse order. This task is cognitively more demanding than recalling a story in chronological order. Liars, whose cognitive resources are depleted by the more demanding act of lying, find reverse order recall more debilitating than do truth tellers because liars have fewer cognitive resources left over than truth tellers. Indeed, research has demonstrated that liars and truth tellers differ more from each other in terms of displaying signs of cognitive load when they recall their stories in reverse order than in chronological order. The occurrence of more noticeable differences between liars and truth tellers should facilitate lie detection. Indeed, investigators were more accurate in discriminating between liars and truth tellers when the interviewees told their stories in reverse order than in chronological order.

An alternative technique to induce additional cognitive load is to require interviewees to perform a concurrent secondary task (time-sharing) while being interviewed. Again, liars, whose cognitive resources are already partially depleted by the act of lying, find this additional, concurrent task particularly debilitating. An experiment revealed that this showed up as poorer performance on the primary task (e.g., providing a statement during the interview) and also on the secondary task (e.g., determining whether each figure presented on a screen was similar to the target figure presented earlier).

Investigators sometimes have evidence available, such as fingerprints and closed-circuit TV footage, that may link a suspect to a crime. They can then present this incriminating evidence against a suspect in a strategic fashion to increase cognitive load by limiting the number of acceptable explanations suspects can offer to account for the current situation. Suppose that the suspect's car was noticed near the crime scene just after the crime had taken place but that the suspect did not refer to the car in his or her alibi. After being confronted with this piece of evidence, the suspect may reply that he or she had simply failed to mention previously that he or she had used the car on that particular day, thereby adapting his or her story to match the evidence. However, suppose that the police officer does not reveal at this stage that the car was noticed near the crime scene but asks some questions about the car instead (e.g., "Did you use your car that day?"). When confronted with the evidence after these questions, the suspect has fewer opportunities to provide acceptable solutions if he or she has already told the interviewer that he or she did not use the car on that particular day. The number of acceptable solutions would be reduced even further if the suspect indicated that he or she did not lend the car to anyone else and that nobody else had the car keys.

In sum, investigators using cognitively based interview protocols increase their ability to discriminate between liars and truth tellers by making the interview situation more taxing for interviewees.

Aldert Vrij, Ronald Fisher, Samantha Mann, and Sharon Leal

See also Detection of Deception: Magnetic Resonance Imaging (MRI); Detection of Deception: Use of Evidence in; Detection of Deception in High-Stakes Liars

Further Readings

Hartwig, M., Granhag, P. A., Strömwall, L., & Kronkvist, O. (2006). Strategic use of evidence during police interrogations: When training to detect deception works. *Law and Human Behavior.*

Vrij, A., Fisher, R., Mann, S., & Leal, S. (2006). Detecting deception by manipulating cognitive load. *Trends in Cognitive Sciences, 10,* 141–142.

Vrij, A., Fisher, R., Mann, S., & Leal, S. (in press). Increasing cognitive load in interviews to detect deceit [Invited chapter]. In B. Milne, S. Savage, & T. Williamson (Ed.), *International developments in investigative interviewing.* Uffculme, UK: Willan.

Detection of Deception: Event-Related Potentials

P300 is a brain wave derived from the electroencephalogram (EEG), which has recently been used as a novel information channel in the detection of deception. The traditional channels are recorded from the autonomic nervous system and include physiological activity such as respiration pattern, blood pressure, and skin conductance. In contrast, the EEG is a record of sequential, spontaneously changing voltages as a function of time, recorded from the scalp surface in humans. It reflects the spontaneous activity from the underlying cerebral cortex. If as these changing voltages occur, a discrete stimulus event (such as a light flash) occurs, the EEG breaks into a series of somewhat larger peaks and troughs, called components. This series of waves is called an event-related potential (ERP).

These early peaks and troughs represent sensory activity (exogenous ERP components), and the later (endogenous) components may represent the psychological reaction to the sensory events. P300 is the name of one heavily researched ERP. It is elicited by stimulus events that are rare and meaningful to subjects. For example, if a stimulus series consists of a set of randomly occurring first names, each presented singly on a display screen about every 3 s, and the subject's own first name is one of the stimuli presented about 15% of the time, with the remaining 85% of the presentations being of other, unfamiliar names, the P300 will be elicited by the rare, meaningful (subject's own) name. P300 is named in respect of its positive (P) polarity and its occurrence at about 300 to 800 ms after the stimulus onset. Simple stimuli such as brief sounds elicit early P300 peaks (300–400 ms), whereas more complex stimuli such as words elicit later peaks (500–800 ms).

It occurred to Dr. J. Peter Rosenfeld and colleagues in the early 1980s that P300 might be used in deception detection situations to index recognition of the presentation of crime scene details known only to perpetrators (and the authorities) and not to innocent suspects. The protocol would involve presentation (usually on a display screen) of items of information, such as possible murder weapons (e.g., pistol, rifle, knife, axe). The guilty party, but not the innocent subject, would react with a P300 to the actual murder weapon (e.g., the pistol), called the *probe* stimulus. Neither guilty nor innocent subjects would react to the other, *irrelevant* items from the weapons category, which were not actually used in the crime, as the guilty party would know. Thus, the difference in P300 amplitude between the probe-evoked ERP and the irrelevant-evoked ERP indicates guilt. This protocol was closely related to the Guilty Knowledge Test (GKT) invented by David Lykken in 1959, which used autonomic nervous system responses to stimuli. One difference was that in the P300 protocol, there was usually a third stimulus type used, also rarely presented, called the *target.* This was typically one other irrelevant item but one to which the subject is told to respond by pressing a unique button. In one version of the protocol, the subject is told to press a "No" button (for "No, I don't recognize this") in response to both probes and irrelevant items and "Yes" ("I do recognize this") in response to targets. Of course, in saying "No" to the probe, the guilty subject lies, but it is hoped that his P300 ERP reveals his guilty recognition all the same. The target stimulus is used to force attention onto the display screen, since the three stimulus types are presented unpredictably in random sequence, and if the subject neglects to respond to the target stimulus as instructed, the operator knows that the subject is not paying attention and will report this to the authorities. But if the subject is always paying attention, he or she cannot avoid seeing the probe stimuli, which evoke P300s in guilty subjects.

Early reports in the 1990s (by J. Peter Rosenfeld and colleagues and by John J. B. Allen and Emanuel Donchin and their respective coworkers) with this protocol reported high overall accuracy (80–95% correct classification of guilty and innocent subjects), and they were received with considerable enthusiasm; it was naively believed that because the P300s occurred with such short reaction times (fractions of a second post-stimulus) relative to the slow autonomic reaction times in the GKT, the P300-based protocols would resist *countermeasures* (CMs), intentional covert responses subjects can learn to make that can defeat the GKT. Unfortunately, J. Peter Rosenfeld and colleagues showed in 2004 that P300-based GKTs were also vulnerable to CMs. The guilty subjects were simply trained to covertly respond (e.g., with secret toe wiggles) systematically to irrelevant stimuli, thus turning them into P300-evoking targets. It then became impossible to distinguish between probe and irrelevant P300s, whose typical difference without CMs indexed guilt. Reports from John J. B. Allen's lab showed similar results.

However, in 2006, J. Peter Rosenfeld and colleagues reported that a second-generation P300-based deception test using a wholly novel protocol was accurate and highly resistant to CMs. More than 100 subjects have been studied to date, and the accuracy rates have been 90% to 100% in many experiments, dropping by only 0% to 10% with CM use. Moreover, a new feature built into this new protocol alerts operators about CM use. In the new protocol—called the Complex Trial Protocol (CTP), two stimuli are presented on each trial, and there are four possible trial types. The first stimulus is either a probe or an irrelevant, and the subject responds with one simple behavioral acknowledgment that the stimulus has been seen. About 1 to 1.5 s later, a second stimulus is presented, which is either a redefined target or not one. The subject here signals target or nontarget. The subject's absolute behavioral reaction time to the first stimulus is significantly increased if a CM is being used, and the reaction time to irrelevants, which without a CM is less than or the same as that to probes, is usually increased to much greater than probe reaction time if a CM accompanies the irrelevant. Thus, occasionally successful CM use or attempted but unsuccessful CM use has always been detected. The probe P300 amplitude actually *increases* during CM use (unlike what is seen with the older protocol based on three trial types—probe, irrelevant, or target). Such an increase means that the CTP is still likely to see a probe-irrelevant difference even if the irrelevant P300 increases, as expected, during CM use. It appears that this new protocol is powerful because its multiple demands made on the subject force attention on the key stimuli, thus enhancing P300 responses to them.

Other brain-activity-based dependent indices of deception have been suggested and researched in preliminary ways. These approaches have different theoretical foundations. Dr. J. Peter Rosenfeld and colleagues have also examined the P300 amplitude *distribution* (not simple amplitude) across the scalp (a kind of "brain map") as a promising new index of deception. The motivation for pursuing this new approach is, again, the possibility of removing CMs. It was simple to develop CMs for the earlier P300-amplitude-based protocols because the antecedents of P300 amplitude—rareness and meaningfulness—are relatively well-known. If one knows the antecedents of P300, then one knows how to manipulate it. On the other hand, very little is known about how to manipulate the amplitude distribution across the scalp, thus facilitating the creation of a CM method.

J. Peter Rosenfeld

See also Detection of Deception in Adults; Polygraph and Polygraph Techniques

Further Readings

Allen, J., Iacono, W. G., & Danielson, K. D. (1992). The identification of concealed memories using the event-related potential and implicit behavioral measures: A methodology for prediction in the face of individual differences. *Psychophysiology, 29,* 504–522.

Farwell, L. A., & Donchin, E. (1991). The truth will out: Interrogative polygraphy ("lie detection") with event-related potentials. *Psychophysiology, 28,* 531–547.

Johnson, R., Jr., Barnhardt, J., & Zhu, J. (2004). The contribution of executive processes to deceptive responding. *Neuropsychologia, 42,* 878–901.

Lykken, D. T. (1998). *A tremor in the blood.* Reading, MA: Perseus Books.

Rosenfeld, J. P. (2006). The Complex Trial (CT) Protocol: A new, countermeasure-resistant protocol for deception detection [Abstract]. *International Journal of Psychophysiology, 61,* 300.

Rosenfeld, J. P., Angell, A., Johnson, M., & Qian, J. (1991). An ERP-based, control-question lie detector analog: Algorithms for discriminating effects within individuals' average waveforms. *Psychophysiology, 38,* 319–335.

Rosenfeld, J. P., Cantwell, G., Nasman, V. T., Wojdac, V., Ivanov, S., & Mazzeri, L. (1988). A modified, event-related potential-based guilty knowledge test. *International Journal of Neuroscience, 24,* 157–161.

Rosenfeld, J. P., Ellwanger, J. W., Nolan, K., Wu, S., Bermann, R. G., & Sweet, J. J. (1999). P300 scalp amplitude distribution as an index of deception in a simulated cognitive deficit model. *International Journal of Psychophysiology, 33,* 3–19.

Rosenfeld, J. P., Soskins, M., Bosh, G., & Ryan, A. (2004). Simple effective countermeasures to P300-based tests of detection of concealed information. *Psychophysiology, 41,* 205–219.

Tardif, H. P., Barry, R. J., Fox, A. M., & Johnstone, S. J. (2000). Detection of feigned recognition memory impairment using the old/new effect of the event-related potential. *International Journal of Psychophysiology, 36,* 1–9.

Detection of Deception: Magnetic Resonance Imaging (MRI)

Traditional means of lie detection, such as the polygraph, rely on measurements of peripheral nervous system (PNS) activity. Recent advances in noninvasive brain imaging techniques, such as functional magnetic resonance imaging (fMRI), have aroused public and academic interest in developing a viable alternative. This entry briefly explains the technique of MRI and its application in the detection of deception.

How MRI Works

An MRI scanner is a powerful superconducting electromagnet with a central bore large enough to accommodate a human body. This magnet generates a magnetic field perpendicular to the plane of the central bore. It is equipped with electromagnetic gradient coils that produce weaker, rapidly changing magnetic fields. These magnetic "pulses" cause the hydrogen nuclei in the body to resonate and emit radiofrequency signals used to create tomographic images with a spatial resolution of less than a millimeter that can be reconstructed into a three-dimensional image. Blood oxygenation level–dependent (BOLD) fMRI is an enhanced technology that measures regional changes in the levels of oxygenated hemoglobin and reflects regional brain activity with a time resolution of seconds. The small effect size of the BOLD fMRI signal associated with most cognitive phenomena (<2%) requires a scanner field strength of at least 1.5 T and multiple repetitions of each stimulus class to achieve a meaningful signal-to-noise ratio. Compared with psychophysiological recordings, fMRI measures of lie detection have theoretical advantages of proximity to the source of deception (central nervous system, CNS). Although fMRI is a less direct measure of CNS activity than electroencephalography, the significantly better spatial resolution of fMRI may lead to higher test specificity.

Use of MRI in Detecting Deception

Initial fMRI studies demonstrated prefrontal- and parietal-lobe differences between lies and truth on a multisubject average level. These data linked the classic Augustinian definition of lying ("To have a thought, and, by words or other means of expression, to convey another one") with the concept of deception as a cognitive process involving working memory and behavioral control and led to a moral conclusion that truth is the basic state of the human mind. Second-generation studies, using 3-T scanners and sophisticated logistic regression and machine-learning methods of data analysis, showed the feasibility of discriminating lies and truth in single subjects. These studies support the critical role of the inferior frontal and posterior parietal cortex in deception and estimate the potential accuracy of the approach to be 76% to 90%. An important conclusion of these studies is that lie and truth patterns are, at least partially, task specific. These findings paved the road for clinical trials of the technique and spurred an increasingly emotional debate on the ethical, legal, and procedural issues surrounding the future applications of this technology. Critics emphasize both insufficient data and potential privacy violations, the latter leading to the term *cognitive freedom* and a new discipline of "neuroethics." Proponents of fMRI advocate its noninvasive nature, the objectivity of fMRI data analysis, and the fact that fMRI requires a fully cooperative and conscious subject, making coercive use impossible. Potential forensic and medical applications of this technology differ in the degree of accuracy they would require, as well as in ethical and practical dimensions. For example, an fMRI test requested by a criminal defendant to create a "reasonable doubt" in a criminal trial may require a lower accuracy threshold than routine screening of thousands of suspects, most of whom are unlikely to be the perpetrator of an offense of interest. Diagnosing malingering is the most immediate potential medical application, but other applications, such as the differentiation of denial and deception during psychotherapy, are conceivable.

Further studies are necessary to determine the clinical utility of fMRI for forensic and medical lie detection. Myriad questions related to the effects of risk, medications, medical and psychiatric disorders, CMs, age, gender, and language remain to be answered. Performance of the technology in "real-life" situations needs to be examined in clinical trials. Furthermore, both experimental and applied lie detection should not be confused with attempts to use fMRI for "mind reading." Whereas lie detection is focused on the brief and singular act of deception, mind reading would capitalize on the patterns of brain activity in response to sensory probes. Such probes could invoke highly variable sequential and parallel cascades of memory retrieval and language

preparation. Harnessing such probes to applied information gathering would pose a computational and validation hurdle far beyond those faced by fMRI-based lie detection. Finally, a controlled clinical comparison between the polygraph and fMRI characterization of deception is unavailable at the time of this writing. The development of a technology using both PNS and CNS measures, either simultaneously or sequentially, may have clinical utility. To avoid unreliable data and inappropriate application, it is imperative that the multidisciplinary research on the neurobiology of deception is funded, conducted, and published by peer-reviewed public and academic organizations that adhere to the standards of responsible research practices.

Although one cannot predict which combination of behavioral probe and brain-imaging technology will ultimately become the method of choice in applied lie-and-truth discrimination, the prevailing demand and scientific progress are likely to produce a clinical application of fMRI-based studies of deception in the near future.

Daniel D. Langleben and Melissa Y. De Jesus

See also Detection of Deception: Cognitive Load; Detection of Deception: Event-Related Potentials; Detection of Deception in Adults; Detection of Deception in High-Stakes Liars; Malingering; Polygraph and Polygraph Techniques; Psychotic Disorders

Further Readings

Langleben, D. D., Loughead, J. W., Bilker, W. B., Ruparel, K., Childress, A. R., Busch, S. I., et al. (2005). Telling truth from lie in individual subjects with fast event-related fMRI. *Human Brain Mapping, 26*(4), 262–272.

Spence, S. A., Hunter, M. D., Farrow, T. F., Green, R. D., Leung, D. H., Hughes, C. J., et al. (2004). A cognitive neurobiological account of deception: Evidence from functional neuroimaging. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences, 359*(1451), 1755–1762.

Vrij, A. (2001). *Detecting lies and deceit: The psychology of lying and the implications for professional practice.* Chichester, UK: Wiley.

Detection of Deception: Nonverbal Cues

Trying to find a tell-tale sign of deceit (a "Pinocchio's nose") in human nonverbal behavior has been the subject of much effort, and many suggestions have been put forward. In lay people's thinking and in police interrogation manuals alike, one can find numerous ideas about detecting deceit from nonverbal behaviors such as eye contact or gestures. The scientific research shows, however, that overall only a few nonverbal behaviors are associated with deception. Under certain conditions, such as time to prepare the lie, special motivation to convincingly tell a lie, and when the lie is about concealing a transgression, there seem to be some nonverbal behaviors that may distinguish liars from truth tellers.

Research on beliefs about deception shows that presumed experts (e.g., police officers) and lay people (e.g., college students) have very similar beliefs. They mostly indicate nonverbal signs of deception, especially a decrease in eye contact, when lying. Furthermore, presumed experts and lay people alike believe that an association exists between deception and an increase in body movements.

Scientific Study of Nonverbal Behaviors

To find out about potential nonverbal correlates of deception, psychologists and other researchers conduct experiments. They instruct some people to lie and/or tell the truth (the lies are most often "constructed" for the sake of the experiment) and videotape the telling of truths and lies in interviews or mock interrogations. (If the focus is on the speech-related variables, audiotapes are of course sufficient.) Then, these videotapes are closely analyzed, and the frequency and/or duration of a list of nonverbal behaviors are scored. The scored behaviors are then summarized for truths and lies separately, and if statistical comparisons show significant differences, researchers conclude that there are systematic nonverbal signs of deceit and truthfulness. A great number of such studies have been published. In this entry, findings from several meta-analyses and research overviews are summarized.

Included in the concept *nonverbal behavior* are body movements (e.g., gestures and leg movement), facial indicators (e.g., eye contact, smiling), and speech behaviors (sometimes called paraverbal behaviors; e.g., response latency and pitch of voice).

Theoretical Approaches

Why would the nonverbal behavior of a liar give him or her away? Scientists usually suggest three different

processes (or approaches) that might answer that question. According to the *emotional approach* (sometimes called the affective approach), the three most common types of emotion associated with deception are guilt, fear, and excitement. A liar might feel guilty because he or she is lying, might be afraid of getting caught, or might be excited about the possibility of fooling someone ("duping delight").

According to the *cognitive complexity approach* (sometimes called *cognitive load* or *working memory model*), the lie should be possible to detect from the liars' nonverbal behavior because it is more difficult to lie than to tell the truth. The liars have to come up with believable answers, avoid contradicting themselves, and tell a lie consistent with what the interviewer knows or might find out. Additionally, they have to remember what they have said, in order to declare the same things again if asked to repeat their statement.

The *attempted control approach* emphasizes that liars may be concerned that their lies will be detected by, for example, nonverbal behaviors and will therefore try to suppress such behaviors. In other words, they will try to make a convincing impression by, for example, suppressing their nervousness and masking evidence of thinking hard. However, when controlling their body language, liars may overcontrol their behavior, therefore exhibiting body language that will appear planned, rehearsed, and lacking in spontaneity. For example, liars may believe that bodily movements will give their lies away and will consequently avoid any movements not strictly essential, resulting in rigidity.

All three processes may occur simultaneously. That is, liars could—at the same time—be nervous, have to think hard, and try to control themselves. Which of these processes is most prevalent depends on the situation. In high-stake lies, nervous responses are more likely to occur. In complicated lies, indicators of increased cognitive load are more likely to occur. Attempts to control behavior, voice, and speech may especially occur in motivated liars.

Before turning to the outcomes of reviews about nonverbal behavior, it should be emphasized that the approaches only suggest that the presence of signs of emotions, content complexity, and impression management may be indicative of deceit. None of these approaches claim that the occurrence of these signs necessarily indicates deception. Truth tellers might experience exactly the same processes. For example, innocent (truthful) suspects might very well be anxious if they worry about not being believed in a police interview. Because of that fear, they may show the same nervous reactions as liars who are afraid of being caught. The lie catcher is then put in a difficult position: Should the nonverbal behaviors be interpreted as signs of guilt or of innocence? The behavior does not provide the answer. The false accusation of a truth teller on the basis of the emotional reactions displayed has been labeled the *Othello error*, after Shakespeare's play.

Nonverbal Behavior and Deception in General

The most notable result of research to date is that nonverbal behaviors generally do not correlate strongly with either deception or truthfulness; very few reliable nonverbal cues to deception have been found.

There is evidence that liars tend to speak in a *higher-pitched voice,* which might be the result of experienced arousal. However, differences in pitch between liars and truth tellers are usually small and detectable only with technical equipment. Furthermore, sometimes liars' *voices sound tenser* than truth tellers' voices, another result of arousal. S*peech errors* (e.g., word and/or sentence repetition, sentence incompletion, slips of the tongue) occur more often during deception, and *response latency* is longer before giving deceptive answers. There is also evidence of *message duration* being shorter for liars, who also tend to make *fewer illustrators* (hand and arm movements modifying what is said verbally). The decrease in movements might be the result of lie complexity or overcontrol of behavior. Moreover, compared with truth tellers, liars tend to sound vocally *less expressive, more passive*, and *more uncertain.* This might all be the result of overcontrol of behavior. Liars also sound *less involved* and come across as being *less cooperative* and tending to make *more negative statements.* This might be caused by a negative emotion felt by the liar.

Perhaps the most remarkable outcome of the literature reviews is the finding that several signs of nervousness, such as *gaze aversion* (*avoidance of eye contact*) and *fidgeting,* are generally unrelated to deception. One reason why nervous behaviors do not seem to be systematically related to deception is that truth tellers could be nervous as well. Another reason could be that in most deception studies, people are requested to lie or tell the truth for the sake of the experiment, and in such studies, liars might not be aroused enough to show cues of nervousness.

Summarizing the literature, there seem to be a greater number of reliable verbal cues to deception than nonverbal cues. This contradicts most police

interrogation manuals, which typically emphasize nonverbal cues to deception, and contradicts presumed experts' and lay people's beliefs about what gives a liar away as well.

The results presented so far are at the most general level—across all available studies without taking into account differences in the experimental designs. There are, however, a few presumably moderating factors that have been studied often enough to allow for interesting conclusions; three of these are discussed below.

Transgressions

An important factor, and most relevant to the forensic context, is the distinction between lies that are about transgressions and those that are not. Lies about transgressions are told to hide and/or deny acts such as cheating, stealing, and committing other crimes, small and large. In other studies, participants, for example, pretended to experience another emotion that they did not in fact experience or lied about their opinions. The question is whether differences between liars' and truth tellers' nonverbal behavior emerge when they are interviewed about transgressions they have or have not committed.

The literature describing the lies that were not about transgressions shows only one behavior that separates the liars from the truth-tellers, and that is *fidgeting.* When participants were talking about their likes or dislikes, their opinions and emotions, or anything else that did not involve a bad behavior, they fidgeted more when lying than when telling the truth. The cues to lies about transgressions are more important in legal contexts. People lying about transgressions *look more nervous* than do truth tellers; they also *blink more* and have a *faster speech rate.* Additionally, they are more inhibited than truth tellers in the sense that they *move their feet and legs* less often.

Motivation

In many studies, the liars did not have any special motivation to tell a convincing lie. Many simply participated as part of a study, with no special rewards for succeeding or punishments for failing. It is of importance to separate those studies in which participants had some special motivation to do well and those in which they did not. The question is this: If people are motivated to get away with their lies, will that show up in the form of fewer cues to deception because they are trying harder to tell a good lie or will their lies become more obvious as the stakes are raised?

Research has shown that when participants had no special incentives, there were no obvious nonverbal cues to deception. When people do not have that much invested in their lies, others will have a very hard time knowing when they are lying. However, when liars do care about getting away with their lies, then several behaviors may betray them. It is only when participants are motivated to do well that they speak in a *higher pitch* when lying than when telling the truth. Although liars also seem *tenser* than truth tellers regardless of motivation, the difference is pronounced for those who are highly motivated to get away with their lies. In the previous section, in which results were summarized for all studies, there were no differences whatsoever in how often liars looked at the other person and how often truth tellers did. But when participants are motivated to do well, then one stereotype about liars becomes a reality: They make *less eye contact* than truth tellers do. There was also some evidence, under high motivational conditions, that liars made *fewer foot and leg movements* than truth tellers.

Preparation

Sometimes suspects know beforehand that they are going to be interviewed, which gives them a chance to prepare their answers. Presumably, liars should manage to appear more like truth tellers when they can plan their answers in advance than when they cannot. The available research indicates that when having time to plan, liars have *shorter response latency* than truth tellers. When there is no time to prepare, the opposite pattern is found. There is also some evidence that liars show *shorter message duration* than truth tellers when they have time to prepare their responses.

Limitations and Conclusions

Although researchers have in some studies tried to raise the motivation of and the stakes for the lying participants, the question still remains how the results from laboratory-based studies reflect what may happen in real-life high-stakes situations such as police interviews.

In a few studies, the behavior of real-life suspects, interviewed about serious crimes such as murder, rape, and arson and facing long prison sentences if found guilty, has been examined. Results revealed that these suspects did not show the nervous behaviors

typically believed to be associated with lying, such as gaze aversion and fidgeting. In fact, they exhibited an *increase in pauses*; a *decrease in eye blinks*; and (for male suspects) a *decrease in finger, hand, and arm movements*. This is more in line with the content complexity and attempted control approaches than with the emotional approach.

In summary, under certain conditions, there seem to be a few differences between truth tellers and liars in their nonverbal behavior. However, it is of great importance to realize that these differences, albeit significant in meta-analyses, are not large. Since the observed effect sizes are small, the *practical* value may be quite low. None of the behaviors discussed here can be used as a fail-safe decision rule. The available research thus indicates that there is no nonverbal indicator of deception that always works—there is no "Pinocchio's nose."

Leif A. Strömwall and Pär Anders Granhag

See also Detection of Deception: Reality Monitoring; Detection of Deception in Adults; Statement Validity Assessment (SVA)

Further Readings

DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin, 129,* 74–118.

Granhag, P. A., & Vrij, A. (2005). Deception detection. In N. Brewer & K. D. Williams (Eds.), *Psychology and law. An empirical perspective* (pp. 43–92). New York: Guilford Press.

Sporer, S. L., & Schwandt, B. (2006). Paraverbal indicators of deception: A meta-analytic synthesis. *Applied Cognitive Psychology, 20,* 421–446.

Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and the implications for professional practice.* Chichester, UK: Wiley.

Zuckerman, M., DePaulo, B. M., & Rosenthal, R. (1981). Verbal and nonverbal communication of deception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 14, pp. 1–60). New York: Academic Press.

Detection of Deception: Reality Monitoring

People sometimes try to determine whether they have actually experienced an event they have in mind, or whether this memory is based on imagination. The processes by which a person attributes a memory to an actual experience (external source) or imagination (internal source) is called reality monitoring (RM). Although the RM concept is not related to deception, scholars believe that the concept has this application and can be used as a lie detection tool. Much of the RM deception research is concerned with testing the assumption that RM assessments can be used to discriminate between liars and truth tellers.

The core of RM is that memories based on real experiences differ in quality from memories based on fiction. In their seminal work on memory characteristics, Marcia Johnson and Carol Raye argued that memories of real experiences are obtained through perceptual processes. They are therefore likely to contain *sensory information*: details of smell, taste, or touch, visual details, and details of sound; *contextual information*: spatial details (details about where the event took place and details about how objects and people were situated in relation to each other) and temporal details (details about the time order of events and the duration of events); and *affective information*: details about people's feelings throughout the event. These memories are usually clear, sharp, and vivid. In contrast, memories about imagined events are derived from an internal source and are therefore likely to contain *cognitive operations*, such as thoughts and reasonings ("I must have had my coat on as it was very cold that night"). They are usually vaguer and less concrete.

From 1990 onward, scholars have examined whether RM analyses can be used to discriminate between truths and lies. The assumption those scholars make is that truths are recollections of experienced events, whereas lies are recollections of imagined events. Obviously not all lies are descriptions of events that a person did not experience. Many lies are not about events but are about people's feelings, opinions, or attitudes. And even when people lie about events (about their actions and whereabouts), they can sometimes describe events that they actually have experienced. For example, a burglar who denies having committed a burglary last night can claim that he went to the gym instead. He then can describe an actual visit he had made to the gym (but on another occasion).

Researchers have examined whether deceptive statements that are based on events that the liar imagined differ in terms of RM criteria from truthful statements about experienced events. The typical procedure is that liars and truth tellers are interviewed, and these interviews are taped and transcribed.

RM experts check for the presence of RM criteria in these transcripts. To date, a standardized set of RM deception criteria has not been developed. Different researchers use different criteria and sometimes use different definitions for the same criterion.

Most researchers include the following criteria in their RM veracity assessment tool:

Clarity and vividness of the statement: This criterion is present if the report is clear, sharp, and vivid instead of dim and vague.

Perceptual information: This criterion refers to the presence of sensory information in a statement, such as sounds ("He really shouted at me"), smells ("It had a smell of rotten fish"), tastes ("The chips were very salty"), physical sensations ("It really hurt"), and visual details ("I saw the nurse entering the ward").

Spatial information: This criterion refers to information about locations ("It was in a park") or the spatial arrangement of people and/or objects ("The man was sitting to the left of his wife").

Temporal information: This criterion refers to information about when the event happened ("It was early in the morning") or explicitly describes a sequence of events ("When he heard all that noise, the visitor became nervous and left")

Cognitive operations: This criterion refers to descriptions of inferences made by the participant at the time of the event ("It appeared to me that she didn't know the layout of the building") or inferences/opinions made when describing the event ("She looked smart").

All criteria are thought to be more present in truthful than in deceptive accounts, except the cognitive operations criterion, which is thought to be present more in deceptive than in truthful accounts. Research has shown general support for these assumptions, although the support for some criteria, such as temporal and spatial details, is stronger than the support for other criteria, such as cognitive operations. Moreover, truths and lies can be detected above the level of chance with the RM tool, with average truth and lies accuracy scores being just below 70%.

There are restrictions in using an RM veracity assessment tool. For example, the tool cannot be used with young children. In some circumstances, children do not differentiate between fact and fantasy as clearly as adults do, for several reasons, including the fact that children have a richer imagination than adults. Children may therefore be better than adults at imagining themselves performing acts. It is probably also difficult to use the RM tool when people talk about events that had happened a long time ago. Over time, cognitive operations may develop in memories of experienced events because they facilitate the remembering of events. Someone who drove fast in a foreign country may try to remember this by remembering the actual speed the speedometer indicated; alternatively, the person could remember this by logical reasoning and by deducing that he or she must have driven fast because he or she was driving on the motorway. Imagined memories, on the other hand, can become more vivid and concrete over time if people try to visualize what might have happened.

Aldert Vrij

See also Eyewitness Memory; False Memories; Repressed and Recovered Memories; Statement Validity Assessment (SVA)

Further Readings

DePaulo, B. M., Lindsay, J. L., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin, 129,* 74–118.

Johnson, M. K., & Raye, C. L. (1981). Reality monitoring. *Psychological Review, 88,* 67–85.

Lindsay, D. S. (2002). Children's source monitoring. In H. L. Westcott, G. M. Davies, & R. H. C. Bull (Eds.), *Children's testimony: A handbook of psychological research and forensic practice* (pp. 83–98). Chichester, UK: Wiley.

Masip, J., Sporer, S., Garrido, E., & Herrero, C. (2005). The detection of deception with the reality monitoring approach: A review of the empirical evidence. *Psychology, Crime, & Law, 11,* 99–122.

Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and its implications for professional practice.* Chichester, UK: Wiley.

Detection of Deception: Use of Evidence in

The paradigmatic finding from research on deception detection is that people are poor at discriminating between liars and truth tellers. This entry shows, however, that deception detection performance can be significantly improved if the investigator is allowed to

interview the suspect, is given background information about the case and the suspect, and knows how to strategically use this background information (evidence) when conducting the interview. This entry contains a description of the psychological basis for the so-called Strategic Use of Evidence (SUE) technique and also explains what it means to strategically use evidence during an interview.

The research conducted to date on the issue of strategic use of evidence to detect deception shares two important features. First, it is based on a mock-crime paradigm, where half the participants commit a mock crime and the other half commit a noncriminal act. Second, for each suspect there is some potentially incriminating information indicating his or her guilt, but this information does not preclude that the suspect is in fact innocent. The interviewers were different for different studies: experienced police officers, police trainees, and trained experimenters.

This line of research is primarily motivated by three facts. First, there is often some information (evidence) pointing to the guilt of the person who becomes a suspect in a criminal investigation. Second, the so-called interview and interrogation manuals have very little to offer in advising how to best use this potentially incriminating information when interviewing a suspect. Third, both archival and field experiments show that many investigators tend to use the potentially incriminating evidence in a nonstrategic manner.

The SUE technique rests on the *psychology of guilt and innocence.* It has been found that it is significantly more common among guilty than innocent suspects to bring a strategy to the interview room. Research further shows that with respect to the strategies used during an interview, guilty and innocent suspects differ markedly. Specifically, guilty suspects will—if given the opportunity—avoid mentioning possibly incriminating information during an interview and—if deprived of the avoidance alternative—deny that they hold incriminating knowledge. Both these findings fit neatly with what is known of some of the most basic forms of human behavior—namely, aversive conditioning. That is, research on aversive conditioning has found an *avoidance response* (so as to try to prevent confrontation with a threatening stimulus) and an *escape response* (so as to try to terminate a direct threat).

In sharp contrast, research on the behavior and cognition of innocent suspects shows that they do not tend to avoid and escape the potentially incriminating information. Instead, their main strategies seem to be "to keep the story real" and "to tell the truth like it happened." In short, they trust the truth to shine through. This is in accord with well-established cognitive biases such as the *belief in a just world* (i.e., people will get what they deserve and deserve what they get) and the *illusion of transparency* (one's inner feelings will manifest themselves on the outside).

The fact that guilty and innocent suspects employ different strategies can be very useful for the investigator who needs to assess the veracity of the statement offered by a particular suspect, if he or she knows how to use the existing evidence strategically. In essence, the investigator should first use the case file to identify pieces of potentially incriminating information, place extra weight on information that the suspect will not know for certain that the investigator possesses, and then prepare questions addressing the potentially incriminating information. In its most basic form, the SUE technique proposes that when conducting the actual interview, the investigator should encourage the suspect to give a free recall—without disclosing any of the potentially incriminating information to the suspect—and then ask questions, of which some address the potentially incriminating information, still without revealing what the investigator knows.

If the potentially incriminating information is used in a strategic manner, as suggested by the SUE-technique, then two predictions can be made: First, guilty suspects will deliver a statement that, on one or several occasions, contradicts what the interviewer knows. That is, it will be possible to identify statement-evidence inconsistencies. Second, innocent suspects can be expected to tell a story consistent with what the interviewer knows. That is, there will be a high degree of statement-evidence consistency. Importantly, both these predictions have received empirical support.

A training study using highly motivated police trainees showed that the ones who received training in how to use the evidence strategically during an interview achieved a significantly higher deception detection accuracy (85%) than did the ones who received no such training (56%). By interviewing in accordance with the SUE technique, the trained interviewers managed to both create and use a diagnostic cue to deception—namely, statement-evidence inconsistency. In addition, for trained interviewers it was found that innocent suspects experienced much less cognitive demand than guilty suspects (which is a positive finding), whereas for untrained interviewers it

was found that innocent and guilty suspects did not differ in terms of cognitive demand (which is a negative finding).

In sum, if interviewers learn to strategically use potentially incriminating information, they will enhance their ability to detect deception and truth. In essence, the SUE technique works because it draws on the psychology of guilt and innocence and, particularly, the striking heterogeneity in guilty and innocent suspects' strategies. The SUE technique is not a confrontational interrogation technique; it instead belongs to the information-gathering techniques. However, the key factor is not the amount of information gathered as such but to draw on the differences in information that innocent suspects volunteer and guilty suspects avoid and escape from providing.

Pär Anders Granhag and Leif A. Strömwall

See also Detection of Deception: Cognitive Load; Detection of Deception in Adults; Interrogation of Suspects

Further Readings

Hartwig, M, Granhag, P. A., Strömwall, L. A., & Kronkvist, O. (2006). Strategic use of evidence during police interviews: When training to detect deception works. *Law and Human Behavior, 30,* 603–619.

Hartwig, M., Granhag, P. A., Strömwall, L. A., & Vrij, A. (2005). Detecting deception via strategic disclosure of evidence. *Law and Human Behavior, 29,* 469–484.

Kassin, S. M. (2005). On the psychology of confessions: Does innocence put innocent at risk? *The American Psychologist, 60,* 215–228.

Detection of Deception by Detection "Wizards"

Wizards of deception detection are rare individuals who achieve scores of 80% or higher on at least two of three videotaped lie detection tests. Most people's accuracy on these tests is about 50%, as would be expected by chance alone. Of more than 15,000 people tested, only 47 have been so classified. Although these individuals are termed "wizards," their accuracy is not due to magic but to a particular kind of social-emotional cognition coupled with a strong motivation to discern the truthfulness of others.

Although the exact distribution of the ability to detect deception is not known, increasing evidence suggests that it is distributed mesokurtically (normally), like many psychological and physical variables. Among a hundred randomly selected people, most will be average in height. Only a very few will be exceptionally short or exceptionally tall. So, too, with lie detection. Most people are average in lie detection ability, but a very few (i.e., truth wizards) will be highly accurate.

Much of the research on lie detection has focused on identifying behaviors that differentiate between honest and deceptive behaviors. Implied but not stated in such research is the belief (or hope) that such behaviors can be used to detect automatically whether someone is lying or not. Certainly, there is evidence that some behaviors are more or less likely to occur in deception than in honesty. To date, however, no single behavior has been identified that always or usually occurs when someone is lying. Although some people have "tells"—behaviors they exhibit when they are lying, such tells vary from person to person, and not everyone has them. Another complication is that verbal and nonverbal behaviors related to deception do not occur in isolation. They are part of an expressive system that communicates a variety of information, such as emotions, thoughts, feelings, habits, social class, health, age, and many other aspects of individuality. The behaviors of liars and truth tellers must be evaluated in terms of their appropriateness for the individual, the situation, the statement being made, the relationship with the person discussing the veracity of the information, the stakes in the situation, and the rewards or punishments involved. Consistency among behaviors and the authenticity of any given behavior must also be evaluated. Thus, the task of detecting deception shares many characteristics with other judgments under uncertainty, including those involved in social cognition and social-emotional intelligence.

Most truth wizards are exceptionally sensitive to verbal and nonverbal clues to emotion and cognition. They notice facial expressions, including micro expressions, which most people do not. They are sensitive to nuances of language. They are aware of vocal clues—pitch, resonance, and respiration. They do not use just one of these cue domains but several of them. Average lie detectors attend to a more limited array of behaviors. Expert lie detectors are also more sensitive to baselines—whether the baseline is the person's usual behavior or the person's personality, social

class, gender, or ethnicity. Wizards use these baselines to evaluate the behavioral clues they have perceived. On the other hand, no wizard uses all the available deception clues, and no single wizard is 100% accurate. Wizard accuracy, like that of most people, is affected by emotional disruption (e.g., someone looks like an ex-girlfriend) or lack of familiarity with a particular kind of lie.

A defining characteristic of almost all truth wizards is the motivation to know whether someone is lying or not, coupled with extensive experience in observing many kinds of people and obtaining feedback about their behavior. Most people are not highly motivated to know the truth. In fact, most people have a truthfulness bias, a tendency to call a higher percentage of people truthful than the base rate would suggest. But some people, including most wizards, because of their profession or because of events in their personal life, report a drive to know the truth. They do not show the cognitive laziness that most people exhibit when making social judgments.

Wizards range in age from 25 to 75, although most are middle aged. They include extroverts and introverts, liberals and conservatives, believers and atheists, heterosexuals and homosexuals, men and women, and people of many ethnic groups. Some are intellectuals with advanced degrees; others are high school graduates.

Truth wizards were identified after testing thousands of college students as well as professional groups with an interest in accurate lie detection. Among such unselected groups only one in a thousand qualified as a wizard. The discovery of several highly accurate groups (e.g., Secret Service agents, federal judges) suggested that focused testing of such professions would produce a much higher percentage of truth wizards. In such preselected targeted groups, the yield of wizards ranged from 5% to 20%.

The ability to predict the professional groups within which wizards are more likely to occur is one demonstration of the construct validity of the identification method used. Like all measurement methods, however, this method has limitations. Few expert lie detectors are equally good at detecting every kind of lie, even with the small sample of lie types used in the wizard research. In addition, there are many individuals who are good at lie detection in real life whose talent will not be assessed accurately by watching a videotape of someone else's interview. So a videotape-test method will be subject to false negatives. But some people's ability (including that of truth wizards) can be measured accurately in this way. The construct validity of the procedure used is bolstered by the professional achievements of many of the wizards (some of them have been featured in books and TV shows for their lie detection abilities and "people sense") as well as the increasing efficiency in identifying the groups in which they are located.

Intense examination of the processes used by truth wizards in evaluating truthfulness has uncovered behavioral and attributional clues that have not yet been studied in other research on lie detection. The methods of person perception used in real life by truth wizards can be used to test the theories of interpersonal sensitivity and social cognition developed in the laboratory and to develop better methods for training lie detection professionals.

Maureen O'Sullivan

See also Detection of Deception: Cognitive Load; Detection of Deception: Nonverbal Cues; Detection of Deception in Adults; Detection of Deception in High-Stakes Liars; Statement Validity Assessment (SVA)

Further Readings

Ekman, P. (2001). *Telling lies* (3rd ed.). New York: Norton.

Ekman, P., O'Sullivan, M., & Frank, M. (1999). A few can catch a liar. *Psychological Science, 10*(3), 263–265.

O'Sullivan, M. (2003). The fundamental attribution error in detecting deceit: The boy-who-cried-wolf effect. *Personality and Social Psychology Bulletin, 29*(10), 1316–1327.

O'Sullivan, M. (2005). Emotional intelligence and detecting deception. Why most people can't "read" others, but a few can. In R. Riggio & R. Feldman (Eds.), *Applications of nonverbal communication* (pp. 215–253). Mahwah, NJ: Lawrence Erlbaum.

O'Sullivan, M. (2007). Unicorns or Tiger Woods? Are expert lie detectors myths or rarities? A response to: On lie detection "wizards" by Bond and Uysal. *Law and Human Behavior, 31,* 117–123.

Detection of Deception in Adults

Deception is defined, for the purposes of this entry, as a successful or unsuccessful deliberate attempt to create in another a belief that the sender of the message

considers to be untrue. Although it is hard to think of a context in which *no* deception transpires, the study of deception and how to detect it is especially crucial in the forensic setting. Most law enforcement professionals, who must assess veracity on a daily basis, know that deception is quite frequent in forensic contexts and that making mistakes when assessing veracity can have severe consequences—the innocent may be sentenced to punishment, the guilty may be freed to commit more crimes. To be able to correctly detect deception is therefore of utmost importance. Yet comprehensive study over the past 40 years has shown that the human ability to detect deception is just above the level of chance. The consistency of this finding is striking, although there are factors moderating the rate of correct judgments. For example, accuracy is somewhat higher when listening to rather than watching the liar, when one has access to baseline information about the liar's behavior, and when detecting unprepared rather than prepared messages.

How to Study Deception Detection

To gain insight into deception, psychologists and other researchers conduct experiments. They instruct some people either to lie or to tell the truth and instruct others to judge the veracity of the resulting statements. Those who lie or tell the truth in these experiments are referred to as *senders*, the truthful and deceptive statements as *messages,* and those who judge the messages as *receivers.* In this entry, the accuracy of these receivers is at focus, more specifically the accuracy of human judgments made without any specialized tools or aids in detecting deception on the basis of verbal content and the liar's behavior. The receivers are typically given videotaped or audiotaped statements, and ordinarily, half the messages a receiver encounters are truths and half are lies; hence, the chance level of correct judgments a receiver could expect is 50%. Lie detection ability is most often expressed as percent correct, but other indices of deception detection accuracy, such as standardized differences between truth and lie detection accuracy, are also calculated.

The standard lie detection experiment contains several factors that have been examined through experimental manipulation. For example, the senders of the message can be adults, adolescents, or children, or they can be persons with or without special skills at lying, such as experienced criminals. Furthermore, the content of the lies (and truths) have been varied: People have lied about their personal feelings, about their committing of transgressions such as adultery or sanctioned crimes, or in placing the blame on someone other than the culprit. Lie detection through different media has also been tested: Are people better lie detectors when having access to video or audio or written transcripts? In addition, characteristics of the receivers have been varied: Are certain groups of people, such as police officers, better lie detectors? These are only some of the factors that have been scientifically examined.

Overall Results

Overall accuracy of lie detection has been analyzed in several meta-analyses and reviews. The results are unanimous in terms of the mean percentage of accuracy: In the typical research setting, lies are discriminated from truths at levels that are only slightly better than would be attained by flipping a coin. The mean percentage of accuracy is just under 54. This effect is small, but since it is based on thousands of veracity judgments, it is significantly better than the level of chance. Typically, studies report an accuracy rate between 50% and 60%.

In calculating the just presented overall percentage of accuracy, some exclusion criteria have been applied. Studies in which training to detect deception is provided are not included, nor are studies on adults' ability to detect children's deception. Also excluded are studies on implicit lie detection and studies not in the English language.

Because deception judgments can have severe consequences whether or not they are correct, it is important to understand the factors that may bias the judgments in one direction or another. The research literature has evidenced a truth bias—receivers' tendency to make systematic mistakes in the direction of judging messages as truthful, with a mean percentage of around 56% (which is significantly greater than 50%). One consequence of this truth bias is that people on average correctly identify truthful messages (mean percent correct just above 61%) more often than they correctly identify deceptive messages (mean percent correct just below 48%).

Using percent correct as a measure of accuracy has been criticized, and other measures have been suggested. However, analyses of log-odds ratios or signal detection measures, among others, also indicate an

overall accuracy rate of about 54%. The different deception detection measures are highly inter-correlated.

A deception detection accuracy (sometimes referred to as lie/truth discrimination) of 54% is the typical result over a variety of receiver samples, sender samples, deception media, types of lies, and contexts. Conceivably, there might be certain conditions under which judges will show different accuracy rates. To evaluate these possibilities, an inspection of various subsets of the research literature on deception judgments is needed. In the following section, a number of factors that may moderate deception detection accuracy are discussed.

Deception Medium

Lies and truths can be evaluated over different media. It is of interest to compare detection rates for lies that can be seen, heard, or read. For example, the video medium might encourage the use of a liar stereotype. Having access to verbal content only may give the receiver the chance to analyze the messages more thoroughly.

Results have shown that lie/truth discrimination accuracy is lower if judgments are made in the video-only medium (rather than audiovisual and audio-only, as well as written transcripts). Further results show that messages are perceived as most truthful if judged from audiovisual or audio presentations, followed by written transcripts and video presentations.

The medium in which deception is attempted thus affects its likelihood of detection—lies being more evident when they can be heard. Given that the stereotype of a liar is largely visual (eye contact, fidgeting, gestures), this stereotype is most strongly brought to mind by the video medium. Those senders who appear nervous, tormented, or distressed are then judged to be lying; but these expressions may be the result of factors other than deceit.

Preparation

Sometimes people have anticipated that they have to lie and are therefore prepared in their attempted deceit. On other occasions, the lie is told in response to an unanticipated need, and people are then unprepared for the task of lying. Being prepared or not should, in principle, affect the sender's believability. The available research suggests that receivers achieve higher deception detection accuracy when judging unprepared than prepared messages. It has been found that it is easier to discriminate between unprepared lies and truths than between prepared lies and truths. Furthermore, prepared messages appear more truthful than messages that were unprepared.

However, differences in experimental design have been shown to lead to differences in accuracy rates. Studies in which the senders produced both prepared and unprepared messages yielded the result just described. Studies in which the preparation factor was examined by having messages from unprepared participants compared with those from prepared participants did not show any reliable difference in receivers' ability to detect deception and truth. Here, the unprepared messages were more often judged as truthful. Further research on this issue is certainly needed.

Baseline Familiarity

Common sense would predict that a receiver should more correctly pinpoint the lies of a sender he or she has some familiarity with ("baseline exposure"). If one has more knowledge of someone's behavior than one gets from just watching a few minutes on a videotape, one should be able to detect deviations from that behavior *if* telling a lie causes deviations in behavior.

Results indicate that baseline exposure does indeed improve lie/truth discrimination: Receivers achieve a higher accuracy when given a baseline exposure. However, one should be aware that senders who are familiar to the receiver are more likely to be judged as truthful. People seem unwilling to infer that someone familiar to them is lying.

Motivation

Sometimes deception studies are criticized because the research participants do not have any incentive to be believed, and this lack of motivation in the task could influence participants' believability. Deception research has, however, addressed this issue and investigated the effects of different levels of sender motivation. Furthermore, the influential deception scholar Bella DePaulo has hypothesized that senders are undermined by their efforts to get away with lying. According to her *motivational impairment hypothesis,* the truths and lies of highly motivated senders will be more easily discriminated than those of unmotivated senders. Experimental studies show that lies are easier to discriminate from truths if they are told by

motivated rather than unmotivated senders, in accordance with the hypothesis.

However, this result has been found for within-study comparisons and has generally not been found when comparing between studies. Here, the reliable difference found is that motivated participants appear less truthful than those with no motivation to succeed. It matters little if a highly motivated speaker is lying or not; what matters is the fear of not being believed. Research further indicates that motivation in itself affects how the sender is perceived differently for different media: Motivation reduces senders' video and audiovisual appearance of truthfulness but has no effect on how truthful a sender *sounds.* Is seems as if motivation makes people resemble a visible stereotype of a liar. If so, motivational effects on credibility might be most apparent in video-based judgments.

In conclusion, the accumulated evidence suggests that people who are motivated to be believed appear deceptive, whether or not they are lying.

Interaction

In some studies, the deceptive and truthful senders are alone, talking to a camera. In other studies, an experimenter, blind to the veracity of the person in front, asks a standardized set of questions. Sometimes, the interaction partner is attempting to judge the veracity (such as in a mock police interview or interrogation); on other occasions, an observer may be making this judgment. The latter occurs, for example, when the interaction partner is the experimenter and the observer is the receiver assessing veracity on the basis of the videotaped interaction. In principle, social interaction might influence the receiver's veracity judgments and/or the receiver's success at detecting deception.

The literature produces clear evidence that receivers are inclined to judge their interaction partners as truthful much more often than observers do. The overall pattern in the literature further suggests that observers are better than interaction partners at discriminating lies from truths. It seems as if people do not want to believe that someone has just lied to them without their spotting it. Alternatively, the reluctance to attribute deception to interaction partners could be the result of not wanting to insinuate that the partner is a liar.

In summary, research suggests that lies told in social interactions are better detected by observers than interaction partners.

Expertise

Usually, those making veracity judgments in deception research are college students. They have no special training and may have no interest in or reason for succeeding in the task. Reasonably, people with more experience would be better at judging deceit, and to assess this possibility, researchers have also tested presumed deception detection experts. These are individuals whose occupations expose them to lies, and they include law enforcement personnel, judges, psychiatrists, job interviewers, and customs officials.

The results are clear-cut. The "experts" are not experts at lie detection—there is no reliable difference in deception detection accuracy compared with novices. The accumulated research further suggests that experts are more skeptical than nonexperts, meaning that they are less inclined to believe that people are truthful. Having been targets of deceit in their professional roles, these experts may have overcome the usual unwillingness to infer that certain people are liars. However, it should be noted that the experimental setting that the experts have been tested in may not make possible a fair representation of their expertise. For example, police officers very rarely assess veracity on the basis of one, short videotaped interview and without having access to evidence. Therefore, the conclusion that experts are not better than laypeople at detecting deception may be premature. Future research is needed to shed light on experts using their expertise in a more ecologically valid setting.

Beliefs About Deception

The most often stated reason for the low accuracy rates found in deception research is that there is a disparity between what actually is indicative of deception and what people *believe* to be indicative of deception. As hinted at earlier, there is a stereotypical belief concerning a liar's behavior. A belief is a feeling that something is true or real; it can be strong or weak, correct or incorrect. The beliefs that a person holds are often reflected in his or her behavioral dispositions; that is, beliefs guide action. Hence, if one wants to learn about deception detection, it is important to study people's beliefs about deception.

Two different methods have been used to investigate people's beliefs about cues to deception: surveys and laboratory-based studies. In the surveys, participants have typically been asked to work through a list

of prespecified verbal and nonverbal behaviors and for each particular behavior (e.g., gaze aversion and head movements), rate the extent to which they believe that this behavior is indicative of deception. The second method is used in studies where participants first watch videotapes of deceptive and truth-telling senders and then judge these in terms of veracity. Most studies on beliefs about deception have employed college students as participants, but there is also research on experts' beliefs about deception (e.g., police officers, customs officers, prison guards, prosecutors, and judges).

The available research shows that the beliefs held by experts and lay people are very similar. In terms of nonverbal cues, the evidence suggests that both experts and lay people consider nervous behaviors to indicate deception. For example, both experts and lay people believe that eye contact decreases during lying, but research on objective cues to deception has shown that this particular cue is not a reliable predictor of deception. Furthermore, both experts and lay people have indicated a strong relationship between deceptive behavior and an increase in bodily movements, which is also incorrect. In terms of verbal indicators of deception, both experts and lay people believe that truthful messages are more detailed than deceptive ones, and to some extent, research on objective cues to deception supports this belief. Researchers have in addition studied cross-cultural beliefs about deception and found that people around the world believe that deception can be spotted in the eye behaviors of the sender, such as gaze aversion. As regards accuracy in cross-cultural deception judgments, the available research shows that, as expected, deception is even harder to detect when the sender and receiver are not from the same cultural or ethnic group.

In sum, research on beliefs about deception has shown that the beliefs are similar for experts and lay people and that these beliefs to a rather large extent are misconceptions about how liars actually behave.

Training to Detect Deception

In a number of published studies, researchers and scholars have tried to train people in detecting deceit. The training programs have differed markedly in content and duration, but information about the mismatch between beliefs about deception and actual indicators of deception seems commonplace. Often, feedback on the veracity judgments made has been provided as well. In general, training has been shown to significantly increase the accuracy of lie detection—a small but detectable increase is most often found. However, even if an increase is found, it usually is from, say, 55% to 60%, which is still of limited practical value. Furthermore, the long-term effect(s) of training is not as yet known. Unfortunately, the one group of participants that has been the hardest to train to become better in the deception detection task is police officers.

Limitations and Future Challenges

When deception detection research has been criticized, it is often the type of lies studied that has come under attack. For example, most of the lies studied have not been about transgressions, so some critics have argued that the lies told are not high-stake lies; others argue that the social aspects of lying and lie detecting are too constrained in experimental settings; and legal scholars point out aspects of the forensic world that have not been examined in research contexts. Deception researchers have tried to answer the critics by, for example, studying murderers' and other criminals' lies in police interviews, lies that could harm children, and lies to lovers. Researchers have also begun to study naturalistic deceptive interactions, jurors' credibility judgments, and police officers' assessments of veracity after conducting the interviews themselves.

In experiments, the receivers come across one brief message and must judge the veracity of that message on the spot, with no time or opportunity to collect additional information. Outside the laboratory, however, additional information is important. When asked to describe their discovery of a lie, people rarely state that the discovery was prompted by behaviors displayed at the time of the attempted deception. Rather, they say that lie detection took days, weeks, or even months and involved physical evidence or third parties. In police interviews, for example, the evidence in the case may be used as a tool to detect deception. Future studies will be needed to examine the impact on lie detection of these and other forms of extrabehavioral information. At present, across hundreds of experiments, the typical rate of deception detection in adults remains just above the level of chance.

Pär Anders Granhag and Leif A. Strömwall

See also Detection of Deception: Nonverbal Cues; Detection of Deception: Reality Monitoring; Detection of

Deception: Use of Evidence in; Detection of Deception in Children; Statement Validity Assessment (SVA)

Further Readings

Bond, C. F., Jr., & DePaulo, B. M. (2006). Accuracy of deception judgments. *Personality and Social Psychology Review, 10,* 214–234.

DePaulo, B. M., Zuckerman, M., & Rosenthal, R. (1980). Humans as lie detectors. *Journal of Communication, 30,* 129–139.

Granhag, P. A., & Strömwall, L. A. (Eds.). (2004). *The detection of deception in forensic contexts.* Cambridge, UK: Cambridge University Press.

Granhag, P. A., & Vrij, A. (2005). Deception detection. In N. Brewer & K. D. Williams (Eds.), *Psychology and law. An empirical perspective* (pp. 43–92). New York: Guilford Press.

Kraut, R. (1980). Humans as lie detectors: Some second thoughts. *Journal of Communication, 30,* 209–216.

Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and the implications for professional practice.* Chichester, UK: Wiley.

Detection of Deception in Children

The credibility and reliability of children's testimony are particularly important in instances where children are called on as primary witnesses in legal proceedings, such as sexual abuse or child custody cases. Although it is expected for children to provide truthful statements about given events, children may also give false reports in these situations for a variety of reasons, and research suggests that adults are relatively poor at detecting such lies. Consequently, despite younger children's difficulties in concealing their verbal and nonverbal deceptive behaviors effectively, these may not be easily detected by adults. Only with extensive training are adults able to differentiate the verbal statements of a lie or a truth teller at a rate above the chance level. Adults' ability to detect children's lies is affected by the developmental level of the child, with younger children having difficulties in maintaining the truthfulness of their statements during follow-up questioning. Although subtle differences are noted in children's nonverbal behavioral expressions when in a lie- or a truth-telling situation, these discrepancies are small and hard to detect, even for professionals whose job it is to detect a liar. A credible assessment system to detect the lies of young children, especially in light of related factors such as coaching and truth induction, is needed. As more research is undertaken to detect children's deception, the complexity of the relationships between children's developmental age, adult biases, and cognitive control of one's verbal and nonverbal expressive behaviors will delineate a pathway in the direction of accurate detection of children's lies by professionals and laypersons alike.

Children's Deception

Considerable research has been done on children's unintentional false reports due to repeated or suggestive questioning, children's memory of events, and children's ability to distinguish fact from fantasy. Less attention, however, has been given to children's intentional and deliberate false reports—that is, reports that the individual knows are untrue yet are made with the deliberate purpose of deceiving others. Children may conceal or fabricate a report about an alleged event at the behest of an adult or because they are fearful of the effects their truthful testimony might have, such as upsetting or disappointing loved ones.

Generally, children lie for the same reasons as adults: to avoid punishment or negative consequences, for personal gain, to protect one's self-esteem, to conform to social conventions of politeness, or to spare another's feelings. Children's lie-telling behavior emerges in the preschool years, with lies to escape punishment among the first types of lies children tell. Nevertheless, young children's ability to deceive is not very good. Their first lies tend to be false denials or short verbal responses (e.g., "No, I didn't do it"). In the school-age years, children become better able to elaborate and maintain their lies over extended periods. Some evidence exists to suggest that children's lie-telling abilities are related to their increased cognitive understanding of others' mental states and their inhibitory control. Furthermore, as children become older, they may naturally lie for a range of motivations. Deciding to lie requires an analysis of the costs and benefits of telling the truth versus lying. School-age children will lie for another (e.g., a parent) when they perceive there are negative consequences for the other and low costs to their self-interest. In circumstances where the consequences of telling the truth might be very negative, children may be more inclined

to lie as a tactical strategy in order to avoid those consequences. Moreover, some research suggests that when children are in hostile environments, where they perceive that there are similar negative outcomes whether they are caught in a lie or telling the truth, children are more likely to lie and to be convincing liars, even at a young age.

When telling a lie, it is important to be a convincing liar so as to avoid detection. Thus, it is important to control one's verbal and nonverbal expressive behaviors. Liars must ensure that what they say and how they present themselves do not contradict. If they are lying about some misdeed, they do not want to appear nervous or shifty so as to raise suspicions in their interrogator or others. Similarly, they will want to make sure that all their verbal statements made after their initial lie do not contradict or reveal information that may make others disbelieve their claims. Thus, lie tellers have to control both their verbal and their nonverbal expressive behaviors, lest they be detected by others. According to studies that examine the detection of children's false statements, adults make use of such verbal and nonverbal cues to discriminate between the truthful and deceptive statements of children. There are two measurement techniques used for detection of children's deception: Either adults are asked to detect lies by observing video clips of lie and truth tellers' reports and to provide judgments regarding the veracity of each report or the occurrences and frequencies of honest and dishonest behaviors are compared with the scores of lie and truth tellers.

Detecting Deception

Research on detecting children's truth- and lie-telling behaviors has been conducted in both laboratory and field studies. Laboratory studies have usually used one of two methodologies to detect deception. In the first, children are told to make a false report about an event. These reports are examined using one or both of the following measurement techniques: Trained coders observe the reports for behavioral markers, or video clips of the children's reports are shown to adults, who are asked to discriminate between the truth and lie tellers. This methodology allows examination of children's false reports about specifically designed events that may be analogous to legally relevant settings, such as children reporting about a medical examination. However, such reports may be unnatural due to children being instructed to lie or "pretend," making the act of lying in these cases of very low perceived consequences and thereby unlike certain real-life situations. In the second commonly used laboratory-based methodology, naturalistic situations are created in which children can choose to lie spontaneously about an event, such as committing a transgression (e.g., peeking at a forbidden toy). Video clips of children's behaviors in these situations are used for detecting the truthfulness of their claims. In these naturalistic lie-telling situations, children may have greater motivation to lie due to the perceived increased risk of consequences of the situation (e.g., getting caught), and thus, they have greater ecological validity. However, current laboratory procedures tend to create situations where children produce only short verbal reports, and the situations created are not necessarily similar to the types of reports given in the legal system. Field study reports, another methodology, use children's actual reports of events (e.g., sexual abuse) to analyze statements for markers of deception. This methodology has the advantage of being realistic and having ecological validity because actual forensic reports are used. However, unlike the other methodologies where it is known for certain that the child is lying, it is impossible to know for certain which reports are fabricated and which are true.

Children's Nonverbal Deception Cues

Research has found that when children lie, they reveal subtle signs of their deception in their nonverbal expressive behavior when compared with truth tellers. For instance, in some cases, children will have bigger smiles. However, in other circumstances, lie tellers have been found to display more negative expressive behaviors than do truth tellers. Other behavioral markers of a liar include nonfacial cues such as hand and arm movements, leg and foot movements, and more pauses in speech. Depending on the situation, children may show different behavioral cues to their deception owing to feelings of guilt, fear, or excitement. While these behavioral cues are noted, there are no typical markers of deception across all situations, and any differences found between the nonverbal expressive behaviors of liars and truth tellers are subtle and only detected by trained coders looking for such differences.

Age differences in children's abilities to control their nonverbal expressive behaviors while in a potentially deceiving situation have been revealed from some studies using adult observers of these behaviors.

In particular, evidence is provided in the research literature to suggest that the lies of younger preschool and early-elementary-school children are easier to detect than those of older children or adults. As children become older, they have more muscular control and may be better able to control and suppress nonverbal behavioral cues to their deceit. In other types of studies, however, observers have been found to be at chance level at detecting even young children's deception. Studies where young children's deceit has been detected have tended to use methodologies where children were instructed to lie about an event. In studies where children lied spontaneously, adult observers were unable to detect even preschool children's deceit on the basis of their nonverbal expressive behavior. In addition, studies that have placed children in simulated courtroom settings have found that mock jurors were unable to discriminate between children's truthful and fabricated reports. In those studies, discriminating markers of children's deception compared with truth tellers may be masked by the nature of these anxiety-provoking situations. Both laypersons and professionals whose career is centered on detecting deception (e.g., the police, customs officers, social workers, judges) have been found to have difficulties distinguishing child truth tellers from lie tellers. Therefore, in general, children's deception in naturalistic lie-telling situations is not easily detected on the basis of their nonverbal behaviors.

Children's Verbal Deception Cues

By and large, research has found that adults may have more success in analyzing children's verbal cues than their nonverbal cues of deception to detect a liar. Studies that have examined children's spontaneous lies have found that below 8 years of age, children are not very skilled at maintaining their lies in their subsequent verbal statements. When asked follow-up questions, children tend to reveal information that implicates them in their deception. As a consequence, studies have found that adults can detect young children's lies based on children's inability to maintain their lies in their verbal statements. As children become older, in the later elementary school age years, their ability to maintain their lies over extended verbal interchanges and statements increases. As a result, older children's verbal deception is harder to detect than younger children's, and adults have difficulty distinguishing deceptive statements from truthful ones. The ability to verbally deceive may be related to the increased cognitive load that is required to maintain a lie beyond the initial verbal statement. This requires assessing the knowledge of the lie recipient and strategically adapting one's message to be convincing while simultaneously remembering what one has previously said. Thus, it appears that with increased cognitive sophistication, older children are better at maintaining their lies by employing verbal-leakage control.

The most popular technique for measuring the veracity of children's verbal statements analyzes components of speech content for certain discriminating features. The Criteria-Based Content Analysis (CBCA) technique was designed to determine the credibility of child sexual abuse reports. CBCA is a systematic assessment technique using transcripts of children's reports. Coders indicate the presence or absence of 19 criteria assumed to be present in reports of actual events. The method is based on the Undeutsch hypothesis (formulated by the German psychologist Udo Undeutsch) that a statement derived from memory of an actual experience will differ in content and quality from a statement based on the imagination. Field research using CBCA assessment has found that children's truthful sexual abuse reports received higher scores than those believed to be fabricated. Laboratory studies using CBCA have also found differences between lie and truth tellers. For instance, truth tellers included more details in their reports than lie tellers. Despite only small differences being found, and differences in the criteria that discriminated between children's true and false reports, CBCA studies received higher accuracy rates at detecting true and fabricated reports than nonverbal studies. Although in general, accuracy rates vary for CBCA analysis, this method has been found to be the most successful in detecting children's fabricated reports, with most of the rates well above chance level.

There are several caveats of the CBCA technique, especially for use with young children's statements. First, it is not clear if the CBCA can accurately discriminate very young children's true and fabricated reports. Some criteria may not be included in very young children's fabricated reports owing to either cognitive complexity or their having less command of language, potentially making the reports of younger children difficult to classify. Furthermore, using the CBCA criteria, accounts of events familiar to the child are more likely to be considered as true statements than are accounts of events that are unfamiliar.

Therefore, truthful reports of unfamiliar events may not produce high CBCA scores when compared with accounts that are familiarized to children due to repeated experience or talking about the situation, regardless of whether or not the stated events actually occurred. Finally, this technique requires trained coders to detect differences in children's true and false reports. Studies that have trained laypersons to use CBCA have found mixed results with regard to improved lie detection accuracy. Accordingly, noted differences are not easily detected by laypersons, and use of the CBCA technique may require extensive training before accurate detection is achieved.

Other Factors

A number of other factors can either help or hinder the detection of children's deception, and as more research is conducted in the area, more factors may be revealed. Children's lies may be more sophisticated when an adult coaches the child to lie and helps prepare their false statements. Coaching may help children tell more convincing lies as well as maintain their lies over repeated questioning. Inconsistent statements that are revealed through the use of follow-up questions are less likely to be exposed when children are coached on what to say. Coaching is of particular importance in legal cases, because when children lie in court, the possibility exists that they may have been coached by an adult close to them to conceal or fabricate certain information. The handful of studies that have examined this issue have found that children who receive coaching to deceive are not easily detected. Even more, children below 7 years of age who have had coaching in preparing their lies are able to maintain consistency in their verbal deceptive reports.

Another factor that may help adults detect children's deception is interviewer instructions about the importance of telling the truth (sometimes referred to as "truth induction"). Research has found that asking children about their understanding of truth and lies, as well as having children promise to tell the truth before they are asked about a critical event, helps adults detect children's lies and truth with an accuracy that is above chance level. It may be that under these circumstances, adults are better able to detect children's nonverbal deception cues, which may be made more salient due to children's guilt, or contradictory emotions, after promising to tell the truth and then lying.

Adults' biases are another factor that may contribute to their perception of a given child as a liar and thus play a role in adults' overall accuracy of detection. For instance, boys are more likely to be perceived by adults as lie tellers than girls. Conversely, adults tend to have a truth bias, believing in general that children are truthful. In particular, women are more likely to perceive children as truthful than male adult detectors. Finally, some evidence suggests that those who have experience dealing with children in their daily lives (e.g., parents, educators, child care workers, etc.) are better at detecting children's lies than those who have comparatively little experience with children.

There has been no real examination of children's lying in high-stakes situations, where the consequences of being caught are serious, thus making them similar to real-life cases. Most studies have had no consequences at all for the child (i.e., when the child is instructed to lie). The most serious high-stakes situations in which children's lie-telling behavior has been examined have been in relation to denying a transgression that is relatively minor in real life, such as peeking at a forbidden toy or having the child or his or her parent break a toy after its being touched. It may be that in situations where the consequences are perceived as very grave to the child (e.g., being taken away from a close relative), the motivation to lie convincingly may be greater, thus making children's lies harder to detect.

Victoria Talwar and Mina Popliger

See also Children's Testimony; Detection of Deception: Nonverbal Cues; Detection of Deception in Adults; Detection of Deception in High-Stakes Liars; Statement Validity Assessment (SVA)

Further Readings

Akehurst, L., Bull, R., Vrij, A., & Kohnken, G. (2004). The effects of training professional groups of lay persons to use criteria-based content analysis to detect deception. *Applied Cognitive Psychology, 18,* 877–891.

Goodman, G. S., Myers, J. E. B., Qin, J., Quas, J. A., Castelli, P., Redlich, A. D., et al. (2006). Hearsay versus children's testimony: Effects of truthful and deceptive statements on jurors' decisions. *Law and Human Behavior, 30,* 363–401.

Granhag, P. A., & Stromwall, L. A. (Eds.). (2004). *The detection of deception in forensic contexts.* New York: Cambridge University Press.

Leach, A.-M., Talwar, V., Lee, K., Bala, N., & Lindsay, R. C. L. (2004). "Intuitive" lie detection of children's deception by law enforcement officials and university students. *Law and Human Behavior, 28,* 661–685.

Talwar, V., & Lee, K. (2002). Development of lying to conceal a transgression: Children's control of expressive behaviour during verbal deception. *International Journal of Behavioral Development, 26,* 436–444.

Talwar, V., Lee, K., Bala, N., & Lindsay, R. C. L. (2006). Adults' judgments of children's coached reports. *Law and Human Behavior, 30,* 561–570.

Detection of Deception in High-Stakes Liars

High-stakes lies occur where there are large positive consequences of getting away with the lie or large negative consequences of getting caught. Because the outcome of the lie is of considerable concern to the liar, it follows that he or she will probably experience more guilt and/or detection anxiety than when telling low-stakes lies. In addition, the liar will probably try particularly hard in such situations to avoid getting caught. This increased effort will be cognitively demanding, and therefore liars probably experience more cognitive load when telling high-stakes lies than when telling low-stakes lies. Accordingly, scholars believe that detecting high-stakes lies should be easier than detecting low-stakes lies. Most lies told in daily life are of the low-stakes variety; these lies are easier to replicate and hence are most commonly researched in laboratory situations. Studies of high-stakes liars have revealed, however, that their behavior is similar to that of low-stakes liars insofar as it typically reveals signs of increased cognitive load and behavioral control. Observers can make use of such signs of increased cognitive load when attempting to detect these high-stakes lies.

For practical reasons, most deception detection research has focused on low-stakes lies; a participant will be asked to lie about a fairly trivial matter for the sake of the experiment. The stakes may be raised slightly, by informing the participant either that his or her behavior will be scrutinized for sincerity by an observer or that being a good liar is an important indicator of being successful in a future career (many careers require the ability to hide one's true feelings or intentions). Sometimes participants are motivated by the offer of a reward for a convincing performance. Laboratory experiments, however, cannot ethically re-create a high-stakes lie scenario. It is true that the majority of lies told by most people are low-stakes, trivial, day-to-day lies. However, what of the suspects in police interviews, smugglers at airports, speech-delivering corrupt politicians, and adulterous spouses? Some have attempted to create examples of such lies by raising the stakes further in laboratory studies—for example, by giving participants the opportunity to "steal" U.S.$50 and allowing them to keep the money if they are able to convince experimenters. Moreover, some participants have faced an additional punishment if found to be lying—for example, sitting in a cramped, dark room listening to blasts of white noise. Studies such as these raise ethical concerns and yet still fail to compete with the stakes in many real-life situations.

Another way to examine the behavior of the high-stakes liar is to look at instances where people have been caught on video telling lies and truths in real life. Such field research is more difficult than laboratory studies in that in real life it can be difficult to establish the ground truth. Therefore, it is imperative that it be known for sure when the communicator is telling the truth and when he or she is lying. In some situations, researchers have looked at suspects in their videotaped police interviews; then, through reviewing case files containing solid evidence (forensic evidence, reliable witness statements, etc.), elements of suspect interviews were established where it was known that the suspects had told the truth or lied. Treated in this fashion, similar clips can be examined for behavioral information and shown to observers to see if they are able to detect such lies.

Deception research in general has demonstrated that behavioral differences between liars and truth tellers are subtle at best and often inconsistent. They are the result of conflicting mechanisms in the liar. The liar may experience emotional arousal, which makes him or her nervous, resulting in behaviors that are stereotypically associated with lying, such as increased fidgeting, gaze avoidance, and so on. Simultaneously, the liar might try to control his or her behavior to avoid displaying such stereotypical deceptive behavior, which would result in exhibiting fewer fidgety moves and maintaining eye gaze. Finally, because lying is often (though not always) more cognitively complex than truth telling, the liar might experience behaviors associated with increased cognitive load (e.g., decreased blinking and body movements and increased pauses in

speech). Laboratory research has more or less consistently revealed that, despite people's stereotypes of lying behavior, liars are stiller than truth tellers and able to maintain eye gaze. This indicates that behavioral control and cognitive load may be more overpowering mechanisms than emotional arousal in the low-stakes liar. One would expect then that in a higher-stakes lying situation, emotions are likely to run higher. Although this might be the case, it would appear that the desire to appear credible (controlling behavior) and the cognitive load associated with telling a higher-stakes lie increase even more so, since research into the behavior of high-stakes liars such as suspects in police interviews reveals similar patterns in behavior to laboratory research subjects, with the addition of a decrease in blinking and an increase in speech pauses.

If high-stakes liars behave similarly as low-stakes liars (in that, on the whole, they display signs of increased cognitive load and increased control rather than nervousness), then could their lies be any easier to detect? As mentioned earlier, people expect certain behaviors of a liar, yet these behaviors often fail to be displayed. This is one reason why most people do not score above the level of chance when trying to detect people's lies in experiments. In contrast, in experiments where police officers were shown clips of real-life liars and truth tellers (suspects in police interviews) and asked to make veracity judgments, the overall accuracy was more than 65%. Why it is higher is unclear. It could be that the situation that observers were being asked to judge was more contextually relevant to them than, for example, watching students who have been asked to lie or tell the truth about trivial matters. It could be that observers were able to make use of the signs of increased cognitive load that the suspects did reveal (increased pauses in speech, bodily rigidity, etc.) or perhaps that they were able to pick up on something less tangible.

Samantha Mann and Aldert Vrij

Further Readings

DePaulo, B. M., Lindsay, J. L., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin, 129,* 74–118.

Mann, S., Vrij, A., & Bull, R. (2002). Suspects, lies and videotape: An analysis of authentic high-stakes liars. *Law and Human Behavior, 26,* 365–376.

Mann, S., Vrij, A., & Bull, R. (2004). Detecting true lies: Police officers' ability to detect deceit. *Journal of Applied Psychology, 89,* 137–149.

Developing Comprehensive Theories of Eyewitness Identification

See WITNESS MODEL

Diminished Capacity

Diminished capacity refers to two distinct doctrines. The first, known as the *mens rea variant,* refers to the use of evidence of mental abnormality to negate a mens rea—a mental state such as intent, required by the definition of the crime charged (the mens rea variant). The second, known as the *partial responsibility variant,* refers to the use of mental abnormality evidence to establish some type of partial affirmative defense of excuse. Courts have used various other terms, such as *diminished responsibility*, to refer to one or both of these distinct doctrines, but the term used is unimportant. Confusion arises, however, when the two types of doctrine are not clearly distinguished. Neither entails the other, and distinct legal and policy concerns apply to each.

The Mens Rea Variant

Mental abnormality can negate mens rea, primarily in cases in which the disorder is quite severe and produces a cognitive mistake. For example, in *Clark v. Arizona* (2006), a recent case that reached the Supreme Court of the United States, the defendant claimed that he believed that the police officer he killed was really a space alien impersonating a police officer. If this was true, the defendant did not *intend* to kill a human being with the *knowledge* that the victim was a police officer. Historically, the legal objection to using mental abnormality to negate mens rea was that traditional doctrine required that mistakes had to be objectively reasonable and a mistake that mental abnormality produces is definitionally unreasonable. Thus, evidence of such mistakes was excluded, even

though it is logically relevant to whether a requisite mens rea was in fact present.

The logic of the mens rea variant is impeccable. Crimes are defined by their elements, and the prosecution must prove all these elements beyond a reasonable doubt. If the prosecution is unable to prove an element, then the defendant should be acquitted of a crime requiring that element. The defendant using the mens rea variant of diminished capacity seeks simply to use evidence of mental abnormality to cast reasonable doubt on the presence of a mental state element that is part of the definition of the crime charged. Such use of mental abnormality evidence is not a full or a partial affirmative defense. It is functionally and doctrinally indistinguishable from the use of any other kind of evidence for the same purpose, and it thus does not warrant a special name as if it were a unique doctrine.

Justice or fairness seems to require permitting a criminal defendant to use relevant evidence to cast reasonable doubt on the prosecution's case when criminal punishment and stigma are at stake. Nonetheless, a criminal defendant's right to introduce relevant evidence may be denied for good reason, and the U.S. Supreme Court recently held that the Constitution does not require the admission of most kinds of mental abnormality evidence offered to negate mens rea, even if such evidence is logically relevant and probative. About half the American jurisdictions exclude mental abnormality evidence altogether when it is offered to negate mens rea, and the other half permit its introduction but typically place substantial restrictions on the use of the evidence.

Total Exclusion of Mental Abnormality Evidence

The most common justifications for exclusion of mental abnormality evidence to negate mens rea are that courts and legislatures confuse the mens rea claim with a partial or complete affirmative defense, that mental abnormality evidence is considered particularly unreliable in general or for this purpose, and that permitting the use of such evidence would compromise public safety. If mens rea negation is wrongly thought to be an affirmative defense, it may appear redundant with the defense of legal insanity or a court might believe that creating a new affirmative defense is the legislature's prerogative. If mens rea negation were an affirmative defense, these might be good reasons to reject the admission of mental abnormality evidence, but these reasons are unpersuasive because they rest on a confused doctrinal foundation.

The unreliability rationale for exclusion is stronger in principle because courts are always free to reject unreliable evidence. The difficulty with this rationale is that mental abnormality evidence is routinely considered sufficiently reliable and probative to be admitted in a wide array of criminal and civil law contexts, including competence to stand trial, legal insanity, competence to contract, and others. Criminal defendants are afforded special protections in our adversary system because the defendant's liberty and reputation are threatened by the power of the State. For the same reason, there is also a powerful motivation to provide defendants special latitude to admit potentially exculpatory evidence, especially when evidence of the same type is admitted in other contexts where much less is at stake. It seems especially unfair to exclude evidence of mental abnormality, which is rarely, if ever, the defendant's fault, when most jurisdictions in some circumstances routinely admit evidence of voluntary intoxication to negate mens rea.

The public safety rationale is also sound in principle. If a mentally abnormal and dangerous defendant uses abnormality evidence successfully to negate all mens rea, outright acquittal and release of a dangerous agent will result. Virtually automatic involuntary civil commitment follows a successful affirmative defense of legal insanity, but the State has less effective means to preventively confine dangerous defendants acquitted outright.

The problem with the public safety rationale is practical rather than theoretical. Mental disorders may cause agents to have profoundly irrational reasons for action, but they seldom prevent people from forming intentions to act, from having the narrow types of knowledge required by legal mens rea, and the like. Moreover, the mens rea termed *negligence*—unreasonable failure to be aware of an unjustifiable risk that one has created—cannot be negated by mental abnormality because such failure is per se objectively unreasonable. Consequently, very few defendants with mental disorder will be able to gain outright acquittal by negating all mens rea or will even be able to reduce their conviction by negating some mens rea. Public safety would not be compromised by the mens rea variant.

The only possible exception to the observation that mental abnormality seldom negates mens rea is the mental state of premeditation required by many jurisdictions for conviction for intentional murder in the

first degree. On occasion, a person with a disorder may kill on the spur of the moment, motivated by a command hallucination or a delusional belief. Such people are capable of premeditating, but the mental abnormality evidence simply tends to show that they did not premeditate in fact on this occasion. And even if premeditation is negated, the intent to kill is not.

Limited Admission of Mental Abnormality Evidence

If the rationale for the mens rea variant is accepted, as a logical matter, the evidence should be admitted to negate *any* mens rea that might have been negated in fact. Indeed, this is the Model Penal Code position. Nonetheless, virtually all jurisdictions that have permitted using mental abnormality evidence to negate mens rea have placed substantial limitations on doing so, largely because they incorrectly fear large numbers of outright acquittals that could result from following the pure logical relevance standard for admission. Limited admission is thus based on a policy compromise between considerations of fairness and public safety: A defendant is able to negate some but not all mens rea, which typically results in conviction for a lesser offense. The effect of mental abnormality on culpability is thus considered, albeit partially, *and* a potentially dangerous defendant does not go free entirely, albeit the sentence is abbreviated.

Partial Responsibility Variant

Some criminal defendants who acted with the mens rea required by the definition of the crime charged and who cannot succeed with the insanity defense nonetheless have mental abnormalities that substantially compromise their capacity for rationality. The logic of the partial responsibility variant flows from this observation. In general, the capacity for rationality, the capacity to grasp and be guided by reason, is the touchstone of moral and legal responsibility. Mental abnormality potentially compromises moral and legal responsibility because in some cases it renders the defendant so irrational that the defendant is not a responsible agent. The capacity for rationality is a continuum, however, and in principle, responsibility should also be a continuum, allowing for a partial defense. Nonetheless, no generic partial excuse for diminished rationality arising from mental abnormality exists in any jurisdiction in the United States or in English law. Thus, for example, a mentally abnormal defendant who killed intentionally and with premeditation has no doctrinal tool to avoid conviction and punishment for the most culpable degree of crime—first degree murder—even if the killing was highly irrationally motivated as a result of substantial mental abnormality.

Courts are unwilling to create a generic excuse for many reasons, including the belief that they do not have the power to create new excuses, the fear that they will be inundated with potentially confusing or unjustified cases, and the fear that dangerous defendants might go free too quickly and endanger the public. Furthermore, courts believe that creating a genuine partial excuse is a "legislative act" that exceeds judicial prerogative. In a few jurisdictions, courts tried to develop a partial excuse in the guise of adopting the mens rea variant, but these attempts used extremely problematic mens rea concepts, were confusing, and have largely been abandoned. Legislatures appear unwilling to enact a generic partial excuse because, in general, legislatures are not responsive to claims that are to the advantage of wrongdoers and because legislators, too, fear the consequences for public safety.

Partial Responsibility Doctrines and Practices

Despite their reluctance to adopt a generic partial responsibility doctrine, courts and legislatures have adopted various doctrines or practices that are in fact forms of partial excuse. Most prominent are (a) the Model Penal Code's "extreme emotional disturbance" doctrine (Sec. 210.3.1(b)) and English "diminished responsibility," both of which reduce a conviction of murder to the lesser crime of manslaughter; (b) one interpretation of the common-law provocation/passion doctrine, which reduces an intentional killing from murder to voluntary manslaughter; and (c) the use of mental abnormality evidence as a mitigating factor at sentencing hearings.

The extreme emotional disturbance doctrine, promulgated by the Model Penal Code and adopted in a small minority of American states, reduces murder to manslaughter if the killing occurred when the defendant was in a state of extreme mental or emotional disturbance for which there was reasonable explanation or excuse. Mental abnormality evidence is admissible in most jurisdictions to establish that such

disturbance existed. English diminished responsibility permits the reduction of the charge to manslaughter if the defendant killed in a state of substantially impaired mental responsibility arising from mental abnormality. Neither doctrine negates the lack of intent or conscious awareness of a very great risk of death that is required for the prosecution to prove murder. Both simply reduce the degree of conviction and, thus, punishment and stigma because mental abnormality diminishes culpability. These partial responsibility doctrines exist only within the law of homicide, but in principle, both operate and could be formally treated as generic affirmative defenses of partial excuse, because nothing in the language of either doctrine entails that it applies only to homicide.

Many jurisdictions in the United States and in English law also contain the provocation/passion doctrine, which reduces a murder to manslaughter if the defendant killed subjectively in the "heat of passion" in immediate response to a "legally adequate" or "objective" provocation—that is, a provoking event, such as finding one's spouse in the act of adultery, that would create an inflamed psychological state in a reasonable person. The defendant kills intentionally and is criminally responsible, but the provocation/passion doctrine reduces the degree of blame and punishment. The rationale supporting this mitigating doctrine is controversial, but one interpretation is that psychological states such as "heat of passion" diminish rationality and responsibility and the defendant is not fully at fault for being in such a diminished condition because the provocation was sufficient to put even a reasonable person in such a state. In this interpretation, the provocation/passion doctrine is a form of partial excuse related to but narrower than extreme emotional disturbance and diminished responsibility.

In jurisdictions that give judges unguided or guided sentencing discretion, mental abnormality is a factor traditionally used to argue for a reduced sentence. Many capital sentencing statutes explicitly mention mental abnormality as a mitigating condition, and some even use the language of the insanity defense or the extreme emotional disturbance doctrine as the mitigation standard. The partial excuse logic of such sentencing practices is conceded and is straightforward. A criminally responsible defendant whose behavior satisfied all the elements of the offense charged, including the mens rea, and who has no affirmative defense may nonetheless be less responsible because mental abnormality substantially impaired the defendant's rationality.

Stephen J. Morse

See also Criminal Responsibility, Defenses and Standards; Mens Rea and Actus Reus

Further Readings

American Law Institute. (1962). *Model Penal Code.* Philadelphia: Author.

Arenella, P. (1977). The diminished capacity and diminished responsibility defenses: Two children of a doomed marriage. *Columbia Law Review, 77,* 827–865.

Clark v. Arizona, 548 U.S. ____ 126 S. Ct. 2709 (2006).

Fingarette, H., & Hasse, A. F. (1979). *Mental disabilities and criminal responsibility*. Berkeley: University of California Press.

Horder, J. (1992). *Provocation and responsibility.* Oxford, UK: Clarendon Press.

Mackay, R. D. (1995). *Mental condition defenses in the criminal law*. Oxford, UK: Clarendon Press.

Morse, S. J. (1984). Undiminished confusion in diminished capacity. *Journal of Criminal Law and Criminology, 75,* 1–55.

Morse, S. J. (1993). Diminished capacity. In S. Shute, J. Gardner, & J. Horder (Eds.), *Action and value in criminal law* (pp. 239–278). Oxford, UK: Clarendon Press.

Diplomates in Forensic Psychology

Diplomates in forensic psychology are dually certified by the American Board of Forensic Psychology (ABFP) and its parent organization, the American Board of Professional Psychology (ABPP), as experts in applying the science and profession of psychology to U.S. law and the U.S. legal system.

The certification process consists of four distinct phases: initial application, written examination, practice sample review, and oral examination. The applicant must possess a doctoral degree in psychology from a program acceptable to the ABPP. A program is automatically deemed acceptable if accredited by the American Psychological Association (APA) or the Canadian Psychological Association or if listed by the Association of State and Provincial Psychology Boards (ASPPB). Acceptability is also presumed if

the applicant holds the Certificate of Professional Qualification issued by the ASPPB or if the applicant is registered with the National Register of Health Service Providers in Psychology.

The applicant must have accumulated at least 1,000 hours of qualifying experience in forensic psychology over a minimum of 4 years of practice. An earned law degree may be substituted for 2 of these 4 years, and successful completion of a qualifying formal postdoctoral fellowship may be substituted for 3 of these 4 years, as long as the 1,000-hour experience requirement has been met. The applicant also must have received 100 hours of qualifying specialized training in forensic psychology. This training may consist of direct supervision by a qualified forensic professional, continuing education attendance, or relevant classroom activities at the graduate or postgraduate level.

The written examination consists of 200 multiple-choice questions that focus primarily on the following eight areas of forensic psychological research and practice: (1) ethics, guidelines, and professional issues; (2) law, precedents, court rules, and civil and criminal procedure; (3) testing and assessment, judgment and bias, and examination issues; (4) individual rights and liberties, civil competence; (5) juvenile, parenting, and family/matrimonial matters; (6) personal injury, civil damages, disability, and workers' compensation; (7) criminal competence; and (8) criminal responsibility. The ABFP provides the applicant with a periodically updated reading list that identifies key legal cases, books, and book chapters for each topic area.

The applicant who passes the written examination is admitted to formal candidacy and is invited to submit two practice samples of his or her forensic psychological work. These practice samples must represent two distinct and separate areas of forensic endeavor; for example, one acceptable practice sample could address mental state at the time of the offense, while the other could address trial competency; however, it would not be acceptable for one practice sample to address parenting capacity involving a relocation issue if the other addressed parenting capacity involving allegations of sexual abuse. To ensure a sufficiently current professional review, the forensic work forming the basis of each practice sample must have been generated no more than 2 years prior to the date on which the candidate's original application was accepted.

Typically, practice samples consist primarily of evaluative reports; however, with prior agreement of the ABFP, and for good cause, an alternative submission, solely authored by the candidate, may be substituted for one of the two practice samples. Examples of potentially acceptable alternative submissions include a forensic psychological book chapter, a forensic psychological article accepted for publication in a peer-reviewed journal, a forensic psychological test manual, or a forensic psychological treatment program or treatment protocol. Practice samples are reviewed by an appointed faculty of Diplomates in Forensic Psychology. The purpose of this review is to ensure that the candidate possesses a high level of professional competence and maturity, with the ability to articulate a coherent rationale for his or her work in forensic psychology.

The submission of two acceptable practice samples qualifies the candidate to proceed to the oral examination, which is designed to determine the quality of his or her practice and forensic knowledge in areas exemplified by the practice samples as well as to determine the candidate's understanding and application of ethical standards, in particular the current version of the APA's *Ethical Principles of Psychologists and Code of Conduct* and the *Specialty Guidelines for Forensic Psychologists*, promulgated in part by the American Psychology-Law Society. The oral examination lasts for approximately 3 hours, conducted by a panel of three diplomates in forensic psychology. Panelists are instructed to bear in mind that one implication of their recommendation to award certification is that they would also feel comfortable in referring the candidate to persons soliciting the expertise in question. The panel's recommendation is reviewed and voted on by the ABFP, after which the ABPP informs the candidate of the results.

Currently, there are approximately 240 diplomates in forensic psychology, serving in a wide variety of treatment, assessment, teaching, and research settings. All diplomates in forensic psychology are also designated as fellows of the American Academy of Forensic Psychology, a member organization that maintains an online directory and a Listserv on professional issues, operates a continuing education program in forensic psychology, and confers awards in recognition of outstanding professional contributions and promising graduate student research.

Eric York Drogin

See also Doctoral Programs in Psychology and Law; Ethical Guidelines and Principles; Expert Psychological Testimony; Postdoctoral Residencies in Forensic Psychology; Trial Consulting

Further Readings

Dattilio, F. M. (2002). Board certification in psychology: Is it really necessary? *Professional Psychology: Research and Practice, 33,* 54–57.

Dattilio, F. M., & Sadoff, R. L. (2003). *Mental health experts: Roles and qualifications.* Mechanicsburg, PA: Pennsylvania Bar Institute.

Dattilio, F. M., Sadoff, R. L., & Gutheil, T. G. (2003). Board certification in forensic psychiatry and psychology: Separating the chaff from the wheat. *Journal of Psychiatry and Law, 31,* 5–19.

Drogin, E. Y. (in press). Expert qualifications and credibility. In D. Faust & M. Ziskin (Eds.), *Coping with psychiatric and psychological testimony* (6th ed.). Los Angeles: Law & Psychology Press.

Parry, J. W., & Drogin, E. Y. (2007). *Mental disability law, evidence, and testimony: A comprehensive reference manual for lawyers, judges, and mental disability professionals.* Washington, DC: American Bar Association.

Disability and Workers' Compensation Claims, Assessment of

Disability insurance and workers' compensation both concern illness or injury in the context of work. These terms are sometimes (erroneously) used interchangeably, but in actuality they refer to very different concepts. Disability insurance provides benefits to an eligible claimant whose ability to work is compromised by injury or illness. The cause of the injury or illness need not be related directly or indirectly to the work setting. In contrast, workers' compensation is designed to provide financial relief to an employee who is injured or becomes ill as a direct result of work-related factors. Thus, the key issue in disability evaluations is functional capacity, while the key issue in workers' compensation evaluations is causality.

When assessing disability or workers' compensation claimants, it is critical for the evaluator to use a variety of data sources. Psychological and/or neuropsychological tests are usually considered an integral component of the evaluation, and test selection should be determined by the specific referral questions and the nature of the claimed impairment. Owing to the possibility of secondary gain on the part of the claimant, all disability and workers' compensation evaluations should include an assessment of symptom validity to rule out exaggeration or other forms of dissimulation. Conclusions expressed by the evaluator should focus on the specific referral questions, and statements regarding ultimate issue determinations should be avoided.

Disability Claims

Disability, used in the context of disability claims, is a legal rather than a psychological or medical term. Its definition is determined by the terms of the policy, contract, or entitlement program under which the claimant has applied for benefits. Sources of disability benefits include private disability insurance policies, public and private sector employee benefits, and federal entitlement programs (Social Security Disability). Each of these sources of benefits is subject to different federal, state, and local laws. For example, Social Security Disability and private sector employee benefits are regulated by federal law (the Social Security Act and the Employee Retirement Income Security Act of 1974, ERISA). Private disability policies are usually governed by the laws of the state in which the policyholder resides. State and local government employee benefits are exempt from ERISA regulation and are defined by state statutes, local ordinances, and (when applicable) collective-bargaining agreements.

Although policies and entitlement programs vary, there are some concepts common among all disability sources. Disability refers to functional capacity, not diagnosis. To be eligible for benefits, the claimant must meet the specific definition of disability determined by the policy or program under which benefits are sought. Regardless of the source, most definitions of disability include two prongs: (1) The claimant must have sustained an injury or illness that (2) renders him or her unable to perform the substantial and material duties of his or her occupation (or, in some cases, to be able to perform any work at all). Thus, a valid disability claim requires both the substantiation of the presence of a condition as well as proof that this condition creates impairment in the claimant's functional abilities to perform his or her occupation. It also must be established that the absence from work is, in fact, due to the illness or injury and not to circumstantial factors (e.g., being laid off) or choice (e.g., job dissatisfaction, the desire to relocate).

When a policyholder files a claim for disability benefits, the insurance company initiates an evaluation of

the claim to determine if the policyholder is entitled to benefits. Mental health claims are particularly difficult to adjudicate as they are based on subjective symptoms. During the course of the claim investigation, psychologists and psychiatrists are often called on to perform independent medical examinations (IMEs) to assist the insurance company in assessing the objective basis of the claim. If the claim is denied or terminated, the claimant may request an appeal of the decision by the company. If this decision is unfavorable to the claimant, the claimant may initiate legal proceedings against the company.

In the assessment of disability claims, the key issue is functionality; specifically, has the claimant's ability to function in his or her occupation been impaired? Thus, in the IME, three questions must be addressed: (1) Does the claimant have a psychiatric condition? (2) Are there functional impairments related to this condition? (3) Do these functional impairments affect work capacity?

It is important that the concepts of diagnosis, symptoms, and functional capacity not be confused. Diagnosis refers to the presence of a specific psychiatric condition (e.g., bipolar disorder, panic disorder with agoraphobia). Symptoms refer to the subjective experience of the condition (e.g., loss of interest, anxiety). Functional capacity, however, refers to the ability to perform specific tasks or activities—for example, interacting appropriately with the public, remembering pertinent information, adding a column of numbers.

It is the loss of functional capacity that is critical in the evaluation of a disability claim. Thus, it is necessary for the evaluator to draw logical connections between diagnosis, symptoms, and functional impairment, for example, establishing how depression—manifested by symptoms such as insomnia, diminished concentration, and feelings of fatigue—leads to a reduced capacity to stay alert and focused over the course of an 8-hour workday, compromising the claimant's ability to do his or her job.

Workers' Compensation Claims

Workers' compensation is essentially a no-fault system of compensating employees for losses due to accidental injury or illness sustained in the course of employment. Whether the injury is due to the employer's negligence or the employee's, the compensation is the same. This reduces the need for protracted litigation, allowing employers to contain costs and employees to obtain the needed benefits in a timely manner. The benefits provided by workers' compensation include both lost wages and medical care to treat the injury or illness.

The laws governing workers' compensation differ in each state. In all states, employees are compensated for physical injuries, such as a knee injury caused by lifting a heavy piece of equipment. Employees in most states are also compensated for physical injuries originating out of mental stimuli (e.g., ulcers attributed to job stress) and mental injuries that accompany a physical injury (e.g., posttraumatic stress disorder following the loss of an eye). In only a few states are employees compensated for purely mental injuries, such as panic attacks resulting from a stressful work environment.

Unlike disability, in workers' compensation, the key issue is causality. To be compensable, the claimant's injury or illness must be the result of his or her employment. From the standpoint of assessment, this requires both establishing the existence of an illness or injury and ruling out non-work-related causes of the employee's difficulties. In the workers' compensation system, independent evaluations are referred to as qualified medical examinations (QMEs). The questions the QME is typically asked to address include the following:

1. Did work cause or contribute to the illness or injury?
2. Are there preexisting conditions contributing to the disability?
3. Is there a need for current or future medical care?
4. Is the condition stable and not likely to improve?
5. Is there permanent impairment?
6. Can the claimant return to his or her regular job?

Evaluation of Disability and Workers' Compensation Claims

Given the subjective nature of psychological conditions, it is critical for the evaluator, when assessing disability or workers' compensation claimants, to use a variety of data sources in forming opinions. These sources may include (a) a review of relevant medical, psychological, educational, and occupational records; (b) collateral information obtained directly from third parties, such as treating providers, family members, or coworkers; (c) information obtained from the claimant

during the clinical interview; (d) information obtained during the claim investigation; and (e) psychological and/or neuropsychological test data. It is important that the evaluator not rely solely on the claimant's self-report but view it as one, among many, of the sources of evaluation data.

Psychological and/or neuropsychological tests are usually considered an integral component of a disability or workers' compensation evaluation. Test selection should be determined by the specific referral questions and the nature of the claimed impairment. Although most disability and/or workers' compensation disputes are resolved without litigation, as with any forensic evaluation admissibility issues should be a consideration in test selection. Depending on the jurisdiction, *Frye* (general acceptance) or *Daubert* (testable, peer-reviewed, known error rate, and general acceptance) standards should be taken into account. Therefore, the best practice is to use tests that are standardized, objective, valid, and reliable.

Evaluators are typically asked to rule in or rule out symptom exaggeration or malingering, as claims for disability and workers' compensation benefits present the possibility of secondary gain in terms of financial remuneration and/or avoidance of work. Although base rates are difficult to establish, it has been estimated that malingering occurs in 7.5% to 33% of all disability claims. Methods for assessing symptom validity include using multiple sources of data, analyzing patterns of psychological and neuropsychological test performance, employing the validity scales included in standardized psychological tests (e.g., the F scale on the Minnesota Multiphasic Personality Inventory–2 [MMPI–2]), administering specifically designed measures of symptom validity (e.g., the Test of Memory Malingering, Validity Indicator Profile), and using structured interviews (e.g., Structured Inventory of Reported Symptoms, Miller Forensic Assessment of Symptoms Test). The use of multiple methods is preferable.

It is important to fully respond to the referral questions and not add information that is unrelated to or goes beyond the scope of these questions. Ultimate issue decisions—such as whether the claimant meets the policy definition of disability or has a compensable workers' compensation claim—should not to be made by the evaluator. The evaluator's role is to provide the referral source with information related to the functional capacity of the claimant or the causality of the claimant's condition. Conclusive statements such as "The claimant is disabled" or "This is a compensable claim" should be avoided in favor of statements such as "The claimant's inability to follow multistep directions would significantly limit her ability to perform complex surgical procedures" or "The claimant's acute distress disorder was likely precipitated by the armed robbery that occurred in the workplace."

At the conclusion of the evaluation, a written report should be provided to the referral source. This report should be well organized with data sources clearly identified. It is helpful to have separate sections summarizing the materials reviewed, the self-reported history provided by the claimant, information obtained from collateral sources, behavioral observations, psychological test data, and any other data used by the evaluator. This should be followed by a discussion of the evaluator's impressions and interpretation of the data. Inconsistencies and gaps in the data should be noted. Finally, the evaluator should explicitly respond to each referral question.

It is important to keep in mind that the consumers of the IME or QME report are insurance company personnel and attorneys, not mental health professionals. Professional jargon, acronyms, and undefined scientific or medical terms should be avoided. Clear, concise language should be used, so that the report is useful to the reader and not subject to misinterpretation.

Lisa D. Piechowski

See also Detection of Deception in Adults; Expert Psychological Testimony, Admissibility Standards; Forensic Assessment; Malingering

Further Readings

Hadjistavropoulos, T., & Bieling, P. (2001). File review consultation in the adjudication of mental health and chronic pain disability claims. *Consulting Psychology Journal: Practice and Research, 53*(1), 52–63.

Piechowski, L. D. (2006). Forensic consultation in disability insurance matters. *Journal of Psychiatry & Law, 34*(2), 151–167.

Samuel, R., & Mittenberg, W. (2005). Determination of malingering in disability evaluations. *Primary Psychiatry, 12*(12), 60–68.

Vore, D. A. (2007). The disability psychological independent medical evaluation: Case law, ethical issues, and procedures. In A. M. Goldstein (Ed.), *Forensic psychology: Emerging topics and expanding roles* (pp. 489–510). Hoboken, NJ: Wiley.

Disparate Treatment and Disparate Impact Evaluations

Disparate treatment and disparate impact cases involve actions on the part of an employer that a plaintiff worker claims are based on the worker's race, gender, color, national origin, religion, disability, or age. Determining damages in these cases should follow the same practices as those used in tort, sexual harassment, or ADA (Americans with Disabilities Act, 1990) cases, with special focus on the employee's work history.

In civil rights cases, forensic psychologists' concern is most often focused on emotional damages in lawsuits brought in relation to claims of sexual harassment or work environments made hostile by racial prejudice or sexual bias. This entry, however, focuses on how forensic psychologists may function in cases involving an employer's work policies that affect individuals of a particular class. That is, these are cases involving the psychological impact of decisions that employers make about hiring or firing employees or setting the conditions, terms, compensation, or privileges that employees enjoy. For these decisions to trigger a lawsuit, they must have differential effects on individuals of distinct protected classes. The policy or decision must place one group at a relative advantage or disadvantage as compared with the other groups. This entry first provides a context for understanding how and why these issues may be brought to court. Next, it considers *disparate treatment* and *disparate impact* as patterns of employer activities. The entry concludes with a discussion of evaluation issues for forensic psychologists in these cases.

Historical and Legal Context

Dating back to the Reconstruction period immediately following the Civil War, the Fourteenth Amendment to the U.S. Constitution provided for *due process* and equal protection under the law for all individuals. Although this amendment was intended to provide civil rights protection to African Americans, a series of subsequent Supreme Court decisions prevented this amendment from providing substantive change in civil rights protection for people of color.

It was not until the passage of the Civil Rights Act of 1964 that race and color, along with national origin, sex, and religion, became truly protected classes. Although other sections of the act provide for civil rights protection in arenas such as voting and public accommodations, Title VII applies to employment and forbids employers having more than 15 employees from discriminating on the basis of race, color, national origin, religion, or sex. The relevant portion of the act reads as follows:

> Sec. 2000e-2. Unlawful employment practices
>
> (a) Employer practices
>
> It shall be an unlawful employment practice for an employer–
>
> (1) to fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, or national origin; or,
>
> (2) to limit, segregate, or classify his employees or applicants for employment in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, sex, or national origin.

Title VII prohibits retaliation against an employee for engaging in protected conduct, such as filing a complaint with the Equal Employment Opportunities Commission or a lawsuit. It also provides for protection against discrimination. This protection is best conceptualized as a conjunction between two things: (1) membership of the plaintiff in a protected class, as indicated by that person's race, color, sex, national origin, or religion, and (2) actions of the employer to hire, fire, or alter the conditions, terms, compensation, or privileges of the worker's employment. That is, discrimination occurs when the employer does something to a worker because the employee is, for example, a woman, an African American, a Sikh, or of Mauritanian ethnicity.

Other federal laws, including the Age Discrimination in Employment Act of 1967 (ADEA) (8 U.S.C. § 1324) and the ADA (42 U.S.C. § 12101) include similar provisions. These laws provide protection against discrimination based on age and disability, respectively.

Disparate Treatment

An employer may make decisions that directly disadvantage individuals from a particular protected class.

This is intentional discrimination based on the employer's belief, perhaps based on prejudice, that one group of workers will not perform well in a particular job. For example, for many years, employers would not consider women for many hazardous or physically arduous tasks, such as firefighting, police work, or working as roustabouts on oil rigs. People of color were not considered by some employers to embody the "front-office look," which would allow them to work as receptionists or in public relations jobs. In these settings, employees possessing particular characteristics were not hired or promoted into particular jobs.

In disparate treatment cases, the plaintiff must establish two elements: (1) that the employee has suffered adverse action by the employer in the form of being fired, not being hired, or not being promoted and (2) a similarly situated employee not in that class was treated more favorably. An alternative legal theory may be proven by evidence indicating employer conduct revealing bias against employees of a particular class. For example, if an employer used a derogatory epithet in relation to employees of a particular race, a presumption of disparate treatment may be made.

However, employers have an opportunity to prove that the employment actions were decided on a legitimate, nondiscriminatory basis. That is, there may be a valid reason for individuals of a particular class to be excluded from a job. For example, religious organizations may exclude individuals not of that faith from a particular job. People of one gender may not be chosen for a specific job, such as bathroom attendant or undergarment fitter.

In situations in which the employer is claiming that there is a legitimate reason for excluding a particular group of employees from a job, the employee filing suit must prove that the supposed legitimate basis offered by the employer is in fact a *pretext* for discrimination. That is, although the employer claims a real-life justification for excluding employees from a position, the real reason is that the excluded employees are, for example, male, Jewish, or Korean.

Disparate Impact

In other situations, employers may not clearly intend to discriminate against a class of employees. Employees may be placed at a disadvantage because of an employer policy that, on the face of it, should have no differential effect on individuals in particular groups. For example, an employer may have a minimum height requirement for employees working in an auto parts depot. Although this requirement would be considered *facially neutral*, it would eliminate more women than men from consideration for the job because women are typically shorter than men. In another example, a position may require individuals to work on Friday nights. Again, although this job requirement may appear to be fair, it would disadvantage observant Jews and would constitute discrimination on the basis of religion. Disparate impact claims have been brought in cases in which written tests, such as the Minnesota Multiphasic Personality Inventory–2 (MMPI–2), or subjective interviews were used as a basis for employee selection.

Employers may defend these cases by claiming "business necessity." That is, the employer may claim that the practice is "job-related for the position in question and consistent with business necessity" (42 U.S.C. § 2000e-2(k)(1)(A)(i)). Courts have been friendly to these defenses, especially in cases involving the ADEA, because in age discrimination cases, salary level often correlates highly with the age of employees.

Psychological Consultation

In cases of disparate treatment or disparate impact, the effects of job actions resulting from the alleged discrimination are the focus of the forensic psychologist's attention. For example, if an employee is fired from a job because of disparate treatment, the psychologist would focus on the emotional impact of forcible unemployment. Research indicates that being fired may have an impact beyond the economic implications. One's job is often considered the same as one's identity, and a fired worker may feel as though not only a source of income has been lost but also a source of self-esteem. In losing the job, the employee may suffer the loss of a social network, which may have been based on relationships with coworkers. Work provides structure for time, and the loss of that structure may leave a worker with little to do with his or her day. Unemployment brings with it a host of changes on the home front, sometimes necessitating the spouse to go to work, or changes in the family dynamics because of the loss of one parent's bread-winning role. Similar changes may be expected in situations involving failure to promote or failure to hire.

In all these cases, the psychologist may employ evaluation techniques commonly used in evaluations of individuals who have suffered other losses. A review

of the plaintiff's vocational history is particularly important, along with an assessment of the place of the job in the person's life. Collateral interviews are especially important in these evaluations because family members and friends may provide information concerning changes in self-esteem and lifestyle that may not be obvious to the plaintiff.

William E. Foote

See also Americans with Disabilities Act (ADA); Forensic Assessment; Personal Injury and Emotional Distress; Sexual Harassment

Further Readings

Civil Rights Act of 1964, Title VII, 42 U.S.C. § 2000e-2. Retrieved June 18, 2007, from http://www.eeoc.gov/policy/vii.html

Foote, W. E. (2003). Forensic evaluation in Americans with Disabilities Act cases. In I. B. Weiner (Series Ed.) & A. D. Goldstein (Vol. Ed.), *Handbook of Psychology: Vol. 11. Forensic Psychology* (pp. 279–300). New York: Wiley.

Foote, W. E., & Goodman-Delahunty, J. (2005). *Evaluating sexual harassment: Psychological, social, and legal considerations in forensic examinations*. Washington, DC: American Psychological Association Press.

Parry, J. W. (1996). *Regulation, litigation and dispute resolution under the Americans with Disabilities Act: A practitioner's guide to implementation.* Washington, DC: American Bar Association Commission on Mental and Physical Disability Law.

Dissociative Identity Disorder

Dissociative identity disorder (DID), formerly known as multiple-personality disorder, is one of the more controversial diagnoses in the *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition; *DSM-IV*), with there being considerable disagreement over the validity and etiology of the disorder. Amnesia between identities is central to a diagnosis of DID. While explicit memory tests often result in amnesic responding in DID patients, more objective memory tests often fail to corroborate self-reports of amnesia between identities. Two perspectives dominate the debate on the cause of DID, with the traditional view proposing that DID manifests as a mechanism for coping with childhood trauma and an alternative sociocognitive perspective suggesting that DID is a response to social demands, with an iatrogenic etiology. The rise in prevalence rates of DID has led to the increased importance of this diagnosis in the court of law. Given the controversy surrounding the validity of the disorder, care should be taken when considering subjective claims of amnesia, as these self-reports are not guaranteed to be substantiated by objective laboratory evidence.

The Diagnosis of DID

To meet the criteria for a *DSM-IV* diagnosis of DID, two or more distinct identities must be present who recurrently take control of an individual's behavior. These alter identities may have distinct personal histories, names, and abilities (e.g., computer proficiency, literacy) and can even vary in professed sex and age. This fractionation of identity must also be accompanied by an inability to recall important personal information, beyond that of ordinary forgetfulness. This memory loss, termed inter-identity amnesia, is thought to result from the compartmentalization of memory within identities and can manifest in many ways, such as gaps in time or the discovery of unfamiliar items in one's possession.

The properties of inter-identity amnesia can vary. In a one-way amnesia, communication is asymmetrical, as one identity may be omniscient for the experiences of the other but not vice versa. In a two-way amnesia, both identities are unaware of each other's experiences, memories, and sometimes even existence. A diagnosis of DID cannot be made if the symptoms are due to substance use or a general medical condition. DID is diagnosed more commonly in females than males (from three to nine times more often) and is often diagnosed in individuals with a history of other psychiatric diagnoses. Symptom onset varies, although many individuals report dissociative symptoms dating back to as early as childhood.

As with most other diagnoses, clinicians rely on the self-report of patients when diagnosing DID. This is typically done using either unstructured questioning or a structured interview such as the Structured Clinical Interview for *DSM-IV* Dissociative Disorders (SCID–D). The Dissociative Experiences Scale (DES) is another common self-report measure of dissociative symptoms, which requires individuals to rate their symptoms on a Likert-type scale, although the DES cannot confirm the diagnosis of DID.

Given the centrality of amnesia to DID, evidence of inter-identity amnesia is essential to a diagnosis. Caution is warranted when interpreting self-reported symptoms of amnesia, however, as research using objective measures of memory reveals an inconsistent picture that does not consistently corroborate the subjective symptoms reported by patients. Studies that have examined memory transfer across identities have provided mixed results, typically finding that some memories are shared between reportedly amnesic identities while other memories are not. It has been proposed that these differences in memory transfer depend on whether the memories are explicit versus implicit. Explicit memory tests require conscious recollection and typically produce amnesia between identities. For example, an amnesic identity may deny any memory of words presented to another identity when asked to recall them. In contrast, implicit memory tasks rely on the premise that prior experiences can influence subsequent behavior independent of conscious awareness—such tasks often show memory transfer. Although the amnesic identity may claim to not recognize the words, given an implicit test, such as a word-stem completion task, he or she may perform in a manner that suggests memory of the words on some level, typically assumed to be implicit and unconscious.

This pattern of amnesia on explicit but not implicit tasks is not unlike that found in organic amnesia. This pattern has alternatively been interpreted as a response to situational expectations, where individuals modify their response patterns in conformance with their expectations about how a person with inter-identity amnesia should respond. Explicit memory tests, unlike implicit tests, are typically obvious assessments of memory, and amnesic responding on explicit tests could result from motivated compliance with expectations. Implicit memory tests, in contrast, tend to be less transparent measures of memory and are less susceptible to manipulation.

Given the inconsistent findings of memory transfer, and also the controversy surrounding the disorder, inter-identity amnesia should ideally be verified by objective tests of inter-identity amnesia that do not rely solely on self-report. Some investigators have attempted to objectively assess memory by using psychophysiological measures such as brain electrical recordings or by creating paradigms where amnesia is difficult to simulate. These methods have typically demonstrated that memories transfer across identities despite self-reports of amnesia. Moreover, one study has suggested that this memory transfer is conscious and explicit. Therefore, although a phenomenological experience of memory loss may be reported by DID patients, this amnesia cannot always be verified by objective memory tests. Given the centrality of inter-identity amnesia to a DID diagnosis and the current reliance on uncorroborated self-report measures, increasing importance needs to be placed on using objective tests of memory to make an accurate diagnosis of DID.

The Controversy

Controversy surrounds DID, as many skeptics question the validity of the disorder. Research on the properties of inter-identity amnesia has led to conflicting findings, as detailed above. In addition, critics of the disorder highlight the many changes that have occurred in prevalence rates and symptom presentation over time. Historically, DID has been an infrequently diagnosed disorder, with only a handful of cases being reported until the 1900s. However, rates of diagnosis skyrocketed in the 1980s, with prevalence rates numbering in the thousands. DID was popularized in the media around this same time by movies such as *The Three Faces of Eve* and *Sybil.* It has been suggested that this exponential increase in diagnoses is mostly circumscribed to specific cultures such as North America, with the majority of diagnoses believed to be attributable to a small percentage of psychologists.

In addition to the increasing prevalence rates, the nature of symptoms has evolved. Earlier DID patients commonly reported only a few identities and often needed a period of transient sleep to switch between identities. In contrast, present-day DID patients typically report approximately 15 alters and the ability to voluntarily switch among identities. These diagnostic, cultural, and symptomatological inconsistencies have incited an ongoing debate about the validity of reported symptoms, resulting in two competing etiological interpretations.

Perspectives on Causal Mechanisms

Two perspectives dominate the debate on the cause of DID. The posttraumatic interpretation of DID, also termed the disease model, conceptualizes the disorder as a posttraumatic condition resulting from childhood abuse, as the majority of DID patients report a history of child abuse. This perspective suggests that the

generation and compartmentalization of multiple identities is manifested as an adaptive strategy that allows the individual to cope with trauma. Consonant with this theory, some DID patients report symptoms similar to those found in posttraumatic stress disorder, such as nightmares, flashbacks, and increased startle responses. The disease theory attributes the rise in prevalence of DID to more accurate diagnoses by clinicians as a result of increased awareness of childhood abuse and its psychiatric sequelae, greater acceptance of the disorder, and a more in-depth focus on previously overlooked symptoms. According to this explanation, certain physicians in specific cultures are becoming sufficiently familiar with the disease to accurately diagnose those symptoms of DID that previously went undiagnosed or misdiagnosed.

Critics of this disease model question the fidelity of memories of abuse reported by DID patients. Such reports are almost exclusively retrospective, and it has been firmly established that childhood memories are susceptible to distortion. In addition, critics suggest that a belief in the disease model may lead clinicians to specifically search for dissociative symptoms in clients with a known history of abuse or for memories of abuse in a client presenting dissociative symptoms, inflating the correlation between DID and memories of abuse. Techniques known to facilitate memory distortion, such as hypnosis, have been used by some clinicians, resulting in questions about the validity of uncovered memories of abuse and the existence of alter identities. Often, memories of abuse are uncovered in therapy, leading many to challenge the veridicality of these memories and point to a theory of a therapist-induced iatrogenic etiology.

An alternative perspective to the disease model, termed the sociocognitive model, proposes that DID is a socially influenced construction that is legitimized and maintained through social interactions. According to this theory, as the disorder has become more widely accepted, DID patients have learned how to present themselves as having multiple identities. Patients form a belief as to how others expect them to act and behave accordingly. This theory suggests that therapists play a large role in the generation and maintenance of this disorder through the use of suggestive questioning, the provision of information about how patients with the disorder should act, and the legitimization of the disorder. This sociocognitive perspective suggests an iatrogenic etiology, proposing that the disorder is generated by the client in response to the suggestive questioning and expectations of the therapist. This view does not assume that a DID patient is consciously faking symptoms but instead speculates that dissociative symptoms are manifested as a way for individuals to view themselves in a way that is congruent with what they believe is expected of them. Often a patient seeks therapy to deal with unspecified psychological distress, and the expression of dissociative symptoms can result in a DID diagnosis, which may bring relief, explanations, and the potential for treatment. Thus, symptoms can be created and experienced by the patient as veridical in that DID patients interpret their normal life experiences from the viewpoint of a fractionated self. According to the sociocognitive model, an increase in the popularity and social acceptance of the disorder has led to greater manifestations of DID symptoms by highly suggestible individuals. Supporting the sociocognitive model, studies have found that alternate personalities can be generated and maintained by individuals with no psychiatric history when undergoing suggestive questioning.

Forensic Implications

Given the rising numbers of individuals diagnosed with DID, it is no surprise that the controversy surrounding DID has carried over into the courtroom. DID diagnoses have been used as a defense for individuals charged with crimes including kidnapping, forgery, drunk driving, and rape, with varying outcomes. Defendants with DID have pleaded innocent for crimes that they do not remember, purportedly committed by other identities. These defense pleas raise the question as to whether an individual can be held legally responsible for a crime committed by another alter not under the control of the dominant identity. The validity of the DID diagnosis is central to the debate over whether a DID patient should be considered as one unitary individual or as a conglomerate of multiple identities and, in the latter case, whether these distinct identities can be individually and dissociably culpable of a crime. Inter-identity amnesia is another important aspect of this debate, raising the question of whether an individual can be held criminally responsible for a crime committed by another identity of which he or she has no memory or awareness. As demonstrated by the inconsistency in the courtroom verdicts, this debate has not been resolved.

A DID diagnosis has additional ramifications for the legal system. Legal suits have been brought

against clinicians for either falsely diagnosing or failing to diagnose the disorder. Alter identities have asked for separate legal representation and have been asked to give sworn testimony. The age of the accused alter identity has also been used as an argument to determine whether the patient is tried in a juvenile or an adult court, and a DID diagnosis can affect decisions about competency to stand trial.

Taking into account the exponential increase in diagnosis rates, it may be that veridical cases of DID are interspersed among many others that do not completely fit the diagnosis and that are the iatrogenic result of misdiagnoses, suggestive therapy, or demand characteristics. Intentional malingering or exaggeration of deficits should also be a consideration, especially in situations with important consequences, as in the case of litigation. Given the controversy over the validity of the disorder, care needs to be taken when making a diagnosis of DID. Self-report measures of memory loss, commonly used for diagnosis, have not always been corroborated by more objective measures of memory, suggesting that the subjective amnesia experienced by the individual may not correspond with the objective experience of amnesia. Thus, caution should be used in evaluating or admitting claims of amnesia in cases of DID, especially in the courtroom where the ramifications of a faulty diagnosis are high. Since inter-identity amnesia is a necessary criterion for a diagnosis of DID and can play an important role in the courtroom, an objective determination of such amnesia is critical and should be necessary to confirm a diagnosis of DID.

Lauren L. Kong and John J. B. Allen

See also Criminal Responsibility, Assessment of; False Memories; Forensic Assessment; Malingering

Further Readings

Allen, J., & Iacono, W. (2001). Assessing the validity of amnesia in dissociative identity disorder: A dilemma for the *DSM* and the courts. *Psychology, Public Policy, and Law, 7*(2), 311–344.

Gleaves, D. (1996). The sociocognitive model of dissociative identity disorder: A reexamination of the evidence. *Psychological Bulletin, 120*(1), 42–59.

Spanos, N. (1994). Multiple identity enactments and multiple personality disorder: A sociocognitive perspective. *Psychological Bulletin, 116*(1), 143–165.

Divorce and Child Custody

Divorce is exceedingly common in the United States, and it can have long-ranging effects on all parties involved, particularly children. In those relatively rare circumstances in which child custody issues cannot be resolved by the parents, the process can become even more contentious and emotional and ultimately end up in the court system. To inform its decision making in these contested cases, courts may appoint mental health examiners to evaluate families and either recommend a specific custody decision or provide detailed information about the factors affecting a child's development within potential custody environments. Custody evaluations are thought to be perhaps the most complex and acrimonious referral questions addressed by forensic examiners. Research has begun to identify those areas that most affect children's adjustment following divorce, so that psychologists may focus their evaluations on these areas in the future. Many questions remain, however, concerning how best to characterize, quantify, and predict what constitutes the best outcome for children in relation to custody.

Divorce and Its Aftermath

Of children from married parents in the United States, more than 40% will experience the effects of divorce. An untold, but likely larger, percentage of children who are born to cohabitating but unmarried parents also will experience the separation of their parents. Evidence suggests that at least a quarter of separating parents will experience substantial conflict concerning child custody. Despite this, the majority of custody decisions are resolved by parents without resorting to litigation. The use of alternative resolution techniques, such as divorce mediation, appears to be increasing as a means of resolving contested cases, rather than resorting to judicial determinations.

The courts typically may choose from a variety of different forms of custody that are thought to best serve the child. Most states differentiate between *physical custody*, which relates to the time spent with parents, and *legal custody*, which refers to rights regarding decision-making capacities (e.g., schooling, medical care). The majority of children appear to live primarily with their mothers, although there is some evidence of increasing residence with single fathers. Joint physical

custody, the effects of which have been widely debated since the 1980s, appears to be relatively uncommon. Of note, custody arrangements appear to evolve over time, with actual living situations not necessarily corresponding with the initial legal agreements.

Legal Standards

All U.S. jurisdictions determine custody using the "best interests" standard, wherein custody is granted in accordance with the promotion of circumstances that ostensibly are in the best interests of the children. In practice, this standard has been found to be vague and difficult to apply. Some states have begun to operationalize the term *best interests* by identifying specific factors that have an impact on a child's welfare. In turn, these factors become the specific focus of the custody evaluation process.

Custody standards for many states are informed by the Uniform Marriage and Divorce Act (1979), which specifies various factors on which the best interests standard for a specific child should be based (e.g., the interaction and interrelation of the children and their parents). Although the specific standard differs from state to state, some evidence of standardization has begun to emerge. For example, state codes typically require an evaluation of each parent's current status (e.g., employment, parenting skills), history (e.g., in terms of caretaking, substance abuse, spousal abuse), and psychological health (e.g., ability to be flexible, general mental health). The courts also are to consider the wishes of the child concerning placement if the child is developmentally able to express such wishes. In addition, the courts may flexibly consider any other factors found to be relevant. Of note, some authorities have questioned the heavy emphasis on what are ostensibly in a child's best "psychological" interests rather than on factors such as economic, educational, or medical well-being.

Although the states have attempted to identify important types of information on which to base custody decisions, they do not limit the methods through which this information is gathered. For example, examiners typically are not constrained in their choice of evaluation approaches or tests. Likewise, courts do not have standard formulae for weighting the evidence provided. Such plasticity in the actual application of the law prevents courts from being locked into a formula that inadequately reflects the complexity and variety of the custody situations that they encounter, but it also has raised criticisms concerning the lack of direction provided and the potential for subjective biases to enter into the decision-making process.

Professional Standards of Practice

Mental health experts are involved in custody cases in various roles, such as mediators, examiners, and therapists. The role of the examiner has been argued to be exceedingly difficult and one fraught with disproportionately high rates of malpractice claims. In recognition of the importance and difficulty of the examiner's role, several organizations have published professional guidelines to inform and direct the various participants in the divorce and custody process. For example, the American Psychological Association (APA) has published guidelines for psychologists to apply in child custody evaluations during divorce proceedings. These guidelines are primarily an extension of the professional ethics code to custody matters. They delineate the examiner's responsibility in terms of disclosing the forensic (rather than therapeutic) role to the participants in the evaluation, representing the child regardless of who engaged the examiner's services, and using current best practices when carrying out the evaluation.

The Association of Family and Conciliation Courts has also published standards of practice for child custody evaluations. More extensive than the APA guidelines, this document recommends specific areas that the examiner should evaluate. The American Academy of Child and Adolescent Psychiatry has provided the most detailed guidelines for both the process to be used and the content to be addressed by the custody examiner.

The Process of Conducting Child Custody Evaluations

Custody evaluations may involve a variety of data collection techniques, including psychological testing, interviews, and direct observation of the parties. Procedures vary across jurisdictions and according to the examiner's preferences. Although examiners may be retained by one party in the dispute, more commonly the court appoints a mental health professional to develop an impartial evaluation of all parties. The examiner frequently begins by gathering collateral information about the history of the case, as well as about the parent's financial and employment history, medical records, and school records.

Most evaluations by psychologists include the use of psychological tests, although there is no standardization in the field concerning which tests to use or how to interpret and apply the data derived from them. Surveys of examiners indicate that most include the Minnesota Multiphasic Personality Inventory–2 (MMPI–2) in their assessment of adults. Measures of intelligence are frequently given to both adults and children. A significant proportion of examiners also use projective tests with adults and children, some of which have been designed specifically for use in child custody evaluations. The conceptual/theoretical basis and psychometric adequacy of these instruments, particularly those designed solely for use in custody cases, have been questioned by various authorities. More generally, the use of standard "objective" tests such as the MMPI–2 and intelligence tests has been questioned, in that the connection between the test results and the legal question (e.g., what is in a child's best interests) may be unclear or, at best, indirect.

Examiners usually interview the parents and the children, and they may interview others who are close to the family or who have specific, meaningful information to provide. Information of interest includes the behavioral patterns of the parent, his or her parenting strengths and weaknesses, and his or her current emotional state. The examiner gauges the degree of commitment and groundwork evidenced with regard to realistically preparing for custody. In-depth information is sought regarding the parent's relationship with each child, as well as how he or she currently interacts with the other parent. When interviewing children, the examiner assesses their relationship with each parent, their current emotional and behavioral functioning, and their social/educational history. Although young children usually are not asked to express custody preferences, older children may be asked to describe what living situations they would most prefer.

Direct observation often is valued for providing more data about how the child and parent interact together. For example, the examiner may have the child and parent perform a structured task and evaluate how well they interact together. Some examiners use naturalistic observations, wherein they visit the home and see how the parent-child dyad interacts in that setting.

Research on Divorce and Child Custody Outcomes

Custody evaluations can be informed by research from multiple domains. Examiners should be familiar with a wide variety of research findings and incorporate the best data in the evaluation process. Relevant areas of research include the influence of parents on their children's development, mental disorders and parenting, mental disorders and children, the impact of specific parenting practices on child development, the impact of divorce on parents and children, the impact of parental conflict on children's adjustment, parenting after divorce, economics and remarriage, the impact of access to the noncustodial parent, and the impact of the type of custody arrangement on children's development.

A voluminous literature exists concerning how children respond to parental separation and divorce. Unfortunately, clear and unequivocal conclusions (which might lead to straightforward recommendations in contested custody cases) typically are the exception rather than the rule. As such, this summary highlights trends in this literature, with the qualification that these general trends belie considerable variability at the individual level.

At the most basic level, divorce appears to be associated with modest increases in an array of short- and long-term negative outcomes for children, including externalizing behavior problems, depression, school difficulties, poorer relationships with parents (particularly fathers), and subsequent romantic relationship dysfunction. Of considerable importance, the causal effect of divorce per se on these outcomes is not well understood, with various other factors possibly explaining these negative outcomes. For example, research suggests that the level of parental conflict exhibited may be more important in terms of predicting children's adjustment than is the experience of divorce itself. Also of note, some recent research suggests that divorce may actually result in improved functioning, at least among children from "high-conflict" families. Children whose families are cordial following the divorce tend to be psychologically healthier than those from high-conflict families.

To promote better outcomes for children, many states now encourage families to use mediation and other nonadversarial methods of working through the divorce and custody arrangements. Some evidence suggests that the use of mediation helps families emerge from the process in a healthier manner. For example, postdivorce conflict tends to be lower in families using mediation than in control groups. Likewise, noncustodial parents appear to be more likely to maintain regular contact with their children after divorces that employ mediation.

Researchers are currently investigating the impact of the amount of contact with the noncustodial parent

on the adjustment of the children. Early findings suggest that economic support is more important than the amount of contact between the parent and children. Although the amount of contact does not appear to predict children's future well-being, the consistent payment of child support does.

Further complicating our understanding of the causal role of divorce on subsequent negative outcomes, research has suggested that there is a "nonrandom selection" into divorce, such that many of the problems identified in children of divorce were present prior to the separation. Some evidence even has suggested that genetic effects may play a role, although genetic factors do not explain all of the variance in these outcomes. Finally, some authorities have highlighted the importance of distinguishing between the high levels of emotional distress caused by divorce and the relatively lower levels of psychological disorder that seem to be attributable specifically to divorce. Although serious psychological impairment is a relatively infrequent outcome, painful memories, emotional turmoil, and negative appraisals of the experience are quite common.

M. Catherine Dodson and John F. Edens

See also Child Custody Evaluations; Forensic Assessment

Further Readings

American Psychological Association. (1994). Guidelines for child custody evaluations in divorce proceedings. *American Psychologist, 49,* 677–682.

Emery, R. E., Otto, R. K., & O'Donohue, W. T. (2005). A critical assessment of child custody evaluations: Limited science and a flawed system. *Psychological Science in the Public Interest, 6,* 1–29.

Grisso, T. (2003). *Evaluating competencies: Forensic assessments and instruments* (2nd ed.). New York: Kluwer Academic/Plenum.

Otto, R. K., Buffington-Vollum, J. K., & Edens, J. F. (2003). Child custody evaluation: Research and practice. In I. B. Weiner (Series Ed.) & A. Goldstein (Vol. Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 179–208). New York: Wiley.

Doctoral Programs in Psychology and Law

Doctoral programs are the most prominent educational path for training scholars in psychology and law, providing training for many students interested in the core areas of these disciplines. There are a variety of training models aimed at educating students in both disciplines, but there is lack of agreement about the best model. However, recommendations have been made for the core objectives that should be present in any doctoral program. Regardless of the training model, there are a variety of employment opportunities available for graduates of these select programs, and students applying to them should be aware that admission can be very competitive.

Psychology and law is one of the fastest growing areas in all of psychology. This tremendous growth is obvious in the continued expansion of psychology into the courts, the establishment of professional organizations such as the American Psychology-Law Society (AP-LS), the number of professional journals devoted specifically to psychology and law or publishing psychology and law–related articles, and the increasing number of graduate programs designed to train students. Doctoral programs award the highest degrees possible in psychology and law, the Ph.D or the Psy.D. The Ph.D. is typically seen as a research-based degree, and the Psy.D. is seen as a practice-oriented degree with less emphasis on students conducting independent research and more emphasis on issues such as assessing and treating mental illness. Although doctoral degrees are not necessary to work in psychology and law, they are frequently preferred for employment in many areas. This entry focuses on describing some of the specialty areas available in doctoral programs, evaluating the different training models and training areas of these programs, suggesting some of the employment opportunities, and briefly describing the admission process for those individuals interested in obtaining a doctorate in psychology and law.

Doctoral Program Specialty Areas

A marked increase in the number of doctoral programs in psychology and law over the past 30 years is a clear indication of the tremendous recent growth in this specialty area. The University of Nebraska is typically credited with establishing the first doctoral program in psychology and law in the early 1970s. However, since then, more than 20 doctoral programs with a significant emphasis on psychology and law have been established across Canada and the United States. AP-LS publishes a comprehensive list of these programs on its Web site. The list of doctoral programs in psychology and law is as extensive and

varied as the available specialty areas and their models for training students.

There are typically five predominant specialty areas of psychology represented in doctoral programs: cognitive, developmental, social, community, and clinical. The cognitive, developmental, and social are considered as nonclinical areas of psychology. Programs in these areas do not train students to assess or treat mental illness but instead focus on research and teaching. Clinical doctoral programs examine the role of mental health on different aspects of the law, and community psychology programs may have a clinical or a nonclinical focus. Whatever the broad training differences, there may be overlap between the topics studied by nonclinical and clinical psychologists.

Cognitive psychologists focus on human perception and memory. Cognitive psychologists who work in psychology and law focus on topics such as eyewitness identification, repressed memories, and the detection of deception. A cognitive psychologist may be interested in the different factors that influence eyewitnesses' ability to accurately recall the events surrounding a crime, such as their level of stress, the racial identity of the perpetrator, the presence of a weapon, or the way a police lineup is conducted.

Developmental psychologists examine the issues that normally affect children or adolescents but are increasingly focusing on the entire developmental process, including old age. Developmental psychologists trained in psychology and law may study topics involving the suggestibility of juveniles when interviewed or testifying, the ability of juveniles to make legal decisions, or the impact of divorce and separation. For example, a developmental psychologist may study whether adolescents have the same ability as adults to understand the criminal charges they are facing and whether their comprehension influences their ability to assist in their legal defense.

Social psychologists examine the influence of others or groups on the decisions people make. Social psychologists are interesting in topics such as jury decision making, jury selection, and the credibility of witnesses. Social psychologists have found that certain characteristics of a jury alter the likelihood of a legal verdict. For example, the size of a jury may vary, depending on the nature of the trial and the jurisdiction. Social psychologists have discovered that the smaller the jury, the less those jurors will deliberate and the poorer their accurate recall of trial related information.

Community psychologists are interested in the way society interacts with the individual. Community psychologists interested in psychology and the law focus on the manner in which the law affects the people it is designed to protect or help. A community psychologist may examine the effects of a change in a specific law—for instance, whether decreasing the blood alcohol limit for driving under the influence of alcohol increases or decreases the number of alcohol-related deaths—or the general impact of health care programs on the people they intend to target.

Clinical psychologists assess and treat individuals who are mentally ill or have psychological difficulties. Clinical psychologists interested in psychology and law focus on the mental health aspects of criminal and civil law. Clinical forensic psychologists may conduct risk assessments of violent offenders, evaluate defendants for competency to stand trial or insanity, assess whether someone involved in a lawsuit over an automobile accident suffers from posttraumatic stress disorder, or be involved in a child custody dispute after a marital separation. A student attending a doctoral program in psychology and law is typically interested in at least one of these areas, but there are a variety of models or ways by which a doctoral student may be educated in any of them.

Training Models in Psychology and Law Doctoral Programs

No matter what the specialty area, the ways in which a student is trained in these doctoral programs are significant. Doctoral programs in psychology and law are joint-degree programs or specialty programs in psychology and law or provide a minor or emphasis in psychology and law. There is no agreement about the superiority of any of these training models. Each approach presents unique advantages and disadvantages that any student should consider.

Joint-degree programs enable the student to receive both a degree in psychology, typically a doctoral degree (Ph.D. or Psy.D.), and a law degree, typically a J.D. Although the doctoral degree and the J.D. are the standard degrees awarded in joint-degree programs, the oldest joint-degree program, at the University of Nebraska, also offers a master's degree in psychology (M.A.) and a master's degree in legal studies (M.L.S.) in combination, corresponding to Ph.D and J.D. There has been an increase in joint-degree programs, so that several universities now offer them. The joint-degree

programs tend to be extremely competitive because a student must have the ability to complete advanced degrees in two very different and demanding disciplines. The goal of these joint-degree programs is not to simply train someone in both law and psychology but to integrate that training. This approach means that students alternate their formal coursework between psychology and law to better understand the interaction between the two fields.

The benefit of this training model is that it allows for the true integration of the divergent disciplines. This integration may better allow the graduates to identify aspects of the law that could benefit from a sophisticated psychological investigation. The simultaneous exposure also may increase the familiarity an individual feels in examining issues from both perspectives. The joint degree may open up a variety of different employment possibilities that training in one field does not offer. A graduate of a joint-degree program may be able to work as an attorney for a law firm, as a clinical psychologist, or as an academic in a law school or psychology department. However, there are several disadvantages to joint-degree programs. There is the additional time and financial expense required for attending these programs because one has to complete two rigorous advanced degrees without being employed full-time. In addition, simply obtaining two advanced degrees in two different disciplines does not automatically mean additional employment opportunities. Graduates of these programs often struggle with the question of whether they are psychologists or attorneys and with proving one or the other to a prospective employer.

Specialty programs in psychology and law offer only doctorate degrees in psychology but typically have the same depth of training in psychology and law as joint-degree programs. Students in these programs still take specially designed courses in psychology and law, maybe even take some law classes, participate in research on different psycholegal topics, or participate in clinical practicums in prisons or forensic hospitals. Students in specialty programs are allowed more flexibility in designing their program of study than those in joint-degree programs but are still considerably immersed in psychology and law. They also are able to do so while spending less time in school. However, students in these programs may not have the same flexibility in terms of employment or understand all the areas in which psychology and law interact, because of their more narrowly focused training. As a result, they may lack some sophistication in applying psychology to legally relevant issues.

The third model for training in psychology and law is the psychology and law minor. These programs do not offer the same depth or breadth that the other two training models offer. Students in these doctoral programs usually work with a professor in one of the five specialty areas and conduct research on a psychology and law–related topic or engage in some forensic clinical work. These students may take specialty courses related to psychology and law, but their primary training is in their specialty area (e.g., cognitive). These programs offer some experience in psychology and law but do not allow the interested student to become an expert in the interdisciplinary field.

Training Areas and Objectives in Doctoral Programs

By 1995, the field of psychology and law recognized that there was a great deal of diversity in the training models for psychology and law programs, and there was some concern about future training. As a result, the National Invitational Conference on Education and Training in Law and Psychology was held at the Villanova Law School. The conference attendees worked in several different areas related to both undergraduate and graduate training in psychology and law. One of those groups focused on the specific objectives doctoral programs in psychology and law should have in training psycholegal scholars. The conference did not endorse any of the training models previously identified but did identify five areas that they believed were crucial in the development of psycholegal scholars.

First, doctoral programs should train students in *substantive psychology.* Substantive psychology encompasses the foundational areas of psychology, such as biological, cognitive, developmental, personality, and social psychology. It also includes an awareness of the professional and ethical issues that arise when working in psychology. In addition to these foundational topics, doctoral programs should encourage awareness of the cultural and social forces that work to shape our view, especially since many graduates of these programs will shape social policy.

Second, these programs should emphasize training in *research design and statistics.* The conference attendees suggested that because one of the strengths of graduates of psychology and law programs was their ability to apply different psychological methods

to legal issues, it was important for students to have a foundational knowledge in the area. Students should get experience in performing research both in the laboratory and in a real-world setting. They should also be familiar with rudimentary and sophisticated statistical techniques.

Third, doctoral programs should encourage the acquisition of *legal knowledge*. Acquiring legal knowledge does not simply mean that students should be familiar with the law but that they should be comfortable and able to act as active participants in an interdisciplinary field with psychologists, lawyers, and judges. Doctoral programs that offer this type of training will allow their graduates to better address legal questions in ways that are psychologically meaningful and legally relevant.

Fourth, doctoral programs training psycholegal scholars should train them in *substantive legal psychology*. An education in substantive legal psychology should comprise coursework across a variety of different topics and domains. This approach should give students an understanding of the integration of the two disciplines by encouraging them to read empirical and nonempirical work in the area, examine some of the historical underpinnings of the application of psychology to the legal arena, and become familiar with the role of specific statutes and case law in social science.

Finally, the conference recommended that one of the crucial objectives in training doctoral students should be immersion in *scholarship and training*. Doctoral programs should educate students in conducting their own original research and scholarship. Students should present at scholarly conferences and publish in professional journals. This experience should culminate with their doctoral dissertation in an area of interest to them. Training should not be confined to production of scholarship but should also take place in real-world settings.

Employment Opportunities for Graduates of Doctoral Programs

There are a host of different employment opportunities for students who graduate from psychology and law doctoral programs. However, the employment opportunities depend on the specialty area, the training model, and the available opportunities in the doctoral programs. One of the most common areas of employment for graduates of doctoral programs in psychology and law is academia. Many graduates of these programs become professors in undergraduate and graduate departments. They continue to teach and conduct research and scholarship with students who have similar interests. Because of the interdisciplinary nature of psychology and law, graduates may teach in psychology departments, law schools, criminal justice departments, or a variety of other social science related areas.

Clinically trained graduates may be employed as forensic clinicians. They may work in prisons, forensic hospitals, or private practice, conducting evaluations and providing treatment for individuals with mental health issues. For example, a forensic clinician may run a group for individuals who have been convicted of sexual assault to reduce the likelihood that they will sexually re-offend when they are released from prison. The clinician also may conduct an evaluation to assist the court in determining whether a defendant is competent to stand trial or is not responsible by reason of insanity. Forensic clinicians are routinely called on to testify in court as expert witnesses in order to explain their findings to judges and juries.

Some graduates of doctoral programs in psychology and law work as trial consultants. Trial consulting includes a wide range of activities, such as preparing witnesses to present themselves in the best possible manner, educating attorneys on presentation of their evidence, and selecting juries. Trial consultation involves the direct application of psychological knowledge to the practice of law. Trial consultants may work for one of the many large trial consulting firms, work internally for a large law firm, or have a primary position as an academic while providing trial consultation as a secondary part of their job.

Other graduates of doctoral programs in psychology and law solely conduct research in the area. Some researchers function primarily as policy evaluators and work for state agencies, where they may assess the ongoing effectiveness of sex offender treatment, evaluate the impact of a child welfare program, determine whether the detention of juveniles in a juvenile-only facility is more effective than their detention along with adult offenders, or identify psychological research that is relevant when a state or the federal government is proposing new legislation. Researchers also may work for federal agencies such as the Secret Service or the Federal Judicial Center to assist law enforcement and the courts by conducting research on violence prediction or various issues relevant to the federal courts.

Applying for Admission to Doctoral Programs

Applying for admission to doctoral programs in psychology and law does not require special qualifications above those required for admission to a doctoral program in any area of psychology. Psychology and law doctoral programs are looking for applicants with outstanding undergraduate grades, impressive Graduate Record Exam (GRE) scores, excellent letters of recommendation, experience in conducting research, and demonstration of a genuine interest in the field of psychology and law. However, applicants to doctoral programs in psychology and law should be aware that the process is extremely competitive for the most established programs. For example, for the most competitive programs in psychology, clinical Ph.D. programs, the acceptance rate typically is around 10%. There is no reason to believe that the acceptance rates at the most competitive programs are any lower for forensic clinical students, and in fact, they may even be more competitive because of the increased interest in the area and fewer available spots. Furthermore, because there are only a few joint-degree programs and students must possess the motivation and intellectual ability to complete two advanced degrees, they are likely to be extremely competitive. There are also doctoral programs that are less competitive or even master's programs that may be viable options for individuals who do not possess the qualifications or ability to gain admission to the well-established doctoral programs in psychology and law.

Matthew T. Huss

See also Master's Programs in Psychology and Law; Trial Consulting

Further Readings

Bersoff, D. N., Goodman-Delahunty, J., Grisso, J. T., Hans, V. P., Poythress, N. G., & Roesch, R. G. (1997). Training in law and psychology: Models from the Villanova conference. *The American Psychologist, 52,* 1301–1310.

Bottoms, B., Costanzo, M., Greene, E., Redlich, A., Woolard, J., & Zapf, P. (2004). Careers in psychology and the law: A guide for prospective students. Retrieved from http://www.ap-ls.org/students/careers%20in%20psychology.pdf

Huss, M. T. (2001). What is forensic psychology? It's not *Silence of the Lambs*! *Eye on Psi Chi, 5,* 25–27.

Melton, G. B., Huss, M. T., & Tomkins, A. J. (1999). Training in forensic psychology and law. In I. B. Weiner & A. K. Hess (Eds.), *Handbook of forensic psychology* (2nd ed., pp. 700–720). New York: Wiley.

Ogloff, J. R. P., Tomkins, A. J., & Bersoff, D. N. (1996). Education and training in psychology and law/criminal justice: Historical foundations, present structures, and future developments. *Criminal Justice and Behavior, 23,* 200–235.

Packer, I. K., & Borum, R. (2003). Forensic training and practice. In I. B. Weiner (Series Ed.) & A. D. Goldstein (Vol. Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 21–32). Hoboken, NJ: Wiley.

Domestic Violence

See Intimate Partner Violence

Domestic Violence Courts

Domestic violence courts (DVCs) are specialized court settings that deal predominantly with cases involving domestic violence. They have emerged in different state, regional, and national contexts, giving rise to different operational styles and models. For example, courts may sit full or part-time and deal with different levels of offense seriousness and all or various aspects of case progression (pretrial review hearings, trials, sentencing and/or monitoring of offenders). Regardless of the operational style, the philosophy guiding these courts is that domestic violence is a crime that poses particular difficulties for both the victim and the criminal justice system; therefore, a specialized method of dealing with these cases is necessary. This entry describes the operation of DVCs in the United States, Canada, and the United Kingdom. It establishes the defining features of these courts and reviews the research relating to how specialization has changed their processes, outcomes, and overall effectiveness.

Domestic Violence Courts in the United States

Court specialization in the United States is grounded in "problem-solving" or "therapeutic" approaches to domestic violence. The problem-solving approach

provided impetus for the development of the first specialist courts in Florida. The courts were believed to increase efficiency, and most criminal justice practitioners felt that the judicial and prosecutorial expertise resulting from specialization had a positive effect on the system for handling cases and helped reduce recidivism. Specialist courts also began to be developed in New York, initially based on the criminal "cluster court" model, whereby criminal cases involving domestic violence matters are assigned to a dedicated session for domestic violence cases only. The dedicated listing of cases facilitates the allocation of specialist judges and prosecutors and independent advocacy support for victims. The involvement of advocates was found to enhance the quality of information available to the prosecution and increase the likelihood of victims remaining committed to the prosecution. Some courts in New York progressed from the criminal cluster court model to a combined civil/criminal model, realizing the benefits of the latter, in particular for ensuring judicial consistency in relation to all orders. For example, having a divorce proceeding and a criminal assault case heard in a combined court would promote the ideal of "one family, one judge." While the development of DVCs can be driven primarily by system needs such as effective case management and efficient use of resources, other key objectives include increasing victim safety and perpetrator accountability. Practitioners feel that these courts are more responsive to victims' needs and provide improved enforcement and better services for perpetrators.

By the late 1990s, a plethora of DVCs were in operation in the United States, and various attempts were made to compare them with a view to identifying good practice. One such review was undertaken by the National Center for State Courts, which estimated that there were more than 300 courts with some specialized court structures, processes, or practices distinct to domestic violence in the United States; however, the review found much variation in court processes and a lack of systematic evidence of their benefits. The report identified cultural and organizational problems that hindered the development of DVCs. Other concerns included the views that the pursuit of efficiency may result in "assembly-line justice" and that the promotion of information sharing may be detrimental to victims in some cases (e.g., where custody issues were involved). But the benefits of specialization were clear, in terms of increased judicial understanding of domestic violence issues, perpetrator accountability, and more comprehensive support provided to victims.

The core "components" of effective DVCs were identified from the review. These include advocacy services for information exchange between the victim and the court, the coordination of partner agencies, environments that offer security and comfort to victims and children, specialist court personnel who receive ongoing training, evenhanded treatment of both parties and a serious tone to indicate that domestic violence is being treated seriously, integrated information systems for sharing and accessing information, evaluation and accountability of court processes and outcomes, protocols for risk assessment compliance, monitoring of defendants with court orders, and sentencing that is consistent and promotes the accountability of domestic violence offenders.

Domestic Violence Courts in Canada

In Canada, a number of multi-agency approaches to domestic violence have been promoted. In Ontario, the impetus for an improved judicial response to domestic violence came from a domestic homicide review following the killing in 1996 of Arlene May, a mother of five, by her former boyfriend. The new court that was subsequently established was evaluated by the Woman Abuse Council of Toronto, which concluded that specialized courts do make a difference. For example, men sent to the perpetrator program from the DVC had a lower breach rate than men sent via other routes. The court, established in Winnipeg in 1990, deals with intimate partner violence as well as other forms of abuse. Evaluations of this court demonstrated that it was successful in reducing the time taken to process cases and bringing about more appropriate sentencing. Prior to specialization, the most frequent sentences were conditional discharge, suspended sentences, and probation: Imprisonment was rare. In the 2 years after specialization, the most frequent sentences were probation, suspended sentences, and imprisonment. The review of Canadian initiatives to challenge violence against women concluded that "specialization has become the key to effective system reform."

Domestic Violence Courts in the United Kingdom

The introduction of specialist courts in the United Kingdom has been relatively recent, as the first was

established in Leeds in 1999. The basic features of DVCs operating in England and Wales include focusing on criminal (not civil) matters heard in Magistrates' Courts, dealing mainly with pretrial hearings rather than trials, identifying domestic violence cases and thereafter either "clustering" or "fast-tracking" them, having an advocate present to support victims, having a specialist police officer present to provide information to the court, and relying on multi-agency partnerships. These courts attempt to achieve a variety of aims: increase the effectiveness of court systems in providing protection and support to victims and imposing appropriate sanctions on offenders; enhance the coordination of criminal justice, public, voluntary, and community sector agencies in working with victims and offenders; reduce delays in the processing of cases; and reduce the rates of revictimization.

In 2006, the Home Office announced its national domestic violence plan, which has a tripartite structure, including "one-stop-shops" to provide a range of advocacy and support services for victims, specialized courts, and multi-agency responses for very-high-risk victims. This plan capitalizes on local innovation and documented evidence that such approaches can make a positive difference in the lives of victims and their children. Other recent national developments include new guidance for the police in investigating domestic violence, a revised prosecution policy published by the Crown Prosecution Service, and a joint national training program for the police and prosecutors. In addition, the government provided £2 million to underpin a new national training and accreditation program for independent domestic violence advisors (IDVAs), beginning in 2005. The support, information, and advocacy provided by IDVAs to victims were found to be crucial in the success of DVCs. The Home Office plans to have 50 DVCs operational by the end of 2007. Documented benefits include reducing the number of cases lost before trial, increasing the number of defendants pleading guilty or being convicted after trial, and providing advocacy for and increasing the confidence of victims.

To summarize, research on DVCs in England and Wales has found that these courts act as a beacon of good practice in terms of victim-centered justice, enhance victim satisfaction, send a message to the victim that she is being heard, send a message to the offender that domestic violence will not be tolerated and that the offense is taken seriously, increase public confidence in the criminal justice system, provide a catalyst for multi-agency working, and promote the coordination of efforts to support the victim.

Case Progression in Domestic Violence Courts

Understanding the strengths and limitations of DVCs needs to be set not only in the local and national contexts within which these courts are embedded but also in the context of the dynamics of domestic violence itself, which is multi-faceted (incorporating emotional and psychological abuse as well as crimes of violence and/or sexual abuse). Research has shown that, understandably, victims are often reluctant to be witnesses in court for a range of reasons: fear and intimidation; frustration with the complexity and lengthiness of the court process; concerns over housing, welfare, and immigration status; and their own relationship with the defendant and his with any of their children. It is therefore important to remember what a difficult decision a victim faces when determining whether to participate in a criminal justice case against someone with whom she has been, or may continue to be, in an intimate relationship.

Research shows that domestic violence cases tend to progress through the criminal justice system differently than comparable cases without a domestic context. In an early study on British prosecution practices, compared with non-domestic-violence cases, more domestic violence cases were not prosecuted, and when they were, more defendants were found not guilty. The impetus for developing DVCs emerged from these failures. Therefore, one of the main aims of DVCs is to reduce attrition of domestic violence cases, and the available evidence suggests that case progression *is* different when it occurs in DVCs. For example, a study of more than 4,000 defendants processed by a DVC in Memphis concluded that "prosecution was the norm rather than the exception" as prosecutors proceeded in 80% of cases and more than two thirds of the defendants pleaded guilty, were found guilty, or were placed on diversion. British statistics show that conviction rates in DVCs are higher than in other courts: 71% compared with 59%.

Case progression in domestic violence cases is problematic because of the important role ascribed to victim participation: There is a well-documented and pronounced relationship between victim participation and the successful resolution of these cases. Even within DVCs, victim participation remains a crucial

determinant of case outcomes. A recent study of a DVC in Toronto found that prosecutors were seven times more likely to prosecute a case when victims were perceived to be cooperative. In a study of five British DVCs, it was found that even with the support provided to victims by advocates, half the victims still chose to retract. Thus, case progression in DVCs still depends in large part on the perceived wishes or credibility of the victim as a prosecution witness.

Sentencing in Domestic Violence Courts

In the United States, the most common sanction for convicted domestic violence offenders is probation with all or part of a jail sentence suspended. In the United Kingdom, a recent report on several demonstration projects aimed at reducing domestic violence found that sentencing practices varied considerably. For example, the use of custodial sentences for convicted defendants ranged from 11% to 50%.

Sentencing practices are expected to differ when courts are specialized. An evaluation of six U.S. sites found the benefit to be more consistent sentencing, with the added value of incorporating advocacy for victims into the court process. The specialization of drug and domestic violence courts in West Yorkshire (where the first domestic violence court was established in Leeds) was noted to offer the possibility of providing justice with a greater focus on rehabilitation and integration of the offender into the community.

Although the aim of sentencing in DVCs is to "promote accountability from domestic violence offenders," it is unclear what specific penalties might best achieve this. A short prison sentence might be the best deterrent for one offender, but a long period of probation may be the most effective for another. Furthermore, research suggests that victims often desire the rehabilitation rather than punishment of offenders, yet perpetrator programs are not uniformly available as sentencing options. It is also unclear what effects specific penalties might have on victims' levels of satisfaction and safety. In conclusion, more evidence is needed about sentencing in DVCs and the long-term impacts on offenders, victims, and the wider community.

Amanda L. Robinson

See also Bail-Setting Decisions; Battered Woman Syndrome; Children's Testimony; Expert Psychological Testimony; Intimate Partner Violence; Police Decision Making and Domestic Violence; Sentencing Decisions; Spousal Assault Risk Assessment (SARA); Substance Abuse and Intimate Partner Violence; Victim Impact Statements; Victim Participation in the Criminal Justice System

Further Readings

Cook, D., Burton, M., Robinson, A., & Vallely, C. (2004). *Evaluation of specialist domestic violence courts/fast track systems.* London: Crown Prosecution Service and Department of Constitutional Affairs. Retrieved from http://www.cps.gov.uk/publications/docs/specialistdvcourts.pdf

Hague, G., Kelly, L., & Mullender, A. (2001). *Challenging violence against women: The Canadian experience.* Bristol, UK: Policy Press.

Kelitz, S. (2001). *Specialization of domestic violence case management in the courts: A national survey.* Williamsburg, VA: National Center for State Courts. Retrieved from http://www.ncjrs.gov/pdffiles1/nij/grants/186192.pdf

Sacks, E. (2002). *Creating a domestic violence court: Guidelines and best practices.* San Francisco: Family Violence Prevention Fund. Retrieved from http://fvpfstore.stores.yahoo.net/creatdomviol.html

Domestic Violence Screening Instrument (DVSI)

The Domestic Violence Screening Instrument (DVSI and DVSI–R versions) was designed to assess the risk of repeated domestic violence in the future on the basis of information available at the time of use. The DVSI was originally created by the Division of Probation Services in Colorado. It was crafted as a short, easy criminal records review and made available to prosecutors, judges, and probation officers soon after a suspect's arrest. The original instrument included 12 items related to past criminal and social history, completed by a review of official records, with the 12 items summed to calculate risk scores ranging from 0 to 30. It was substantially revised in Connecticut between 2002 and 2003, involving modification and consolidation of the items (now 11), along with corresponding coding instructions. Besides the 11 structured items, two additional mechanisms were added for assessing the imminent risk of violence to the victim or other persons based on an assessor's subjective professional judgment.

The original DVSI was validated using two samples of subjects drawn from four pilot judicial districts of the 22 in Colorado: 1,465 male suspects arrested for domestic violence offenses committed against female partners between July 1997 and March 1998 and 125 female partners of the men arrested. These women were offered financial compensation to participate in the study, but locating them and soliciting their willingness to participate was difficult, resulting in a relatively small sample.

Concurrent validity was determined by comparing the DVSI with an alternative risk assessment instrument, the Spouse Assault Risk Assessment (SARA) guide, to determine the level of agreement in classifying cases into the high-risk and low-to-moderate-risk categories using both instruments. The greater the agreement in classification, the greater is the concurrent validity of the DVSI. Cross-classifying the high-risk and low-to-moderate-risk distributions on the DVSI and the SARA showed high levels of agreement between the two instruments. The SARA also includes two summary risk ratings in which the assessor estimates imminent risk of violence to the partner and imminent risk of violence to others. Perceived risk of violence to the partner was highly correlated with the DVSI risk classification. Discriminant validation involved comparing the DVSI with the perceived risk of violence to others on the assumption that the DVSI assesses the risk of repeated intimate partner violence, not violence toward others. An association, therefore, is not expected. The association was weak and not statistically significant.

Predictive validity was determined by estimating the association between the DVSI and repeated violence during an 18-month follow-up period, using official records to measure three behavioral outcomes: arrests for violations of domestic violence restraining orders, domestic violence re-arrests, and general criminal perpetration arrests. The perpetrators classified as high risk were re-arrested more than those classified as low to moderate risk on the DVSI. Violations of domestic violence restraining orders were higher for high-risk than lower-risk suspects, as was the case for domestic violence re-arrests. Predictive validity was also evaluated by making comparisons between DVSI risk scores and forms of controlling, intimidating, threatening, or physically violent behaviors reported by the 125 women victims during a 6-month follow-up period. No significant relations were found between the DVSI risk scores and controlling behaviors or less serious forms of intimidating, threatening, or physically violent behaviors. However, high-risk classification on the DVSI was significantly associated with more severe forms of these behaviors: destruction of property; threatening to hit, attack, or harm the victim; and the use of threats to obtain sex from the victim. The DVSI was also significantly associated with more severe forms of physically violent behavior: choked or tried to drown the victim, used physical force to obtain sex, or tried to kill the victim.

Implementing and Modifying the DVSI in Connecticut

The DVSI was adopted as a risk assessment instrument in Connecticut in May 2002 because of the promising findings of the Colorado study and the suitability of the instrument for risk assessments in this state, which must be done by family relations counselors (FRCs) within an approximately 24-hour period after arrest. After initial training sessions on the administration of the DVSI, a pilot phase was implemented that resulted in modifications of item definitions, coding rules, inclusion of professional judgment of imminent risk categories, clarification of confusing items, and consolidation of seemingly redundant items. Revisions were finalized in January 2003.

The DVSI–R includes 11 items and the two summary risk ratings. The 11 items are statistical or actuarial in nature, referring to previous involvement in nonfamily as well as family violence, prior family violence intervention or treatment, violation of protective orders or other forms of court supervision, prior or current verbal or emotional abuse, the frequency and escalation of family violence in the past 6 months, the use of objects as weapons, substance abuse, the presence of children during such incidents, and employment status. The instrument captures two primary components of risk assessment (statistical/actuarial and structured professional judgment), yet it remains brief and efficient to administer. The DVSI–R is informed by five sources of data: police reports, criminal history review, protective order registry review, perpetrator interviews, and victim interviews.

An initial validation study of the DVSI–R was conducted using 14,970 risk assessments by FRCs from September 1, 2004, through May 2, 2005, and covering Connecticut's 23 judicial geographic areas. Preliminary evidence shows that the DVSI–R has promising concurrent and predictive validity. Further

validation is currently under way using 18-month recidivism data on 3,797 defendants.

Kirk R. Williams

See also Forensic Assessment; Intimate Partner Violence; Violence Risk Assessment

Further Readings

Campbell, J. C., O'Sullivan, C., Roehl, J., & Webster, D. (2005). *Intimate partner violence risk assessment validation study: The RAVE study* (Final report). Washington DC: National Institute of Justice.

Kropp, P. R., & Hart, S. D. (2000). The Spousal Assault Risk Assessment (SARA) guide: Reliability and validity in adult male offenders. *Law and Human Behavior, 24,* 101–118.

Skilling, N. (2002). *Validation study for the use of the Domestic Violence Screening Instrument (DVSI) and the Spousal Assault Risk Assessment (SARA) for evaluating probation clients.* Minneapolis, MN: Research and Systems Technology, Department of Community Corrections, Hennepin County.

Williams, K. R., & Houghton, A. B. (2004). Assessing the risk of domestic violence re-offending: A validation study. *Law and Human Behavior, 28,* 437–455.

Williams, K. R., & Grant, S. R. (2000). Empirically examining the risk of intimate partner violence: The Revised Domestic Violence Screening Instrument (DVSI-R). *Public Health Reports, 121,* 400–408.

Double-Blind Lineup Administration

A double-blind lineup refers to a lineup procedure in which both the witness and the lineup administrator are unaware of which lineup member is the suspect under investigation. Scholars began recommending this procedure, in contrast to the typical procedure in which the lineup administrator knows which lineup member is the suspect, because of concerns that a nonblind administrator would unintentionally communicate to the witness the identity of the suspect, increasing the rate of mistaken identifications when the suspect is not the perpetrator. Laboratory research suggests that the use of double-blind lineups may decrease the rate of mistaken identifications, especially when other lineup procedures lead to an increase in identification rates.

Definition

When a photo or live lineup is administered to an eyewitness, it is common for the police officer administering the lineup to be aware of the suspect's identity. This type of lineup procedure is referred to as a *single-blind lineup*, because although the witness is blind to the suspect's identity, the administrator of the lineup is not. Psycholegal researchers have expressed concern that when lineups are implemented in this fashion, the administrator may consciously or unconsciously emit cues to the witness and influence the witness's choice. This possibility is problematic when the suspect in question is actually innocent, as the witness could be led to misidentify an innocent person. Therefore, researchers have suggested that the police implement a double-blind procedure, meaning that both the witness and the police officer administering the lineup are unaware of which lineup member is the suspect.

Origins of the Recommendation for Double-Blind Lineups

In 1996, the American Psychology-Law Society (AP-LS; Division 41 of the American Psychological Association) selected a group of eyewitness experts to review the scientific literature on eyewitnesses and make recommendations regarding the best procedures for constructing and conducting lineups and photo spreads. In this paper, the authors argue that lineups can be viewed as a research experiment in which the lineup administrator is akin to the experimenter. In this lineup-as-experiment analogy, the police have a hypothesis that they are testing (i.e., that the suspect is the perpetrator), and they create materials (lineups) with which to test their hypothesis. The lineup administrator then collects data to test the hypothesis by administering the lineup to the witness, finally interpreting the results obtained from the witness to see whether they support the hypothesis that the suspect is the perpetrator. This panel noted that as in other types of experiments, lineups in which the lineup administrator knows which lineup member is the suspect produce a test of the hypothesis that is susceptible to bias.

Although these potential biases may not occur in a conscious or deliberate manner, social-psychological research suggests that when experimenters knew the

hypotheses of their studies they unconsciously influenced the participants' behavior. The earliest of these experiments, conducted by Rosenthal and colleagues, demonstrated that experimenters influenced the ability of rats that they thought were "maze smart" to maneuver a maze faster than rats that they thought were "maze stupid," even though there were no intellectual differences between the two groups of rats. In a similar experiment conducted with students attending a public school, Rosenthal and colleagues administered an intelligence test to students and informed the teachers that not only would this test determine a child's IQ but it would also pinpoint students who had the potential to make above-average intellectual progress throughout the year. Before the next school year began, teachers were given the names of the "gifted" students. In reality, their test had no such predictive ability, and the names had been drawn randomly. The students were tested again, and those who had been identified as being able to achieve above-average development showed a larger gain in IQ points, and teachers' ratings of these students stated that they were better behaved, more interested in learning, and friendlier than their peers.

This research has obvious implications for conducting lineups to test eyewitness memory. If a lineup administrator knows which lineup member is the suspect, he or she may consciously or unconsciously give verbal or behavioral cues to the witness that would influence the witness to choose the photo of the suspect. If the lineup administrator were blind to the suspect's identity, however, it would eliminate these expectancy effects and result in an unbiased lineup administration. Furthermore, the use of double-blind lineup procedures could also eliminate the influence of postidentification feedback on witnesses' ratings of their confidence in the accuracy of their identification decision.

At about the same time that the AP-LS group recommended double-blind lineups as a best practice in conducting lineups, the then U.S. attorney general Janet Reno convened a task force comprising psychologists, lawyers, judges, and police officers to create a manual of recommended best practices for police stations to follow when conducting an investigation. Although many of the practices suggested by the AP-LS group were also recommended in the manual, the task force did not include double-blind procedures in the guidelines for collecting eyewitness evidence. Instead, administrator knowledge of the suspect's identity was addressed in the introduction to the manual, where police officers were instructed on the possible dangers of single-blind lineups. However, the authors stated that they had refrained from including double-blind procedures in the recommendations because police officers had expressed concerns about the logistics of implementation. For example, many police stations with small police forces might find it difficult to locate a police officer who was not aware of the suspect's identity.

Empirical Support for the Use of Double-Blind Lineups

Psychological research specifically testing the influence of administrator knowledge has not produced a definitive answer as to whether single-blind lineups are more likely to result in mistaken identifications than are double-blind lineups. Early research seemed to indicate that when single-blind administrators presented a sequential lineup to a witness, the witness identified the innocent suspect in a target-absent lineup more often than when double-blind procedures were used, but only when there was a third party observing the lineup administration; there was no effect of investigator knowledge of the suspect's identity for simultaneous lineups. Other research that manipulated administrator contact with an eyewitness found that administrators who were aware of the suspect's identity and presented simultaneous lineups to an eyewitness produced more mistaken identifications than did administrators who were not allowed direct contact with a witness (instead presenting the witnesses with a folder containing the photographs and sitting behind the witnesses while they viewed the lineup photos). Several other studies have failed to find an effect of administrator influence at all. The most recent research on administrator influence has found that other biasing factors, such as biased instructions, need to be present for single-blind administrators to influence witnesses' decisions. It has been hypothesized that these other biasing factors serve to lower witnesses' criterion levels necessary to make an identification and, therefore, allow more opportunities for knowledgeable administrators to influence a witness.

Sarah Greathouse, Ryan Copple, and Margaret Bull Kovera

See also Eyewitness Memory; Identification Tests, Best Practices in; Instructions to the Witness; Simultaneous and Sequential Lineup Presentation; Wrongful Conviction

Further Readings

Phillips, M. R., McAuliff, B. D., Kovera, M. B., & Cutler, B. L. (1999). Double-blind photoarray administration as a safeguard against investigator bias. *Journal of Applied Psychology, 84,* 940–951.

Rosenthal, R. (1966). *Experimenter effects in behavioral research*. New York: Appleton-Century-Crofts.

Russano, M. B., Dickinson, J. J., Greathouse, S. M., & Kovera, M. B. (2006). Why don't you take another look at number three: Investigator knowledge and its effects on eyewitness confidence and identification decisions. *Cardozo Public Law, Policy, and Ethics Journal, 4,* 355–379.

Technical Working Group for Eyewitness Evidence. (2003). *Eyewitness evidence: A trainer's manual for law enforcement* (NCJ 188678). Washington, DC: U.S. Department of Justice, National Institute of Justice.

Wells, G. L., Small, M., Penrod, S., Malpass, R. S., Fulero, S. M., & Brimacombe, C. A. E. (1998). Eyewitness identification procedures: Recommendations for lineups and photospreads. *Law and Human Behavior, 22,* 603–647.

Drug Courts

Drug courts are therapeutically oriented courts that attempt to reduce drug-related crime through a mixture of treatment and judicial oversight. Dade County, Florida, established the first drug court in 1989. By mid-2006, there were 1,563 drug courts in the United States, including 411 juvenile drug courts. Single- and multisite studies of drug courts, as well as meta-analyses, suggest that drug courts are more effective than traditional criminal courts in reducing recidivism, though this finding does not apply to all drug courts, nor does it apply to all defendants who appear before drug courts.

In the 1980s, the federal government and many states enacted stricter drug laws, which increased the number of defendants charged with drug-related offenses. In addition, it is estimated that between one fourth and one half of adult arrestees and one half of female arrestees are at risk of drug dependence. Drug courts were set up as a vehicle for diverting at least some of these defendants to treatment on the assumption that successful treatment would reduce the risk of future offending. The emergence of drug courts, and their rapid growth, was also stimulated by significant funding by the federal government, as well as other types of local and state funding.

Drug courts do not adhere to a single, rigid model. For example, they may differ on target populations, the types of treatment that are available, and program completion and retention rates. Despite these differences, most of them share several defining characteristics. First, they focus on providing early assessment and diversion to treatment. Some courts do this prior to adjudication of the charge, while others require the person to plead to the charge as a condition for receiving treatment rather than criminal sanctions. Second, drug courts monitor the person's adherence to treatment and other conditions established by the court, through regular oversight by probation and treatment staff and through status hearings conducted at regular intervals by the court. As part of monitoring, the defendant is subjected to frequent drug testing. Third, drug courts use a mix of incentives and sanctions in an effort to shape behavior. Incentives may include gift certificates, praise of the defendant's efforts in public judicial hearings, and graduation ceremonies on successful completion of the treatment program. Punishment for infractions, such as a failed drug test or a missed court date, often relies on graduated sanctions, including incarceration. Fourth, if the person successfully completes the treatment program, the charge may be dropped (in jurisdictions that use a preplea model) or expunged from the person's record (in jurisdictions using a postplea model).

There are other differences between drug courts and traditional criminal courts. The creation of a drug court in a jurisdiction affects the way in which criminal cases are assigned to various judges. In the absence of a drug court, there is usually little effort to assign drug-related cases to a particular judge; rather, these cases are assigned for disposition in the same way that other criminal cases are assigned. In contrast, drug courts are specialty courts, and one of the characteristics of specialty courts is that cases involving defendants eligible for the court are typically consolidated before one judge. Drug courts are also therapeutically oriented, which has an impact on the role of the judge and attorneys. The adversarial process is at the heart of the traditional criminal court. However, in a drug court (as with other therapeutically oriented courts) the adversarial process is de-emphasized, on the ground that it may be an obstacle to a therapeutic outcome. Instead, the judge, the defense attorney, and the prosecuting attorney are supposed to be united in working for the outcome that best enhances the defendant's therapeutic prospects while not placing public safety at risk.

The judge plays a dual role; on the one hand, the judge seeks to create a relationship with the defendant that increases the likelihood that the defendant will comply with treatment, while on the other, the judge retains the authority to punish the individual for behavior that deviates from the dispositional plan. Drug courts, like other therapeutically oriented courts, also are likely to spend more time on an individual case and emphasize the opportunity for the defendant to participate in the design of the treatment plan and other conditions that the defendant will be required to meet.

There have been many studies of drug courts, including single-site, multisite, and meta-analyses. While many of these studies reportedly rely on different methods and/or have methodological flaws (e.g., few are random-assignment studies) and comparison across studies is difficult because of the lack of uniformity in what is being measured, the most recent meta-analysis concluded that drug courts are more effective than traditional criminal courts in reducing recidivism and in enabling defendants to reduce substance use. It has been suggested that a number of factors may influence the effectiveness of a specific drug court, including the characteristics of the offenders eligible for the drug court program, the characteristics of the drug court program itself, the available treatment services, and community contextual issues. Studies to date do not provide conclusive evidence on the effect of any of these discrete variables, though research suggests that drug courts relying on a single treatment provider and drug courts using a single preplea or postplea model (rather than a mixed model) achieved better outcomes.

Drug courts and therapeutic courts are not without controversy. Some commentators question whether a therapeutic orientation dilutes defendant rights. Others debate whether the use of coercion is effective and ethical in mandating treatment compliance. Despite these continuing debates, the number of drug courts continues to grow, and at this point, they have become part of the judicial mainstream.

John Petrila

See also Mental Health Courts; Procedural Justice; Substance Abuse Treatment; Substance Use Disorders; Therapeutic Jurisprudence

Further Readings

Goldkamp, J. S. (1994). *Justice and treatment innovation: The drug court movement* (National Institute of Justice Update, NCJRS Document Reproduction Service No. NCJ 149 260). Washington, DC: U.S. Department of Justice, Office of Justice Programs.

U.S. General Accounting Office. (1997). *Drug courts: Overview of growth, characteristics, and results.* Washington, DC: Author.

U.S. General Accounting Office. (2005). *Adult drug courts: Evidence indicates recidivism reductions and mixed results for other outcomes.* Washington, DC: Author.

Wilson, D. B., Mitchell, O., & Mackenzie, D. L. (2006). A systematic review of drug court effects on recidivism. *Journal of Experimental Criminology, 2,* 459–487.

"Dynamite Charge"

In a majority of U.S. courts, particularly criminal courts, jury verdicts are required to be unanimous. Occasionally, however, juries are unable to reach a consensus. In such instances, judges will sometimes prompt juries to reach a decision by issuing an instruction that is often referred to as the "dynamite charge." The dynamite charge stresses the importance of reaching a unanimous verdict and puts particular pressure on jurors who hold the minority opinion to reconsider their position. Researchers have begun to explore the effects of this controversial instruction.

During jury deliberations, jurors are expected to engage in a process of social influence. Ideally, juries are supposed to come to a unanimous decision by engaging in reasoned discussion designed to convince one another that a particular decision is the correct one. By the end of the deliberations, if a unanimous verdict is reached, each juror should privately believe that the jury verdict is in fact the correct verdict. This type of influence, in which a person adopts a position because he or she has been convinced that it is truly the correct position, has been termed *informational social influence.* Another type of influence, *normative social influence*, may also play a role in jury decision making. Normative social influence occurs when a juror outwardly agrees with the jury verdict (i.e., he or she goes along with the majority's position) but privately disagrees with the decision. The juror only acquiesces due to perceived or real pressure to go along with the group decision. This, ideally, should *not* occur during jury deliberation.

If a jury deadlocks (i.e., members are unable to reach a consensus), the jury is considered to be

"hung." A hung jury results in a mistrial, and a retrial may be held. Most courts view a hung jury as an outcome to be avoided because the time and resources devoted to the case do not lead to a verdict. If a jury indicates to the judge that it is unable to reach a unanimous verdict, in an effort to avoid a mistrial, the judge may order continued deliberation after issuing a supplemental instruction known as the dynamite charge. The U.S. Supreme Court first sanctioned the use of the dynamite charge (also known as the *Allen* charge) in 1896 in *Allen v. United States.* The exact wording of the dynamite charge can vary, but in its typical form, it reminds the jurors of their duty to reach a unanimous decision, and it suggests to jurors holding the minority position that they reconsider their position in light of the majority's opinion.

Proponents of the dynamite charge point out that it appears to be an effective means of encouraging verdicts. There are numerous case examples in which the dynamite charge seemed to "blast" deadlocked juries into returning unanimous verdicts soon after the charge was delivered (earning it its nickname). On the other hand, critics of the dynamite charge argue that it unfairly pressures minority jurors into changing their votes by suggesting that it is primarily their responsibility, and not the duty of majority jurors, to reconsider their position. Critics worry that the charge encourages minority jurors to acquiesce to the majority because of normative social influence (i.e., conforming due to social pressure) rather than informational social influence (i.e., a true change in opinion). In addition, there is concern that the charge incorrectly suggests to jurors that they must reach a verdict and that the jury is not permitted to hang. As a result of these concerns, some courts have ruled against the use of the dynamite charge, while others have attempted to create modified versions of it. Notably, the American Bar Association (ABA) developed guidelines for an alternate version of the dynamite charge, which reminds jurors of their duty to deliberate but does not single out minority jurors; in fact, the ABA recommends that the instruction include an admonition that specifically instructs jurors *not* to simply acquiesce to pressure from other jurors.

The criticisms and proposed reforms of the dynamite charge assume that the charge affects jurors in a particular way; however, only a few studies have attempted to directly assess the effect of the dynamite charge on jury decision making. In the first study on this topic, Saul Kassin and his colleagues recruited undergraduates to participate as mock jurors, and after reading a summary of a trial, the participants engaged in what they thought were deliberations with other jurors via written notes (in reality, there were no other jurors). The researchers manipulated whether the participants were part of the majority or minority group during deliberation and whether they received the dynamite charge or no supplementary charge after deadlocking. Consistent with critics' fears, the results indicated that minority jurors who received the dynamite charge were more likely to feel pressurized to change their votes and more likely to actually change their votes than majority jurors who received the dynamite charge. Minority jurors were no more likely to change their votes than majority jurors in the no-instruction condition. In addition, majority jurors exerted more normative pressure after receiving the dynamite charge, suggesting perhaps that the dynamite charge encourages the use of normative social pressure.

In another study, Vicki Smith and her colleague continued to explore the effect of the dynamite charge by having participants read a trial transcript and then engage in face-to-face deliberations in groups of six. They manipulated the type of supplemental charge deadlocked juries received, and they varied whether the participants were a part of the majority or minority. Consistent with the results from the first study, minority jurors who received the dynamite charge felt more pressure and were more likely to change their votes than majority jurors who received the dynamite charge. Surprisingly, there was no corresponding increase in the amount of normative pressure exerted by majority jurors who received the dynamite charge, indicating that the increased pressure felt by minority jurors was directly due to the dynamite instruction.

The published research in this area suggests that critics' concerns that the dynamite charge may selectively coerce minority jurors to capitulate to the majority are warranted. A number of pressing questions remain, including the effects of modified versions of the dynamite charge and variations in how and when the dynamite charge is delivered. In a more recent exploration, Ludmyla Washula compared the traditional dynamite charge with a version consistent with the ABA's recommendations. The results indicated that the ABA version attenuated the majority's influence under certain conditions and jurors who received the ABA version were less likely to misunderstand the law regarding hung juries than those who

received the traditional dynamite charge. More research is needed to understand the full effects and parameters of the dynamite charge as well as to explore alternatives in the event that the dynamite charge is found to unfairly pressure minority jurors.

Melissa B. Russano

See also Juries and Judges' Instructions; Jury Deliberation; Jury Size and Decision Rule

Further Readings

Allen v. United States, 164 U.S. 492 (1896).

Kassin, S. M., Smith, V. L., & Tulloch, W. F. (1990). The dynamite charge: Effects on perceptions and deliberation behavior of mock jurors. *Law and Human Behavior, 14,* 537–550.

Smith, V. L., & Kassin, S. M. (1993). Effects of the dynamite charge on the deliberations of deadlocked mock juries. *Law and Human Behavior, 17,* 625–643.

E

Elder Abuse

Although elder abuse is a pervasive and growing problem, much about this topic remains unknown, and inconsistency in definitions has hampered research and practice. Both the lack of clarity of definition and the underreporting of cases have prevented a clear picture of prevalence. Notwithstanding, it is estimated that between 1 and 2 million Americans over age 65 have experienced some type of abuse. Elder abuse occurs in both institutional and domestic settings. Currently six types of abuse are generally agreed on. Profiles of victims have found no gender differences, but likelihood of abuse is higher in elders with low income and in those who are depressed or who have experienced earlier domestic abuse. Abusers are most often children and other family members of victims. Regarding treatment and prevention, collaborative approaches have been shown to be best suited for elder abuse victims; psychologists play an important role on these teams. Finally, additional funding has been noted as critical for improving prevention and treatment services, but equally important is the need for additional research.

Definitions and Prevalence

Early attempts to compile statistics on elder abuse suffered from a lack of consistency in definition. While there is still some disagreement among the various interested professional groups, a generally accepted definition of elder abuse now exists. *Elder abuse* is the umbrella term used to refer to any act that causes harm or risk of harm to a vulnerable adult. The acts can occur to elders living in domestic settings (private homes, apartments, etc.) and to elders in institutional or residential facilities. Regardless of site, six different types of abuse have been identified. For all types, acts are considered abuse whether they are intentional or not and whether they include verbal or nonverbal behavior. *Physical abuse* includes inflicting pain or injury or depriving a basic need. *Sexual abuse* includes nonconsensual sexual contact of any kind. *Emotional or psychological abuse* is the infliction of emotional anguish or distress. *Financial or material exploitation* involves funds, property, and assets. *Neglect* is the loss of food, shelter, health care, or protection and is the most common type in domestic settings. *Self-neglect* is any act by the elder himself or herself that threatens health or safety. Finally, *abandonment* is the desertion of an elder by anyone who has assumed responsibility for care.

An accurate picture of the incidence and prevalence of elder abuse is elusive for a number of reasons. First, not all states use the preceding definitions. Second, there are no uniform reporting standards or systems. This has prevented the collection of comprehensive national data. Third, only a portion of elder abuse cases is ever reported. Vulnerable elders are even less able or willing, and thus less likely, than are victims of other domestic abuse to report abuse or neglect. Current estimates suggest that only 1 out of every 5 cases in all settings is reported and only 1 in every 14 cases in domestic settings. Consequently, statistics suffer from underreporting. The National Center on Elder Abuse estimates that between 1 and 2 million Americans aged 65 and over, a frequency of 2% to 10%, have been injured, exploited, or otherwise mistreated. Specific

studies indicated that in 1996, nearly 450,000 adults aged 65 and over were abused and/or neglected in domestic settings, and in 2003, the Long Term Care Ombudsmen programs reported 20,673 complaints from institutional residents. A survey of State Adult Protective Services (the agencies responsible for collecting and investigating reports of elder abuse) by the Administration on Aging, in 2004, found an increase of 19.7% in reports from 2000 to 2004 and an increase of 15.6% in substantiated cases. In considering these data, it should be remembered that the population of elders and of vulnerable elders is increasing. Furthermore, improvements in reporting and investigating may also underlie some of the increase in the number of cases reported and certainly in the substantiation of those cases. As evidence for this, states with mandatory reporting and tracking have higher rates of investigation.

Profiles of Victims and Perpetrators

Research has examined both who is most likely to be abused or neglected and who is most likely to perpetrate these crimes. The median age of abuse victims in 1996 was 77.9. In 2004, more than two in five of the cases reported involved elders aged 80 or over. In 1996, 66.4% of the victims of domestic elder abuse were White, while 18.7% were Black; Hispanic elders accounted for 10% of the domestic elder abuse cases. Minority elders may be even less likely than majority elders to report abuse, for doing so would bring shame on the family. Men and women are equally likely to be abused; men may be more likely to be victims of self-neglect. Elder abuse is more likely in situations where the husband has a lower level of education (wife's education does not seem to play a role), when family income is low, when depression is present, and when abuse occurred earlier in the household. Again, reporting problems hamper accurate data.

Perpetrators of abuse and neglect are most often children of the victim (32.6%), followed by other family members (21.5%), and then spouses and intimate partners (11.3%). Early data indicated that men were more likely to be abusers, but more recent research suggests that both men and women are equally likely to perpetrate elder abuse and neglect crimes. This may be a reflection of better reporting, better definitions, or both. Furthermore, earlier studies focused primarily on physical and sexual abuse. More recent data on the abuser may reflect the incorporation of emotional and financial abuse and neglect. Research has yet to clarify the profile of perpetrators based on type of abuse.

Prevention and Treatment Approaches

In addition to profiling victims and abusers, a significant proportion of the research has focused on identifying best practices to improve programs and services for victims, help prevent abuse and neglect, and inform policy and law. State adult protective services are charged with screening and investigating reports and coordinating with local service providers to care for victims and with the local police to detain perpetrators. Research on the benefits of collaborative approaches has shown that elder victims are cared for more quickly and efficiently, and prevention of recurrence of abuse is greater over the long term when multiple agencies work in partnership. The greatest potential benefit, however, is in the detection and prevention of abuse. Several models have been suggested and some efficacy data have emerged suggesting that a multi-agency, interdisciplinary approach in each community has the potential to greatly reduce the incidence of elder abuse. Much more evaluation research is needed to identify the critical components of collaborative programs.

Finally, with regard to prevention, several experts in the field have implicated the widespread ageism present in society that allows elder abuse and neglect to flourish. Studies have shown that the same services available for victims of child or domestic abuse (e.g., foster homes, women's shelters) are not available for elders. Funds devoted to prevention and treatment of elder abuse are significantly less than that devoted to other types of crimes. Even the paucity of law on the federal level and the inconsistency of state laws (although all 50 states and most territories do have laws regarding elder abuse) are indicative of the poor view of elders. There is substantial literature on the negative view of elders in society and the potential for maltreatment as a result of these stereotypes. Specific to elder abuse is the literature on perception of abuse. One example is a study that presented six different scenarios to college students and asked them to rate whether abuse was present in the scenario, whether the caregiver or the older adult was the abuser, and how justified the abuse was. Scenarios

included those in which a daughter throws a frying pan at her mother, a daughter threatens to poison her mother's food, a daughter withholds money belonging to her mother, and a daughter refuses to take her mother to a doctor's appointment. Students also answered questions about their relationships with their grandparents. Results showed that students found caregiver abuse to be more justifiable when the older adult was portrayed as being agitated or senile but less so when the older adult was helpless. Students who reported closer contact with their own grandparents found more instances of abuse to be unjustifiable than those students who did not maintain close ties with grandparents.

Psychologists have increasingly been part of interdisciplinary teams of professionals involved in the prevention and treatment of victims of elder abuse. Important to the definition of elder abuse and to the design of services and care programs, psychologists have helped improve prevention and treatment efforts. Those with psychology and law training have the potential to make the greatest impact. In addition to the need for more funding and staff, state adult protective agencies reported in a 2004 survey that they had a pressing need for training. Specifically, they cited that forensic interviewing, cross-training with professionals in the legal system, and improved law enforcement were critical to improving services for their clients. Clearly, increased and continuing funding and research are needed in all areas of elder abuse to help ensure the health and well-being of vulnerable elders.

M. Cherie Clark and Paul W. Foos

See also Financial Capacity; Guardianship; Proxy Decision Making

Further Readings

American Bar Association Commission on Law and Aging. (2005). *Information about laws related to elder abuse.* Available at http://www.ncea.aoa.gov

Lachs, M. S., & Pillemer, K. (2004). Elder abuse. *Lancet, 364,* 1192–1263.

National Center on Elder Abuse. (2005). *Fact sheet: elder abuse prevalence and incidence.* Available at http://www.ncea.aoa.gov

U.S. Administration on Aging. (2006). *Elders rights and resources.* Retrieved July 17, 2007, from http://www.aoa.gov/eldfam/Elder_Rights/Elder_Rights.asp

Elderly Defendants

As the average life span increases, the population of elders involved in the court system grows. Thus, there has been some concern about how elders are treated when in court, in prison, and on death row.

Elders on Trial

Although research is limited, some studies have shown that elders are perceived to be less credible as witnesses, perhaps because the accuracy of their memory is in doubt. There is also scant research as to how elders are treated when they are defendants. Anecdotal evidence suggests that age may affect the decisions of some jurors and judges. In 2006, 89-year-old George Weller was on trial for driving his car through a farmers' market and killing 10 people. The jury found him guilty of manslaughter, which was the most severe of their verdict options. Several members of the jury told the media that the jury had decided that the defendant's age should not affect their verdict. The judge sentenced him to probation, noting that Weller's frail health would pose difficulties for the prison system. Furthermore, the judge feared that Weller's health would suffer if he was sent to prison. Thus, both jurors and the judge commented on the defendant's age when discussing their decisions. In a second case, 86-year-old Edgar Killen was on trial in 2005 for killing three men in 1964. During voir dire, the prosecutor asked potential jurors whether the defendant's age or health would affect their decisions. The jury rejected the murder charges and, instead, found the defendant guilty of manslaughter. The judge awarded Killen the maximum sentence of 60 years. In his official opinion, the judge recognized that the lengthy sentence was essentially a life sentence but noted that age is not a factor in sentencing. As these cases illustrate, age could be influential in determining the outcome of a trial in some cases. Research is needed to determine if age has a statistically significant effect on trial outcomes.

Elders in Prisons

In recent years, the number of elderly prisoners has grown. This has led to concern that prisons are ill equipped to meet the special needs of elders, such as special dietary needs and those arising from physical limitations. Prisons have implemented a variety of

solutions. Some prisons have released nonviolent elderly prisoners; others have released prisoners who are very ill and deemed to be at low risk of recidivating. Some prisons have developed programs that release prisoners with ankle bracelets that monitor their movement. Finally, some prisons have created separate geriatric units for elder prisoners. These units are tailored to the needs of the elderly. Most of these options are implemented because prisons are not physically or financially able to meet the needs of elder prisoners.

Elders on Death Row

The approximately 100 elders who are on death row present a different kind of challenge; in recent years, several court cases have challenged the constitutionality of executing elders. One case involved 76-year-old Clarence Allen, a wheelchair-bound death row prisoner, who suffered from many ailments, including blindness. Before his 2006 execution, he claimed that his execution would violate the Eighth Amendment prohibition on cruel and unusual punishment.

While the U.S. Supreme Court has determined that it is unconstitutional to execute juveniles, the mentally ill, and the mentally retarded, the Court has refused to consider cases concerning the execution of elders. The Court determined that these other groups do not have the mental capacity that makes someone deserving of the death penalty. For instance, psychological research has indicated that juveniles are immature and are sometimes unable to logically consider the outcomes of their actions. Similarly, the limited mental abilities of the mentally ill and the mentally retarded make the death penalty inappropriate for such prisoners. Most elders are not likely to receive the same leniency from the Court, unless they can show some mental deficit (e.g., Alzheimer's disease or dementia) that would make their conditions similar to that of the mentally ill or mentally retarded.

In determining whether the death penalty violates the Eighth Amendment, courts often also consider whether such punishment violates the community's "evolving standards of decency." For example, the Supreme Court determined that the community was opposed to executing the mentally ill. It is difficult to determine the public's opinion about the execution of the elderly because researchers have not studied this issue as thoroughly as they studied opinion about executing members of the other groups. There is anecdotal evidence that the public may not support execution of elders in some cases. Before 74-year-old James Hubbard was executed in 2004, his friends and community members started a petition asking the governor to convert his death sentence to life in prison. Hubbard suffered from cancer and dementia; he no longer understood why he was on death row awaiting execution. Thus, his supporters felt that he did not deserve to be put to death. Despite the public support for Hubbard, the courts and governor refused to stop the execution.

Psychologists have much to learn about how elders are treated in the legal system. Research is needed to determine how age affects verdicts and sentences, how prisons can best meet the needs of elder prisoners, how age-related mental problems affect the capacity to understand one's situation, and whether the public supports the execution of elders.

Monica K. Miller and
L. Beth Gaydon

See also Death Penalty; Elderly Witnesses; Juveniles and the Death Penalty; Mental Illness and the Death Penalty; Mental Retardation and the Death Penalty

Further Readings

Bornstein, B. H. (1995). Memory processes in elderly eyewitnesses: What we know and what we don't. *Behavioral Sciences and the Law, 13,* 337–348.

Elgit, H. C. (2005). *Ageism and the American Legal System*. Gainseville: University Press of Florida.

Gaydon, L. B., & Miller, M. K. (2007). Elders in the justice system: How the system treats elders in trials, during imprisonment, and on death row. *Behavioral Sciences & the Law, 25*(5), 677–699.

Lemieux, C. M., Dyeson, T. B., & Castiglione, B. (2002). Revisiting the literature on prisoners who are older: Are we wiser? *Prison Journal, 82,* 440–458.

Elderly Eyewitnesses

As the potential pool of elder witnesses continues to expand with the aging U.S. population, the age group referred to in the literature as older adults or seniors has become of greater interest to researchers. The group typically comprises healthy, active members of the community falling into the 60- to 80-year age band. Older eyewitnesses tend to provide less detailed and less

accurate descriptions of actions and persons than younger witnesses when their processing resources are depleted, but they can provide as much information as younger witnesses under some conditions. With regard to face recognition, a number of recent studies suggest that older adults are more prone to what are referred to as false recognitions.

Recall of Persons, Actions, and Events

Where comparisons have been made between different age groups, young adults have been found to be superior to older adults in some eyewitness skills. For example, Dan Yarmey in his studies reports that young adults are more accurate in their recall of perpetrator characteristics, environmental details, and details of actions than older adults. This applies to both free recall (where the witness provides a narrative account from his or her own perspective) and cued recall (where the witness responds to interviewer questions). Older adult witnesses tend to provide fewer descriptions of the perpetrator (physical and clothing characteristics) than younger witnesses. Differences between young and older adults in the amount and accuracy of recall may be even greater over long retention intervals (such as a month) and when conditions at the time of witnessing are poor, reducing the resources that are available to attend to what is happening. This may mean that there are fewer cues available at the time a witness tries to retrieve the information. Fergus Craik's classic work on memory processes indicates that older adults benefit from "environmental support" during questioning (the retrieval phase). This could take the form of an interview that provides the witness with some instruction on how to recreate, during retrieval, the personal, physical, and emotional context at the time of witnessing. For example, when older adults are questioned with a Cognitive Interview, a procedure that can aid memory search and retrieval, they can recall as much and sometimes even more information than younger adults. One qualification should be borne in mind, however. The educational level and verbal intelligence of the adult (young and old) appear to be important factors in boosting his or her recall performance, as compared with younger adults. While further research is needed on this issue, police officers and jurors should note that although verbal recall can be reduced in old age, a verbally skilled and well-educated senior can be just as reliable a witness as a young adult.

Susceptibility to Misinformation

Several recent studies have shown that older adults may experience difficulty in distinguishing between what they have witnessed themselves as opposed to what they may have heard from someone else (i.e., a problem identifying the precise source of the information). A typical consequence is that any misleading information that may be encountered subsequent to witnessing an event is erroneously reported as if it were part of the original event. However, older adults are not always more susceptible to misinformation. The contradictory findings are likely due to the fact that older adults are remembering less information overall, and this may also mean that they may pay less attention to misleading details. Additionally, there are differential rates of memory declines in older adults depending on educational level, verbal intelligence, intellectual pursuits, expertise in different skill domains, and level of physical activity. Finally, the conditions under which older adults are tested in laboratory studies (e.g., video presentation of event, short retention interval, and single interview) may obscure differences in performance that might arise under more realistic test conditions.

Recognition and Identification

The typical finding in laboratory studies of unfamiliar face recognition (the recognition of faces seen only once before) is that older adults are more likely to "false alarm" to new faces. In other words, they are more likely to falsely "recognize" a face they had not seen previously. Of particular concern are the higher rates of false identifications when seniors view lineups that do not contain the culprit. As indicated earlier, aging is typically associated with a reduction in cognitive resources and an increased reliance on nonanalytic strategies such as familiarity. It is the recollection of contextual information that is critical in an eyewitness situation that older adults might have particular difficulty with.

Field studies of actual eyewitnesses also provide us with some information on the identification ability of older adult witnesses. Tim Valentine collected data from 640 witnesses who attempted to identify suspects in 314 lineups; data were obtained from four identification suites in London in September 2000. Broadly classified by age, 48% of those below 20 years of age

had made a suspect identification as compared with only 28% of the older age group (aged 40 years plus). There were no differences in the rates of identifications of the stand-ins or foils (innocent persons. in a police lineup). In most cases, the suspects were young adults, and there is some evidence that older adults do less well with younger faces (as compared with older faces), at least in situations where the perpetrator is not present in the lineup. In other words, older adults might have some advantage when recognizing faces that are closer in age to themselves.

Finally, stereotypes of elderly witnesses have been examined in simulated jury studies conducted by Liz Brimacombe in Canada. Participant jurors were presented with the videotaped testimony of young and older witnesses. In one study, older seniors were less accurate in their responses to direct and cross-examination questions but were not rated as less credible than younger seniors or younger adults. A later study confirmed that senior witnesses (70-year-olds) did provide less accurate testimony than younger adults (20-year-olds). Jurors were able to spot this and hence rated the seniors as less credible. However, age stereotypes did not bias the judgments of jurors. Further analysis showed that the witnesses (young and old) who were rated as most credible had provided fewer negative qualifiers (e.g., "I think, but I am not sure . . ."). Thus, what a witness actually says and their confidence, rather than their age, may be more important determinants of credibility.

Amina Memon

See also Cognitive Interview; Exposure Time and Eyewitness Memory; False Memories; Identification Tests, Best Practices in; Juries and Eyewitnesses; Mug Shots; Retention Interval and Eyewitness Memory; Source Monitoring and Eyewitness Memory; Unconscious Transference

Further Readings

Balota, D. A., Dolan, P., & Duchek, J. (2000). Memory changes in healthy older adults. In E. Tulving & F. I. M. Craik (Eds.), *The Oxford handbook of memory* (pp. 395–425). New York: Oxford University Press.

Brimacombe, C. A., Quinton, N., Nance, N., & Garrioch, L. (1997). Is age irrelevant? Perceptions on young and old adult witnesses. *Law and Human Behavior, 21,* 619–634.

Memon, A., Bartlett, J. C., Rose, R., & Gray, C. (2003). The aging eyewitness: The effects of face-age and delay upon younger and older observers. *Journal of Gerontology: Psychological Sciences and Social Sciences, 58,* 338–345.

End-of-Life Issues

As the range of options for extending life and for hastening death continues to expand, so the range of issues faced by clinical evaluators also has grown. Among the most complex are those surrounding requests for assisted suicide, euthanasia, or the withdrawal or refusal of life-sustaining interventions. The availability of some of these alternatives varies by jurisdiction and medical condition, although all persons are afforded the right to refuse life-sustaining treatment. However, like all treatment decisions, requests to hasten death depend on the patient's decision-making competence. Forensic evaluators have increasingly been asked to participate in competency evaluations, particularly around end-of-life treatment decisions. For the patient who is incompetent to make treatment decisions, advance directives can help determine the course of end-of-life treatment and help preserve the patient's autonomy. But advance directives often raise a new set of questions regarding exactly when the directive should be implemented and, if a health care proxy has not been appointed, who should make treatment decisions. As public debates regarding legalized suicide or euthanasia progress, these issues will likely become even more important.

Defining Clinical/Legal Issues at the End of Life

This following section defines key terms and concepts pertaining to end-of-life decision making, including physician-assisted suicide (PAS), euthanasia, do-not-resuscitate (DNR) orders, and advance directives. Perhaps the most controversial of these issues are PAS and euthanasia. Both these interventions involve actions that directly lead to a hastened death in a seriously ill person; however, they vary in the nature of the clinician's involvement. In PAS, the clinician provides assistance and guidance, typically in the form of a prescription for medication that the patient can use if he or she chooses to commit suicide. Of key importance, it is the patient and not the physician who ultimately administers a lethal dose of medication. In 1997, this practice was legalized in Oregon, resulting in fierce public debate. Euthanasia, on the other hand, involves the intentional administration of a lethal medication *by the clinician* (presumably in response to a patient's request) for the sole purpose of ending life. In 1998, one of the leading proponents of

euthanasia, Dr. Jack Kevorkian, provided a lethal injection (i.e., euthanasia) to a patient suffering from amyotrophic lateral sclerosis (ALS, also known as Lou Gehrig's disease) on national television. He was subsequently convicted of second-degree murder and sentenced to 10 to 25 years in prison. Although euthanasia is now legal in the Netherlands and Belgium, it remains illegal in the United States.

Both PAS and euthanasia are distinguished from the clinical practice of administering high doses of pain medication in an effort to control severe pain, often with the awareness that death is likely to occur. This practice, referred to as "the law of double effect," differs because the express purpose of the medication is to control pain, not to end life.

In addition to interventions that have the direct effect of ending life immediately, there are a number of other death-hastening procedures that are often the source of controversy and psycholegal inquiry. For example, death can be hastened by withdrawing or refusing life-sustaining medical care, sometimes referred to as "passive euthanasia." This includes decisions to remove mechanical ventilation (i.e., a machine to keep a comatose patient breathing), refuse needed renal dialysis, or refuse or terminate artificial nutrition and hydration. In such cases, the rejection of needed medical interventions can hasten a death that might otherwise be delayed for weeks, months, or even years. Yet while legal debate and controversy surrounds more direct interventions such as PAS and euthanasia, the right of a mentally competent adult to refuse life-sustaining interventions is uncontested.

Refusal of life-sustaining interventions becomes more complex and controversial when the patient no longer has the capacity to make or articulate a competent decision. In patients with life-threatening or terminal illness, such situations are often anticipated, and patients provide their consent *in advance.* There are two legal mechanisms to accomplish this goal: Advance Directives (ADs, sometimes called "Living Wills") and the Durable Power of Attorney or Health Care Proxy (although different jurisdictions have used slightly different labels to describe these two types of legal instruments). Regardless of the term used, both alternatives enable the patient to influence treatment decisions that may arise after he or she has lost the capacity to provide informed consent.

ADs are broad in range and encompass highly specific interventions and situations such as the DNR order (a refusal of CPR if the patient's heart stops) to very broad documents that specify multiple scenarios in which different treatments are desired or rejected. The broadest mechanism of all is the health care proxy or durable power of attorney, where the medically ill or elderly person appoints another individual to make treatment decisions on his or her behalf in the event that he or she becomes incapacitated. Each of these ADs provides a mechanism for individuals to protect their autonomy and influence treatment decisions, although both ultimately rely on another person's willingness or ability to carry out the patient's wishes. Moreover, while these instruments remain dormant until the patient loses the capacity to make treatment decisions, controversies often arise as to whether the situation described in an AD exists (e.g., if the patient has specified that treatment should be withheld if no chance of recovery exists). In such cases, medical, mental health, and forensic specialists are often asked to provide input to determine appropriate directions.

Legal History of the "Right to Die"

Although case law regarding the right to determine what medical treatments are implemented is longstanding, end-of-life treatment decisions were rarely addressed before the seminal New Jersey Supreme Court decision *In re Quinlan* (1976). Although this case never reached the Supreme Court, the request by Karen Quinlan's parents to terminate the mechanical respirator that was keeping their daughter alive was widely recognized as the first significant challenge to the medical profession's practice of extending life as long as possible.

The right-to-die issue first reached the U.S. Supreme Court roughly 15 years later, in *Cruzan v. Director, Missouri Department of Health* (1990). Like *Quinlan,* this case also involved a young woman, Nancy Cruzan, who fell into a persistent vegetative state (i.e., comatose with no evidence of brain activity) that required the insertion of a feeding tube. After 4 years, her parents requested the removal of the feeding tube to allow their daughter to die. The hospital refused to comply, and the Cruzans subsequently sued the Missouri Department of Health. Although the Court ruled in favor of the state, the decision affirmed the right of competent persons to refuse life-sustaining medical intervention, whether through their own decision making or through ADs. However, the Court left standards for determining decision-making competency and guidelines for decision making to the states.

The Supreme Court addressed hastened death even more directly in a pair of 1997 cases that challenged existing prohibitions against PAS. In *Washington v. Glucksberg* (1997) and *Vacco v. Quill* (1997), the Court considered the question of whether permitting some terminally ill patients to discontinue life-sustaining treatment (e.g., the Cruzan decision), while denying other terminally ill individuals the right to hasten death (i.e., those who do not require such interventions) violated the Due Process and Equal Protection clauses of the Fourteenth Amendment. Although the Court rejected this assertion by distinguishing between active and passive methods for hastening death, the Court opined that decisions about PAS could be determined by the individual states, essentially clearing the way for legalized PAS.

The Court's opinion was not accidental; 3 years earlier, Oregon voters had approved a ballot referendum authorizing the Death with Dignity Act, legalizing PAS in that state (a number of other states have held referendums on this issue before and since Oregon's, but voters have rejected these proposals). In October of 1997, shortly after the *Washington v. Glucksberg* (1997) and *Vacco v. Quill* (1997) rulings, Oregon's referendum took effect, making this the first and only state in the United States to legalize PAS. Under the guidelines of the Oregon's Death with Dignity Act (or ODDA), an Oregon resident may request a prescription for a medication that will result in death. The individual must be 18 years of age or older, with a terminal illness and a life expectancy of less than 6 months. Additionally, the individual must be capable of making a "reasoned judgment" (described further below). Request for PAS must be made at least twice, of which one request must be written, and the physician is required to solicit a second opinion regarding the patient's diagnosis. Finally, the physician is responsible for determining if a mental disorder has impaired the patient's judgment (i.e., rendered him or her incompetent) and, if so, whether mental health consultation and/or treatment is required. This latter requirement has engendered considerable controversy, largely because of concerns that patients with significant depression may not be accurately identified. However, data from Oregon indicate that requests for PAS are relatively rare, accounting for roughly 1 in 10,000 Oregon deaths (.01%) or 40 to 50 requests per year. Of those patients who qualify for PAS and fulfill all the requirements, approximately two thirds ultimately die by ingesting the prescribed medication. This rate is substantially lower than data from the Netherlands, where euthanasia accounts for roughly 3% of all deaths.

Treatment Decision Making

A critical element of end-of-life decision making is the ability of the patient to make a rational, informed choice. The term *competence* refers to a determination as to whether one is legally authorized to make decisions for himself or herself. However, it can be difficult to determine competence in terminally ill patients, in part because impairments are often subtle, like dementia or depression (vs. psychosis, which is a common basis for incompetence among psychiatric patients). Even when "rational thinking" appears intact, symptoms such as depression can affect end-of-life decisions. For example, depression can increase a patient's skepticism about the efficacy of pain or symptom control and contribute toward a feeling of hopelessness, at times leading to requests for PAS or refusals of life-sustaining interventions despite long-standing moral or personal objections to hastened death. Later, once symptoms have been treated, these patients may be thankful that their request for euthanasia was not fulfilled. On the other hand, denying terminally ill patients the right to refuse life-sustaining treatment may inflict undue pain and distress, essentially ignoring the patient's autonomy. Thus, accurate evaluations of a patient's decision-making capacity, once this ability has been called into question, is critical and requires considerable expertise, both in the legal issues (i.e., evaluating decision-making capacity in general) as well as the specific context (severe or life-threatening illness).

Once a patient has been found incompetent to make treatment decisions, the mechanism for deciding among treatment options hinges on the particular jurisdiction. This process is, in theory, greatly simplified when ADs exist to document the patient's wishes. However, in actuality, ADs are often less helpful than patients assume. These instruments often present information in vague terms (e.g., "when the prognosis for recovery or posttreatment quality of life is extremely poor") that make it difficult to determine exactly when to apply the directive. Furthermore, physicians may be reluctant to carry out the patient's wishes, even when no dispute as to applicability of the directive exists (particularly if they disagree with the decision). In the absence of a designated health care

proxy, families may debate about whom to appoint to make treatment decisions on the patient's behalf or disagree about which course of action is best. Although a mental health evaluator may participate in helping clarify issues such as decision-making capacity, determining who acts as the surrogate decision maker and establishing guidelines for decision making are usually left to the treating physician, hospital ethics committees, or even the courts.

Barry Rosenfeld and Lia Amakawa

See also Proxy Decision Making; Psychiatric Advance Directives

Further Readings

American Medical Association Council on Ethical and Judicial Affairs. (1998). Optimal use of orders not to intervene and advance directives. *Psychology, Public Policy, and Law, 4,* 668–675.

Cruzan v. Director, Missouri Department of Health, 497 U.S. 261 (1990).

Emanuel, L. L. (1988). *Regulating how we die: The ethical, medical, and legal issues surrounding physician-assisted suicide. Cambridge*, MA: Harvard University Press.

In re Quinlan, cert. denied, 429 U.S. 92 (1976).

Rosenfeld, B. (2004). *Physician-assisted suicide, euthanasia, and the right to die: The interface of social science, public policy, and medical ethics*. Washington, DC: American Psychological Association Press.

Vacco v. Quill, 521 U.S. 793 (1997).

Washington v. Glucksberg, 521 U.S. 702 (1997).

Werth, J., Benjamin, G., & Farrenkopf, T. (2000). Requests for physician-assisted deaths: Guidelines for assessing mental capacity and impaired judgment. *Psychology, Public Policy, and Law, 6*(2), 348–372.

Estimator and System Variables in Eyewitness Identification

A distinction between estimator and system variables is made in the eyewitness research literature between two categories or types of variables that influence the accuracy of eyewitness accounts. System variables are those that are (or can be) under the control of the justice system, whereas estimator variables cannot be controlled by the justice system. Examples of system variables include factors such as the instructions given to eyewitnesses prior to their viewing a lineup or the number of people who are used in a lineup. Examples of estimator variables include factors such as how good a view the eyewitness had of the perpetrator during the crime or whether the witness and perpetrator were of the same or different race. The estimator versus system variable distinction tends to be tied to a temporal unfolding of events, in the sense that events that occur before or during the witnessing experience are necessarily relegated to estimator variable status whereas system variables begin to come into play later, once the investigation is under way. There is no presumption in the estimator variable versus system variable distinction that one category of variables has more impact on eyewitness accuracy than the other. Nevertheless, this distinction, first articulated in 1978 by Gary L. Wells, has tended to result in a higher premium being placed on system variables because these can be used to help minimize eyewitness errors in actual cases, whereas estimator variables can only be used to postdict how the variables might have influenced the eyewitness.

The study of system variables has generally been tied to policy-related recommendations on ways to improve how crime investigators interview eyewitnesses and on ways to improve how lineups are constructed and conducted. The study of estimator variables, in contrast, has more often been tied to the development of expert testimony that can assist triers of fact (e.g., judges, juries) in deciding whether to accept the testimony of an eyewitness as having been accurate or mistaken. In fact, however, system variables are as relevant to expert testimony as are estimator variables, and in recent years, it has become more apparent that estimator variables and system variables are not independent. In general, the impact of system variables is likely to depend somewhat on the levels of the estimator variables. An obvious example of this dependence is when the estimator variables are highly favorable to the existence of an extremely deep, solid memory. If memory is strong enough, system variables would not likely have much impact. For instance, system variable research shows that it is critical for eyewitnesses to be warned prior to viewing a lineup that the actual perpetrator might not be present, because the absence of such a warning leads eyewitnesses to select someone from a lineup even if the actual perpetrator is not present. However, if the eyewitness's memory is strong enough (e.g.,

attempting to pick one's own mother from a lineup), the presence or absence of this warning is of little consequence. Hence, a complete understanding of eyewitness performance clearly requires research on both system and estimator variables.

Generally, system variables can also serve the function of being estimator variables, but estimator variables cannot be system variables. In some cases, however, variables that traditionally have been considered estimator variables have taken on system-variable-like properties. The confidence of an eyewitness, for instance, has traditionally been considered an estimator variable because it was presumed to be beyond the control of the justice system, and the emphasis of the estimator variable research on eyewitness confidence was to find out how well or poorly it postdicted the accuracy of the eyewitness. Now, however, there is a great deal of research showing that procedures that are under the control of the justice system affect the confidence of the eyewitness and the magnitude of the confidence-accuracy relation. In this sense, eyewitness confidence, traditionally an estimator variable, has taken on some of the properties of a system variable.

In eyewitness identification research, system and estimator variables have been further subdivided in recent years into two types—namely, suspect-bias variables and general-impairment variables. Suspect-bias variables are those that influence the eyewitness specifically toward identifying the suspect from a lineup, whereas general-impairment variables simply reduce the overall performance of the eyewitness. An example of a general-impairment system variable is when the lineup administrator fails to instruct the eyewitness that the perpetrator might not be in the lineup. In this case, the instruction failure impairs the eyewitness's performance (by making the eyewitness insensitive to the possibility that the correct answer might be "not there") but does not specifically bias the eyewitness toward the suspect any more than it biases the eyewitness toward the nonsuspects in the lineup. An example of a suspect-bias system variable is when a lineup is structured in such a way that the suspect stands out as the obvious choice (e.g., as the only one who fits the description of the culprit). An example of a general-impairment estimator variable is poor viewing conditions at the time of witnessing. Poor viewing conditions might impair the eyewitness's performance on the lineup, but poor viewing conditions do not specifically bias the eyewitness toward the suspect any more than they bias the eyewitness toward the nonsuspects in the lineup. An example of a suspect-bias estimator variable is when the eyewitness has source confusion, such as when an innocent suspect is picked out of a lineup because he was familiar; but he was familiar because he had been a customer, not because he was the person who robbed the clerk.

Gary L. Wells

See also Expert Psychological Testimony; Identification Tests, Best Practices in

Further Readings

Wells, G. L., Memon, A., & Penrod, S. (2006). Eyewitness evidence: Improving its probative value. *Psychological Science in the Public Interest, 7,* 45–75.

Wells, G. L., & Olson, E. (2003). Eyewitness identification. *Annual Review of Psychology, 54,* 277–295.

Ethical Guidelines and Principles

Ethics is a term used to describe the guiding philosophies and/or moral values of a group or an individual. Although ethics are by definition theoretical in nature, they are the underlying principles that help guide the conduct of any given society, profession, or individual.

This entry reviews important concepts for understanding the application of ethical principles to the practice of forensic psychology. It addresses issues such as identifying the intended beneficiary of forensic services, the application of the principle of beneficence/nonmalfeasance, and the relevance of existing professional standards and guidelines. It then summarizes four of the major elements of ethical forensic psychological practice: competency, judgment, responsibility, and accountability.

Intended Beneficiary of the Forensic Product or Service

A critical aspect of ethical practice is the clarification of the forensic task(s) to be provided and the acquisition of informed consent from the intended recipient(s) of those services, which should occur prior to providing forensic services. This includes clarification of at least the following areas:

- What is the forensic psychological service being requested?
- What is the *risk-benefit analysis* for any recipient or client receiving or not receiving the service?
- What is the *product* of this service?
- Who is the *direct recipient* of provision of this service?
- Who is the *retaining client* for this service?
- Who is the *ultimate beneficiary* of this service?

Forensic psychological service most commonly refers to any service that is undertaken for the purpose of, or with the anticipation of, assisting a third-party decision maker or trier of fact. This may refer to services provided at the request of an attorney, judge, or court order, as well as other third parties such as an insurance company, licensing board, employer, parole board, or other administrative body, or pursuant to applicable law, statute, or contract. Forensic psychological services may include multiple elements, such as a record review, psychological testing, clinical interviews, collateral interviews, and a review of current professional literature. Or such services may be narrower in scope, such as providing consultation to an attorney by reviewing relevant records and summarizing applicable professional literature. What usually defines a service as forensic is the fact that it is undertaken for the purpose of providing psychological information about a party to a third party, generally in the context of an adjudicative decision-making process.

It is important to note that a service that was not originally intended for the purpose of assisting a third-party decision maker is *not* usually considered a forensic psychological service, even if it is eventually used as evidence in a decision-making process. For example, a psychologist who has provided treatment to a criminal offender may be called on to testify at the parole board hearing; but in doing so, the psychologist is not providing a forensic service (as the primary purpose of therapy is to help the offender and not to assist a third-party decision maker), and the psychological testimony would be provided within the role of therapist-expert as opposed to a forensic expert. Whether or not such information is ultimately of use to a third-party decision maker is a separate issue from whether the work was undertaken for that purpose.

Unlike other types of psychological services, the *beneficiary of forensic psychological services* is not the party who is being evaluated. On the contrary, the services undertaken by the forensic practitioner may be harmful to the offender, either directly (e.g., if the evaluation portrays the examinee in a negative light) or indirectly (e.g., if the evaluation harms the examinee's legal case). Similarly, although psychologists are traditionally regarded as serving in a helping capacity, the product of a forensic psychologist may be seen as directly or indirectly harmful to other parties involved in the legal matter (e.g., providing consultation to an attorney that helps exonerate an alleged perpetrator may be perceived by some as harming the alleged victim). Therefore, in the forensic context, psychologists are still "helping professionals," but the role of the forensic psychologist is to be helpful to the *court* and only incidentally to any other party or counsel.

What each of these scenarios has in common is the fact that the direct beneficiary of the forensic psychological service is not any one individual but, rather, the court or other tribunal in which the forensic psychological service is being used. That is, the forensic practitioner is trying to help the third-party decision maker by applying his or her scientific, technical, expert knowledge to the psycholegal issue. Regardless of the outcome of the matter, the forensic psychologist has helped by participating in the process. Accordingly, the indirect beneficiary of forensic psychological services is society itself, as we all benefit from the appropriate use of expert knowledge to facilitate a fair and accurate judicial process.

A separate issue from who is the beneficiary of forensic psychological services is the question of *who is the client* of the forensic psychologist on any particular matter. Typically, the client is the referring party; that is, the party requesting forensic psychological services—usually an attorney, judge, or administrative body. The client may also be another individual professional, such as when a psychologist is asked by a forensic psychiatrist or master's-level forensic examiner to conduct psychological testing. In most cases, the client of the forensic practitioner is someone other than the party who is being examined.

Beneficence and Nonmalfeasance

For all psychologists, a governing ethical standard is "to produce good" (beneficence) and "to do no harm" (nonmalfeasance). This is a critical aspect of forensic psychological practice as well. However, unlike most psychological practice, the commitment of beneficence/nonmalfeasance is not to the party who is being examined by the forensic practitioner but, rather, to the client of the forensic services. Indeed, the party being

examined may very well be harmed by the outcome of the forensic psychological examination (consider the losing party in a custody dispute), but the court benefits from the "good" produced by the forensic psychologist (whose purpose in a custody dispute is to serve the best interests of the child). Even in a case where the client of the forensic services is an individual attorney (who has, e.g., retained a forensic psychological consultant to review records and examine his or her client in a personal injury matter) and the result of the forensic services is not favorable to the attorney's client (e.g., the opinion of the forensic psychologist is that the client's psychological problems are primarily a result of factors other than the claimed acts), the forensic practitioner has nonetheless helped the attorney by providing him or her with important psychological information about his or her client and/or case prior to entering a courtroom. This information provides the attorney with possible strategies for structuring the case, approaching settlement, and presenting evidence at trial. Furthermore, the psychological information directly benefits the court by potentially expediting the judicial process (e.g., if the case settles rather than moving to a full-blown trial) and indirectly benefits society as a whole (i.e., by facilitating due process). In these ways, the forensic practitioner has fulfilled a commitment to beneficence/nonmalfeasance regardless of the content of the opinion provided to the attorney.

Guidance: Standard of Care (EPPCC) and Aspirational (SGFP)

In considering the application of ethics to a profession, it is important to distinguish between standards of care and aspirational guidelines. A *standard of care* is a required and enforceable mandate that directs professional conduct and decision making. The goal of a standard is to provide the minimum expectations for a particular profession. When a professional has violated such a code of conduct, a governing body may seek recourse and enforce consequences to that professional. With regard to the practice of forensic psychology, standards of care are defined and enforced by the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (EPPCC). However, these standards are designed primarily to govern the profession of psychology in general and not designed specifically for the practice of forensic psychology.

An *aspirational guideline*, or principle, is similar to a standard in that it provides professionals with information to help guide their conduct and professional judgment. Unlike a standard, however, an aspirational guideline is not a mandate; nor is it enforceable. Accordingly, aspirational guidelines are expected to be integrated with other relevant sources of information to help guide professional decision making. For forensic practitioners, aspirational guidelines have been provided by the American Psychology-Law Society's Specialty Guidelines for Forensic Psychologists (SGFP). The goal of these guidelines is to help inform forensic practitioners and guide professional judgment in the practice of psychology and the law. Four major themes of professional guidelines to be reviewed here include competence, judgment, responsibility, and accountability.

Technical and Substantive Competence

In forensic psychological practice, one can conceptualize two major types of competence: technical and substantive. *Technical* competence refers to the parties and the experts having met the deadlines and other technical requirements to be "legally qualified" to testify on a particular issue. These competencies are mostly identified in Civil Rules 26 and 35 and to a lesser extent in the Rules of Evidence. For example, a court may decide that an expert is technically not "qualified" to testify if the subject matter of the expert's preferred testimony was not adequately disclosed or if a written report signed by the expert was not provided in a timely manner.

Substantive competence refers to whether the forensic practitioner has the requisite expertise, scientific knowledge, and experience to be helpful to the trier of fact. The court must be satisfied that the psychologist is adequately qualified to testify by virtue of the psychologist's education, training, and/or experience; that the preferred testimony is sufficiently based on reliable facts or data; that it is the product of reliable principles and methods; and that the psychologist has applied the principles and methods reliably to the facts of the case. These competencies are mostly identified in the Rules of Evidence and are elaborated on in *Frye v. United States* (1923) and *Daubert v. Merrell Dow Pharmaceuticals* (1993).

Professional Competence

A forensic psychologist may have substantive competence in some areas (e.g., child development, psychometrics) but not in others (e.g., competency to stand trial, sex-offender risk assessment). Substantive

competence should be maintained through ongoing experience, acquisition of knowledge (e.g., reading, continuing education), and/or professional consultation. When expanding one's expertise by undertaking a new type of forensic service, the ethical forensic practitioner seeks supervision and/or consultation with another forensic psychological practitioner who has established expertise in that area. The ethical forensic practitioner *does not misrepresent his or her competence* in communications to potential clients, either verbally (e.g., on accepting a referral, during expert qualification) or in writing (e.g., in one's curriculum vita).

An ethical forensic practitioner should also have some degree of substantive competence with regard to his or her *knowledge of the legal system.* Although it is not necessary to have competence as an attorney, it is important that a forensic practitioner be aware of the legal aspects of the particular forensic service he or she is providing, such as the elements of the psycholegal question, the examinees' rights in participating in the examination, and the rules of evidence for providing an expert opinion to the court.

Finally, an ethical forensic practitioner demonstrates an *appreciation of individual and contextual differences.* Specifically, the forensic practitioner is able to effectively balance his or her knowledge of general psychological principles with his or her understanding of the individual being examined, as well as the context in which an examination is occurring. For example, an individual's test-taking style may reflect cultural differences rather than clinical psychopathology (e.g., "healthy paranoia" vs. clinical paranoia). Similarly, an individual's response style may vary greatly from one context to another (e.g., self-disclosure of problems in a personal injury examination may be greater than self-disclosure of problems in a child custody examination) that is consistent with the demand characteristics of that setting and not necessarily evidence of a deliberate effort to distort one's self-presentation.

Judgment

The judgment of the ethical forensic practitioner should be guided by at least four basic principles: relevance, accuracy, equitable perspective, and candor.

With regard to *relevance,* the ethical and competent forensic practitioner focuses the scope of his or her examination on the legally relevant factors that are subject to psychological inquiry. For example, when examining an individual's competency to stand trial, forensic psychological practitioners limit the scope of their examination to assessing whether the individual has an impaired ability to understand the nature of the proceedings against him or her and/or the ability to cooperate with his or her attorney. For any given aspect of an individual's history to be relevant to the examination (e.g., that the individual was sexually abused as a child), it must be relevant to the psycholegal issue (e.g., does his history of child sexual abuse impair his current functioning?).

An ethical forensic psychologist should also *present his or her findings accurately*—in other words, with objectivity, impartiality, and nonpartisanship. The role of the forensic psychologist is not to advocate for one "side" or another but, rather, to provide the court with all relevant psychological information so that the court can render its decision.

To maintain accuracy and objectivity, the ethical forensic practitioner should maintain an *equitable perspective* of the various "sides" of the psycholegal issue and test plausible rival hypotheses for each formulated opinion. For example, a forensic practitioner conducting a personal injury examination should consider all potential causes of an examinee's psychological damage before rendering an opinion about the damage caused by the alleged tortuous acts.

As part of formulating an equitable perspective, the ethical forensic practitioner should *assign fair weight to the data* on which the opinion was founded and not be unfairly or unduly prejudicial in presenting the data. For example, a father may have used cocaine on one or two occasions since the birth of a child, but this fact does not, in and of itself, provide evidence of cocaine abuse or dependence—and more important, it does not directly speak to his parenting capacity. Rather, past cocaine use is one data point that must be integrated with other information about the father and weighed against data known about the mother.

Unlike many other types of psychological services, forensic psychology involves the integration of multiple sources of data, including the use of collateral informants. These collateral sources of data may be useful in obtaining information about an examinee that the examinee is unwilling or unable to provide on his or her own. However, in integrating collateral sources of data, the forensic practitioner should be aware of the nature of the relationship between the collateral informant and the examinee and the potential bias inherent in such a relationship. Accordingly, the forensic practitioner should not rely on such data in isolation but, rather, integrate this information with other data to corroborate or disconfirm hypotheses.

And it goes almost without saying, that unless the practitioner is candid about all of the above and the entire examination process, the examiner is putting the desires of the client ahead of the needs of the court. Only by being candid can the expert be most helpful to the court's understanding of the data collected and opinion formed.

Responsibility

The ethical forensic practitioner has a responsibility to maintain the *integrity* of the profession. Specifically, they provide services in a manner that is respectful to all parties involved, impartial, accurate, and well documented. It is important that the ethical practitioner recognizes the distinct role of the forensic psychologist and clarifies this role with all parties prior to undertaking forensic psychological services.

Forensic psychological experts are expected to *refrain from engaging in role conflicts.* They should not provide forensic psychological services when past, present, or future interests or relationships are likely to impair their objectivity (albeit unwittingly). Among the most important role conflicts to avoid is serving in both a therapeutic and forensic role.

Forensic practitioners *document all relevant data* in the course of their examination, beginning from the moment they can reasonably anticipate that their services may be relied on by a trier of fact. Documentation includes, but is not limited to, letters, handwritten notes, e-mail correspondence, facsimile, recordings, test data, and interpretive reports. When provided with appropriate subpoenas and court orders, all relevant records are made available to the requesting party.

Accountability and Informed Consent

As soon as is feasible, forensic psychological experts obtain *informed consent* from all parties involved in the provision of forensic psychological services. Informed consent refers to an exchange between the provider of services and the person being examined. The ethical forensic practitioner provides the examinee (as well as the examinee's attorney) and other recipients of forensic services (e.g., collaterals, nonparty examinees) with as much information as possible about the examination process to help the examinee make an informed decision about whether or not to participate. This information typically should include, but is not limited to, the purpose, nature, and anticipated use of the examination and report, the impartial nature of the examiner's role, the anticipated methods and procedure for addressing the psycholegal issue, the limitations of scientific knowledge to address that issue, any potential risks of participation, the nonconfidential nature of the examination, the voluntariness of the examination (if not court ordered), relevant fee agreements, and the examinee's rights and responsibilities.

The Big Picture

The ultimate conceptual goal of good forensic practice is surprisingly easy to identify. As reflected in Evidence Rule 702, expert witnesses are in the unique position among witnesses of being the only witnesses who are allowed to offer opinions if, among other things, their opinion testimony "will assist the trier of fact." Being misled, having relevant information omitted, hearing opinions that are weighted unfairly, or in any other way being presented information by an expert witness that is distorted rather than trustworthy does not assist the trier of fact in better understanding the evidence. The goal is for the court to be able to trust what experts say and to be able to trust that whatever an expert does say in offering an opinion adequately reflects all that is relevant regarding that opinion, including all reasonable perspectives on that opinion.

Jennifer Wheeler

See also Expert Psychological Testimony, Admissibility Standards; Expert Testimony, Qualifications of Experts; Forensic Assessment; Mental Health Law; Therapeutic Jurisprudence

Further Readings

Committee on Ethical Guidelines for Forensic Psychologists. (1991). Specialty guidelines for forensic psychologists. *Law and Human Behavior, 15,* 655–665 (revision draft in preparation).

Covell, C. N., & Wheeler, J. G. (2006). Revisiting the irreconcilable conflict between therapeutic and forensic: Implications for sex offender specialists. *American Psychology-Law Society Newsletter, 26*, 6–8.

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

Greenberg, S. A., & Shuman, D. W. (2007). When worlds collide: Therapeutic and forensic roles. *Professional Psychology: Research and Practice, 38,* 129–132.

Greenberg, S. A., Shuman, D. W., & Meyer, R. (2004). Unmasking forensic diagnosis. *International Journal of Law and Psychiatry, 27,* 1–15.

Heilbrun, K. (2001). *Principles of forensic mental health assessment*. New York: Kluwer Academic/Plenum.

Melton, G. B., Petrila, J., Poythress, N. G., & Slogobin, C. (1997). *Psychological evaluations for the courts: A handbook for mental health professionals and the courts.* New York: Guilford Press.

Ethnic Differences in Psychopathy

Psychopathic personality disorder comprises a distinct collection of deviant affective, interpersonal, and behavioral features. Results of psychopathy testing can sway life-altering decisions for the examinee, including granting of parole, outcome in sexually violent predator civil commitment trials, gaining access to treatment, and even being sentenced to death. Because the disorder is strongly predictive of violent and general criminal recidivism, it has had an impact on correctional theory, public policy, and legal decision making on an international scale. Although psychopathy is one of the most researched disorders within the field of psychology and law, until recently most empirical investigations involved White male prisoners and forensic psychiatric patients in North America. Given that assessments of psychopathy occur regularly and as a matter of law in many contexts, it is crucial to ascertain the extent to which the primarily White male research base generalizes to other relevant populations, such as individuals of other ethnic backgrounds. Research indicates that the Psychopathy Checklist–Revised (PCL–R) measures the disorder in an unbiased way across ethnocultural groups within a single culture (White vs. Black within North America, Scottish vs. English and Welsh within the United Kingdom). However, there is some evidence of cross-national metric invariance: That is, North Americans obtain PCL–R scores that are 2 to 3 points higher than those of Europeans, given equivalent levels on the underlying trait of psychopathy. Moreover, whereas there is little cross-cultural bias in ratings of affective symptoms of psychopathy, bias does exist for ratings of the interpersonal and behavioral symptoms. In light of the substantial weight placed on PCL–R results when important decisions about individual liberties are made, it is crucial that cross-cultural research continue, preferably using more culturally informed classifications of ethnic status and with varied samples, including women and girls and individuals outside of Europe and North America. Such research may also shed light on the etiological bases underpinning the divergent manifestations of psychopathy.

Ethnicity refers to differences in culture and ancestry. In social sciences research, the term *race* is often used interchangeably with *ethnicity*, although the former term generally denotes more fine-grained genetic differences. In psychopathy research, race typically is based on self-identification rather than biological or genetic classification. In this entry, the term ethnicity is used to refer to ethnic, cultural, and racial groups as conceptualized within the relevant research literature on ethnicity and psychopathy. Three key issues have been addressed within this research base: (a) the degree to which similar patterns of associations between external correlates of psychopathy are observed across groups, (b) measurement generalization across groups, and (c) mean levels of psychopathic traits across groups.

External Correlates of Psychopathy Across Ethnic Groups

For psychopathy to be construed as a universal syndrome, the correlates of psychopathy should be similar across ethnic groups. The correlates that, perhaps, are of greatest interest include antisocial behavior and violence. Results of studies on adult criminal offending in the community conducted outside North America and with non-Whites in North America are similar in that psychopathy is inversely related to age of onset of criminal behavior and that individuals scoring high on psychopathic traits commit more violent and nonviolent crime and are more versatile in their crime patterns. Meta-analytic evidence indicates, however, that psychopathy is a weaker correlate of violent recidivism among more ethnically diverse samples of juvenile offenders relative to primarily White samples. Pertaining to institutional aggression, meta-analytic results indicate that the country under study matters: Although the predictive utility of psychopathy for broad categories of institutional misbehavior is good, its relation to violent infractions in the United States is substantially smaller than in non-U.S. institutions. One explanation for this disparity is the potentially greater ethnic heterogeneity in U.S. samples.

Another class of external correlates of psychopathy comprises psychophysiological and behavioral variables that exhibit reliable patterns in North American samples. The few cross-cultural studies investigating such variables offer inconsistent findings. Additionally, studies of performance on laboratory tasks that assess cognitive and emotional processing in North America suggest that Whites and Blacks high on psychopathic traits may process information differently.

Studies conducted in North America and abroad on the association between psychopathy and major mental illness and personality disorders indicate similar patterns for comorbid psychiatric diagnoses and self-report personality traits. However, research investigating White and Black U.S. offenders suggests that members of these groups do not manifest the same patterns of correlations between psychopathy and self-report personality measures. Whereas the association between psychopathy and self-reported negative affect is similar for Blacks and Whites, associations between impulsivity and psychoticism are less consistent. The observed discrepancies suggest that mechanisms underlying psychopathy may differ for Blacks and Whites and may be influenced by genetic and sociocultural factors that vary across ethnic groups.

Measurement Generalization Across Ethnic Groups

In contemporary research, psychopathy most often is operationalized vis-à-vis the PCL family of measures. Traditional psychometric evaluations indicate adequate reliability for the PCL–R among non-White adults as well as for adolescents of various ethnicities assessed with the youth version of the measure. To demonstrate cross-cultural equivalence of the PCL–R, it is also necessary to demonstrate that the factor structure of the measure is the same across ethnic groups (i.e., that the same items or symptoms cluster together). There is clear evidence of a replicable factor structure(s) among White and Black adult men in U.S. prisons; among White, Black, and Latino boys in the United States; and among European men (including men from Scotland and several continental European countries).

Cross-cultural equivalence in the case of the PCL–R also requires that the association between test scores and the latent trait of psychopathy be invariant across ethnic groups (metric invariance), which may be examined using item response theory (IRT). IRT confers several distinct advantages to investigations of cross-cultural disparities: Representative samples are not required, more detailed analysis of individual ratings can be provided, and a determination can be made regarding whether scores are measured on the same scale with different ethnic groups. An often-cited analogy that involves the measurement of temperature using Fahrenheit and Celsius degrees may help clarify the last point: Although both scales measure the same construct, comparisons are meaningless because they differ in zero points and scale increments. In the case of the PCL–R, metric variance across groups is problematic because different scores could express the same level of the latent trait of psychopathy (or, conversely, the same PCL–R score obtained by two groups would not represent the same underlying level of the disorder). In general, research using IRT methods indicates that the PCL–R may be used in an unbiased way with Blacks. However, there does appear to be evidence of metric invariance between North America and Europe (both in the United Kingdom and continental countries). Compared with North Americans, Europeans tend to obtain lower PCL–R total, factor, and item scores for the same level of the underlying trait of the disorder, thereby prompting some experts to recommend adjusting the diagnostic threshold of a total PCL–R score of 30 used in North America to 28 when used in Europe. The symptoms tapping the deficient affective experience seem to be the most diagnostic of psychopathy and are thought to be more stable across cultures compared with the interpersonal and behavioral features of the disorder. However, at extreme levels of psychopathy, the interpersonal symptoms may provide more diagnostic information (especially in the United Kingdom). Research indicates that these cross-national differences in psychopathy reflect genuine differences in the expression of the disorder, rather than raters' perceptions of the psychopathic symptoms.

Differences in Levels of Psychopathic Traits

Because the generalizability of the measurement of PCL–R total scores across Blacks and Whites has been demonstrated, it is appropriate to use this instrument to investigate whether these groups differ in the extent to which they display psychopathic characteristics. Two large-scale meta-analyses have examined this issue for adults and adolescents. When differences between PCL–R total scores of Black and

White adults from 21 studies were examined in the aggregate (with an overall sample size of 8,890 individuals), no reliable, meaningful differences in scores between the two groups were observed. When differences between total scores on the youth version of the measure of Black and White adolescents from 16 studies were averaged (with an overall sample size of 2,199), ratings of psychopathic characteristics were significantly higher among Black youth. Importantly, however, the overall magnitude of this effect was small and corresponded to about 1.5 points on the 40-point psychopathy scale. There was considerable heterogeneity in the effect sizes (associations between scores and ethnicity) in both studies, but no clear moderators of the relation between ethnicity and psychopathy scores were identified.

Explaining Cross-Group Differences in Psychopathy

Experts agree that a host of biological, psychological, and social factors likely contribute to the etiology of personality disorders. A major weakness in the psychopathy research in this area is that ethnic/racial categories are fairly simplistic, created on the basis of self-identification in the absence of a consideration of relevant variables (including biological, genetic, psychological, and social) that influence group membership. Substantial within-group heterogeneity exists regarding important dimensions such as acculturation, ethnic identity, socioeconomic status, and neighborhood characteristics, and these sources of heterogeneity present obstacles to pinpointing the etiological factors underlying any group differences that may be observed. Pertaining to psychopathy research, relying on simplistic classifications of ethnicity such as Black and White severely constrains the potential to identify more proximal causes of observed disparities in psychopathy. As but one example of the importance of considering how contextual factors that vary across ethnic groups may be critical in explaining socially deviant behavior, consider the example of living in a "bad" neighborhood. In a large-scale study in which more than 900 civil psychiatric patients were administered the screening version of the PCL–R and followed in the community for 1 year, the degree to which an individual's neighborhood was disadvantaged (indexed by rates of public assistance, poverty, unemployment, managerial employment, vacant dwellings, female-headed households, and average household wage) was strongly associated with race (i.e., being Black was associated with living in a more disadvantaged neighborhood). Race retained little relation to psychopathy once neighborhood disadvantage was taken into account by statistical methods. In this study, of the 100+ risk factors for violence that were studied, psychopathy was the strongest predictor of community violence. Importantly, even after statistically taking into account factors such as psychopathy and race, the amount of concentrated poverty in participants' neighborhoods still significantly predicted violence. Whereas race did predict violence when considered on its own, the effect of race alone in predicting violence disappeared after statistically controlling for neighborhood disadvantage. That is, regardless of whether participants were Black or White, those who lived in highly disadvantaged neighborhoods were more likely to be violent. Although further investigation clearly is needed, these results highlight the importance of investigating cultural and social processes that may influence psychopathic traits.

Laura S. Guy

See also Forensic Assessment; Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); Psychopathy; Psychopathy Checklist: Screening Version; Psychopathy Checklist: Youth Version

Further Readings

Cooke, D. J., Kosson, D. S., & Michie, C. (2001). Psychopathy and ethnicity: Structural, item, and test generalizability of the Psychopathy Checklist–Revised (PCL–R) in Caucasian and African American participants. *Psychological Assessment, 13,* 531–542.

Cooke, D. J., & Michie, C. (1999). Psychopathy across cultures: North America and Scotland compared. *Journal of Abnormal Psychology, 108,* 58–68.

Cooke, D. J., Michie, C., Hart, S. D., & Clark, D. (2005). Searching for the pan-cultural core of psychopathic personality disorder. *Personality and Individual Differences, 39,* 283–295.

McCoy, W. K., & Edens, J. F. (2006). Do Black and White youths differ in levels of psychopathic traits? A meta-analysis of the Psychopathy Checklist measures. *Journal of Consulting and Clinical Psychology, 74,* 386–392.

Okazaki, S., & Sue, S. (1995). Methodological issues in assessment research with ethnic minorities. *Psychological Assessment, 7,* 367–375.

Skeem, J. L., Edens, J. F., Camp, J., & Colwell, L. H. (2004). Are there ethnic differences in levels of psychopathy? A meta-analysis. *Law and Human Behavior, 28,* 505–527.

Skeem, J. L., Edens, J. F., Sanford, G. M., & Colwell, L. H. (2003). Psychopathic personality and racial/ethnic differences reconsidered: A reply to Lynn (2002). *Personality and Individual Differences, 35,* 1439–1462.

Evaluation of Competence to Stand Trial–Revised (ECST–R)

Evaluation of Competency to Stand Trial–Revised (ECST–R) is a semistructured interview that is designed to assess criminal defendants' capacities as they relate to courtroom proceedings. In *Dusky v. United States* (1960), the U.S. Supreme Court established the three basic prongs required for competency to stand trial: (1) factual understanding of the proceedings, (2) rational understanding of the proceedings, and (3) rational ability to consult with counsel. The ECST–R was developed and validated for assessment of the *Dusky* prongs. In addition, the ECST–R includes a specific screen for feigned incompetency.

Description and Development

Prototypical analysis with competency experts identified core representative items for three ECST–R competency scales: Factual Understanding of the Courtroom Proceedings (FAC), Rational Understanding of the Courtroom Proceedings (RAC), and Consult with Counsel (CWC). Prototypical items were also evaluated by trial judges and highly experienced forensic psychiatrists. In addition to competency scales, the ECST–R uses multiple detection strategies for validating its four Atypical Presentation (ATP) Scales: Psychotic (ATP–P), Nonpsychotic (ATP–N), Both (ATP–B; sum of ATP–P and ATP–N), and Impairment (ATP–I). A fifth ATP scale is not used to assess feigning, but masks the intent of the other ATP scales: Realistic (ATP–R).

Samples from four major studies were combined for normative data and test validation. Three samples consisted of mentally disordered offenders: (1) 100 detainees on a psychiatric unit of a large metropolitan jail, (2) competency cases including 28 pretrial evaluations and 42 inpatients in competency restoration, and (3) 56 inpatients in competency restoration. They were supplemented with 95 jail inmates and 89 additional competency referrals.

Reliability

Internal consistencies (alpha coefficients) were high for overall competency (.93) and the individual competency scales: FAC (.87), RAC (.89), and CWC (.83). Interrater reliabilities were exceptional for these competency scales: FAC (.96), RAC (.91), and CWC (.91). Even when focusing on individual competency items, interrater reliabilities remained strong (Mr = .77). In addition, most individual competency ratings remained stable across a 1-week interval with more than 90% of the ratings remaining identical. ATP scales had moderate to high internal consistencies (alphas from .70 to .87) with the exception of ATP–R (.63), which serves a different purpose. ATP scales have outstanding interrater reliabilities (rs from .98 to 1.00)

Validity

The previously described prototypical analysis provided strong evidence of content validity. For construct validity, confirmatory factor analyses were used to test various models of the *Dusky* prongs for the ECST–R competency items. With one cross-loading, the confirmatory factor analyses confirmed a three-factor model with high loadings (M = .72) for competency items on their designated scales.

For criterion-related validity, ECST–R competency scales demonstrated a high concordance with independent opinions of experienced forensic experts and legal outcomes. It also evidenced moderate correlations with the MacCAT–CA, despite major conceptual differences between the two competency measures. In addition, very large effect sizes were found between defendants with and without impairment on ECST–R competency scales for both the severity of psychotic symptoms (Cohen's ds from 1.95 to 2.98) and overall functioning (ds from 1.60 to 1.75).

The ATP scales were validated using a combination of known-group comparisons and simulation designs. Both suspected malingerers and simulators produced much higher scores than genuine inpatients on the ATP scales with the logical exception of ATP–R. Very large effect sizes were found for both suspected malingerers (Md = 1.99) and simulators (Md = 1.74).

Forensic Applications

The ECST–R is a second-generation competency measure that was carefully constructed and validated to evaluate the *Dusky* prongs, which applies to competency

evaluations across the United States. Some jurisdictions have augmented the *Dusky* standard with additional criteria. In these instances, forensic psychologists may use the ECST–R to evaluate core issues that can be supplemented by interview-based methods and collateral sources.

ECST–R conclusions are based on both normative data and case-specific deficits. Normative-based interpretations compare a defendant's ECST–R score with that of 356 impaired but genuine pretrial defendants. Nomothetic interpretations for competency are provided for individual ECST–R scales based on T-score transformations for moderate (60T to 69T), severe (70T to 79T), extreme (80T to 89T), and very extreme (90T and above) elevations. Because the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals* (1993) and subsequent cases required an examination of error rates, the ECST–R became one of the first forensic measures to evaluate error rates in the context of standard error of measurement. For example, at a "very probable" level of certitude, the estimated error rate is <5.0%.

Not all competency-related abilities will be captured by the ECST–R or by any other competency measure. Therefore, the nomothetic interpretations are supplemented with case-specific deficits. Based on the ECST–R and other data sources, focal deficits are sometimes observed that are germane to competency determinations. The ECST–R provides an opportunity to document these case-specific deficits.

A crucial issue in competency evaluations is the genuineness of the defendant's efforts in describing his or her psychological impairment and competency-related abilities. Unlike alternative measures, the ECST–R provides a direct method to screen for possible malingering. If malingering is established by independent measures such as the Structured Interview for Reported Symptoms (SIRS), the ECST-R provides explicit guidelines for assessing the relationship of feigned impairment to the issue of competency to stand trial.

Richard Rogers

See also Forensic Assessment; Malingering

Further Readings

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Dusky v. United States, 362 U.S. 402 (1960).

Rogers, R., Jackson, R. L., Sewell, K. W., & Harrison, K. S. (2004). An examination of the ECST-R as a screen for feigned incompetency to stand trial. *Psychological Assessment, 16,* 139–145.

Rogers, R., Jackson, R. L., Sewell, K. W., Tillbrook, C. E., & Martin, M. A. (2003). Assessing dimensions of competency to stand trial: Construct validation of the ECST-R. *Assessment, 10,* 344–351.

Rogers, R., & Shuman, D. W. (2005). *Fundamentals of forensic practice: Mental health and criminal law.* New York: Springer.

Rogers, R., Tillbrook, C. E., & Sewell, K. W. (2004). *Evaluation of Competency to Stand Trial-Revised (ECST-R) and professional manual.* Odessa, FL: Psychological Assessment Resources.

Expert Psychological Testimony

Expert testimony in psychology comes in many types and concerns a vast array of subjects. Psychological expertise ranges widely both in scientific subject areas and the breadth of the legal landscape covered. Indeed, there are few, if any, legal contexts in which expert testimony on psychology does not sometimes have an impact. This is not surprising, because law shares with psychology an abiding interest in human behavior. Because of the large number of areas in which psychology and law intersect, any summary will be somewhat incomplete. This entry, therefore, is intended to illustrate the range of expertise and the legal contexts in which it is put to use. It first reviews expert testimony according to its subject, with sections on testimony concerning past mental states, past behavior, future behavior, and current mental states. The entry concludes with a discussion of the probative value of other evidence. Many of these categories of evidence appear in both civil and criminal cases, and the basic admissibility standards in these two legal domains are the same. Hence, for example, predictions of future violence might be used in civil cases (e.g., civil liability for failing to predict violence), civil cases that are quasi-criminal (e.g., sexually violent predator commitments), and criminal cases (e.g., capital sentencing). Also, many subjects of expert psychological testimony are used by both prosecutors and criminal defendants (e.g., the battered-woman syndrome [BWS]) and by plaintiffs and civil defendants (e.g., polygraphs).

Past Mental States

In the popular imagination, the principal use of psychological expertise occurs in the context of discerning past mental states in criminal cases. The central

legal context in which this subject arises is insanity. Insanity in the law is a construct that relates to responsibility or what might be termed moral culpability. The law presumes that behavior is freely willed and the product of a rational mind. A person might be excused under the law if these presuppositions are demonstrated not to be so in a particular case. Most jurisdictions employ an insanity defense based on the 19th-century case of Daniel M'Naghten, who attempted to assassinate Sir Robert Peel, the British Prime Minister, but shot and killed Peel's assistant, Edward Drummond, by mistake. Under the test, a defendant should be acquitted if he "was under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know he was doing what was wrong."

As a practical matter, the subject of past mental states is complicated by the very different vocabularies that lawyers and scientists bring to the subject. Lawyers speak in terms of insanity and diminished capacity, whereas psychologists employ an expansive vocabulary designed to account for the wide variation in behaviors observed. The law, therefore, presumes, and has constructed, a world in which mental capacity to reason exists largely in two-dimensional space: A person was sane or insane when he or she committed a particular act. Psychology, in contrast, presumes, and has constructed, a world in which mental capacity to reason varies widely in multidimensional space: A person might suffer from a disability with multiple etiologies and with varying effects on his or her capacity to reason.

Although insanity occupies much of the scholarly attention regarding past mental states, much of the syndrome literature similarly involves the effort to explain preexisting thought processes. For example, the BWS is used in many jurisdictions to demonstrate that battering victims did not behave unreasonably when they used deadly force against their batterers. Part of the factual inquiry for triers of fact in these cases, as defined by substantive law, is whether the battered woman believed that she was in imminent danger of harm at the time that she killed the batterer. Since many of these cases involve circumstances in which the defendant acted at a time when she did not confront an immediate objective harm—if, say, the killing occurred when the victim was sleeping—the psychological proof is offered to support her claim that she was reasonable in believing that harm was nonetheless imminent. According to BWS advocates, this inference follows from available research in two possible ways. First, as a general matter, the data suggest that prolonged abuse renders battered women constantly fearful, a psychological outcome that is a natural consequence of the violence. Second, advocates argue that specific clinical observations can support the individual defendant's claim that she was in constant fear and, thus, honestly and reasonably believed that harm was imminent when she killed.

A fundamental challenge for psychologists regarding past mental state concerns the inherent difficulty in assessing a phenomenon that cannot be observed even indirectly. In effect, when the law asks psychologists to assess past mental states, it puts them in the role of forensic investigator. Little research is available to suggest that psychologists can fulfill this role in a reliable fashion. Nonetheless, some scholars, most notably Christopher Slobogin, argue that the inherent difficulty of the task should lead courts to relax the usual rules of admissibility. According to this view, psychologists can still "assist the trier of fact" regarding past mental states, even if the phenomenon defies direct observation or straightforward test.

Past Behavior

Possibly the most controversial use of psychological expertise is behavioral profile evidence or psychological expertise that is offered as proof that a person committed some act, typically one that he or she is charged with a crime for having committed. Most evidence codes proscribe the use of past bad acts—referred to as "character evidence"—and thus ostensibly prohibit behavioral profiling for the purpose of proving that the defendant probably committed the alleged crime because he or she has a propensity to commit such crimes. Nonetheless, courts still often admit such evidence in one form or another. The most egregious examples of this practice involve courts' admission of evidence such as rapist profiles to prove the substantive offense.

More common, however, is court allowance of evidence that serves dual purposes: one permissible and the other not. For example, there is a growing use of BWS by states to prosecute alleged abusers. BWS would not ordinarily be allowed simply to support the inference that because the defendant abused the witness in the past, he is probably guilty of the assault for which he is on trial. This is prohibited character evidence. However, in many cases, women who were

abused and filed a police complaint subsequently testify at trial that the defendant was not the source of her injuries. Prosecutors have successfully introduced BWS for the purpose of impeaching the witness's testimony and thus explaining why she changed her story. But evidence of past battering, which is symptomatic of BWS, is likely to be used by the trier of fact substantively—that is, for the prohibited purpose of proving that the defendant assaulted the witness on the occasion in question.

Future Behavior

The subject of predicting future behavior raises a host of issues involving both the reliability of the claimed expertise and the scope of the substantive and procedural rules that apply to that expertise. The most usual prediction involves a person's likelihood of behaving violently. Courts call for expert predictions of future violence in a wide assortment of legal contexts, including ordinary civil commitment hearings, capital sentencing hearings, commitment hearings following a verdict of not guilty by reason of insanity, commitment hearings following a determination of incompetency to stand trial, parole and probation hearings, and hearings under community notification laws for "sexual predators." Yet courts regularly remark that predicting future behavior is inherently difficult, and most research indicates that psychiatrists and psychologists do not do it very well. Indeed, this area of the law presents a paradox in which judges seemingly take the most lenient approach toward scientific evidence involving some of the most controversial science to enter the courtroom.

As a general procedural matter, courts ordinarily do not apply evidentiary rules of admissibility to predictions of violence. In many areas, such as capital sentencing or probation hearings, rules of evidence do not apply. In other areas, such as commitment hearings or community notification determinations, evidence rules ostensibly apply, but courts proceed, either implicitly or explicitly, on the basis that the substantive law requires psychological expert testimony. Hence, the expertise is admissible not because it is deemed relevant and reliable but because it is deemed necessary under the substantive law that applies to the case.

Although evidence rules might not apply to predictions of violence, constitutional safeguards do. The Supreme Court, however, rejected a constitutional challenge to predictions of violence in *Barefoot v. Estelle* (1983), the only case it has heard on the subject. The *Barefoot* Court rejected the defendant's contention, backed by an amicus brief submitted by the American Psychiatric Association (APA), that predictions of future violence were unreliable. The Court argued that "neither petitioner nor the [American Psychiatric] Association suggests that psychiatrists are always wrong with respect to future dangerousness, only most of the time."

Despite the APA's statement that psychiatrists cannot distinguish accurate from inaccurate predictions, the Court believed juries could do so. "We are unconvinced . . . that the adversary process cannot be trusted to sort out the reliable from the unreliable evidence and opinion about future dangerousness, particularly when the convicted felon has the opportunity to present his own side of the case." Yet as Justice Blackmun pointed out in dissent, this observation "misses the point completely," for "one can only wonder how juries are to separate valid from invalid expert opinion when the 'experts' themselves are so obviously unable to do so."

Current Mental State

A seemingly less daunting task for psychologists than describing past mental states, characterizing past behavior, or predicting future behavior involves assessing current mental states. The law seeks such mental assessments in a variety of contexts, including the competency of defendants to be tried and the competency of those convicted of capital offenses to be executed. In the former category, the issue involves whether a defendant is able to assist in his or her own defense and comprehends the nature of the proceedings and the charges against him or her. In the latter category, the issue involves whether the condemned person comprehends the State's reasons for executing him or her and understands what is about to occur.

Competency assessments are typically decided by judges as a matter of law. Experts usually rely on a mixture of clinical judgment and standardized tests, which may range widely in terms of reliability and construct validity. Indeed, this area has not been the subject of close or critical review by the courts, and there appear to be few guidelines for courts to ensure the receipt of relevant and valid scientific opinion. In general, evidence rules do not apply to this subject and courts do not employ evidentiary standards of reliability to expert opinion regarding current mental

states. Indeed, this task, perhaps more than any other, tends to be handled by court-appointed experts.

Commentary on the Probative Value of Other Evidence

A large segment of psychological expertise is devoted to the subject of how people ordinarily respond, mentally and behaviorally, to different sets of circumstances. For example, research on domestic violence indicates that many victims of such abuse fail to leave battering relationships for a variety of psychological and sociological reasons. Similarly, research on victims of rape and sexual assault indicates that many of them do not report the crime immediately, again for a variety of reasons. In the law, this kind of research might be relevant on a couple of related issues. Specifically, it is sometimes offered to buttress the credibility of a witness. For instance, this research might suggest that an alleged victim of sexual assault is not an untruthful witness because he or she failed to report the crime in a timely fashion, since it is not unusual for sexual assault victims to delay reporting. This sort of testimony is also proffered for the more general purpose of giving triers of fact background information regarding the usual circumstances that surround similar situations. For example, triers of fact might be informed in a case involving a defendant who was battered that a large percentage of battered women do not leave abusive situations. Courts' receptivity to these uses varies.

In most jurisdictions, evidence cannot be introduced for the specific purpose of buttressing the credibility of a witness. Courts consider the use of evidence to support a witness's credibility to be an invasion of the province of the jury. Juries are entrusted with the task of assessing credibility. At the same time, however, many courts allow expert testimony regarding how people tend to respond to particular situations for the purpose of educating the jury regarding the background context confronted by the testifying witness. Three basic contexts arise with regard to this kind of evidence. In some cases, such as sexual assault cases, psychological evidence is proffered not to show that a witness is truthful but to demonstrate that, in light of how other people respond in similar situations, the witness' account is not unbelievable. In the second, the expert does not speak to the credibility of a witness but is offered to inform the jury regarding the likely accuracy of a witness's testimony. In the third group, experts are offered to speak to credibility directly, usually through the use of a test such as a polygraph. These three contexts will be considered in turn.

In many cases, especially including rape cases and sexual assault of children, psychological expertise is proffered to show that the alleged victim's behavior is not inconsistent with that of others who have experienced similar trauma. Evidence, for example, that an alleged rape victim failed to immediately report the crime might be put into perspective by expert testimony that many sexual assault victims behave similarly. This can be important evidence in a case in which the defendant claims consent because the witness's behavior might otherwise appear inconsistent with having been assaulted. In this view, evidence on the reporting rates of sexual assault are not offered to support the credibility of the witness but to inform the jury about how people tend to respond to similar situations. As many courts and commentators have observed, however, there is a very fine line—if any line at all—between the permitted purpose of rebutting the defendant's contention that the victim's behavior is inconsistent with having been assaulted and the prohibited purpose of supporting the prosecution's contention that the victim's behavior is consistent with having been assaulted. It is illogical to permit expert evidence to prove nonconsent but not to prove that a rape occurred (i.e., in most cases, nonconsent). But most courts adhere to this distinction.

The second group of cases is not overly controversial as regards invading the trier of fact's province to decide witness credibility, because it principally concerns the general accuracy of similarly situated witnesses. The lion's share of this type involves expert opinion on the reliability of eyewitness identification. (Expert testimony on implantation of false memories in repressed-memory cases would be another example.) Courts rarely raise the credibility objection to this evidence for a couple of reasons. First, a principled line can be drawn between credibility and accuracy, and the latter seems less invasive of the jury function. Second, eyewitness experts usually do not testify regarding the accuracy of a particular witness but, instead, only to the general factors that might interfere with eyewitness accuracy. Again, this form of testimony is less invasive. Nonetheless, courts have not been enthusiastic admirers of psychological expertise on the unreliability of eyewitnesses. Objections to this sort of expert testimony typically involve the question whether the information is "beyond the ken" of the

average layperson. Under most modern evidence codes, the subject need not be entirely "beyond the ken," because expert testimony need only "assist the trier of fact" (and be reliable) to be admitted. Nonetheless, much psychological expertise has been excluded on the basis that it simply reflects common sense. Although courts have become somewhat more receptive to expert testimony regarding the unreliability of eyewitness identifications recently, it is still looked on by many courts as only marginally helpful to triers of fact and largely a waste of the court's time.

In a third group of cases, the specific import of proffered expert testimony is the credibility of a specific witness. Today, this evidence is best represented by testimony regarding the results of polygraph machines. Surprisingly, perhaps, modern courts do not object to this evidence on the ground that it invades the province of the trier of fact. Indeed, courts, including a majority of justices on the U.S. Supreme Court (*United States v. Scheffer*, 1998), have questioned whether this rationale would be sufficient to exclude a reliable lie detector. Instead, courts have focused on the lack of demonstrated reliability of these tests to support exclusion. Most courts agree that polygraphs are not admissible, at least absent stipulation of the parties prior to administration of the test. But their rationale for exclusion—lack of proven validity—leaves open the possibility that future tests, such as fMRI, might be admitted if validity is adequately demonstrated.

David L. Faigman

See also Expert Psychological Testimony; Expert Psychological Testimony, Admissibility Standards; Expert Testimony, Qualifications of Experts

Further Readings

Barefoot v. Estelle, 463 U.S. 880, 887 (1983).

Monahan, J., & Loftus, E. F. (1982). The psychology of law. *Annual Review of Psychology, 33,* 441–475.

Faigman, D. L. (1989). To have and have not: Assessing the value of social science to the law as science and policy. *Emory Law Journal, 38,* 1005–1095.

Faigman, D. L, & Monahan, J. (2004). Psychological evidence at the dawn of the law's scientific age. *Annual Review of Psychology, 56,* 631–659.

Special Theme: Expert testimony in the courts: The influence of the Daubert, Joiner, and Kumho decisions. *Psychology, Public Policy, and Law, 8,* 180.

United States v. Scheffer, 523 U.S. 303 (1998).

Expert Psychological Testimony, Admissibility Standards

Expert psychological testimony, like any testimony, must meet certain criteria or standards for admissibility before it is allowed into court. Although the admissibility of expert evidence was initially governed by the general acceptance standard set in *Frye v. United States* (1923), more recent standards, including the Federal Rules of Evidence, have shifted focus to an evaluation of the reliability of the evidence. This entry outlines the historical changes in admissibility standards, starting with the *Frye* decision and the Federal Rules of Evidence and progressing through a trio of recent Supreme Court decisions that address the admissibility of expert evidence. These decisions include *Daubert v. Merrell Dow Pharmaceuticals* (1993), which established whether the Federal Rules of Evidence superseded the *Frye* standard when judging the admissibility of scientific evidence, and *General Electric Co. v. Joiner* (1997) and *Kumho Tire Company v. Carmichael* (1999), which established the scope of the *Daubert* decision.

Frye v. United States

Before the *Daubert* decision, most courts insisted that testimony proffered by an expert be relevant to the triers of fact and based on generally accepted principals. Specifically, this meant that the area the expert was testifying to must result from theory and technique that have been generally accepted by a scientific community. This principle was adopted from a District of Columbia (DC) Court of Appeals ruling that occurred in 1923.

In *Frye v. United States* (1923), the DC Court of Appeals issued one of the first decisions governing the admissibility of expert evidence. When James T. Frye was on trial for murder in the first degree, the defense proffered an expert who would testify about a lie detection test that was based on changes in the examinee's systolic blood pressure in response to questions. The trial court ruled that this expert testimony was inadmissible, and Frye was convicted. In an appeal of his conviction, Frye argued that the trial court's failure to allow the expert testimony was improper and resulted in his conviction. The appellate court reexamined the case and upheld the original verdict, introducing what is now referred to as the "*Frye* test" for the admissibility of expert evidence. In its decision, the court wrote that

the methods used by an expert must be generally accepted within the expert's field. In the court's opinion, the lie detection test Frye wished to introduce to trial had not gained recognition among other experts in the field, and this was grounds for its exclusion.

The court established the *Frye* test to ensure that unreliable expert testimony was not admitted at trial, in part because of concerns that jurors would be unable to differentiate between good and bad science. Rather than relying on trial court judges or on jurors to make determinations about the value or reliability of expert evidence, *Frye* leaves the responsibility of evaluating the reliability of novel scientific methods to the relevant scientific community. If there is a significant dispute in the relevant scientific community over the reliability of a theory or practice, then the court could choose to exclude the evidence. Essentially, the court placed the responsibility of ensuring that valid science entered the court on the practitioners in the field.

Over time, the *Frye* test became the primary standard that the courts used to evaluate the introduction of scientific evidence. However, dissatisfaction with the *Frye* standard began to grow as opponents argued that *Frye* was too vague and that it prevented novel scientific discoveries from being admitted in trial because there had not been sufficient time for the discovery to become generally accepted. As expert testimony became increasingly common in courts, it became apparent that more structured guidelines would have to be created. Finally, 50 years after the *Frye* standard had been established, new rules governing the admissibility of expert evidence were adopted in the Federal Rules of Evidence (FRE).

Federal Rules of Evidence

In the late 1960s and early 1970s, an advisory committee convened by then Chief Justice Earl Warren drafted new rules to govern the admissibility of evidence in all federal courts. These rules, known as the FRE, were eventually adopted by the Supreme Court and, with modification, enacted into legislation by Congress in 1975. Article VII of these rules addressed the admissibility of expert testimony specifically. Rule 702 states that "if scientific, technical or other specialized knowledge will assist the trier of fact" in weighing the evidence or determining facts, and the expert proffering such testimony has been qualified as an expert based on his or her "knowledge, skill, experience, training, or education," then the jury should be allowed to hear the testimony. Thus, the rule states that experts do not necessarily have to come from a scientific background. Experts can come from groups that have a certain skill, such as bankers or plumbers, when that skill or experience allows them to form an opinion that assists the trier of fact in understanding the evidence. Moreover, expert testimony must be helpful to the trier of fact in determining facts at issue in the trial. Although these rules were designed to apply only in federal courts, many states modeled their own rules of evidence on the federal rules, including Rule 702.

Daubert v. Merrell Dow Pharmaceuticals

As concerns grew over the admissibility of expert evidence, which began to play a larger role in many cases, questions arose about which standard should be used to determine the admissibility. Some federal courts continued to rely on the Frye standard, whereas other federal courts relied on the FRE when making determinations about the admissibility of expert evidence. The decision in *Daubert v. Merrell Dow Pharmaceuticals* (1993) addressed these concerns by clarifying specifically what standards should be used when admitting expert testimony.

The petitioners in *Daubert v. Merrell Dow Pharmaceuticals* (1993) were two children, Jason Daubert and Eric Schuller, who were born with serious birth defects, and their parents, who were appealing a trial court's ruling that excluded expert testimony supporting the position that the drug Bendectin could be a teratogen. Their initial suit alleged that the children's birth defects had been caused by their mother's use of an antinausea drug, Benedectin, manufactured by Merrell Dow, during her pregnancies. To support their position, the plaintiffs proffered eight experts who based their conclusions that Bendectin was a teratogen on both test-tube and live studies on animals that demonstrated a relationship between Bendectin and birth defects, research showing that Bendectin had a similar chemical structure to other drugs known to cause birth defects, and a meta-analysis of published epidemiological studies that examined the rate of birth defects among children born to women who had used Bendectin versus those who had not. Merrell Dow proffered a highly qualified expert who stated that he had reviewed all the literature surrounding Bendectin and human teratogens and found that there was no evidence to support its being responsible for the birth defects.

The District Court granted a summary judgment for Merrell Dow and dismissed the case, writing that

the animal and chemical structure research on which the plaintiffs' experts based their opinions was irrelevant and that the results of the meta-analysis had not been generally accepted within the field of epidemiology, because it had not been peer-reviewed or published. Thus, the District Court relied on the *Frye* standard for excluding the testimony proffered by the plaintiffs. The plaintiffs appealed the District Court's decision, arguing that the court had improperly used the *Frye* standard when judging the admissibility of its expert evidence as *Frye* had been replaced by the FRE. The Supreme Court agreed to hear the case and ruled in favor of the petitioners, agreeing that the FRE had replaced *Frye* as the appropriate standard for judging the admissibility of expert testimony.

In its decision, the Supreme Court outlined a two-pronged test for the admissibility of expert testimony. One prong required that expert testimony must be relevant to an issue before the court to be admissible. The second prong required that the expert testimony be reliable. In essence, the Supreme Court ruled that judges must evaluate whether scientific evidence is based on reliable methodology rather than relying on general acceptance in the scientific community to determine whether the testimony is admissible. The court sought to help judges who lack the scientific training to make these determinations by offering suggestions for criteria that could be used to evaluate research. For one, the court suggested that judges examine whether the theory or hypothesis on which the research is based can be falsified or tested. Second, the court stated that another way to assess whether the proffered evidence is reliable is to determine if it has been peer-reviewed and published. Third, judges should evaluate whether the technique in question has a known or potential error rate. Finally, although no longer a necessary and sufficient characteristic for admissibility, the Court suggested that judges could still use general acceptance as a factor in determining whether or not to admit testimony.

The *Daubert* decision held that the admissibility of scientific evidence depends on its scientific validity. The guidelines for judging the admissibility of scientific evidence promulgated in *Daubert* shifted the focus of the admissibility decision from determining whether the evidence was accepted by other scientists to an examination of the methods of the research on which experts base their opinions. Essentially, the decision in *Daubert* transferred the role of gatekeeper from the relevant scientific community to the trial court judge.

General Electric Co. v. Joiner

Although the *Daubert* decision settled the controversy regarding the appropriate standards by which judges should evaluate the admissibility of scientific expert testimony, there was disagreement over the standard to be used when reviewing such decisions. The Supreme Court addressed this question in *General Electric Co. v. Joiner* (1997). In this case, Robert Joiner, the plaintiff, had brought suit alleging that his development of lung cancer was influenced by his exposure to dielectric fluid contaminated with polychlorinated biphenyls while on the job at General Electric. Joiner sought to introduce testimony from several experts that exposure to polychlorinated biphenyls, not his history as a smoker, caused the early onset of his lung cancer, but the District Court ruled that the experts' evidence was mere speculation and, therefore, inadmissible. On appeal, the Eleventh Circuit Court of Appeals applied a stringent standard of review when assessing this ruling and decided that the District Court had been wrong to exclude the expert testimony. They believed that the FRE showed preference for the admission of expert testimony and based on this analysis concluded that the District Court should have allowed the expert testimony.

However, the United States Supreme Court reversed the decision of the Eleventh Circuit Court, ruling that the appellate court had applied the wrong standard of review. The Court determined that the proper standard of review for decisions regarding the admissibility of expert testimony should be whether the judge abused his or her discretion by excluding the expert testimony. The Court explained that although the FRE may provide for the admission of a greater variety of scientific testimony, the trial court judge still retains his or her role as gatekeeper and must evaluate the reliability of the proffered expert evidence to approve or deny its admissibility rather than abdicating this responsibility due to the perceived liberal thrust of the FRE. The Supreme Court then ruled that the District Court had reasonable grounds to question the reliability of the expert testimony proffered by Joiner and had not abused its discretion in excluding it.

Kumho Tire Company v. Carmichael

Although *Daubert* provided trial court judges with guidance regarding the factors to be considered when determining the admissibility of scientific expert

evidence, it did not address the issue of nonscientific expert testimony. A later Supreme Court case, *Kumho Tire Company v. Carmichael* (1999), answered the question of whether the *Daubert* standards should apply to nonscientific testimony as well. In this case, a tire on Patrick Carmichael's minivan failed, causing Carmichael to lose control of the car, resulting in a car accident, which resulted in serious injuries and one death. Carmichael then brought suit against Kumho Tire Co., alleging that the tire had been defective. Carmichael wished to introduce testimony from an expert in tire failure analysis to show that the blowout was due to a tire defect rather than age or overuse. The District Court refused to admit the expert testimony, citing that the testimony failed to meet the standards set forth in FRE 702 or the reliability factors put forth in *Daubert.*

The Eleventh Circuit Court reversed the decision, stating that the U.S. District Court was mistaken in its application of the *Daubert* reliability standard to nonscientific testimony. The Circuit Court ruled that the expert testimony at issue relied on experience-based rather than scientific knowledge, which was outside the scope of *Daubert.* Therefore, the Circuit Court ruled that the admissibility of the expert testimony had to be reconsidered under Rule 702 instead. However, the United States Supreme Court disagreed with the Circuit Court when it reviewed and reversed the decision. The Court decided that judges' gatekeeping responsibility outlined in Rule 702 applied to specialized and technical knowledge, in addition to the previous application to scientific knowledge. Thus judges were responsible for determining the relevance and reliability of nonscientific expert testimony as well as scientific testimony. According to the Court, the FRE 702 and 703 did not distinguish between scientific and nonscientific expert testimony and allows experts testifying on technical and specialized topics, as they do to scientific experts, the same latitude in presenting their opinions—latitude that is not granted to nonexpert witnesses. The Court also recognized the difficulty in distinguishing scientific from technical or specialized knowledge, because experts often have more than one type of knowledge to offer.

The Court then considered how judges should assess the reliability of these other types of expert knowledge, ruling that the *Daubert* factors could be used to evaluate expert testimony based on specialized and technical knowledge just as they can be used to evaluate scientific expert testimony. However, the Court reemphasized the statement in *Daubert* that the four factors outlined in that case were not an exhaustive list of criteria and reaffirmed the power of judges to consider other factors when determining admissibility. The Court noted that not all types of expert testimony can be judged solely on the basis of those four factors, as they do not always apply, but also recognized that they can apply to nonscientific knowledge, such as experientially based knowledge, as well. Therefore, they do not need to be applied exclusively, or even considered at all, in every case. The Court noted that judges have the same broad freedom in determining how to assess reliability of expert testimony as they enjoy in appellate review of their admission decisions as determined by *Joiner. Kumho* again reaffirmed judges' discretionary authority when evaluating expert testimony and deciding its admissibility.

Effects of Changing Standards on the Admissibility of Expert Evidence

Given the shift in standards, it was expected that rates of admissibility for scientific testimony might be affected. Some scholars argued that, under *Daubert*, it was now possible for novel scientific evidence that was based on reliable and valid methods, but had not yet had time to gain general acceptance, to be admitted. This change would result in an increase in the rates of admission for scientific testimony. Other scholars argued that some generally accepted findings were based on unreliable methods and could now be challenged, resulting in a decrease in the admissibility of some types of evidence. Research on admissibility decisions pre- and post-*Daubert* has shown that the overall rates of admission were not significantly affected by *Daubert.* In contrast, the shift in standards did have an impact on the criteria used by judges to evaluate the admissibility of scientific testimony. Judges were less likely to rely on general acceptance or the *Frye* standard after *Daubert* and more likely to rely on *Daubert* criteria (e.g., peer review, falsifiability, error rates) to justify their admissibility decisions than they were before *Daubert.* Despite this increase in the use of *Daubert* criteria to justify admissibility decisions, after the decision, the best predictor of whether judges ruled to admit expert testimony were issues related to the FRE rather than the *Daubert* criteria or general acceptance.

Research has also shown that there have been relatively few changes in the admission rates for expert testimony post-*Joiner* and *Kumho*. Admission rates remained the same for experts in both civil and criminal cases. However, research has shown that admission rates for scientific expert testimony have actually increased post-*Kumho*, which suggests that judicial review of scientific testimony became less stringent while preserving judges' previous approach to determining the admissibility of other types of expert testimony. Other research has suggested that no effect for *Kumho* was seen because judges had already started judging nonscientific expert testimony on the basis of reliability before the decision was handed down. Therefore, *Kumho* affirmed the practice of gatekeeping for nonscientific expert testimony that many judges had already assumed, without a negative impact on the admission rates for expert testimony.

Ryan W. Copple, Jennifer M. Torkildson, and Margaret B. Kovera

See also Expert Psychological Testimony; Expert Psychological Testimony, Forms of

Further Readings

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Dixon, L., & Gill, B. (2002). Changes in the standards for admitting expert evidence in federal civil cases since the Daubert decision. *Psychology, Public Policy, & Law, 8,* 251–308.

Faigman, D., & Monahan, J. (2005). Psychological evidence at the dawn of the law's scientific age. *Annual Reviews of Psychology, 56,* 631–659.

Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

General Electric Co. v. Joiner, 522 U.S. 136, 118 S. Ct. 512 (1997).

Groscup, J. L. (2004). Judicial decision-making about expert testimony in the aftermath of *Daubert* and *Kumho. Journal of Forensic Psychology Practice, 4,* 57–66.

Groscup, J. L., Penrod, S., Huss, M., Studebaker, C., & O'Neil, K. (2002). The effects of *Daubert v. Merrell Dow Pharmaceuticals* on the admissibility of expert testimony in state and federal criminal cases. *Psychology, Public Policy, & Law, 8,* 339–372.

Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999).

Youngstrom, E. A., & Busch, C. P. (2000). Expert testimony in psychology: Ramifications of Supreme Court decision in *Kumho Tire Co., Ltd. v. Carmichael. Law and Ethics, 10,* 185–193.

Expert Psychological Testimony, Forms of

Expert evidence comes to court in a variety of forms and, in particular, at a couple of levels of generality. It often involves general research findings that, although relevant to a particular case, also transcend that case. General research findings will sometimes be used in the establishment of applicable law and decided by judges but, more typically, will be considered a component of the fact-finding duties of triers of fact. A large part of expert evidence, however, involves factual issues that are specific to particular cases, though they may be claimed instances of more general phenomena. Courts and scholars have proposed various models to account for the several ways in which expert evidence is manifested in court. The three most influential of these models are considered here.

To be admitted, expert opinion must be relevant to a material fact in dispute. This basic requirement ties proffered expertise to the substantive law of the case. Hence, for example, if applicable law requires that a substance be proven to have *caused* the plaintiff's injury, expert proof regarding causation will be relevant; and if this proof is reliable and valid, it will usually be admitted. But proving simple causation of this sort can be a complicated matter. The plaintiff must first prove that the substance in question sometimes *does* cause the injury and, moreover, that it *did* cause the injury in this case. As this example illustrates, the facts in dispute in a legal case can appear at a couple of levels of generality. This fact has great relevance both to how and whether experts testify and the procedural legal response to proffers of different forms of expert opinion.

The recognition that facts arrive in court in different forms has spawned several scholarly attempts to impose some schematic theme on them. Three frameworks, in particular, have received considerable attention and are discussed below. These are (1) Kenneth Culp Davis's distinction between legislative facts and adjudicative facts; (2) John T. Monahan and Laurens Walker's three-part division of social authority, social frameworks, and social facts; and (3) post-*Daubert* courts' differentiation between general causation and specific causation.

The Davis Model

In 1942, Kenneth Culp Davis identified two basic kinds of facts having evidentiary significance—what

he termed *legislative facts* and *adjudicative facts*. According to Davis, legislative facts are those facts that transcend the particular dispute and have relevance to legal reasoning and the fashioning of legal rules. Although judges are responsible for deciding questions of legislative facts, they very often are the subject of expert testimony. For instance, the question of whether juveniles are as cognitively competent as adults for purposes of evaluating the constitutionality of imposing the death penalty for offenses committed before adulthood is a legislative fact. Such legislative facts are decided by judges, typically, at the trial stage and reviewed de novo on appeal. At the appellate level, legislative facts are sometimes referred to as mixed questions of law and fact.

Adjudicative facts, on the other hand, are those facts particular to the dispute. In ordinary litigation, these are the facts that drive the dispute. Examples of such facts include whether the traffic light was red or green, the presence or absence of a stop sign, or the kind of weapon allegedly brandished by the defendant. Adjudicative facts are within the province of the trier of fact (the jury or, if there is no jury, the judge) to decide. On appeal, in nonconstitutional cases, review is deferential under the abuse-of-discretion standard. The appellate standard of review for constitutional adjudicative facts is considerably more complicated, but in most instances, they are reviewed de novo.

The Monahan-Walker Model

Although the Davis dichotomy has been extremely influential in providing a nomenclature that is regularly employed by the courts, it fails to capture the complex interrelationship between different kinds of facts in actual courtroom practice. Monahan and Walker refined Davis's dichotomy in the context of social science research, though their three-part taxonomy could be applied to most forms of expert evidence. A basic difference between the Davis and the Monahan and Walker approaches concerns the respective focus each takes to the subject. Davis primarily focused on the nature of the legal question involved—legislative-like decisions or case-specific adjudications. In contrast, Monahan and Walker focused on the kinds of social science available to answer the various kinds of legal issues in dispute. In this way, the Monahan-Walker model is more finely tuned to the relevant issues raised by expert evidence. In particular, their model takes into account both the science available on the subject and the level of fact in dispute under applicable law.

Monahan and Walker identified three levels of evidentiary convergence between social science and law: social authority, social frameworks, and social facts. *Social authority* refers to social science research relevant to the determination of legislative facts and thus the formation of legal rules. According to their proposal, social authority is analogous to legal authority and should be consulted similarly. Hence, judges would consider social science "precedent" (i.e., available research) as presented through briefs, through arguments, and *sua sponte*. The information found to be relevant would then be incorporated into the judge's conclusions of law. Alternatively, in the Monahan-Walker model, social science research might be relevant to social facts (largely equivalent to Davis's adjudicative facts), in which case, after being deemed admissible, it would be presented to the trier of fact through expert testimony. Finally, social science research might have relevance as a combination of social authority and social fact. Monahan and Walker label this concept "social frameworks." In social frameworks, some issue in the particular dispute is claimed to be an instance of a social scientific finding or theory of general import. According to the model, the judge would consider and instruct the jury on the verity of the general claim, but the jury would also hear expert testimony on how the theory applies in the case before it.

Although the Monahan and Walker model has generally received positive recognition, by far their identification of the concept of social frameworks has had the greatest influence. This impact has occurred largely because of the fact that most social science comes into the courtroom in this two-stage form. This is so even when the two levels of the framework are not explicitly set forth, as occurs perhaps too often in practice. To illustrate the power of the social framework concept, consider three examples: the battered woman syndrome (BWS), eyewitness identification, and predictions of violence.

BWS illustrates social frameworks in their conventional sense, in that courts have always expected that there is a general fact that had to be proved and an issue as to whether the case at hand was an instance of that general fact. In the traditional context in which BWS is offered as proof, the defendant is a woman who has killed her abuser under circumstances that traditionally would not have qualified as self-defense. This may be because she killed when the victim was

sleeping or otherwise not attacking her and when, seemingly, she was not in "imminent harm" of "serious physical injury or death." According to proponents of BWS, however, a person who experiences chronic uncontrolled domestic violence develops certain psychological reactions to this violence. Courts have generally concluded that the psychological reactions attending BWS are relevant to the question of whether a defendant killed with the reasonable belief that she was in imminent harm. As the Monahan and Walker social frameworks concept makes clear, there are two separate social science issues that are relevant here. The first is the framework itself and concerns the question of whether social science research supports the claim that particular—legally relevant—psychological reactions develop as a result of chronic battering. If, and only if, the answer to this initial framework question is yes, a second question arises in these cases. Specifically, the social fact part of the framework requires proof that the particular defendant in the case suffers from BWS.

A second example of a social framework is the research on the unreliability of eyewitness identifications. This work nicely demonstrates how some framework research might be demonstrable at the general level but is left to the trier of fact to apply at the social fact level. Indeed, it is interesting to note that the reluctance to apply eyewitness research to particular cases appears largely to reside with the experts in this area, rather than with any specific limitations historically placed on this evidence by the courts. It appears that findings that have largely been generated by research scientists are used in court at the framework level but not applied in any case-specific way by the experts themselves. This is a use specifically contemplated by the Federal Rules of Evidence. The Advisory Committee's Note, for example, states that Rule 702 "recognizes that an expert on the stand may give a dissertation or exposition of scientific or other principles relevant to the case, leaving the trier of fact to apply them to the facts."

A third example of social frameworks is clinical predictions of violence—a form of expertise that is often offered as a social fact but without support of any social framework. Although there is a robust research literature on actuarial predictions of violence, which effectively would provide a social framework for this kind of evidence, many clinicians continue to testify based on clinical judgment alone. In effect, therefore, this evidence is being offered as social fact evidence, without any supporting research framework in which to set it. Courts have been particularly clueless as regards this sort of evidence, which should be excluded systematically. As a general matter, no applied science exists only at the social fact level. Whether explicit, implicit, or ignored, every scientific opinion regarding a particular case depends on the existence of some general theory or framework of which a particular case is a claimed instance. Courts display their scientific ignorance, and clinicians display their legerdemain, when they pretend that this is not so.

The Courts' Model of Causation: General and Specific

In many contexts, courts have seemingly begun to develop a basic sophistication regarding scientific foundations in considering the different kinds of expert opinion that might be offered. Beyond the taxonomies of Davis and Monahan and Walker, working courts have been forced to recognize the basic difference between what most scientists study and what most legal disputes are about. Scientists typically study variables at the population level, and most of their methodological and statistical tools are designed for this kind of work. The trial process, in contrast, usually concerns whether a particular case is an instance of the general phenomenon. There has been little systematic work done on the problem of reasoning from general research findings to making specific statements about individual cases.

Courts have increasingly noted the different levels of abstraction at which science comes to the law. Science comes to courts as an amalgam of general principles or theories and specific applications of those principles. Courts have recognized these two levels of abstraction most clearly in medical causation cases, in which they routinely distinguish between general causation and specific causation.

General and specific causation are merely subinstances of the inherent division between the general and the specific in applied science. Indeed, these concepts closely parallel the Monahan and Walker social frameworks idea, though the courts have primarily developed the concept outside of the context of social science. *General causation* refers to the proposition that one factor (or more) can produce certain results, and thus the finding transcends any one case. *Specific causation* considers whether those factors caused those results in the particular case at bar. Consider, for

example, the complaint in *Daubert v. Merrell Dow Pharmaceuticals* (1993) itself. The plaintiffs claimed that Jason Daubert's mother's ingestion of Bendectin during pregnancy caused or contributed to his birth defects. This claim had both general and specific components. As a matter of general causation, the plaintiffs were obligated to show that Bendectin sometimes causes birth defects. This hypothesis transcends the particular dispute and is as true in California as it is in New York. In addition, the plaintiffs had to show that Jason's birth defects were attributable to his mother's ingestion of Bendectin. This proof might involve showing that she took the drug during the relevant period of gestation and that other factors did not cause the defects. This is specific causation.

Virtually all scientific evidence shares this basic dichotomy between the general and the specific. Science provides methods by which relationships or associations can be identified and, typically, quantified. Scientific theories often involve induction from the particular to the general. The law, however, needs to apply these general lessons to specific cases. Although still little appreciated among psychologists, this division between what scientists do and what the law needs is one of the areas needing the greatest attention by those interested in the psychology-and-law connection.

David L. Faigman

See also Expert Psychological Testimony; Expert Psychological Testimony, Admissibility Standards; Expert Testimony, Qualifications of Experts

Further Readings

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Davis, K. C. (1942). An approach to problems of evidence in the administrative process. *Harvard Law Review, 55,* 364–425.

Monahan, J., & Walker, L. (1986). Social authority: Obtaining, evaluating, and establishing social science in law. *University of Pennsylvania Law Review, 134,* 477–517.

Monahan, J., & Walker, L. (2002). *Social science in law: Cases and materials* (5th ed.). Westbury, NY: Foundation Press.

Walker, L., & Monahan, J. (1987). Social frameworks: A new use of social science in law. *Virginia Law Review, 73,* 559–598.

Walker, L., & Monahan, J. (1988). Social facts: Scientific methodology as legal precedent. *California Law Review, 76,* 877–896.

Expert Psychological Testimony on Eyewitness Identification

Psychologists occasionally testify about the factors that influence eyewitness identification accuracy in criminal cases in which eyewitness identification is a pivotal issue. Considerable research has addressed the need for this testimony and its impact on the jury. Typically, the expert witness is trained in cognitive or social psychology and has published scholarly work about eyewitness identification accuracy. Most often, the expert witness is offered by the attorney for the defendant. In such cases, the expert undergoes "direct examination" by the defense attorney and "cross-examination" by the prosecuting attorney.

The purpose of this form of expert testimony is to educate the jury about the factors that are known from research to influence the likelihood of false identification. The content of the expert testimony typically focuses on issues such as factors affecting the likelihood of mistaken identification, the suggestiveness of lineup and photoarray procedures, and the relation between eyewitness confidence and identification accuracy. For example, with respect to witnessing factors, an expert might testify that witnesses are more likely to make false identifications when identifying a perpetrator of another race than when identifying a perpetrator of their race. Extreme stress associated with a violent crime inhibits a witness's ability to accurately encode information. The presence of a weapon creates a "weapon focus" effect and increases the likelihood of false identification. With respect to lineups, an expert witness might testify that false identifications are more likely with suggestive lineup instructions and when lineup members are presented simultaneously rather than sequentially. An expert witness might also testify that eyewitness confidence is not strongly related to identification accuracy and that eyewitness confidence levels can be inflated by information provided by cowitnesses or investigators that validates the eyewitness's selection from the lineup. Expert witnesses do not offer opinions about the accuracy of eyewitness identification in a given case.

The decision to admit expert psychological testimony about eyewitness identification into court is normally left to the discretion of the trial judge, and the likelihood of admission varies considerably from state to state and in federal courts. Typical reasons for excluding expert psychological testimony about

eyewitness identification include the following. Many judges have ruled that the content of the expert testimony is merely a matter of common sense and, therefore, of little benefit to jurors. Judges have also ruled that the research is not commonly accepted within the relevant discipline. Other judges have ruled that the testimony is not helpful to jurors, because it addresses only research and does not inform the jury about the accuracy of the identification in the specific case at trial. Still other judges have ruled that the testimony will prejudice the jury by making them unnecessarily skeptical about the eyewitness identification.

Psychological research on expert testimony has taken various forms. Some research has directly examined the validity of the reasons for excluding the expert testimony. For example, as noted above, judges have ruled that the content of the testimony does not go beyond the jurors' common sense. This implies that the average juror is well-informed about the factors that influence eyewitness identification accuracy. Scholars have developed several ways of testing the degree to which jurors are so informed. Some have conducted surveys of juror knowledge by administering test questions about factors affecting eyewitness identification. Others have described eyewitness identification experiments to students and asked them to predict the outcomes of the experiments. Their predicted outcomes are then compared with the actual outcomes of the experiments. Still other scholars have developed simulated trials (transcripts or videotaped enactments of trials) in which some evidence is held constant while other evidence (e.g., the suggestiveness of lineup procedures) is systematically manipulated. This methodology enables the researcher to examine what factors influence juror decisions and whether those factors are consistent with what is known from the research on eyewitness identification. This body of research on common sense supports the conclusion that what psychologists have to offer to the jurors well exceeds their common sense. For example, contrary to conclusions from the research literature, eligible jurors lack a full understanding of the impact of cross-race recognition, high stress, and weapon focus on identification accuracy and believe that eyewitness confidence is a stronger predictor of identification accuracy than the research suggests.

Research has also examined the extent to which the content of expert testimony is generally accepted among psychologists with expertise in eyewitness identification. This research takes the form of surveys of these experts and shows that many (but not all) of the factors about which experts testify are generally accepted in the relevant scientific community.

Does expert testimony about eyewitness identification prejudice the jury? What effect does expert testimony have on juries? Some researchers have addressed these questions by conducting trial simulation experiments. In these experiments, students or jury-eligible community members serve as "mock-jurors" and either read trial transcripts or view videotaped enactments of trials. Some trials would contain expert testimony while others would not. The research findings are mixed, with many studies showing that expert testimony makes jurors more skeptical about the accuracy of eyewitness identification, meaning they are less likely to convict a defendant based on eyewitness identification after hearing expert testimony. Other studies have found that expert testimony improves juror decision making by teaching jurors to rely on factors that are known to influence the likelihood of false identification (e.g., high stress, weapon focus, suggestive lineup procedures) and to not rely on factors that do not predict identification accuracy (e.g., witness confidence).

In sum, expert psychological testimony about eyewitness identification is a relatively new safeguard developed to prevent mistaken identifications from resulting in erroneous convictions. Its effectiveness is limited by virtue of the fact that it is often not allowed in criminal cases. Some of the reasons that judges typically give for not allowing this form of expert testimony are not supported by empirical research. Research on the effectiveness of expert testimony suggests that it can be helpful but not universally so.

Brian L. Cutler

See also Expert Psychological Testimony, Admissibility Standards; Expert Psychological Testimony, Forms of; Expert Testimony, Qualifications of Experts; Eyewitness Memory

Further Readings

Benton, T. R., Ross, D. F., Bradshaw, E., Thomas, W. N., & Bradshaw, G. S. (2006). Eyewitness memory is still not common sense: Comparing jurors, judges and law enforcement to eyewitness experts. *Applied Cognitive Psychology, 20,* 115–129.

Cutler, B. L., & Penrod, S. D. (1995). *Mistaken identification: Eyewitnesses, psychology and the law.* New York: Cambridge University Press.

Cutler, B. L., Penrod, S. D., & Dexter, H. R. (1989). The eyewitness, the expert psychologist, and the jury. *Law and Human Behavior, 13,* 311–332.

Devenport, J. L., & Cutler, B. L. (2004). Impact of defense-only and opposing eyewitness experts on juror judgments. *Law and Human Behavior, 28,* 569–576.

Kassin, S. M., Tubb, V. A., & Hosch, H. M., & Memon, A. (2001). On the "general acceptance" of eyewitness testimony research: A new survey of the experts. *American Psychologist, 56,* 405–416.

Leippe, M. R. (1995). The case for expert testimony about eyewitness memory. *Psychology, Public Policy, and Law, 1,* 909–959.

Leippe, M. R., Eisenstadt, D., Rauch, S. M., & Seib, H. M. (2004). Timing of eyewitness expert testimony. Jurors' need for cognition, and case strength as determinants of trial verdicts. *Journal of Applied Psychology, 89,* 524–541.

Expert Testimony, Qualifications of Experts

Under the Federal Rules of Evidence and virtually all state codes, expertise is defined by the nature and scope of the proffered opinion. The basic issue with regard to a qualifications assessment is whether the witness has the background to support his or her intended testimony. An expert must be qualified to "assist the trier of fact." But no strict tests or minimum requirements apply to the assessment of qualified expertise. The level of qualifications required varies with the demands of the proffered testimony.

The Federal Rules of Evidence, for example, define qualifications broadly, encompassing "knowledge, skill, experience, training, or education." In general, courts interpret the main qualifications requirement in relation to the expert's claimed expertise and the nature of the testimony. Hence, experts on medical matters are expected to have medical degrees, appropriate certifications, and experience, but auto mechanics or real estate appraisers might only need years of experience and demonstrable skills. Professional degrees or certifications, therefore, may be considered by courts because they reflect the expert's level of skill or experience but are not formal requirements of the rules. As a practical matter, courts typically consult the experts' respective fields for guidance regarding what constitutes a "qualified" expert. Not all fields, however, have well-articulated standards, and many subjects of interest to the law are studied by fields with widely varying professional requirements.

Because an expert's qualifications must be sufficient to support his or her intended testimony, courts regularly demand that experts possess certain minimal degree requirements or professional certifications before being allowed to testify. In a case presenting an issue of medical causation, for instance, a court is likely to require an expert to possess a medical degree. Similarly, testimony regarding structural engineering will typically be introduced through the testimony of a structural engineer. In most jurisdictions, the question of a particular expert's qualifications is within the discretion of the trial court and will not be overturned absent a finding that the lower court abused its discretion. Indeed, it is highly unusual for an appellate court to reverse a lower court's finding that a particular expert passes or fails the qualifications test.

With regard to fields with highly formalized credentialing requirements, courts tend to follow the respective field's expectations regarding what it takes to be "qualified." This usually means that the courts mirror the respective fields from which the experts hail. If, for example, a field requires certification to practice the expertise, courts tend to assume that party experts from that field will possess the requisite certification. Experts who fail to meet their own field's qualifications demands are presumed unqualified by most courts. This, however, is a rebuttable presumption. Courts use a field's certification requirements as a guidepost for judging expertise, not as a prerequisite to receiving an expert's opinion. In effect, therefore, a field's certification requirement constitutes a factor, albeit an important one, in the assessment of qualifications.

Many expert fields, however, have no formal credential requirements, and the courts similarly follow the field's lead here too. Hence, medical experts usually must have attained the M.D. degree at a minimum, but experts on psychological subjects might possess a host of degrees or even experience-based specialization. For example, courts sometimes find experts with just a B.A. degree, together with significant work experience, to be minimally qualified to testify generally on subjects such as the battered woman syndrome or child abuse accommodation syndrome.

Although courts are typically permissive regarding credentials when experts propose to testify on general subjects in psychology, there are limits to this generosity. In particular, courts might require higher

educational attainment before an expert will be permitted to testify about a relevant diagnosis. For example, while a court might permit a social worker with relevant experience to testify that it is not unusual for rape victims to fail to immediately report an assault, it is likely to require clinical certification to diagnose the alleged victim as suffering from posttraumatic stress disorder. Similarly, courts usually demand a medical degree to support testimony about drug treatment or the effects of a particular drug regime on human behavior.

Perhaps the most pressing issue presented in the context of expert testimony is whether experts must demonstrate specialized knowledge of the subject of the testimony. The hallmark of contemporary science (and all expertise) is specialization. This trend leaves courts somewhat uncertain as to whether generalists should be permitted to testify about matters that are highly specialized. Courts tend to approach this matter flexibly. In practice, this means that the matter is within the trial court's discretion. Some courts require experts to have demonstrated expertise in the specific areas and topics on which they are to testify. Other courts provide that generalists may testify on specialty areas and that their lack of expertise in those areas is a matter of weight for the trier of fact.

All the general issues presented regarding the qualifications of experts to testify can be found in the many legal contexts in which training and experience in psychology might assist triers of fact. Indeed, psychology possibly illustrates better than any other field the complexities associated with measuring an expert's qualifications. Psychological expertise comes in myriad forms and is introduced for a great variety of purposes. As a general matter, as is true with other areas of substantive expertise, an expert psychologist's qualifications depend on the nature of his or her proffered testimony. A witness proposing to testify on the unreliability of eyewitnesses, for example, would be expected to be steeped in the research in this area. A witness proffered on whether a defendant suffered from posttraumatic stress disorder would be expected to have clinical expertise. These two examples roughly represent the two basic domains in which psychologists are offered to testify: research-based knowledge and clinical opinion. Each of these domains presents special difficulties with regard to qualifications, not least because there is no obvious line that divides the two.

In a number of legal contexts, psychological research is relevant to general background facts, even if the expert cannot reliably testify regarding how those circumstances affected the particular case. Specifically, research studies can often assist the trier of fact to understand the background context regarding some matter that is relevant to the case at hand. For example, researchers might offer to testify regarding the suggestibility of young children to leading questions in a case involving sexual assault, but they may be unable to provide a reliable opinion regarding whether a particular child's testimony was influenced by the questioning that occurred in the case at hand. A witness proposing to testify regarding general research results should generally have expertise in the relevant literature as well as in statistics and research design. Very often, an expert proffered to testify regarding a particular research area will be someone who has published extensively on the subject—though this would not be a prerequisite in most jurisdictions.

In many cases, expert psychological evidence will also be proffered on an issue that is particular to the case. In theory, the proponent of such testimony has the obligation to demonstrate the admissibility of both the general framework and the framework's applicability to the particular case. With regard to expert qualifications, at least in theory, this means that an expert must be qualified on the research basis for the general framework and the clinical application of that research framework to particular cases. This will often mean that different experts will testify to these two subjects. Consider, for example, a defendant who claims that she killed in self-defense based in part on the battered woman syndrome. As an initial matter, the defendant has the burden to demonstrate the basic validity of the claimed syndrome. This is a claim that ought to be premised on the research literature and should be introduced by an expert qualified to discuss the strengths and weaknesses of that literature. Additionally, the defendant is likely to proffer an expert opinion that she suffered from the syndrome. This very often requires the introduction of an additional expert, one qualified to offer clinical expert testimony that is relevant and reliable for the particular claim.

It must be emphasized that the issue of qualifications is intrinsically bound to the associated standards for admissibility of the substantive expert testimony. In federal cases, for example, this means that the admissibility inquiry will be parallel to the determination made under Rule 702 and *Daubert v. Merrell Dow Pharmaceuticals* (1993) and its progeny. Accordingly, if an asserted expertise cannot be shown to be sound,

then even the most eminent (most highly qualified) practitioner of that asserted expertise still would not be permitted to testify as an expert. In fact, courts are likely to find that the issues of qualifications, reliability, and fit are inextricably intertwined and, in practice, cannot easily be disentangled. Qualifications are relative, being more or less useful depending on the expert's familiarity with the subject that fits, or is relevant to, the matter to be decided by the trier of fact. Qualifications, therefore, cannot be evaluated in the abstract. At some point, certainly, the question of qualifications becomes a matter of weight rather than admissibility. But just as with Rule 702 validity assessments, the judge's gatekeeping obligations should extend not merely to qualifications in the abstract but qualifications to testify about the subject that is relevant to the issues in dispute.

David L. Faigman

See also Expert Psychological Testimony; Expert Psychological Testimony, Admissibility Standards; Expert Psychological Testimony, Forms of

Further Readings

Berger, M. (2002). The Supreme Court's trilogy on the admissibility of expert testimony. In Federal Judicial Center (Ed.), *Scientific evidence reference manual* (2nd ed., pp. 9–38). Washington, DC: Federal Judicial Center.

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Faigman, D. L., Kaye, D. H., Saks, M. J., Sanders, J., & Cheng, E. K. (2007). *Modern scientific evidence: The law and science of expert testimony* (2nd ed.). St. Paul, MN: West/Thompson.

Giannelli, P. C. (2004). Expert qualifications: Who are these guys? *Criminal Justice, 19,* 70–71.

Murphy, C. P. (1994). Experts, liars, and guns for hire: A different perspective on the qualifications of technical expert witnesses. *Indiana Law Journal, 69,* 637–657.

Exposure Time and Eyewitness Memory

When assessing the potential of an eyewitness, among the first things an investigator has to decide is whether or not the witness had an opportunity to observe what took place for a sufficient time. The decision is likely to be influenced by a witness's assessment of the length and quality of exposure to a perpetrator's face. A longer exposure can increase the ease with which details come to mind at the time of remembering and increase the likelihood that witnesses will correctly recognize a face from an identification lineup and provide a more detailed description. However, an extended exposure could make the witness more confident in their identification ability even when they are wrong. It has been recommended that investigators should not rely too heavily on witness confidence as an indicator of accuracy.

There are two points to bear in mind when examining the relationship between eyewitness memory and exposure duration. First, eyewitnesses are not very good at making estimates of the duration of a given event, and witnesses may overestimate the length of exposure to a face. Second, a longer exposure to a face can make a witness more confident in their ability to make an identification, although there are numerous other factors that could inflate (or deflate) a witness's confidence.

When witnesses are asked whether or not they could identify someone seen earlier, they will rely on various sources of information when making a judgment about the strength of their memory. One source of information that could influence their decision is "availability" or the ease with which information can be brought to mind. A longer exposure is associated with an increase in availability, and this can have interesting consequences for the accuracy of an eyewitness's identification.

Don Read was the first to examine the use of the availability heuristic in an eyewitness identification setting. He found that participants who interacted with store clerks for a longer duration (4–15 minutes as compared with 30–60 seconds) made a higher number of correct choices from lineups in which the culprit was present. However, it was found that the false identification rate in the target-absent lineups were inflated if the store clerks received additional information (cues) about the target. The latter finding fits with the hypothesis that availability of additional cues can sometimes lead a witness to believe that they have a stronger memory for the target, and in a target-absent lineup this can have potentially serious consequences.

The question of why an increase in exposure would lead witnesses to overestimate their ability to make an accurate identification from a lineup was explored by researchers at Aberdeen University using "mock"

eyewitnesses (aged 17 to 81 years). The witnesses individually viewed a video reconstruction of a robbery at a savings bank. No weapons were seen in the video, although the culprit indicated to the clerk that he had a gun. The critical aspect of this video for the purposes of the study was the length of exposure to the culprit's face in the video. Two versions of the video were created. In one version, the culprit's face (full-frontal and profile view) was visible for 45 seconds, and in another version, the culprit's face (full-frontal and profile view) was visible for 12 seconds. No other details differed, and the videos were of the same duration (1 minute 40 seconds). About 35 to 40 minutes after witnessing the robbery, witnesses in the long-exposure group made more correct identifications of the robber when he was present in the lineup. They also provided more correct descriptions of the robber under the long-exposure condition. A longer exposure did not appear to inflate false identifications when the culprit was absent from the lineup in the Aberdeen study.

One additional finding from the comparison of witnesses exposed to a target for a shorter or longer duration in the Aberdeen study could be of use to investigators. Witnesses in the long-exposure condition were more confident in their identification decisions than were witnesses in the short-exposure condition. However, they were confident even when they were inaccurate. In other words, confidence was *not* a reliable indicator of accuracy under long exposure. This effect was most marked in the culprit-absent conditions. This finding becomes more meaningful when the implications for assessing witness credibility are examined. When deciding whether or not a given witness is likely to be reliable, a police officer or a juror may rely on that witness's verbal expression of their confidence. To summarize, the research suggests that the likelihood of a witness making an accurate identification is increased if he or she has seen the perpetrator's face for a longer period of time. However, an extended exposure could make witnesses more confident in their identification ability even when they are wrong. Therefore, while a longer exposure increases the chances of an accurate identification, investigators should not rely too heavily on witness confidence as an indicator of accuracy.

So far it has been proposed that the extent of time of exposure to a face could be useful information when assessing the potential of an eyewitness to aid an investigation and the administration of justice. One of the limitations of prior research on exposure duration is that it has been assumed that a witness who is exposed to a perpetrator for a longer time will be paying more attention to the face and processing it more "deeply," thereby providing a stronger and more accessible memory trace. However, this assumes that there is nothing else at the scene of the crime to attract one's attention. This is typically not the case. For example, research has shown that when a perpetrator is holding a weapon, a witness's attention may be drawn to that, and consequently, the witness may spend less time looking at the face (referred to as the weapon-focus effect). It is important in future research to identify various situational factors that alter the relationship between degree of exposure and memory for an event.

Amina Memon

See also Confidence in Identifications; Confidence in Identifications, Malleability; Eyewitness Memory; Eyewitness Memory, Lay Beliefs About; Retention Interval and Eyewitness Memory; Weapon Focus

Further Readings

Memon, A., Hope, L., & Bull, R. H. C. (2003). Exposure duration: Effects on eyewitness accuracy and confidence. *British Journal of Psychology, 94,* 339–354.

Pedersen, A., & Wright, A. (2002). Do differences in event descriptions cause differences in duration estimates? *Applied Cognitive Psychology, 16,* 769–783.

Read, J. D. (1995). The availability heuristic in person identification: The sometimes misleading consequences of enhanced contextual information. *Applied Cognitive Psychology, 9,* 91–121.

Extreme Emotional Disturbance

A number of states in the United States provide by statute that defendants charged with murder or attempted murder may seek to mitigate the charges against them by claiming, and proving, that when they intentionally murdered or attempted to murder their victim, they did so under the influence of an extreme mental or emotional disturbance (EED) for which there was a reasonable explanation or excuse. Typically, such statutes provide that the reasonableness of such explanation or excuse shall be determined from the viewpoint of a person in the defendant's situation at the time of the crime, under the circumstances as the

defendants believed them to be. If successful with the EED defense, a defendant charged with murder should be found guilty of the lesser crime of manslaughter.

The EED defense can be contrasted with the (also partial) defense of *provocation*, which exists in other states. Under the defense of provocation, if a defendant charged with murder can prove that he or she killed his or her victim in response to an objective provocation that would cause an ordinary person to suffer a loss of control—and that an adequate time for "cooling off" had not passed—the defendant should likewise be found guilty of manslaughter, rather than murder.

Unlike the provocation defense, the EED defense does not require that the defendant acted in response to certain, particular, provoking circumstances or that the defendant did not have time to cool off. However, although EED statutes typically do *not* mention "loss of control" as a requirement for an EED defense, court decisions often *do* state that the EED defense should be limited to situations in which the defendant understandably suffered a loss of control because of extreme stress and that his or her ability to reason was overwrought by emotion. However, according to court decisions, the defense also allows for a defendant to proffer a claim of EED for emotions that may have been "simmering in the unconscious."

The EED defense should also be contrasted with the *insanity defense*. The insanity defense varies from state to state but typically provides that defendants should not be considered responsible for their criminal conduct if, at the time of such conduct, the defendant could not appreciate what he or she was doing or that it was wrong. To succeed with an insanity defense, a defendant usually has to prove that, at the time of his or her crime, he or she suffered from a severe psychiatric impairment and had a very significantly impaired ability to perceive reality; and if successful with an insanity defense, the defendant will be sent to a hospital, rather than prison, until the defendant is no longer dangerous, at which time the defendant (now a patient) would be released.

A severe, diagnosable, psychiatric impairment or a severe lack of reality testing is not necessary for a successful EED defense; but if *successful* with an EED defense, the defendant may still go to prison, although for a shorter period of time than if the EED defense had not succeeded. Nevertheless, the defense often warrants a mental health evaluation of the defendant. The assessment would be conducted to evaluate the presence of any mental disorders, other mental frailties, or any unique set of conditions that might have rendered the defendant more emotionally vulnerable to the stress than any other individual who might have been subject to the same or similar circumstances.

The EED defense is not raised very often in criminal cases. For one thing, it applies only to charges of intentional murder or attempted murder. For another, it provides a defendant with no benefit if the prosecutor is willing to offer the defendant a plea bargain, which allows the defendant, charged with murder, to plead guilty to manslaughter. On the other hand, the existence of the EED defense may make prosecutors more willing to plea bargain than would otherwise be the case.

EED statutes do not specify which extreme emotions would, or would not, justify a successful EED defense. However, even though defendants do sometimes go to trial with an EED defense based on a claim of overwhelming anger, a number of court decisions hold that acting out of extreme rage, alone, would *not* allow a defendant to qualify for, or even to raise, an EED defense. And there is evidence from a variety of sources that defendants pleading an EED defense are far more likely to succeed when they acted out of fear—even if mixed with anger—rather than out of anger alone. Clearly, however, a great deal of discretion is, intentionally, left to juries (when they are the finders of fact) in EED cases. "In the end," as the New York Court of Appeals put it, the purpose of the EED defense is "to allow the finders of fact to mitigate the penalty when presented with a situation which, under the circumstances, appears to them to have caused an understandable weakness in one of their fellows."

Yet, as previously noted, courts are reluctant to let *any* defendant charged with murder plead an EED defense (and obtain, perhaps, a mitigation of their deserved penalty). Thus, to establish an EED defense, some courts require evidence that the onset of the claimed extreme emotional disturbance was sudden, or caused by a *triggering event*, or (without requiring psychiatric testimony) evidenced a "mental infirmity not rising to the level of insanity," or led to a "loss of self control or similar disability." Judges, in their sound discretion, may preclude an EED defense before trial or, based on the evidence presented at trial, may refuse to allow the jury to consider an EED defense.

It should also be emphasized that even if an EED defense goes to a jury, to succeed with the defense, the defendant must prove not only that he or she acted under the influence of an extreme emotional disturbance but also that there was a reasonable

explanation or excuse for the disturbance. As noted above, the reasonableness of such explanation or excuse should be determined, under the law, from the viewpoint of a person in the defendant's situation, under the circumstances as he or she believed them to be. It is clear, however, that having killed while in the throes of an extreme emotional disturbance does *not* necessarily merit the EED defense. If the trier of fact determines that the defendant's extreme emotions—for example, a defendant's extreme rage—were *not* reasonable under the circumstances, then the EED defense should be, and probably will be, denied.

Expert testimony supporting an EED defense is *not* required to maintain the defense. However, mental health professionals may and do testify as experts in EED cases to help the trier of fact determine the precise nature of the defendant's claimed EED at the time of the crime(s) charged. It is questionable, however, whether expert witnesses should address the issue of whether a defendant's EED was *reasonable.* Arguably, at least, whether a defendant's extreme emotional reaction was *reasonable* under the circumstances is not an issue regarding which mental health professionals have any special expertise and should best be left to the trier of fact.

In evaluating a defendant's emotional state at the time of a crime, mental health professionals should conduct the evaluation in the same manner as other types of "mental state at the time of the offense" evaluations. Subjective information gathered from the defendant and more objective, third-party sources should be considered. The clinician should attempt to identify the emotions that the defendant was experiencing at the time and whether the emotions were indeed intense. The evaluator also should assess which personality factors and/or mental conditions may have contributed to the defendant's supposedly aroused feelings and how the situation(s) which the defendant found himself or herself in may have elicited, or contributed to, his or her emotionally aroused state (if any) at the time of the charged criminal act.

Thomas R. Litwack and Stuart M. Kirschner

See also Criminal Responsibility, Assessment of; Criminal Responsibility, Defenses and Standards; Expert Psychological Testimony; Forensic Assessment; Homicide, Psychology of; Insanity Defense Reform Act (IDRA); Mental Health Law; M'Naghten Standard; Plea Bargaining

Further Readings

Baze v. Parker, 371 F.3d 310 (6th Cir. 2004).

Hall, H., Mee, C., & Bresciani, P. (2001). Extreme mental or emotional disturbance (EMED). *Hawaii Law Review, 23,* 431–477.

Kirschner, S. M., & Galperin, G. J. (2002). The defense of extreme emotional disturbance in New York County: Pleas and outcomes. *Behavioral Sciences and the Law, 20,* 47–50.

Kirschner, S. M., Litwack, T. R., & Galperin, G. J. (2004). The defense of extreme emotional disturbance: A qualitative analysis of cases in New York County. *Psychology, Public Policy, and Law*, 10, 102–132.

People v. Cassasa, 49 N.Y.2d 668, cert. denied, 449 U.S. 842 (1980).

People v. Lyttle, 408 N.Y.S.2d 578 (1976).

People v. Patterson, 39 N.Y.2d 288 (1976), aff'd, 432 U.S. 197 (1977).

People v. Roche, 98 N.Y.2d 70 (2002).

Eyewitness Descriptions, Accuracy of

Police investigators will frequently request that a witness to a crime provide a verbal description of the alleged perpetrator. Such descriptions provide critical information that the police use throughout an investigation, from the identification of possible suspects in the vicinity of the crime, to the selection of photographs for mug books or lineup identification arrays, to the construction of sketches or composites that may be distributed to the general public. Although descriptions of persons are often accurate, they unfortunately also tend to lack sufficient detail to single out an individual suspect.

Quantity Versus Quality of Person Descriptions

Numerous archival studies have examined the quantity and quality of person descriptions provided in real cases. On average, witnesses tend to provide between 7 and 10 descriptors, and these descriptors tend to be quite consistent (or congruent) with the defendant who is subsequently identified. Unfortunately, the vast majority of descriptors provided by witnesses are general, including characteristics such as gender, race,

age, height, weight, build, and complexion. Aspects of the clothing worn by the perpetrator are also frequently mentioned, but such features provide only a brief opportunity for use in identifying a suspect in the immediate aftermath of a crime. More specific facial features (such as eye color, hair color or style, and face shape) are rarely mentioned by witnesses, and those that are included tend to focus on the upper portions of the face. Taken together, witnesses appear to provide an accurate general impression of the perpetrator but often fail to include more specific facial details. Laboratory studies of witness descriptions tend to concur with studies of real witnesses, indicating that although witnesses generally provide accurate descriptions, they rarely include descriptors that might be useful for individuating a target face.

Factors That Influence Description Accuracy

Research suggests that a variety of cognitive and social psychological factors can influence the accuracy of a witness's description. First, encoding-based factors are those that occur around the time of the critical event when the witness interacts with or views the perpetrator. For example, low levels of illumination, greater distance between the witness and the perpetrator, a brief amount of time for viewing the perpetrator, the experience of stress or anxiety on the part of the witness (sometimes based on the presence of a weapon), and a witness under the influence of alcohol or drugs have all been shown to reduce the accuracy and completeness of person descriptions. Second, a subset of factors may occur between the time of encoding and retrieval of the description (i.e., during the retention interval) to influence the accuracy of a witness's description. For example, longer delays between encoding and retrieval have been shown to significantly reduce the quality of descriptions provided by witnesses, and exposure to "misinformation" (as described later in this entry) has been demonstrated to significantly impair a witness's memory and thereby his or her person description. Finally, certain characteristics of the witness can influence the quality of his or her person description. In particular, adults tend to provide more detailed descriptions than do children, though few differences in the accuracy of person descriptions have been noted between these two populations. Similarly, young adults are superior at recalling person descriptions when compared with middle-aged and elderly adults. Interestingly, unlike the cross-race effect in face identification, few differences in accuracy have been noted when individuals attempt to describe faces of another, less familiar race or ethnicity.

Methods for Obtaining Person Descriptions

Interviewing techniques such as feature checklists, cued recall, and free-recall methods are well-established practices of investigators for eliciting person descriptions from eyewitnesses. Regardless of which technique is used, however, acquiring a complete yet accurate description has proven to be very difficult. Probably, the most common method for obtaining person descriptions is simply to ask the witness to freely describe what they remember about the perpetrator. While this free-recall technique regularly leads to highly accurate descriptions, critical details of distinguishing characteristics are often omitted from recall. Consequently, it is common practice for investigators to ask more direct, follow-up questions about specific features (e.g., "Do you remember if the man had facial hair?") or to attempt to confirm the identity of a suspect that they have identified (e.g., "Did the man have short black hair and blue eyes?"). Studies suggest that such leading questions can be very dangerous in that they can "misinform" a witness's original memory for the perpetrator and subsequently impair his or her ability to both provide an accurate description and identify the perpetrator. Research on feature checklist techniques similarly suggest that providing witnesses with numerous descriptors regarding a face can create confusion in memory and lead them to report the presence of features that they are actually unsure of. Finally, witnesses to a crime are often asked to describe the perpetrator many times over the course of an investigation. Research suggests that this process of repeated retrieval can have both positive and negative effects. On the positive side, repeatedly recalling information has been shown to lead to increases in recalled information and to offer some "protection" to the memory trace. Unfortunately, erroneous details generated during early retrieval episodes are also repeatedly recalled over time with increased confidence.

Of the attempts to develop an interviewing technique to maximize description completeness without

sacrificing accuracy, the Cognitive Interview is perhaps the most well known. It has been shown to reliably improve the completeness of person descriptions in comparison with other "standard," free-recall techniques. Unfortunately, some studies have suggested that the Cognitive Interview results in a slight cost in description accuracy in the form of increased errors. This has led some researchers to suggest that warning witnesses to be cautious in providing person descriptors may ultimately produce the greatest accuracy and simultaneously protect the witness's memory from the confabulation of details.

The Description-Identification Relationship

It seems intuitive that an eyewitness who is capable of providing an accurate verbal description of a perpetrator would also be able to subsequently identify the perpetrator with greater accuracy; however, this seemingly obvious relationship between description and identification accuracy has not been demonstrated consistently in the research literature. For example, in what is known as the *verbal overshadowing effect,* researchers have demonstrated that asking participants to provide a verbal description of a face can actually impair their ability to subsequently identify that face from an array of similar photographs. In contrast, other studies have demonstrated that recognition of faces can be *facilitated* (or enhanced) by asking participants to provide a verbal description prior to test. A small body of literature has also assessed the specific relationship between verbal description and identification ability in memory for faces using a variety of measures of description quality, including indices of *accuracy* (the proportion of correct details reported), *completeness* (the total number of features reported), the frequency of *correct* and *incorrect details* that are reported, and the degree of *congruence* between the description provided and the face that is subsequently identified. Overall, there appears to be a small but reliable correlation between description accuracy and identification accuracy, and this effect appears to be particularly accounted for by the frequency of incorrect details that are generated in a description. Given the small size of the relationship between description and identification of faces, it appears possible that both memory tasks rely on a common underlying mental representation, yet also function on the basis of independent processing orientations (i.e., featural vs. holistic processing, respectively).

Kyle J. Susa and Christian A. Meissner

See also Children's Testimony; Cognitive Interview; Cross-Race Effect in Eyewitness Identification; Elderly Eyewitnesses; Exposure Time and Eyewitness Memory; Eyewitness Memory; Facial Composites; False Memories; Neil v. Biggers Criteria for Evaluating Eyewitness Identification; Postevent Information and Eyewitness Memory; Repeated Recall; Stress and Eyewitness Memory; Verbal Overshadowing and Eyewitness Identification; Weapon Focus

Further Readings

Meissner, C. A., & Brigham, J. C. (2001). A meta-analysis of the verbal overshadowing effect in face identification. *Applied Cognitive Psychology, 15,* 603–616.

Meissner, C. A., Sporer, S. L., & Schooler, J. W. (2006). Person descriptions as eyewitness evidence. In R. Lindsay, D. Ross, J. Read, & M. Toglia (Eds.), *Handbook of eyewitness psychology: Memory for people.* Mahwah, NJ: Lawrence Erlbaum.

Sporer, S. L. (1996). Describing others: Psychological issues. In S. L. Sporer, R. S. Malpass, & G. Koehnken (Eds.), *Psychological issues in eyewitness identification* (pp. 53–86). Hillsdale, NJ: Lawrence Erlbaum.

Eyewitness Identification: Effect of Disguises and Appearance Changes

People who wear a disguise are attempting to conceal their appearance or change how they look. Culprits may wear any of a number of possible disguises for the commission of a crime. For example, a bank robber may wear a ski mask, or dark sunglasses and a knit cap. Changes in facial characteristics may result not only from a deliberate attempt to change one's physical appearance while committing a crime but also because, with the passage of time, a culprit naturally ages and thus may look different from when the crime took place. Research has examined the influence of several disguises and appearance alterations such as hairstyle and facial hair changes, removal or addition of eyeglasses, and the wearing of a cap. Overall, disguise and

changes in appearance make accurate recognition significantly more difficult. This decrease in recognition can be dramatic depending on the degree of change. The greater the change, the greater the decrease in accuracy for witnesses, both adults and children, trying to make an identification. The hair, hairline, and upper portion of the face, if obscured, are particularly ineffective for later accurate identification. Both the simultaneous and sequential lineup procedures have been tested in laboratory settings to determine their efficacy when a culprit's appearance has changed (e.g., hairstyle, facial hair). For child and adult witnesses, both lineup procedures produced comparable and lowered accurate identification rates when an appearance change occurred compared with the case when there was no change.

Remembering Faces

How do we remember a face? Do we remember the features of a face or do we remember the whole face as a gestalt? Some debate has occurred over this issue, with a number of questions remaining unanswered. It may be that both types of encoding occur or that one strategy is more relied on depending on the developmental stage of the observer. For example, it has been suggested that adolescents and adults are more likely to use a gestalt or holistic approach to remembering faces, taking the whole face in, whereas younger children may be more likely to rely on a featural strategy, focusing on individual features.

Change of Appearance: Facial Characteristics

Regardless of the process that we use to remember a face, it becomes much more difficult to do this when facial characteristics change. Moreover, a change in one feature may make the whole face appear different. Consider the case when someone changes hairstyles or hair color or if a male shaves off his beard or grows facial hair. Changes in any of these features make it more difficult to correctly recognize that person.

The influence of three facial changes on recognition/identification accuracy has been examined across a number of studies: changes in hairstyle, facial hair, and the addition or removal of glasses. To study the influence of these changes, often participants are presented with several photographs featuring different "targets." Following some delay, participants are presented with another set of photographs, some of which are never-before-seen faces, some are of the targets as they appeared in the initial set of photographs, and others are of the targets but with some changes in appearance—for example, the target may not be wearing glasses in the first set of photos but could be wearing glasses in the new set. When an alteration or change is made, there is a significant decrease in accurate identification. Moreover, when changes to facial features are combined, the difficulty with identification can increase. Most often, changes to facial features results in an inability to correctly recognize the person seen previously.

The natural aging process can also make accurate identification more difficult. For example, a 2-year difference in time can reduce recognizability, in particular if there is a large discrepancy between the two appearances, such as when facial hair is grown. In one study examining the aging process, participants initially viewed photographs of high school students whom they would later have to recognize in a set of photos taken 2 years later. Participants had difficulty in correctly recognizing photos if there was a large discrepancy between the high school photo and the photo taken of the same person 2 years later.

Disguise

Culprits may attempt to evade identification by wearing a variety of disguises that conceal either part or most of their face during the commission of the crime. They have been known to wear ski masks revealing just the eyes and mouth, hats and sunglasses, stockings over their head, and other sorts of masks. Studies that have examined the influence of disguise often have participants watch a videotaped mock crime in which half the participants see the culprit wearing a disguise, such as a knit cap that obscures the hair and hairline. The remaining participants see the culprit without the disguise. Research indicates that participants are almost twice as likely to provide an accurate identification of the culprit when there is no disguise than when a disguise is donned. Moreover, the facial composites produced by participants who see a culprit with a cap show much greater variability than composites from those participants who saw a culprit without a cap.

Researchers have attempted to determine which features are more essential for later recognition/identification. The upper portions of the face, including the hair, hairline, and eyes, seem more critical for later accurate recognition than the lower portions. Hair in particular is a feature that many people focus

on and later use as a cue for recognition. Unfortunately, hair changes are very easy to achieve and can be used to avoid eyewitness identification. Other fairly easy changes that can prove problematic for eyewitnesses include removing or adding eyeglasses and growing or shaving off of facial hair.

The degree to which a change in appearance or disguise is successful in evading later recognition/identification is determined by the extent of the change. For example, framed eyeglasses will likely have a weaker effect than tinted sunglasses; removing a partial beard will likely be less concealing than removing a full beard. It has been suggested that eyewitnesses' ability for accurate identification declines because of *cue mismatch*; that is, a witness's memory trace of the target/culprit does not match the person they are currently examining. This incongruent memory trace may lead a witness to identify an innocent person, or they may not identify the culprit.

Children

Although it is generally accepted that adults are capable of encoding faces holistically, less is known about children's encoding abilities. Some researchers believe that children encode faces featurally until approximately age 10 and then switch to a more holistic encoding strategy. Most research on children's facial recognition abilities has suggested that younger children are more likely to pay attention to (and thus encode) specific features of the face. In fact, some studies find that younger children, 6 to 7 years old, are better at identifying individual features of a face (especially the eyes) than older children, aged 9 to 10.

Certain types of changes may be more challenging for children than for adults, especially if younger children are relying more on a featural encoding strategy than a holistic one. When children below 10 years are providing descriptions of strangers seen for a brief time (e.g., 2 minutes), often only two or three descriptors are reported. (It is important to note that although children may have more descriptors to report, they may not have the language skills or verbal ability to describe the features to report them.) Descriptors provided by children often pertain to hair characteristics. If hair changed from the time of encoding to recognition, children may have difficulty in correctly identifying the stranger's face.

Research that has examined the influence of change in appearance on children's recognition abilities finds that children can be misled when paraphernalia is used. For example, a number of facial recognition studies that initially show children photos of targets wearing hats and glasses find that children are likely to misidentify others provided they are wearing the same paraphernalia worn by the targets. Moreover, if the target removes the paraphernalia, children are unlikely to identify the person as someone who was previously seen.

Identification Procedures

It has been recommended that lineup members, other than the suspect, be selected by matching the descriptors that eyewitnesses provide in their description of the culprit. For example, if the witness describes the culprit as having short, dark hair, medium build, and a fair complexion, all lineup members should fit this description. The exception to this recommendation occurs when the suspect does not match one or more descriptors provided by the witness. In such a case, the other lineup members should match the *suspect* on the particular features reported by the eyewitness. The remaining features in the eyewitness's description should match all the lineup members. This strategy allows for some variation among lineup members but also tries to ensure that the suspect does not stand out. Having the suspect stand out may lead to wrongful identification.

If a mask or another disguise is used, it may be possible for the police to construct a lineup for the mask or disguise. Similar to a person lineup, a lineup for a mask or disguise would allow the witness to view the suspected item, such as sunglasses, along with other distractors (e.g., other pairs of sunglasses). Witnesses can attempt to identify the sunglasses worn by the culprit during the crime, for example. Alternatively, the suspect and other lineup members may be requested to wear the disguise or mask for the lineup identification.

The police may choose from a number of lineup procedures when conducting an identification. In the simultaneous lineup procedure, the witness looks at the lineup members all at once. In a sequential lineup, witnesses look at lineup members one at a time. With the latter procedure, witnesses are required to make an identification decision for each lineup member without being able to look at other members. More specifically, witnesses are not able to move forward or backward in the sequence.

Both the simultaneous and sequential lineup procedures have been tested in laboratory studies when a culprit has changed appearance following the commission of a crime. Overall, when a culprit changes appearance (i.e., change in hairstyle, removal of a

beard), the correct identification rate (i.e., picking out the guilty person when that person is in the lineup) decreases significantly compared with when there is no change in the culprit's appearance. This result has been found for adults as well as children.

Also, in laboratory studies, simultaneous and sequential lineup procedures were compared in terms of a witness's ability to correctly reject a lineup (i.e., saying the guilty person is not present in a lineup that does not contain him or her) when the suspect did not match the culprit's description. Correct rejection rates have been found not to differ significantly across these two lineup procedures when there is an appearance mismatch. The evidence to date does not support the use of a sequential lineup when a suspected change of appearance or disguise has been used. Although the simultaneous procedure may be recommended over the sequential, no "ideal" procedure for lineup identification can be touted when there is a suspected change in appearance or when a disguise has been used to commit the crime.

Joanna D. Pozzulo

See also Appearance-Change Instruction in Lineups; Children's Testimony; Expert Psychological Testimony on Eyewitness Identification; Eyewitness Memory; Lineup Size and Bias; Mug Shots; Simultaneous and Sequential Lineup Presentation; Wrongful Conviction

Further Readings

Memon, A., & Gabbert, F. (2003). Unravelling the effects of sequential presentation in culprit-present lineups. *Applied Cognitive Psychology, 17,* 703–714.

Pozzulo, J. D., & Balfour, J. (2006). The impact of change in appearance on children's eyewitness identification accuracy: Comparing simultaneous and elimination lineup procedures. *Legal and Criminological Psychology, 11,* 25–34.

Pozzulo, J. D., & Marciniak, S. (2006). Comparing identification procedures when the culprit has changed appearance. *Psychology, Crime, and Law, 12,* 429–438.

Eyewitness Identification: Field Studies

A substantial base of laboratory research is now available to aid our understanding of eyewitness identification processes and to support recommendations for lineup reform. However, there are also a limited number of peer-reviewed, published studies that measure eyewitness responses in real police cases. Although few, the studies include large-scale investigations involving a sizable combined sample of eyewitnesses (4000+). The traditional simultaneous lineup format in these studies produces a modal suspect identification (SI) rate of around 40% to 50% and a filler selection rate of approximately 20%.

Field studies bring unique strengths and weaknesses to research efforts, capturing eyewitness decisions in the most forensically relevant settings but under circumstances that lack the control and precision of the lab. Existing field studies—archival summaries of police reports and descriptive data from pilot research—effectively augment laboratory findings.

Each witness decision for a field lineup falls into one of three response categories: (1) an SI, (2) a filler identification, or (3) no choice from the lineup. A challenge for eyewitness field research is that an unknown percentage of real-world lineups do not include the perpetrator. Suspect selections cannot be directly equated with accurate identifications, because any false identification of an innocent suspect is contained within the SI category. Filler selections (foils [innocent persons] or false alarms) are known errors and signal investigators that the witness has a poor memory or is uncooperative, or that the filler is a better match to the offender than is the suspect. "No choice" responses (a lineup rejection) include witnesses unable or unwilling to make a lineup selection. These limitations of data interpretation must be kept in mind as the following field studies are examined.

Archival field studies provide baseline data regarding eyewitness responses under traditional lineup practice—a simultaneous display of lineup members administered by an investigator who knows the identity of the suspect. Some field information is also available for showups—a single-member lineup.

An early examination of 224 identifications made by eyewitnesses to real crimes in California revealed an SI rate of 56% and a showup SI rate of 22%. A year later, a 1994 study in Vancouver, Canada, detailed 170 identification attempts, 90% from simultaneous photo lineups. The authors reported SI rates for robbery victims (46%) and witnesses (33%) and for fraud victims (25%).

A larger sample of police files was reviewed in 2001 for 689 California identification attempts following crimes ranging from homicide to theft. Similar rates of SI were found for 284 simultaneous photo lineups (48% SI) and 58 live simultaneous lineups (50% SI). Live lineup decisions produced 24% false alarms and 26% lineup rejections. (Researchers do not always separate filler and "no choice" decisions, often because police reports do not provide this level of detail.) Showup identification rates were similar whether live (258) or photo (18)—76% and 83% SI, respectively—and significantly higher than rates for the full array. Of particular interest were 66 lineup identifications by eyewitnesses who had made an earlier identification of the same suspect. Significantly more SIs were made in later attempts (62%) compared with witnesses attempting a single identification (45%). A 2005 update of the California simultaneous lineup data, including overlap with the earlier data set, produced an SI rate of 52% for photo and 46% for live lineups; filler picks were at 15% for the overall group.

Additional archival summaries come from researchers in England. These include 2,200 witness identifications for 930 live, simultaneous identity parades. Outcome similarities across studies are evident (also including an unpublished third study of 843 witnesses and 302 lineups by the London police): When the offender was not known previously to the witness, approximately 40% of witnesses identified the suspect, 20% chose a filler, and 40% made no choice from the lineup. When the perpetrator was previously known, not surprisingly, SI was more likely.

Along with recent reforms in lineup practice, data are emerging that capture eyewitness responses under double-blind sequential lineup practice—a one-at-a-time presentation of lineup members, administered by an investigator who does not know the identity of the suspect. A 2006 Minnesota pilot project generated SI rates of 54%, fillers 8%, and "no choice" 38%. This field study also showed that repeated viewing of a lineup by the witness was associated with a reduction in SIs and rising filler selections.

Some of these descriptive studies have also attempted to examine the impact on witness decisions of crime-incident features, such as weapon presence. The researchers are careful to point out the dangers of comparing pseudo-experimental conditions. For example, weapon absence may be confounded with crime type (fraud vs. robbery) and, therefore, also with differential witness attention, quality of culprit description, and delay prior to lineup. While substantial support has been found in controlled laboratory tests for the negative impact of factors such as weapon presence, delay, and cross-race identification, field studies present inconsistent results. The difficulty of interpreting study results following nonrandom assignment is illustrated by a London research team, comparing a "lineup suite" with a standard police-station setting. The researchers noted that lineups assigned to the suite differed in important ways from those assigned to ordinary police stations: time lapsed since the crime event, race of the suspect, and crime violence. Lineup setting was confounded with other critical factors.

Finally, an ancillary line of hybrid lab-field research has developed around testing for fairness of real lineups. A *mock witness procedure* requires lab participants, who have not seen the crime and are armed only with the culprit description provided by the real witness, to identify the suspect from the lineup. This procedure is typically used to evaluate individual lineups suspected of biased structure. An emerging use of this paradigm is to analyze a sample of lineups from a jurisdiction of interest. Lineup fairness was tested in England using this procedure, demonstrating video lineups to be fairer than photos. In the Minnesota pilot of double-blind sequential lineups, a mock witness procedure confirmed fair lineup construction through a sample of field lineups.

As we look to the future, there is great potential for information gain in well-designed experimental field tests that include methodological necessities such as random assignment and double-blind administration, but data from such tests are not yet available.

Nancy K. Steblay

See also Estimator and System Variables in Eyewitness Identification; Eyewitness Memory; Showups; Simultaneous and Sequential Lineup Presentation

Further Readings

Klobuchar, A., Steblay, N., & Caligiuri, H. (2006). Improving eyewitness identifications: Hennepin County's Blind Sequential Lineup Pilot Project. *Cardozo Public Law, Policy & Ethics Journal, 4,* 381–413.

Valentine, T., Pickering, A., & Darling, S. (2003). Characteristics of eyewitness identification that predict the outcome of real lineups. *Applied Cognitive Psychology, 17,* 969–993.

Eyewitness Identification: General Acceptance in the Scientific Community

This entry focuses on the degree to which experts and others are persuaded that each of a number of factors influences the accuracy of eyewitness identifications. Supreme Court cases, among them *United States v. Amaral* (1973) and *Daubert v. Merrell Dow Pharmaceuticals* (1993), have opened avenues of research addressing how the influence of various factors on the judgments of eyewitnesses is perceived by different parties in the legal system. Reflecting their familiarity with the literature, experts substantially agree on the extent to which many variables influence identifications. Research indicates that jurors do not agree with the experts on many of these influencing factors. The use of legal processes that will help jurors make better decisions in cases that involve eyewitness identifications, such as having experts testify in these cases, is thus justifiable. Those who serve as law enforcement personnel show unexpected patterns of agreement with experts, though this tendency may change as a result of eyewitness reform at the state level.

The Rationale

The issue of whether or not to allow scientific findings into the courtroom continues to evolve in the United States. The Supreme Court established the admissibility of eyewitness research in *United States v. Amaral* (1973). The later *Daubert v. Merrell Dow Pharmaceuticals* (1993) ruling established criteria that had to be demonstrated for scientific testimony to be entered into a trial. One of these criteria was that the basis for the testimony should be generally accepted by the scientific community. The *Daubert* decision renewed interest in what eyewitness factors are in fact generally accepted by the scientific community. The first survey focusing on the acceptance of eyewitness factors was published in 1989. Research since then has greatly expanded psychologists' understanding of how members of the scientific, legal, and lay communities accept the findings reported in the eyewitness literature and how this acceptance has changed over time.

It is now common for members of the legal psychology community to distinguish between what are known as system variables and estimator variables. *System variables* are those that are under the control of the legal system and that can potentially bias an eyewitness during the course of a criminal identification procedure. For example, bias could enter into an identification procedure through the techniques used to construct the criminal lineup or by the use of leading identification instructions given to an eyewitness. In contrast to system variables, *estimator variables* are those that encompass eyewitness and crime scene characteristics that are not under the direct control of the legal system. Examples include the length of time afforded to the eyewitness to view the crime or the presence of multiple perpetrators at the crime scene. The provision of expert testimony in a trial in which variables such as these are relevant may serve to highlight potential biases in the identification procedure that otherwise may have escaped consideration by the judge or jurors.

The Opinions of Experts

Survey research demonstrates that many phenomena experts overwhelmingly reported as being sufficiently reliable to introduce under oath in 1989 continue to be viewed as reliable influences on the accuracy of eyewitness identifications more than a decade later. There appears to be considerable consensus among experts as to the reliability of the research evidence regarding the wording of questions, the construction of lineups, and the role of witnesses' attitudes and expectations in influencing their identifications, and on the relationship between witnesses' confidence in their identification and their identification accuracy. Furthermore, experts agree on the existence of other variables that reliably influence eyewitness identifications, such as the rate at which memories decay, the impact of exposure time on memory and subsequent identifications, and the unconscious transference of the memory of a familiar face from one situation to another. Appreciable increases were observed between 1989 and 2001 in the percentage of experts who agreed that human attention is likely to be focused on a weapon rather than on a perpetrator's face (a weapon focus effect) and the impact of hypnotic suggestibility. Both changes in consensus were attributed to the respective increases in interest and scholarship on both topics in the years following the publication of the first expert survey.

Later research would investigate the general acceptance of eyewitness factors not addressed in the original 1989 survey of experts. Attesting to the expanding corpus of literature in the eyewitness field, a substantial majority of experts agreed on the malleability of eyewitness confidence, the suggestibility of the child

eyewitness, and the tendency of eyewitnesses to choose suspects from a lineup previously encountered in mug shot arrays. Other factors agreed on by a majority of experts included the impact of alcohol on the eyewitness, the difficulty in making identifications of perpetrators not of the same race as the eyewitness, and the reduction in false identifications due to the use of sequential rather than simultaneous lineups. Other phenomena that were supported by at least two thirds of the experts included the inferior accuracy of the child eyewitness when compared with the adult eyewitness, the potential for misleading memories recovered from childhood, and how the use of similar foils (here foil refers to an innocent person in a police lineup) in a lineup increases eyewitness accuracy.

The Opinions of Judges

Although individual jurors are ultimately responsible for interpreting the testimony of an expert witness and applying their insight to the facts of the case at hand, judges alone determine whether the expert witness meets the *Daubert* criteria for inclusion in the trial. Judges, like jurors, may rely on common sense when interpreting eyewitness evidence in the absence of formal psychological training. Eyewitness identification errors have been cited in many cases of wrongful conviction, although a survey reported that only 43% of judges believed that such errors have been made in half of the reported cases of wrongful conviction. However, not all evidence is discouraging. Survey data on judges' knowledge and beliefs about eyewitness factors revealed that while judges may agree correctly with statements on eyewitness issues, these same individuals report that the average juror would not be likely to respond correctly. A modest correlation ($r = .30$) was reported between a judge's knowledge of eyewitness factors and the willingness of the judge to admit expert testimony.

Agreement between judges and experts was observed on less than half (40%) of 30 eyewitness factors, which included (but were not limited to) the role of attitudes and expectations, the cross-race effect, and the impact of exposure time. Judges were in agreement with experts on less than half (37%) of the listed system variables, including the malleability of an eyewitness's confidence, the biasing effects of showup lineups, and what constitutes a fair lineup. Judges were not in agreement with experts regarding the phenomenon of hypnotic suggestion. When data collected from a 2004 survey of judges were compared with the results of experts in a previous survey, judges and experts agreed on 7 of 8 items.

The Opinions of Jurors

If a case is tried by a jury, the jurors serve as the ultimate arbiter of fact in the courtroom, and they must decide not only on whether case-relevant eyewitness factors should be taken into consideration during deliberation but also on what weight should be given when considering a verdict. The testimony of experts may serve to allay juror concerns about eyewitness phenomena. Nearly three quarters of respondents in one survey replied that their primary aim as an expert witness was to educate the jury. Thankfully, few researchers reported that they would be willing to testify in court regarding an eyewitness factor on which the published literature was "inconclusive." In contrast, approximately three quarters of those experts who regarded the evidence as "generally reliable" and a plurality of those who saw it as "very reliable" were willing to testify about these factors. Ninety-five percent of these surveyed experts believed that expert testimony on eyewitness issues had a positive impact on juries.

There was correspondence between experts and jurors on only 4 of the 30 survey statements (13%). As expected, significant differences in the rates of agreement emerged between experts and jurors on the statements focusing on factors classified as system variables, such that jurors were less in agreement about the eyewitness factor than the experts. The four eyewitness factors that experts and jurors did agree on were statements regarding the effects that violence, alcohol, and stress have on an eyewitness and the fact that trained observers are not more accurate witnesses than untrained people. The largest discrepancies observed between experts and jurors were found for statements regarding lineup instructions and hypnotic suggestibility, with jurors expressing significantly less agreement about those eyewitness factors than experts. Juror accuracy (50.7%) differed significantly from the level of accuracy seen among judges and law enforcement personnel when accuracy was defined as agreement with those statements to which at least 75% of experts agree.

Other Evidence

Understanding the general acceptance of eyewitness factors among law enforcement personnel is critical in that members of this population draw their

knowledge on the subject both from empirical literature and their experiences in the field. Law enforcement personnel were in agreement with the expert community on only 12 of the 30 statements (40%), among them the role of attitudes and expectancies, the suggestibility of the child eyewitness, and the cross-race effect. Notably, they perceived the influence of only two of the eight (25%) system variables in the same manner as the experts. Experts and law enforcement personnel did not differ in their judgment of the biasing effect of showups and the importance of members of a lineup resembling the description of the suspect. Law enforcement personnel, however, had significantly lower agreement rates than experts with respect to all other system variables (e.g., the malleability of eyewitness confidence, the impact of question wording). Of interest is the fact that the most significant differences between the agreement rates for law enforcement personnel and experts were observed for statements concerning the presentation format of the lineup and the instructions administered during the lineup. When agreeing with statements endorsed by 75% of experts, judges and law enforcement personnel were equally accurate (65.9% and 63.8%, respectively).

General acceptance can be indexed not only in terms of the degree of correspondence among opinions across various participants in trial proceedings but also in terms of the decisions made by policymakers with respect to the implementation of applications derived from empirical psycholegal research. For example, a panel of legal scholars, law enforcement practitioners, and psycholegal experts made recommendations as to procedures that should be adopted by the police when they obtain eyewitness evidence. One example of this is the recommendation that witnesses and those law enforcement officers who conduct lineups both be unaware of who is a suspect and who is not (double-blind procedures) when lineups are conducted. Some states (e.g., New Jersey, North Carolina, and Wisconsin) have implemented such recommendations at the time this entry was written, and additional states are considering this and other reforms as well.

Kevin W. Jolly and Harmon M. Hosch

See also Confidence in Identifications; Cross-Race Effect in Eyewitness Identification; Estimator and System Variables in Eyewitness Identification; Expert Psychological Testimony, Admissibility Standards

Further Readings

Benton, T. R., Ross, D. F., Bradshaw, E., Thomas, W. N., & Bradshaw, G. S. (2005). Eyewitness memory is still not common sense: Comparing jurors, judges, and law enforcement to eyewitness experts. *Applied Cognitive Psychology, 20,* 115–129.

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Kassin, S. M., Ellsworth, P. C., & Smith, V. L. (1989). On the general acceptance of eyewitness testimony research: A survey of the experts. *American Psychologist, 44,* 1089–1098.

Kassin, S. M., Tubb, V. A., Hosch, H. M., & Memon, A. (2001). On the general acceptance of eyewitness testimony research: A new survey of the experts. *American Psychologist, 56,* 405–416.

Seltzer, R., Lopes, G. M., & Vanuti, M. (1990). Juror ability to recognize the limitations of eyewitness identifications. *Forensic Reports, 3,* 121–137.

United States v. Amaral, 488 F.2d 1148 (9th Cir. 1973).

Wise, R. A., & Safer, M. A. (2004). What US judges know and believe about eyewitness testimony. *Applied Cognitive Psychology, 18,* 427–443.

Eyewitness Memory

Eyewitness memory plays a pivotal role in many criminal trials. A substantial body of psychological research on eyewitness memory has developed over the years. This research examines various types of eyewitness memory, factors that influence eyewitness memory, methods of improving eyewitness memory, and how eyewitness memory is evaluated in the course of investigations and criminal trials.

History of Research on Eyewitness Memory

The advent of psychological research related to the legal system can be traced to 1908, when Alfred Binet demonstrated that a person's response to questioning could be influenced by the way in which the question was asked. Although his work did not have a profound influence on the legal system at the time, it was the beginning of empirical research involving witness testimony. Soon thereafter, William Stern actually applied this research directly to eyewitness testimony. He was able to demonstrate that eyewitnesses are

susceptible to error and that witnessing variables, such as emotions at the time of the event, can serve to affect the accuracy rate. Around the same time, Hugo Munsterberg released his book, *On the Witness Stand,* which examined problems associated with eyewitness memory as well as jurors' inability to accurately assess eyewitness testimony. Munsterberg's research was met with quick criticism from John Henry Wigmore, who stated that psychological research was not of a nature that the legal system could use. It is fair to say that Munsterberg's research was not up to present-day methodological standards, but even with this caveat, the importance of his work cannot be diminished. He was the first researcher to examine issues related to eyewitness memory in a systematic and scientific manner.

It was not until the 1970s that eyewitness research was again brought to the forefront, this time by Elizabeth Loftus. She demonstrated, using realistic stimuli such as videotaped and live events, that memory in general, including eyewitness memory, could be altered simply by the way in which the interviewer asked the question. Because of her rigorous methodological controls, she was able to both examine the quantity of eyewitness memory and assess the accuracy and quality of the remembered information. Her research spurred interest in the topic among her students and colleagues. This included Robert Buckhout, who demonstrated the prevalence of eyewitness identification errors. Although there was still some skepticism as to the use of eyewitness research in the legal field, the research gained some ground in 1978, when Gary Wells distinguished between estimator variables and system variables. Establishing this dichotomy made it possible for critics to comprehend how psychological research could contribute to the legal system and allowed researchers to focus their efforts on issues that the legal system could implement.

Types of Eyewitness Memory and Factors Affecting Eyewitness Memory

Broadly speaking, eyewitness memory can be divided into two general classes: eyewitness recall and eyewitness identification, corresponding to the traditional recall-and-recognition distinction pervasive in the cognitive psychological research on human memory. Eyewitness recall often plays an important role in the investigation of crimes. When a crime occurs, police officers responding to the crime interview the eyewitnesses regarding their memories associated with the crime, including descriptions of the perpetrator(s) and the crime itself. The interviewee may be interviewed numerous times throughout the investigation. Some of the details recalled by the eyewitness, such as a description of a weapon or description of clothing worn by the perpetrator, may become important later in the investigation or even at trial.

Research on eyewitness recall has examined factors that influence the accuracy of eyewitness descriptions, such as levels of stress experienced by the eyewitness or the presence of a weapon. One of the most widely studied factors, witness questioning, relates to the information that is given to witnesses after they experience the event and the way in which the witnesses are questioned about the event. It has been repeatedly demonstrated that the wording and intonations of questions can lead eyewitnesses to provide incorrect information. In this research, participants who witnessed an event are questioned in a way that induces subsequent reports containing false details. For example, participant witnesses were asked either "Did you see a broken headlight?" or "Did you see the broken headlight?" Even though only one word is different between the two conditions, participants who heard the word "the," rather than the word "a," were more likely to indicate that they had seen a broken headlight. The majority of research discussed thus far has involved adults. However, research has also demonstrated sizeable effects of postevent information on both older adults and children alike. In fact, children below the age of 3 to 4 and adults over the age of 65 seem to be the groups that are most likely to fall prey to postevent suggestion.

Not only can memory of an event be altered by the way in which the witness is questioned, but the act of repeatedly questioning a witness can also have profound effects on the witness's memories of the event. For example, repeatedly asking college students to think about events that were plausible but did not occur in their childhood (e.g., knocking over a punch bowl at a party) led them to accept the events as true. The most famous example is the "Lost in the Mall" demonstration. In this demonstration, an adolescent boy was asked to remember when he was lost in a mall as a young boy. The boy, who initially indicated he did not remember the event, was asked to simply think about the event and write down his memories of the event each night. This is a therapeutic technique

called journaling. After 2 weeks of journaling, not only did he remember the event, an event that in fact never occurred, but he also provided specific details of the event, such as the color of the man's shirt who found him as well as the coarseness of the man's hand. Critics of false memory research argue that lab-created false memories are plausible and fairly benign. They dispute the generalizability of the results to legal and therapeutic settings in which the memories recalled are often more traumatic and more atypical (e.g., childhood sexual abuse).

Eyewitness Recognition

Eyewitness identification of perpetrators can play a central role in the investigation of a crime and in resolving the case, whether by trial or through plea bargaining. Eyewitness identification can occur spontaneously, as is the case when a crime victim encounters her perpetrator in public and calls the police. Eyewitness identification can also occur through identification tests, such as showups, photo arrays, and live lineups. These identifications appear very persuasive and compelling to jurors.

Research on eyewitness identification has examined a large array of factors that are thought to influence identification accuracy. These factors include the conditions under which the crime occurred, exposure time to the perpetrator, stress experienced by the witness, the presence of a weapon, disguises worn by the perpetrator, and the time between the crime and the identification.

One such factor that has received a significant amount of attention in the psychological literature is the cross-race effect or own-race bias (ORB). That is, the more an eyewitness's race is congruent with the race of the perpetrator the more likely the witness will make an accurate identification. In contrast, when the witness and perpetrator are from different races, identification accuracy is impaired. Although there are some differences in false identifications (specifically, White participants demonstrate a larger ORB effect compared with Black participants), the results of accurate identifications indicate no differences in the ORB effect between participants. One theory of ORB posits that the extent to which the ORB effect occurs is dependent on how much interracial experience a person has with the target race. This theory has been supported in that those participants who live in areas that allow for more interracial experience do not demonstrate the typical ORB effect compared with those who do not have this experience.

Methods of Improving Eyewitness Memory

The aforementioned distinction between eyewitness recall and identification accuracy is useful for explaining how psychological research has been used to develop methods for improving eyewitness memory. Practical recommendations from research on eyewitness recall have focused on how to form questions that do not mislead the eyewitness and how to avoid implanting false memories. Research has also examined whether hypnosis can be used to improve eyewitness recall, but the conclusions from this research are pessimistic.

One of the great success stories from research on improving eyewitness recall is the cognitive interview. the cognitive interview was derived from three basic processes: memory/cognition, social dynamics, and communication. The process begins by directing the eyewitness to close his or her eyes and mentally reconstruct the event. Although not always feasible, this can also be done by having the eyewitness revisit the crime scene. The interviewer should not interrupt the witness and should only ask open-ended questions. Witnesses should be encouraged to describe the event from multiple perspectives and should be asked to respond, "I don't know" rather than guess when unsure. The interviewer should establish a rapport with the witness to balance issues of authority and encourage active participation on the part of the witness. After the eyewitness describes the event, the interviewer should use probing questions to exhaust the memory. Research has demonstrated that careful and thorough use of this procedure can lead to an increase in memory for the event without causing increases in incorrect information.

Research on improving eyewitness identification has likewise yielded impressive gains. There are various tests that are used to identify a suspect. Two of the most common of these tests are the lineup and the showup. A lineup can be conducted either live (the witness views actual people) or by using a photo spread (the witness views a series of photos). In general, a lineup usually contains several fillers, people in the lineup that are known to be innocent, and one suspect. Lineups can contain more than one suspect, but for a variety of reasons, it is not recommended.

The various aspects of lineup administration have been researched extensively. For example, the instructions that are given before the administration of a lineup can affect the likelihood of the witness choosing from the lineup; this effect occurs independently of whether or not the lineup contains the perpetrator. Furthermore, it is recommended that the witness be told that the perpetrator may not be present in the lineup, which therefore encourages the witness not to pick from a lineup that they feel does not contain the culprit. Equally important in the lineup instruction and administration are the fillers that accompany the suspect. The fillers serve as a control for guessing, and if chosen, the administrator will be aware that the eyewitness has made a mistaken identification. It is equally important that the fillers are also picked with some consideration for the description of the suspect given by the witness. To the extent that the fillers are similar in appearance to the witness's description of the culprit, it is ensured that the witness's subject choice was not based solely on logical deduction. The presentation of the lineup has also been researched. The two most researched presentation types are the simultaneous lineup, in which the witness views all lineup members at once, and the sequential lineup, in which only one lineup member is shown at a time. Research has repeatedly demonstrated that sequential lineup presentations produce fewer false identifications than simultaneous lineups when the culprit is not actually present in the lineup. However, correct identification rates do not differ between the two lineup presentation modes when the culprit is present in the lineup. If at all possible, a double-blind lineup procedure should always be used. The double-blind procedure refers to a lineup in which the administrator does not know the identity of the suspect. If the lineup administer is unaware of the identity of the suspect, then he or she cannot unwittingly relay information about the identity of the suspect to the witness.

The improvement in identification accuracy gained by these procedures, coupled with large numbers of DNA exonerations in recent years, has led many states to implement these reforms to ensure the fairest and most unbiased lineup identification procedures. For example, in New Jersey and North Carolina, police departments and prosecutor offices are now required to conduct sequential lineups. Similarly, Santa Ana, California, and several counties in Minnesota have opted for sequential lineups. In Clinton, Iowa, the arresting officer is not permitted in the room during the identification procedure. Many cities, such as New York and Seattle, have started using computerized programs to present photo arrays. In Chicago, as well as parts of Wisconsin and Minnesota, committees have been developed for the purpose of investigating identification procedures to reduce false identifications.

Evaluating Eyewitness Memory

In some sense, all estimator variables could be considered postdictors of eyewitness accuracy. Although research has focused on eyewitness recall, testimony, and identification, research on the postdictors has almost exclusively been limited to eyewitness identification. One of the most widely studied postdictor variables is eyewitness confidence. This is most likely the case because jurors seem to find confident eyewitnesses extremely persuasive and believable. This perception of confident eyewitnesses is understandable; intuitively, it seems as though there should be a strong positive relationship between witness confidence and accuracy. This belief is underscored by the fact that the court has suggested that jurors may employ witness confidence as an indicator of the accuracy of the witness. Unfortunately, psychological research has found unequivocally and repeatedly that the relationship between confidence and eyewitness accuracy is, at best, a weak one. Furthermore, this weak relationship deteriorates as the time interval between the event and the confidence statement increases. The reason for the lack of relationship between confidence and accuracy may be that witnesses often rely on misleading information as the basis for their confidence estimates. For example, it has been shown that confirmatory feedback increases participants' confidence in their eyewitness identification. Simply telling a witness that they have chosen correctly increases the witness's confidence in the accuracy of his or her identification relative to participants who are not given any feedback. This confidence inflation is especially prominent when the participants are inaccurate.

Just as eyewitness confidence serves an important function in the prosecution phase, eyewitness descriptions of the perpetrator serve an extremely important function in the investigation process. Investigators may use the descriptions to locate the suspect. The problem is that descriptions are generally incomplete and nondescript, such as "White male, 5 feet 9 inches to 6 feet, about 18 to 24 years old." It should be noted that while the descriptions are generally incomplete,

the information that is collected is usually accurate. This is especially the case when witnesses are simply asked to describe the assailant without any prompts from the investigator. The key question is whether description accuracy and length of description correlate with eyewitness identification accuracy. It could be assumed that witnesses who give more complete and detailed descriptions of the culprit would be more accurate in their identification. In fact, the U.S. Supreme Court has employed the witness description accuracy as an indicator of the witness's reliability. However, it has generally been found that the quality and quantity of the witness descriptions are not related to identification accuracy.

Not only do witness descriptions poorly predict accurate identifications, but they may also in fact harm later identification accuracy. This is what happens in the case of verbal overshadowing. Verbal overshadowing refers to the impairment in lineup identification accuracy when the witness is asked to describe the suspect's face prior to the lineup administration. Although witness descriptions and identifications are weakly correlated, two factors are inconsistent with this finding. First, witnesses who are particularly adept at describing faces are likely to benefit from the description. Second, the correlation between witness description and identification accuracy is improved when the culprit's face is especially easy to describe, such as when there is a tattoo on the face or a facial disfigurement.

One estimator variable that is thought to be predictive of identification accuracy is the speed of the identification. The rationale is that witnesses with a good view of the culprit and a vivid memory of the crime should identify the witness quickly and without hesitation. For the most part, the research on speed of identification has been consistent with this logic. Furthermore, it has been noted that witnesses who indicate that the face "popped out" at them when viewing the lineup tend to be more accurate in their identification than witnesses who indicated that they had to take more time to make their decisions. Thus, there is a strong relationship between accuracy and speed of identification, with faster identification resulting in more accurate identification.

Eyewitnesses in the Courtroom

Considerable research has addressed how jurors evaluate eyewitness memory and whether their evaluations can be improved. Using trial simulation methods, research demonstrates that jurors are often insensitive to the factors that are known to influence eyewitness memory: stress experienced by the witness, weapon focus, and the influence of suggestive identification procedures. Furthermore, jurors tend to rely on factors that are known not to strongly predict identification accuracy. Witness confidence, for example, has a strong impact on jurors' evaluations of eyewitness identifications. In these studies, highly confident witnesses are persuasive, and jurors tend to convict perpetrators on the basis of testimony by highly confident witnesses.

The apparent inability of jurors to evaluate eyewitness identification procedures in a manner consistent with the research on eyewitness identification has led some psychologists to conclude that knowledgeable psychologists should testify in court as expert witnesses. The purpose of the expert testimony is not to make a judgment as to the accuracy of the identification but rather to provide all the relevant information so that the jury can make an informed decision when assessing the reliability of the witness. Not all those in the legal system agree on the efficacy or use of eyewitness testimony during trials. Some argue that the testimony may bias the witness; others indicate that the testimony is superfluous because issues of memory are of common knowledge (a conclusion that is inconsistent with research findings). Although there has been research investigating the impact of expert testimony on factors that influence eyewitness accuracy, the results are mixed with respect to its impact on jurors.

Jeffrey S. Neuschatz and Deah S. Lawson

See also Estimator and System Variables in Eyewitness Identification; Expert Psychological Testimony on Eyewitness Identification; Identification Tests, Best Practices in; Juries and Eyewitnesses

Further Readings

Brewer, N., Weber, N., & Semmler, C. (2005). Eyewitness identification. In N. Brewer & K. D. Williams (Eds.), *Psychology and law: An empirical perspective* (pp. 177–221). New York: Guilford Press.

Lindsay, R., Ross, D., Read, J., & Toglia, M. (Eds.). (2007). *The handbook of eyewitness psychology: Vol. 2. Memory for people*. New York: Lawrence Erlbaum.

Neuschatz, J. S., & Cutler, B. L (in press). Eyewitness identification. In H. L. Roediger (Ed.), *Learning and*

memory: A comprehensive reference. New York: Lawrence Erlbaum.

Wells, G. L., & Olson, E. (2003). Eyewitness identification. *Annual Review of Psychology, 54,* 277–295.

Eyewitness Memory, Lay Beliefs About

Lay beliefs about factors that influence the reliability of eyewitness testimony have been assessed with a variety of survey and experimental methods. When compared with expert opinion about the effects of these factors, the lay public frequently holds beliefs that would be considered incorrect in the light of psychological research on eyewitness memory.

A brief example provides the framework for understanding the relevance of lay beliefs about eyewitness memory to legal decision making and criminal justice procedures: A man presents a note to a bank teller and tells everyone to get on the floor. A security agent rushes the robber and is shot, but the thief escapes. Six weeks later, a man named Simon Chung is apprehended. His picture is included in a collection of photos that is shown to the teller, the wounded security officer, other employees, and the bank customers. The teller and four customers identify Chung as the robber, whereas the bank security guard and another three employees do not. Chung is charged with the crime and the case proceeds to trial. The prosecution believes that the five eyewitness identifications make up a strong case against Chung. At trial, Chung's defense team presents a cognitive psychologist who, if given the opportunity, will testify that a number of features of the robbery and of the defendant reduce the reliability of the identification evidence. Defense counsel argues that jurors need to be aware of these factors if Chung is to receive a fair trial. The judge considers the expert's testimony and, over the objections of the prosecution, decides that the expert should be allowed to give evidence.

The proffering of expert testimony at trial occurs frequently in common law countries. Judges decide whether an expert will be heard on the basis of several legal criteria, the most important of which for present purposes is the judge's assessment of the levels of lay or juror knowledge about eyewitness testimony. If the substance of an expert's presentation is deemed to be relevant to the case and to be outside the jurors' ken, experience, or their common knowledge, expert testimony intended to inform the jurors will likely be deemed admissible. Only an expert in the specific subject area may provide what is called *opinion evidence* on the matter. Based on his or her own knowledge and evaluation of the expert testimony, the judge decides whether members of the jury are, as a group, sufficiently informed and, if not, whether the quality and reliability of their deliberations will benefit from an expert's presentation. Given the adversarial nature of common law procedures, it is probable that opposing counsel may also proffer an expert who has a different interpretation of the importance of the relevant eyewitness factors.

Regardless of the decisions made by judges in these situations, there is little research that can tell us whether their assessments of jurors' lay beliefs about eyewitness factors are likely to be correct. Furthermore, although a topic of interest in its own right, few studies have assessed whether judges (or trial counsel) themselves hold correct beliefs concerning eyewitness issues. The question raised here, however, is the following: On what basis do judges decide whether jurors are sufficiently informed (or have "common knowledge")? Scientific investigations of lay beliefs about eyewitness memory have been conducted and, on occasion, the judges' assessments are informed by descriptions of this line of research.

To describe the history, methods, and results of that research, a few words are first needed about topics within the field of eyewitness psychology—topics about which the lay public may be examined as to their beliefs and knowledge. Briefly, the field of eyewitness memory research examines the myriad factors that *may* influence witnesses' recollections of an event, the people present, their behaviors, and the context in which the event occurred. The usual scheme for categorizing these factors is based on a distinction between (a) those that are under the control of the criminal justice system and, as a result, may be manipulated to improve the reliability of eyewitness evidence, such as the investigative interviews and the suspect identification procedures, and (b) those for which an impact on the reliability of testimony may only be estimated and that are not under the control of the justice system. This latter includes a very large group of factors, such as the age of the witness, lighting at the crime scene, witnesses' levels of stress, the confidence held by an eyewitness, and

the presence of a weapon. Research has demonstrated that these factors can produce general memory impairments, but the effects are variable and unpredictable with regard to specific individuals.

Approaches to the Assessment of Lay Knowledge

Although the subject of scientific investigation of eyewitness memory is more than 100 years old, it is primarily the last 40 years of research that have provided a substantive and reliable foundation of data. To assess public beliefs concerning the eyewitness factors examined in this research, both *direct* and *indirect* methods have been employed. For examples, the introductory robbery scenario will serve. One factor that has long been considered relevant to the reliability of eyewitness identification is the correspondence between the race of the witness and that of the suspect. Identification reliability has often been found to be higher when both are members of the same racial group than when the two people belong to different racial groups—an outcome called the "other-race" effect. Using the *direct* or survey approach to the assessment of lay beliefs, respondents might be asked to agree or disagree with statements such as "People are better at recognizing members of their own racial group than those of a different race" or be asked to choose among a number of alternative formats to the following statement: "When people are asked to identify someone of a racial group different from their own, they are *just as likely* (or *more likely* or *less likely* or *don't know*) to be correct as when the person is of their own racial group." On the other hand, using an *indirect* approach, respondents may receive a brief written vignette in which the respective races of the witness and perpetrator are either not mentioned at all (a control condition), are described as being the same, or described as different. The vignette may in fact be a summary of an actual experiment in which identification rates were examined as a function of variations in the racial similarity variable. After reading the vignette, the respondents estimate the probability that the witness's identification decision is correct, an estimate that is often called a "postdiction" in relation to the actual experiment. Differences in the probability estimates from participants who received the different vignettes are taken to reflect public beliefs about the direction and magnitude of the relationship between witness-suspect race and eyewitness memory reliability. If, for example, Simon Chung is Asian, but the witnesses are Caucasian, juror beliefs about the relevance of this distinction may be important to their assessments of the identification evidence. Of course, when compared with the effects of the variable on actual identification accuracy in research experiments, these response differences may reflect wholly erroneous beliefs.

These kinds of data from public samples will only be helpful to a judge if he or she has a basis for assessing the accuracy of the beliefs of survey respondents and research participants and, by extension, the public. Therefore, what is needed is a distillation of eyewitness research that provides the "correct" answer for each of the eyewitness factors present in a case. These correct answers have been made available to courts in two ways. In the first, survey researchers explicitly compare the public survey and research outcomes with their interpretations of what the scientific research literature has revealed. In the second, the survey researchers instead compare their findings with the results of surveys of "eyewitness experts" (themselves researchers) concerning the effects of variables on eyewitness reliability. The most recent of the expert surveys was completed in 2001 by Saul Kassin and colleagues, who tabulated the survey responses of 64 experts to each of 30 propositions about eyewitness factors including, for example, the effects of delay, weapon presence, other-race identification, stress, age, lineup construction techniques, and long term, to name but a few. To date, no factor has received complete unanimity from the experts as to its impact on eyewitness memory. Instead, to determine what is currently "correct," courts may look at general agreement among experts or a consensus of opinion. For example, of the 30 propositions presented to experts by Kassin, only 16 achieved a consensus of 80% agreement across experts. However, as a summarizing statement, when the responses collected from lay participants using both direct and indirect methods are compared with the consensual opinions of the experts about the factors, these comparisons frequently demonstrate significant differences between the beliefs of experts and those of members of the public.

Direct Methods

The earliest surveys were completed in the early 1980s and tested university students with multiple-choice questions. The majority of participants did *not* give the correct answer to most items, including the effect of violence on recall accuracy, the relationship between witness accuracy and confidence, memory

for faces, effects of training or experience on identification performance, and the other-race effect. Subsequent surveys of other students, legal professionals, potential jurors, and community respondents in the United Kingdom, Australia, and Canada produced similar results: More than half the participants did not identify the known relationships between eyewitness accuracy and confidence, event violence, event duration estimates, trained observers, older witnesses, verbal descriptions, and child suggestibility. These surveys were followed by those in which Likert-type scale items (ratings on 7-point *agree-disagree* scales) were presented to samples of college students and community adults, with highly comparable results: Almost half the respondents disagreed with expert opinion on many items. Despite these differences, lay responses were, nonetheless, often similar to those of experts on a subset of the items: the effects of attitudes and expectations, wording of questions, weapon focus, event violence, and estimates of the duration of events. More recently, an assessment of the responses of potential jurors in Tennessee to items from Kassin's survey of experts produced a similar outcome: Jurors responded significantly differently than experts on 26 of 30 items, with magnitudes of disagreements ranging from 11% to 67%. A small sample of actual jurors from Washington, D.C., was also surveyed in 1990: Fewer than half the participants agreed with the correct responses. Furthermore, in a 2005 telephone survey, a large sample of potential jurors in Washington, D.C., were questioned about a smaller number of eyewitness factors. The authors argued that their results support the view that potential jurors often differ from experts in their opinions about and understanding of many issues. Finally, Canadian researchers recently constructed surveys in a manner intended to reduce jargon and professional terminology to improve understanding by survey respondents. Their results strongly suggest that assessments of lay beliefs are influenced by question format and that prior research may have underestimated current levels of lay knowledge concerning a number of factors, for example, the relationship between confidence and accuracy. Nonetheless, even with the friendlier survey format, disagreement with the experts was apparent for approximately 50% of the eyewitness topics.

Indirect Methods

The *indirect* approach to assessing lay knowledge is based on the distinction between *having* knowledge and *making use* of it. The direct-method survey research above has emphasized the former. With indirect methods, on the other hand, participant responses are used as the basis for determining whether existing beliefs appear to have influenced the respondents' judgments about the reliability of eyewitness testimony. In other examples of this approach, researchers attempt to increase the levels of knowledge of participants who serve as "mock jurors" and then ask whether such knowledge appears to be integrated in judgments about eyewitness reliability and defendant guilt.

In the first group of studies, research participants estimated the likelihood of accurate person identification by an eyewitness in situations that varied along several dimensions that had, in fact, been manipulated in actual experiments—for example, levels of witness confidence, crime seriousness, and lineup bias. To determine whether participants were sensitive to these factors as determinants of eyewitness reliability, their "postdictive" estimates were compared with the effects of these same variables in the laboratory research. In general, participants appeared to be quite insensitive to the manipulated factors: Estimates of identification accuracy were overly optimistic; considerable reliance was erroneously placed on witness confidence, and their estimates usually failed to reflect the real effects of variables. Another indirect approach examines data collected from "mock jurors" who reached verdicts (and other judgments of witness credibility) after reading case descriptions in which eyewitness variables that are known to influence identification accuracy had been manipulated. The results revealed that the factors recognized by experts as important determinants of eyewitness accuracy generally have not been shown to influence mock jurors' verdicts or credibility evaluations, and some of those known to be unrelated to witness accuracy (i.e., confidence) did affect such evaluations. Similarly, there is a disparity between mock jurors' judgments of factors that they say are important to eyewitness reliability and the impact of these factors on their decisions when case evidence is actually presented to them.

Furthermore, it is one thing to be able to identify correctly explicitly stated, general relationships between eyewitness factors and memory but quite another to have the depth of knowledge to appreciate conceptual distinctions made at trial by experts about these factors as they are presented in specific cases. To examine these questions, researchers have asked whether beliefs demonstrably held by mock jurors (without benefit of expert testimony) appear to be integrated

into their decisions when they are presented with a case description that includes the relevant eyewitness factors (e.g., cross-race effect). In one of the few investigations of this question, Brian Cutler and colleagues found that even when jurors had specific knowledge of the limitations of eyewitness identification, the information was not well integrated into their decision making. Similarly, other researchers have recently found that mock jurors who have demonstrably more knowledge than others do not necessarily demonstrate sensitivity to the eyewitness factors relevant to a case. In summary, researchers have concluded that there is little evidence that the existing knowledge held by mock jurors is readily incorporated into their decisions regarding a written vignette.

Finally, Brian Cutler and colleagues have also attempted to improve levels of mock juror knowledge through the presentation of expert testimony prior to making judgments about cases in which eyewitness identification factors are manipulated. This research has been completed in laboratory settings with mock jurors, and as a result, its generalizability to courtrooms and jury deliberations is unknown. Nonetheless, these studies suggest that whereas the presentation of relevant expert testimony may increase low levels of juror knowledge or awareness of relevant eyewitness factors, the integration of this knowledge into juror decision making may or may not be successful, depending on the particular variables of interest. Thus, if expert testimony is recommended as a safeguard against weak juror understanding of eyewitness factors, it does not appear to be particularly effective.

Potential Difficulties With Evaluations of Lay Knowledge

A number of issues are relevant to the reliability and validity of the kinds of assessments of lay belief described above. First, in a temporal sense, public survey results have limited validity because public beliefs and knowledge will change over time. These changes likely result from improved scientific understanding and its dissemination to the general public through various media and by integration into formal education.

Second, considerably more research is required to determine the extent to which survey and mock trial responses accurately reflect the beliefs of jury-eligible participants. This issue concerns the sensitivity and reliability of the various assessment procedures described above and the extent to which lay responses may be directly compared with those of experts. For example, even with ostensibly identical foci of the questions posed to experts and the public, the response options provided have not been identical. Similarly, if statements are written by experts and offered without change to survey participants, on what basis can we argue that the public understands the statements in a manner similar to that of the experts? Furthermore, the translation of the expert items into meaningful statements for lay respondents is difficult and suggests that real understanding of these issues by jurors (and by judges, trial counsel, and experts alike) will only be gained with more in-depth interviews, open-ended questions, and the use of techniques that can assess response consistency within individuals across both question formats and time.

A third question is whether the samples surveyed to date actually represent the members of a population of individuals who may be called for jury duty and who serve as jurors. Many studies have relied on undergraduate students, albeit jury-eligible in most cases, but who arguably are not representative of actual jurors: In fact, university students infrequently serve on actual juries. Additionally, even those studies in which community samples were included, nonetheless, suffer from weak representativeness because there may be important demographic and attitudinal differences between community members who, once called, appear versus those who fail to appear for jury duty. A more compelling approach would be to collect data from actual jurors who have participated in trials or to survey community members who have been called and appear for jury duty but have yet to be assigned to a particular case.

In summary, a fairly consistent description of juror knowledge emerges across a wide variety of assessment methods; specifically, jurors appear to have limited understanding of eyewitness issues and research findings.

J. Don Read and Sarah L. Desmarais

See also Cognitive Interview; Confidence in Identifications; Cross-Race Effect in Eyewitness Identification; Elderly Eyewitnesses; Estimator and System Variables in Eyewitness Identification; Expert Psychological Testimony; Expert Psychological Testimony on Eyewitness Identification; Exposure Time and Eyewitness Memory; Eyewitness Memory; Instructions to the Witness; Retention Interval and Eyewitness Memory; Simultaneous and Sequential Lineup Presentation; Weapon Focus

Further Readings

Benton, T. P., McDonnell, S., Ross, D., Thomas, W. N., & Bradshaw, E. (2007). Has eyewitness testimony research penetrated the American legal system? A synthesis of case history, juror knowledge, and expert testimony. In R. C. L. Lindsay, D. W. Ross, J. D. Read, & M. P. Toglia (Eds.), *Handbook of eyewitness psychology: Vol. 2. Memory for people.* Mahwah, NJ: Lawrence Erlbaum.

Benton, T. R., Ross, D. F., Bradshaw, E., Thomas, W. N., & Bradshaw, G. S. (2006). Eyewitness memory is still not common sense: Comparing jurors, judges, and law enforcement to eyewitness experts. *Applied Cognitive Psychology, 20,* 115–130.

Cutler, B. L., & Penrod, S. D. (1995). *Mistaken identification: The eyewitness, psychology, and the law.* New York: Cambridge University Press.

Devenport, J. L., Penrod, S. D., & Cutler, B. L. (1997). Eyewitness identification evidence: Evaluating commonsense evaluations. *Psychology, Public Policy, and Law, 3,* 338–361.

Kassin, S. M., Tubb, V. A., Hosch, H. M., & Memon, A. (2001). On the "general acceptance" of eyewitness testimony research. *American Psychologist, 56,* 405–416.

Schmechel, R. S., O'Toole, T. P., Easterly, C., & Loftus, E. F. (2006). Beyond the ken? Testing jurors' understanding of eyewitness reliability evidence. *Jurimetrics, 46,* 177–214.

F

Facial Composites

When a crime has been committed and the identity of the perpetrator is unknown, eyewitnesses are often asked to attempt to create a likeness of the face of the perpetrator. An eyewitness can do this by creating a facial composite, either through the assistance of a sketch artist or by using a mechanized composite system. However, facial composites tend to be poor representations of the intended face, even if it is a face that is very familiar to the composite creator. This is probably due to a mismatch between the way in which people encode faces and the way in which they attempt to recall faces when building a composite.

When facial composites were first introduced in the criminal justice system, eyewitnesses would work together with a sketch artist to create a likeness of the intended face. Today, law enforcement agencies typically use mechanized composite production systems, and computerized composite production systems are used more than twice as often as noncomputerized versions. The original mechanized composite production systems, such as the Identi-Kit and Photo-Fit, are composed of overlays of facial features (e.g., noses, eyes, chins, hair) that can be combined to create a face. Modern, computerized versions, such as E-fit, Mac-a-Mug, and FACES, consist of features that can be combined, and typically resized, in any order to create a face. Currently, however, composite production systems are being created that move away from producing a face at the feature level and, instead, focus on whole faces.

Many of the mechanized and computerized systems have attempted to increase the number of features available from which a composite creator may choose, the realism of the final product, and the user friendliness of the interface. FACES, for example, has more than 3,700 features, ranging from relatively prominent features such as hair, eyes, and lips to detailed features such as eye lines and mouth lines. The computerized systems result in a fairly realistic product and can be used after a minimal training session. However, even when people view a face that has been created with a composite system and attempt to re-create the face using the same system, thereby ensuring that all the features are available, they are still unable to create good likenesses of the intended face. Furthermore, composite producers themselves are poor judges of how well the composite that they have created matches the target face. Even if a person who creates a composite rates the composite's similarity to the face that it is intended to represent, this rating is not predictive of how others rate the similarity of the composite to the target face.

Researchers have typically assessed people's ability to create composites of faces through naming tasks, matching tasks, and similarity-rating tasks. Naming tasks show people a composite of someone who should be familiar to them (e.g., a famous person) and ask them to name the person the composite is designed to depict. Matching tasks have people choose which face the composite is designed to depict from a larger set of faces. Similarity-rating tasks have people rate the similarity between a composite and the face it is designed to depict. In general, facial composites tend to be poor likenesses of the faces that they

are intended to represent, regardless of the composite production system and regardless of how the similarity of the composite to the intended face is assessed.

Although facial composites can be a helpful tool for law enforcement, they can potentially be problematic. This is because a composite that does not truly represent the perpetrator of a crime can lead the police to investigate innocent suspects who do resemble the composite. Additionally, creating a composite and viewing it can bias an eyewitness's memory away from the original face toward the composite face. Recent research has shown the advantages of morphing (averaging at the pixel level) composites of the same target face that have been created by different people. But, at best, morphing of composites can only be used in multiple-witness cases, and although a morphed composite does tend to resemble the target face more than do individual composites, there is only a modest increase in similarity.

The main reason why composites do not tend to resemble the faces that they are designed to depict appears to stem from the difference between the way in which people naturally encode faces and the way in which creating a composite forces them to retrieve information about the face. People tend to encode faces through a holistic process, which enables them to be better at facial recognition than facial recall. Composite-production forces people to recall faces at a feature level, as they attempt to piece together a face while looking at many different variations of the same feature.

Newer, whole-face production systems that are still in very early, experimental phases attempt to correct for this disconnect between the encoding and retrieving phases in composite production. These systems start by generating a random set of faces; the user selects the face that best matches the user's memory of the intended face. From that, a number of different algorithms are used that produce a set of faces that are variations of the initially selected face. The user again selects the face from this set that most closely resembles the intended face, and this process is repeated until the faces all resemble that target face equally well. Although the few comparisons to date of the whole-face systems with feature-level composite systems do not show the whole-face systems to be superior, they do present the composite creator with a retrieval task that is more similar to the encoding task than do the other systems. Consequently, these new systems may eventually prove to be a better tool for eyewitnesses to create a likeness of the perpetrator for the police and the public.

Lisa E. Hasel

See also Confidence in Identifications; Eyewitness Descriptions, Accuracy of; Eyewitness Memory; Identification Tests, Best Practices in; Wrongful Conviction

Further Readings

Davies, G. M., & Valentine, T. (2007). Facial composites: Forensic utility and psychological research. In R. C. L. Lindsay, D. F. Ross, J. D. Read, & M. P. Toglia (Eds.), *Handbook of eyewitness psychology: Vol. 2. Memory for people* (pp. 59–86). Mahwah, NJ: Lawrence Erlbaum.

Frowd, C. D., Carson, D., Ness, H., Richardson, J., Morrison, L., & McLanaghan, S. (2005). A forensically valid comparison of facial composite systems. *Psychology, Crime, & Law, 11,* 33–52.

Hasel, L. H., & Wells, G. L. (2006). Catching the bad guy: Morphing composite faces helps. *Law and Human Behavior* [Electronic version]. Retrieved November 15, 2006, from http://www.springerlink.com

False Confessions

A false confession is a narrative admission to a crime that is made, orally or in writing, by an innocent person. Research shows that innocent people may confess in different ways and for different reasons—resulting in three types of false confessions: voluntary, compliant, and internalized. From an empirical perspective, this entry addresses the evolution of our understanding of false confessions, the frequency of their occurrence, and the methods of interrogation that put innocent people at risk.

False confessions are an important problem in forensic psychology, especially when viewed in the context of their consequences within the criminal justice system. Historically, confession evidence is considered the most incriminating form of evidence that can be presented at trial, a belief that is supported by its effects on jury decision making. Even when disputed, uncorroborated, and contradicted by other evidence, confessions are a driving force for conviction.

Among the many notable examples of this phenomenon was the infamous 1989 Central Park Jogger case,

in which five teenage boys confessed to brutally beating and raping a female jogger in New York's Central Park. Even though the boys were subjected to lengthy and harsh interrogations, gave confessions that were filled with factual errors, retracted their confessions shortly thereafter, and were excluded as donors of the semen by DNA tests, each was convicted at trial—solely on the basis that they had confessed. It was not until 13 years later that they were exonerated when a serial rapist stepped forward from prison to confess. His confession betrayed firsthand knowledge of the crime and was supported by a match to the original DNA sample.

Questions of Prevalence

The jogger case is notorious but not unique. Beginning with the Salem witch trials of 1692, numerous false confessions surfaced when it was later discovered that the confessed crime had not been committed (e.g., the alleged victim turned up alive) or that it was physically impossible (e.g., the confessor was demonstrably elsewhere) or when the real perpetrator was apprehended (e.g., by ballistics evidence). Indeed, as more and more wrongful convictions are discovered, often as a result of newly available DNA tests on old evidence, it is apparent that 15% to 25% of those wrongfully convicted had confessed. Moreover, many false confessions are discovered before there is a trial, are not reported by the police, are not publicized by the media, or result in plea bargains and are never contested—suggesting that the known cases represent the tip of an iceberg. In short, although it is not possible to know the prevalence rate of false confessions, it is clear that they occur with some regularity, making it important to understand how they come about and how they can be prevented.

Types of False Confessions

Both criminals and innocent suspects may confess, providing true and false confessions, respectively. Based on a taxonomy introduced by Saul Kassin and Lawrence Wrightsman, it is now common to further divide the latter into three types: voluntary, compliant, and internalized.

Voluntary False Confessions

In the absence of pressure from the police, voluntary false confessions occur when people freely admit to crimes for which they were not responsible. Sometimes innocent people have volunteered confessions in this way to protect the actual perpetrator, often a parent or a child. At other times, however, voluntary false confessions have resulted from a pathological desire for attention, especially in high-profile cases reported in the news media; a conscious or unconscious need for self-punishment to alleviate feelings of guilt over other transgressions; or an inability to distinguish fact from fantasy, a common feature of certain psychological disorders. As revealed in actual known cases, the motives underlying voluntary false confessions are as diverse as the people who make them.

A number of high-profile cases illustrate the point. In 1932, the aviator Charles Lindbergh's baby was kidnapped, prompting some 200 people to volunteer confessions. In 1947, Elizabeth Short, a young, aspiring actress, later called "Black Dahlia" for her black hair and attire, was brutally murdered in Los Angeles and her nude body cut in half, prompting more than 60 people, mostly men, to confess. In the 1980s, Henry Lee Lucas falsely confessed to hundreds of unsolved murders, mostly in Texas, making him the most prolific serial confessor in history. More recently, John Mark Karr was arrested in Thailand in the summer of 2006, after it appeared that he had voluntarily confessed to the unsolved 1996 murder of JonBenét Ramsey, a 6-year-old beauty pageant contestant in Boulder, Colorado. Karr was intimately familiar with the facts of the crime. Ultimately, he was not charged, however, after his ex-wife placed him in a different state and after DNA tests from the crime scene implicated another, still unidentified, man.

Compliant False Confessions

In contrast to cases in which innocent people confess without external pressure are the numerous false confessions that are elicited through pressure from family, friends, and most notably, the processes of police interrogation.

In many of these cases, the suspect surrenders to the demand for a confession to escape from the stress and discomfort of the situation, avoid a threat of harm or punishment, or gain a promised or implied reward. This type of confession is a mere act of public *compliance* by a suspect who comes to believe that the short-term benefits of confession relative to denial outweigh the long-term costs. American history

contains numerous stories of this type of confession—as in the Salem witch trials of 1692, when some 50 women were tortured and threatened into confessing to witchcraft. This type of false confession is also illustrated in the Central Park jogger case, in which all the boys retracted their confessions immediately on arrest and said that they had confessed because they were scared and had expected to be allowed to go home. In the interrogation room, there are many specific incentives for this type of compliance—such as being allowed to sleep, eat, make a phone call, go home, or feed a drug habit. The desire to terminate the questioning may be particularly pressing for people who are young, desperate, socially dependent, or anxious about additional confinement. As discussed later in this entry, certain commonly used interrogation techniques increase the risk of police-induced compliant false confessions.

Internalized False Confessions

In some cases, innocent but vulnerable people, as a result of exposure to highly suggestive and misleading interrogation tactics, not only comply with the demand for a confession but come to internalize a belief in their guilt. In extreme cases, these beliefs are accompanied by detailed false memories of what they allegedly did, how, and why.

The case of 18-year-old Peter Reilly illustrates this phenomenon. Reilly called the police when he found his mother dead in their home. The police administered a lie-detector test and told Reilly that he had failed it, which was not true but which indicated that he was guilty despite his lack of a conscious recollection. After hours of interrogation, Reilly transformed from certain denial to confusion, self-doubt, a change in belief ("Well, it really looks like I did it"), and eventually a full confession ("I remember slashing once at my mother's throat with a straight razor I used for model airplanes"). Two years later, independent evidence revealed that Reilly was innocent. The case of 14-year-old Michael Crowe, charged with stabbing his sister, similarly illustrates the process. At first, Michael denied the charge. Soon, however, he conceded, "I'm not sure how I did it. All I know is I did it"—an admission that was followed by lies about the physical evidence. Eventually, the boy concluded that he had a split personality—that "bad Michael" killed his sister, while "good Michael" blocked out the incident. The charge was later dropped when a local vagrant with a history of violence was found with the girl's blood on his clothing.

Why Innocents Confess

The reasons why people confess to crimes they did not commit are numerous and multifaceted. Sometimes, an individual may be dispositionally naive, compliant, suggestible, delusional, anxious, or otherwise impaired so that little interrogative pressure is required to produce a false confession. In these cases, clinical testing and assessment may be useful in determining whether an individual suspect is prone or vulnerable to confession. At other times, however, normal adults, not overly naive or impaired, confess to crimes they did not commit as a way of coping with the pressures of police interrogation. Indeed, social psychology research has amply shown that human beings are profoundly influenced by figures of authority and can be induced to behave in ways that are detrimental to themselves and others. In short, both personal and situational risk factors may increase the risk of a false confession.

Dispositional Risk Factors

Over the years, numerous studies by Gisli Gudjonsson and his colleagues have shown that not everyone is equally vulnerable to becoming a false confessor. For example, they note that suspects vary in their predispositions toward compliance (as measured by the Gudjonsson Compliance Scale) and suggestibility (as measured by the Gudjonsson Suggestibility Scale). People high in compliance desire to please others and avoid confrontation—which increases the tendency to capitulate in a highly adversarial interrogation. Those who are high in suggestibility are often less assertive, have lower self-esteem, and display poorer memories. In studies of crime suspects, those who confessed and later retracted their statements obtained higher suggestibility scores than the general population, whereas resistors, who maintained their innocence throughout the interrogation, obtained lower scores.

Also at risk are innocent juvenile suspects, who are overrepresented in the population of known false confessors. Juveniles are more likely to comply with authority figures and to believe false presentations of evidence. Research shows that they also exhibit less comprehension than adults of their *Miranda* rights,

are less likely to invoke these rights, and are more likely to confess when under pressure to do so.

Mental retardation is also a substantial risk factor, as it is associated with increases in compliance and suggestibility. Research has shown that people with intellectual impairments do not comprehend their *Miranda* rights and are prone to answer "Yes" to a range of questions, particularly from those in positions of authority, indicating an acquiescence response bias. They are also highly influenced by misinformation, a suggestibility effect that increases the risk of internalized false confessions.

Mental illness can also increase the tendency for false confessions. Distorted perceptions and memories, a breakdown in reality monitoring, anxiety, mood disturbance, and lack of self-control are common symptoms of many categories of mental illness. These symptoms may lead people to offer misleading information, including false confessions, to the police during interviews and interrogations. Moreover, disorders that lead people to be more anxious can increase the likelihood of their making a false confession as a means of escape from interrogation.

Interrogation Risk Factors

Although there are subtle variations among approaches, the typical police interrogation is a multistep event that involves an interplay of three processes: (1) isolation, (2) confrontation, and (3) minimization.

First, interrogators are trained to remove suspects from their familiar surroundings and question them in the police station, often in a specially constructed interrogation room. To some extent, interrogation time is a risk factor. Although most police interrogations last for less than 2 hours, a study of documented false confession cases in which time was recorded revealed that the mean of interrogation exceeded 16 hours.

Second, interrogators confront suspects with strong assertions of guilt that are designed to communicate that resistance is futile. As part of this process, interrogators are trained to block the suspect from issuing denials, to refute alibis, and even to present supposedly incontrovertible evidence of the suspect's guilt—even if such evidence does not exist. Historically, the polygraph has played a key role in this false evidence ploy. In numerous false confession cases, compliant and internalized false confessions have been extracted by police examiners who told suspects that they had failed a lie detector test—even when they had not (as in the Peter Reilly and Michael Crowe cases described earlier).

The third step is to minimize the crime by providing suspects, who are feeling trapped by confrontation, with moral justification or face-saving excuses, making confession seem like a cost-effective means of escape. At this stage, interrogators are trained to suggest to suspects that their alleged actions were spontaneous, accidental, provoked, peer pressured, drug induced, or otherwise justifiable by external factors, as a way to encourage confession. Indeed, research shows that minimization tactics lead people to infer that leniency will follow from confession, even in the absence of an explicit promise.

Empirical Research on False Confessions

In recent years, researchers have sought to examine various aspects of false confessions using an array of methods—including aggregated case studies, naturalistic observations of live and videotaped interrogations, self-reports from the police and suspects, and laboratory and field experiments designed for hypothesis-testing purposes.

Saul Kassin and Katherine Kiechel developed the first laboratory paradigm to systematically examine the factors that elicit false confessions. In this experiment, participants working on a computer were accused of hitting the ALT key they had been instructed to avoid. In the original study, participants were rendered more or less vulnerable to manipulation by being paced to work at a fast or slow pace. In a manipulation of the false evidence ploy, some participants, but not others, were then exposed to a confederate who claimed to have seen them hit the forbidden key. Results showed that this false evidence ploy significantly increased the false confession rate, as well as the tendency of participants to internalize the belief in their own guilt—particularly among participants rendered vulnerable to manipulation. Follow-up studies using this computer-crash paradigm have replicated and extended this false evidence effect.

A second laboratory paradigm was developed by Melissa Russano and colleagues to investigate the effects of promises and minimization on both true and false confession rates. In their study, participants were paired with a confederate for a problem-solving study and instructed to work alone on some trials and jointly on others. In a guilty condition, the confederate asked

the participant for help on an individual problem, inducing a violation of the experimental rule; in an innocent condition, the confederate did not make this request. Later, all participants were accused of cheating and were interrogated by an experimenter who promised leniency, made minimizing remarks, used both tactics, or used no tactics. The results showed that minimization was as persuasive as an explicit promise, increasing the rate not only of true confessions but of false confessions as well.

In light of the numerous wrongful convictions involving false confessions, as well as recent research, the time is ripe for law enforcement professionals, attorneys, judges, social scientists, and policymakers to evaluate current practices and seek the kinds of reforms that would not only secure confessions from criminals but also protect the innocent in the process.

Jennifer M. Torkildson and Saul M. Kassin

See also Confession Evidence; Interrogation of Suspects; Reid Technique for Interrogations; Videotaping Confessions

Further Readings

Drizin, S. A., & Leo, R. A. (2004). The problem of false confessions in the post-DNA world. *North Carolina Law Review, 82,* 891–1007.

Gudjonsson, G. H. (2003). *The psychology of interrogations and confessions: A handbook.* West Sussex, UK: Wiley.

Kassin, S. M. (1997). The psychology of confession evidence. *American Psychologist, 52,* 221–233.

Kassin, S. M. (2005). On the psychology of confessions: Does innocence put innocents at risk? *American Psychologist, 60,* 215–228.

Kassin, S. M., & Gudjonsson, G. (2004). The psychology of confessions: A review of the literature and issues. *Psychological Science in the Public Interest, 5,* 33–67.

False Memories

We do not necessarily remember our experiences the way they really happened—and what is more, remembering an experience does not necessarily mean it actually happened at all. In little more than a decade, scientists have discovered that people can have detailed, emotion-filled, and utterly false memories.

False memories are memories that are partly or wholly inaccurate. They are the product of secondhand information rather than genuine experience. Although the term *false memory* can be used to describe a wide range of memory phenomena, in this entry it is used to describe full-blown distortions of our own biographies: wholly false memories of unreal experiences. However, readers should be aware that two large and parallel scientific literatures show that people can misremember aspects of witnessed events, misidentify perpetrators, and falsely recall verbal information.

The Repression Phenomenon

According to the Harvard scientist and clinician Richard McNally, for many decades mental health professionals in the United States generally believed that once victims of childhood sexual abuse reached adulthood, they often did not like to talk about their abuse; yet by the end of the 1980s, he notes, the reluctance to disclose became an inability to remember. Many therapists, convinced that their clients were repressing experiences of long-ago trauma, began using techniques designed to dig up these buried memories—techniques such as imagination, guided imagery, hypnosis, and dream interpretation.

Many of these therapeutic techniques appeared in a mass-market book called *The Courage to Heal*, by Ellen Bass and Laura Davis. First published in 1988, it was the biggest gear in what Carol Tavris has called the "abuse-survivor machine." It still ranks among Amazon.com's bestsellers, and even a cursory browse through Amazon's customer reviews reveals that the book is surely among their most controversial. On the one hand, the book has given comfort to genuine victims; on the other, it encourages beliefs that can create a legion of pseudovictims.

For example, readers who wonder if they might be repressing memories of childhood abuse are told that the lack of such memories does not mean that they were *not* abused. In fact, memories are unnecessary: The *belief* that one was abused and the presence of certain symptoms in one's life are enough to confirm that the abuse happened. Other therapists concurred. A few years later, in 1992, Renee Fredrickson suggested that the very absence of memories was proof enough; that is, those who remember very little of their childhood or a period of their childhood (e.g., between the ages of 10 and 14) have repressed memories.

Scientific Research on False Memories

Lost in the Mall

As the notion of repression became more popular, some psychological scientists began asking themselves if these "recovered memory therapy" (RMT) techniques might be dangerous. Would it be possible, they wondered, for people to "recover" memories for false childhood events?

The answer was yes. In a landmark study in 1995, Elizabeth Loftus and Jacquie Pickrell showed that they could implant a false childhood memory using a seemingly innocuous RMT technique: asking people to try to remember a childhood experience. They asked people in their study to read descriptions of four childhood events. Three descriptions were genuine—having been provided by a family member—and one description was false. The false event described the reader being lost in a shopping mall and being rescued by an elderly lady. For example, one person in the study read this description:

> You, your mom, Tien, and Tuan all went to the Bremerton K-Mart. You must have been 5 years old at the time. Your mom gave each of you some money to get a blueberry Icee. You ran ahead to get into the line first, and somehow lost your way in the store. Tien found you crying to an elderly Chinese woman. You three then went together to get an Icee.

People were asked to write everything they could remember about all four events, and then they were interviewed twice over as much as 2 weeks. By the end of the study, approximately 25% of the people reported at least some information about the false shopping mall episode. Some of the memories were rich narratives, while others were less so—although perhaps even these may have developed if they had had more time to incubate.

The "Lost in the Mall" study was the first demonstration that everyday people could come to recall entirely false events, a finding that showcased the malleability of autobiographical memory and questioned the legitimacy of some of the recovered memories emerging in therapy. It also gave rise to a number of studies using the same basic paradigm. Since then, scientists have shown that people can recover memories of a wide range of false experiences, from being attacked by an animal to being saved by a lifeguard.

Photographs

Another RMT technique is photographic review, in which people look through photo albums as a way of triggering recall of their buried abuse memories. Scientists asked two questions about this technique: (1) Are photos powerful enough to elicit memories of false events? (2) Do photos add power to a false suggestion?

To answer the first question, Kimberley Wade and colleagues followed the "Lost in the Mall" procedure but swapped the written event descriptions for photographs. Again, one of the events was fake: taking a hot-air balloon ride. The people who took part in the study each saw a doctored photograph of themselves and at least one family member in the basket of a hot-air balloon. Each person was interviewed three times over approximately 2 weeks and asked to work at remembering the experience. Even in the absence of any narrative suggestion, by the end of the study, half the subjects came to remember something about the balloon ride. In short, photographs can lead people to remember experiences that never really happened.

Of course, as dubious an RMT technique as photographic review might be, it does not call for the use of doctored photos—instead, clients are encouraged to review family albums in concert with the suggestion that they might be repressing memories for childhood abuse. But suppose that suggestion is false. We have already seen that false suggestions can lead people to report false experiences. Would the combination of a false suggestion and a real childhood photo be especially dangerous? Stephen Lindsay and his colleagues addressed this question by asking one group of people to read descriptions about some grammar school experiences. One of the events was false and described getting in trouble for playing a prank on a schoolteacher. A second group also read descriptions—including the false story about the school prank—and received class photos corresponding to the age at which each event took place. As in previous studies, nearly half the "descriptions-only" people remembered something about the prank, but more than three quarters of the "descriptions-plus-photo" people remembered something. This study shows that the combination of familiar real photos and a false suggestion can be especially dangerous.

How Do False Memories Develop?

The scientific research now clearly shows that it is possible to change people's autobiographies by

implanting false memories. How do these memories develop? One model of false memory development was proposed by Giuliana Mazzoni and colleagues. Their model contains components that are crucial to the formation of false memories. We focus on two of those here: the plausibility of the false event and the belief that the event really happened.

Plausibility

There are numerous real-life cases where people have reported implausible—some would say impossible—memories, ranging from being abducted by space aliens to being forced to breed for a satanic cult. How does the plausibility of a false event affect the likelihood that someone might come to believe it really happened? To answer this question, Giuliana Mazzoni and colleagues ran a four-part experiment over the course of several months. In the first phase, they asked people to rate the plausibility of various experiences, including a critical event: witnessing an incident of demonic possession. People also reported how likely they thought it was that they had actually witnessed such an incident when they were very young. At the end of this phase, the subjects reported demonic possession as both implausible and unlikely to have featured in their childhoods. In the second phase, some of those people read stories about cases of demonic possession and learned that it was a real phenomenon. In the third phase, these same people took a test that ostensibly measured their fears, and their results were always interpreted to mean that they might have witnessed a case of demonic possession. Finally, they completed the same measures as in the first phase. The key question was how responses at the final phase compared with responses at the first phase. People who had read about demonic possession and received the fear interpretations rated witnessing it as more plausible than they had initially. Giuliana Mazzoni and colleagues also found that even small changes in plausibility were enough to cause significant changes in people's belief that the experience had really happened. This study and, later, related research suggest that people can judge an event as implausible yet harbor the belief that it had really happened. The same is true of the relationship between plausibility and memory; for example, the world is riddled with adults who still remember hearing reindeer on the roof one Christmas Eve.

Increased Belief

The second component in the development of false memories is the belief that the experience really happened. On this front, scientists have discovered that a number of RMT techniques can increase belief.

One of the most common of these techniques is imagination. What is the consequence of imagining a false event? To answer this question, Maryanne Garry and colleagues first asked people to report their confidence that a series of childhood events had happened to them. Later, the same people were asked to imagine some of those events but not others and then report their confidence again using the same test. People were more likely to inflate their confidence for imagined events compared with nonimagined events, an effect known as "imagination inflation." Other scientists have produced imagination inflation for unusual or bizarre experiences. In fact, the same kind of inflated confidence can occur when imagination is replaced with some other kinds of activities, such as paraphrasing statements about fictitious events or writing a paragraph explaining how the event might have happened. Still other research shows that the act of imagination can also produce false memories, even in the absence of suggestive "Lost in the Mall" type of descriptions. In one study, when people imagined that they had participated in a bogus national skin-sampling test, they became more confident that the false procedure had occurred, and some people developed detailed memories of it.

Consequences of False Memories

Both false beliefs and false memories can affect behavior. In one study, people who received a false suggestion that they had become ill after eating strawberry ice cream during childhood said that they would be less likely to eat it at a party than before they received the false suggestion. In another study, people who imagined drinking fewer caffeinated soft drinks later believed (and reported) having done just that.

Richard McNally and colleagues discovered that false memories can also produce physiological signs of distress. They found that when people who believed that they had been abducted by aliens listened to their own accounts of some of their most terrifying encounters with the creatures, they showed an increased heart rate, skin electrical conductance, and muscle tension, all symptoms that people with posttraumatic stress disorder show when they remember their own traumas.

How Do We Figure Out If a Memory Is True or False?

In experimental settings, scientists know which events are true and which are false. Thus, they can tell people about their false memories at the end of the study. But what do people do in real life to determine for themselves whether a memory is true or false? In one study, people were asked if they had ever remembered an event that they later found out really did not happen. If so, they were asked to describe the episode, and the ways they tried to figure out if the event was true or false. The two most popular strategies were to consult another person about the event and to use cognitive techniques, such as thinking about or imagining it. These two approaches are not without risks. For example, the consulted person may remember the event partly or completely inaccurately. In addition, a quick review of earlier sections in this entry will make clear the perils of relying on imagination as a means to determining the veracity of an experience.

There are also real-life consequences to real-life false memories. In many countries, false memories have landed innocent people in prison, divided families, drained our health care resources, and clogged our courts. It is these consequences that compel psychological scientists to continue their work.

Eryn Newman and Maryanne Garry

See also Eyewitness Memory; Reconstructive Memory; Repressed and Recovered Memories

Further Readings

Garry, M., & Hayne, H. (Eds.). (2006). *Do justice and let the sky fall: Elizabeth F. Loftus and her contributions to science, law and academic freedom.* Mahwah, NJ: Lawrence Erlbaum.

Loftus, E. F., & Davis, D. (2006). Recovered memories. *Annual Review of Clinical Psychology, 2,* 469–498.

McNally, R. J. (2003). *Remembering trauma.* Cambridge, MA: Harvard University Press.

Financial Capacity

Financial capacity (FC) is a medical-legal construct that represents the ability to independently manage one's financial affairs in a manner consistent with personal self-interest. FC thus involves not only performance skills (e.g., accurately counting coins/currency, completing a check register, paying bills) but also the judgment skills that optimize financial self-interest.

From a legal standpoint, FC represents the financial skills sufficient for handling one's estate and financial affairs and is the basis for determination of conservatorship of the estate (or guardianship of the estate, depending on the state legal jurisdiction). Broadly construed, FC also encompasses more specific legal "financial capacities," such as contractual capacity, donative capacity, and testamentary capacity. Thus, FC is a very important area of assessment in the civil legal system.

From a clinical standpoint, FC is a highly cognitively mediated capacity that is very vulnerable to neurological, psychiatric, and medical conditions that affect cognition (such as dementia, stroke, traumatic brain injury, and schizophrenia). Financial experience and skills also vary widely among cognitively normal individuals and are associated with factors of education and socioeconomic status. Clinicians are increasingly being asked by families, physicians, attorneys, and judges to evaluate and offer clinical opinions regarding FC.

With the recent development of conceptual models of FC and associated assessment instruments, there is an emerging body of empirical research on this important civil capacity.

Importance of Financial Capacity

Impairment and loss of FC has important psychological, economic, and legal consequences for patients and family members. Similar to driving and mobility, the power to control one's finances is a fundamental aspect of individual autonomy in our society. Loss of financial control may result in psychological consequences such as increased feelings of dependency and depression. Declines in FC are also associated with immediate and long-term economic consequences. Failure to pay bills or difficulty in handling basic financial tasks may result in disconnection of services, property repossession, poor credit ratings, and even homelessness. Impaired financial judgment may also result in loss of assets intended for long-term care or inclusion in a will or trust. From a legal perspective, diminished FC is associated with increased risk of financial exploitation in the form of consumer fraud

and other scams, as well as greater susceptibility to undue influence by family members and third parties. As noted above, some situations of financial incapacity may reach the courts and result in loss of decisional autonomy and the appointment of a conservator (or guardian) by the court to protect the person and his or her estate.

Conceptual Model of Financial Capacity

Early conceptual formulations of FC were anemic and limited to unelaborated descriptions such as "money management skills" or "financial management skills." In actual fact, FC is a complex, multidimensional construct representing a broad range of conceptual, pragmatic, and judgmental skills. This multidimensionality is reflected in the concept of limited financial competency recognized across state legal jurisdictions, where an individual may still be competent to perform some financial activities (e.g., handle basic cash transactions, write small checks) but no longer others (e.g., make investment decisions or asset transfers). In addition to multidimensionality, a conceptual model of FC should incorporate the dual performance and self-interest perspectives discussed above. For example, persons with schizophrenia may have adequate financial performance skills but lack FC because they consistently make poor judgments about how to spend their government entitlement monies.

Marson and colleagues have proposed a clinical model that conceptualizes FC at three increasingly complex levels: (1) specific financial abilities or tasks, each of which is relevant to a particular domain of financial activity; (2) general domains of financial activity, which are clinically relevant to the independent functioning of community-dwelling older adults; and (3) overall FC, or a global level. This conceptual model of FC currently comprises 9 domains, 20 tasks, and 2 global levels. The 9 domains include basic monetary skills, financial conceptual knowledge, cash transactions, checkbook management, bank statement management, financial judgment, bill payment, knowledge of personal assets and estate arrangements, and investment decision making. As discussed, each domain of financial activity is further broken down into constituent tasks or abilities that emphasize understanding and pragmatic application of concepts relevant to a specific domain. For instance, the domain of financial conceptual knowledge involves understanding concepts such as loans and savings and also using this information to select advantageous interest rates. Similarly, bill payment involves not only understanding what a bill is and why it should be paid but also accurately reviewing a bill and preparing it for mailing. Finally, clinicians are usually asked by families and the courts to make clinical judgments concerning an individual's overall FC. Such global judgments involve integration of information concerning an individual's task- and domain-level performance, his or her judgment skills, and informant reports. Such global clinical judgments are particularly relevant for guardianship and conservatorship hearings.

Methods for Clinically Assessing Financial Capacity

At present, there are at least three major approaches to assessing FC: clinical interview, patient/informant ratings, and direct performance instruments. The clinical interview is the traditional, and currently the primary, method for evaluating FC. At the outset of an interview with a patient (and family members), it is important that a clinician first determine the patient's prior or premorbid financial experience and abilities. For example, it would be inappropriate to assume that a person who on testing demonstrates difficulty writing a check has suffered decline in this area if he or she has never performed this task and/or has traditionally delegated this task to a spouse. Once the premorbid experience level is established, clinicians need to identify the financial tasks and domains that make up the patient's current financial activities and differentially consider those required for independent living within the community. The level of impairment on a specific task or domain should be carefully considered. Individuals who require only verbal prompting to initiate or complete a financial task (e.g., paying bills) are qualitatively different from individuals who require actual hands-on assistance and supervision in paying bills; both, in turn, differ from individuals who are now completely dependent on others to pay their bills.

A second approach to assessing FC involves the use of completed patient and informant rating forms. Clinicians commonly use observational rating scales to supplement their clinical interview. Observational rating scales are typically completed by the patient and/or a knowledgeable informant, such as a spouse, parent, or adult child. They can provide valuable "real-life" information about an individual's current

financial functioning and also about changes in functioning over time. At the present time, however, there are few rating forms available that are specific to FC. Most of the rating forms are designed to gauge performance across a spectrum of basic and advanced activities of daily living and therefore may yield only limited information specific to financial performance.

A weakness inherent in patient/informant rating forms (and also clinical interviews) is reporter bias. Both patients and informants can misestimate a patient's FC and other functional abilities, owing to a number of factors including lack of insight, denial, and psychiatric issues. Dementia patients and hospitalized elders have been found consistently to overestimate their functional abilities, including financial skills, relative to results of performance-based functional assessment measures. Similarly, even over a short period of time, spousal caregivers of persons with Alzheimer's disease (AD) can be unstable in their ratings of FC in their spouses. Despite these limitations, clinicians justifiably rely on interviews and informant reports of FC due to their ease of administration, minimal cost, and overall information yield.

Performance-based instruments represent a third approach to assessing FC. In contrast to clinical interview formats and observational rating scales, performance-based instruments are not subject to reporter bias. Instead, individuals are asked to perform a series of pragmatic tasks equivalent to those performed in the home and community environment. Performance-based measures are standardized, quantifiable, repeatable, and norm referenced, and thus results can be generalized across patients and settings. These measures, thus, can provide clinicians and the courts with objective information regarding the performance of specific financial tasks that can be highly relevant to the formulation of recommendations and treatment strategies.

Weaknesses of performance-based measures should also be noted. Performance-based measures conducted in a laboratory or clinical office setting cannot take into account either the contextual cues or the distractions within the home environment that may assist or interfere with a person's abilities to perform everyday financial tasks. These instruments are more difficult and time-consuming to administer. They usually require specialized equipment and training, which can make them costly relative to observational rating scales.

Research on Financial Capacity

The lack of conceptual models and assessment instruments specific to FC helps explain the relative lack of clinical research in this important area of civil competency assessment. Only recently have systematic empirical studies of FC been conducted in clinical populations. These studies have investigated patterns of FC impairment in patients with AD and mild cognitive impairment (MCI).

Studies by Daniel Marson and his group have demonstrated significant impairments of financial abilities in patients with both mild and moderate AD. At the domain level, patients with mild AD performed significantly below normal older adult controls on all domains of financial activity, with the exception of basic monetary skills. Patients with moderate AD performed significantly below controls and persons with mild AD on all financial domains.

At the task level, patients with mild AD performed equivalently with older controls on simple tasks such as naming and counting coins and currency, understanding the parts of a checkbook, and detecting the risk of mail fraud. However, such patients had difficulty performing more complex financial tasks such as applying financial concepts (i.e., choosing the best interest rate), obtaining exact change for vending machine use, understanding and using a bank statement, and making an investment decision. Patients with moderate AD were substantially impaired on all financial tasks, relative to both normal older adults and persons with mild AD.

At the global level, mild-AD patients showed substantial impairment in FC relative to older controls, and moderate-AD patients were impaired relative to both controls and mild-AD patients.

Based on these initial findings, Daniel Marson and his group have proposed preliminary clinical guidelines for assessment of FC in patients with mild and moderate AD:

1. Mild-AD patients are at significant risk of impairment in most financial activities, in particular complex activities such as checkbook and bank statement management. Areas of preserved autonomous financial activity should be carefully evaluated and monitored.
2. Moderate-AD patients are at great risk of loss of all financial abilities. Although each AD patient must be considered individually, it is likely that most moderate-AD patients will be unable to manage their financial affairs.

Declines in FC have also been observed in persons with MCI. Relative to normal older adults, individuals with MCI demonstrated mild impairment in the domains of financial conceptual knowledge, checkbook and bank statement, financial judgment, and bill payment. More specifically, persons with MCI had relative difficulty with tasks requiring practical application of financial concepts, understanding and using a bank statement, and prioritizing and preparing bills for mailing. However, persons with MCI performed significantly better than persons with mild AD on most domain-level financial activities and task-specific abilities. However, not all patients with MCI demonstrated these impairments, suggesting heterogeneity in financial performance in this prodromal dementia group. Nonetheless, these results suggest that a significant, albeit mild, decline in financial abilities is an aspect of functional change associated with MCI and may play a role in the eventual conversion of MCI patients to AD. Accordingly, clinicians should monitor over time the FC of individuals with MCI.

Daniel C. Marson and Katina R. Hebert

See also Competency, Foundational and Decisional; Financial Capacity Instrument (FCI); Forensic Assessment; Guardianship; Testamentary Capacity

Further Readings

Griffith, H. R., Belue, K., Sicola, A., Krzywanski, S., Zamrini, E., Harrell, L., et al. (2003). Impaired financial abilities in mild cognitive impairment: A direct assessment approach. *Neurology, 60,* 449–457.

Marson, D. C., Savage, R., & Phillips, J. (2006). Financial capacity in persons with schizophrenia and serious mental illness: Clinical and research ethics aspects. *Schizophrenia Bulletin, 32,* 81–91.

Marson, D. C., Sawrie, S. M., Snyder, S., McInturff, B., Stalvey, T., Boothe, A., et al. (2000). Assessing financial capacity in patients with Alzheimer's disease: A conceptual model and prototype instrument. *Archives of Neurology, 57,* 877–884.

Moye, J. (2003). Guardianship and conservatorship. In T. Grisso (Ed.), *Evaluating competencies: Forensic assessments and instruments* (pp. 309–389). New York: Plenum.

Wadley, V., Harrell, L., & Marson, D. (2003). Self and informant report of financial abilities in patients with Alzheimer's disease: Reliable and valid? *Journal of the American Geriatrics Society, 51,* 1621–1626.

Financial Capacity Instrument (FCI)

The Financial Capacity Instrument (FCI) is a conceptually based, standardized psychometric instrument designed to directly assess everyday financial activities and abilities relevant to community-dwelling adults. The FCI assesses financial skills at the task, domain, and global levels. The current version of the FCI (FCI-9) consists of 20 financial tasks, 9 domains of financial activity, and 2 global levels. The FCI is a reliable and valid measure of financial capacity that discriminates well between cognitively intact older adults and persons with mild and moderate Alzheimer's disease (AD). The FCI has also proven sensitive to identifying subtler changes in the financial abilities of individuals with mild cognitive impairment (MCI). In addition to older adults with dementia, the FCI has application to other patient groups with acquired cognitive and functional impairment, including patients with multiple scleroses, stroke, and traumatic brain injury. It is an instrument that has application in both clinical and forensic contexts.

Conceptualization and Development of the FCI

There continues to be a pressing need for conceptually based, standardized assessment instruments specific to the construct of financial capacity. The FCI was developed to help fill this need. The FCI is based on a three-level conceptual model that analyzes financial capacity at the task, domain, and global levels. Specifically, this model examines (a) financial abilities (or tasks), such as counting coins/currency, using a vending machine, or preparing bills for mailing; (b) broader domains of financial activity relevant to independent function in the community, such as conducting cash transactions, checkbook management, or financial judgment; and (c) global measures of overall financial capacity.

The original FCI (FCI-6) consisted of 14 specific tasks that assessed six domains of financial activity, including basic monetary skills (D1), financial conceptual knowledge (D2), cash transactions (D3), checkbook management (D4), bank statement management (D5), and financial judgment (D6). The FCI was revised in 2001 to include eight separate domains and 19 standardized, quantifiable behavioral tasks

(FCI-8). New domains assessed bill payment (D7) and knowledge of personal assets and estate arrangements (D8). An index of overall financial capacity was also introduced. The FCI was last modified in 2003 (FCI-9). Tasks pertaining to the detection and avoidance of telephone and mail fraud remained under the domain of financial judgment (D6). Investment decision making, which was included as part of D6 in earlier versions of the FCI, was accorded its own domain (D9).

Administration and Scoring of the FCI

Financial abilities and experience can vary substantially across individuals. It is important to identify an individual's prior level of financial skill and experience before administering the FCI or any other financial capacity instrument. For example, it would be misleading to test for checkbook management skills in a person who has never used a checkbook. An instrument for assessing prior financial experience is the Prior Financial Capacity Form. This rating form is completed by both patients and informants and assesses whether an individual could previously perform designated financial tasks and activities (a) independently, (b) only with assistance, or (c) not even with assistance.

FCI tasks are administered serially by domain. A system of prompts and recognition format questions is included to allow partial credit for persons with amnesia or aphasia.

Task-, domain-, and global-level performance scores are obtained using a detailed and standardized scoring system. Performance scores for each domain are obtained by summing task scores within that domain. Performance scores at the global level (overall financial capacity) are obtained by summing domain scores.

FCI performance scores can also be converted into capacity outcomes (capable, marginally capable, or incapable) using psychometric cut scores derived from normal control performance. These capacity outcomes are to be interpreted cautiously, as they are based on psychometric cut scores and are not equivalent to clinically or legally determined capacity judgments. However, the outcomes serve as a useful additional perspective for understanding performance on the FCI.

Reliability and Validity of the FCI

The original FCI-6 demonstrated adequate to excellent internal, test-retest, and inter-rater reliabilities at task and domain levels using small samples of older adult controls and AD patients. Very good to excellent reliabilities were obtained for the FCI-8 at the domain level. At the task level, the FCI-8 demonstrated excellent inter-rater reliability but mixed internal and test-retest reliability. This probably reflected item reductions within tasks and reduced task range.

All versions of the FCI arguably have strong face and content validity. The FCI tasks and domains represent simple and complex financial abilities and activities that are commonly performed by older adults in the community. The FCI structure and contents were reviewed and approved by a panel of physicians, gerontologists, an attorney, and a judge with considerable knowledge of the financial capacity construct.

The FCI has also demonstrated construct validity. FCI domains and tasks have been found to discriminate well the performance of cognitively intact older adults from that of patients with mild to moderate AD and patients with amnestic MCI. In addition, impaired domain-level performance in MCI and AD has been correlated with deficits in cognitive functions of semantic memory, working memory, simple attention, and executive function. In the continuing absence of a clear criterion measure for assessing financial capacity, this research provides initial support for the construct validity of the FCI.

Future Research

Preliminary research on the reliability and validity of the FCI is promising. Its direct, standardized, and quantified approach to assessing financial abilities and activities represents a new and significant contribution to the area of functional capacity assessment. However, initial studies using the FCI have been limited to relatively small samples of cognitively intact older adults and persons with MCI and AD. No research has been conducted to date that examines financial performance among other populations, such as persons with serious mental illness. Therefore, studies with larger and more heterogeneous control and clinical samples are needed. Future validation studies should compare FCI results with the judgment of experienced clinicians based on clinical interviews.

Daniel C. Marson and Katina R. Hebert

See also Competency, Foundational and Decisional; Financial Capacity; Forensic Assessment; Guardianship

Further Readings

Earnst, K., Wadley, V., Aldridge, T., Steenwyk, A., Hammond, A., Harrell, L., et al. (2001). Loss of financial capacity in Alzheimer's disease: The role of working memory. *Aging, Neuropsychology, and Cognition, 8,* 109–119.

Griffith, H. R., Belue, K., Sicola, A., Krzywanski, S., Zamrini, E., Harrell, L. E., et al. (2003). Impaired financial abilities in mild cognitive impairment: A direct assessment approach. *Neurology, 60,* 449–457.

Marson, D. C., Sawrie, S. M., Snyder, S., McInturff, B., Stalvey, T., Boothe, A., et al. (2000). Assessing financial capacity in patients with Alzheimer's disease: A conceptual model and prototype instrument. *Archives of Neurology, 57,* 877–884.

Note: The FCI is owned by the UAB Research Foundation (UABRF) and is currently available as an instrument for clinical research. A commercial version of the FCI will be made available by the UABRF in late 2007 or 2008.

Fingerprint Evidence, Evaluation of

Fingerprints and other friction ridges of the skin have a persistent structure that often leaves characteristic evidence at crime scenes. Latent print examiners compare this evidence with inked copies of friction ridge skin from a known suspect to determine whether these two patterns originate from the same source. This examination process uses computer databases for initial screening, but all evidence presented in court is based on human comparisons. Experts must establish their credentials in order to testify, and recent vision science work has suggested that experts possess visual mechanisms that novices do not. However, these experts have also shown evidence of biases, and critics have begun to question the evidentiary value of fingerprints.

Sources of Evidence

Impressions left by volar skin, or the ridged skin of the palmar surfaces of hands and fingers and plantar surfaces of feet and toes, play a major role in forensic science. Commonly known as fingerprints, palm prints, or footprints, recordings of this skin are often used as a form of physical evidence to link a person to a particular item or location, such as a crime scene. Perspiration, oil, blood, or other substances are often present on the skin and are deposited on surfaces such as plastic, wood, metal, or glass during touches, which might leave a recording of details of the ridge, crease, scar, and imperfection patterns from the skin. The evidence is recovered using a variety of development techniques to make the latent image, or undeveloped print, visible. These include powders, cyanoacrylate glue, chemicals, or stains that adhere to or react with the residues of the print. A variety of different lights and filters can also be used to visualize a latent print.

The basic challenge of fingerprint (more formally known as *friction ridge*) evidence derives from the fact that any latent print recovered from a crime scene will vary in appearance from every other latent print and from every standard print. A standard print can be obtained using a variety of techniques, from black-inked prints on a white card to electronic imaging of the volar surfaces. The intent of the standard recording is to obtain a clear set of prints from a known-source individual for comparison with the unknown-source latent prints. In some cases, these variations in appearances are trivial, and the match between an unknown latent and known inked print appears obvious. However, latent or standard prints with low quality or quantity of details are a challenge to examine, and thus the field of *forensic latent print examinations* uses established procedures, practices, guidelines, and methodology to support the examination of latent prints.

Friction ridge skin develops its structure in utero by means of biological, chemical, and physical processes of pattern formation known as reaction-diffusion. This process ensures that ridges form in a roughly parallel configuration and tend to orient orthogonally to lines of stress that occur during the fetal development of structures known as volar pads in fingers, palms, soles, and toes. The resulting ridges form patterns of loops, whorls, and arches in the pads of the developing finger tip (distal phalanges). Additional structure is provided by the development of ridges that form bifurcations and ridge endings, or minutiae. These minutiae are often coded when fingerprints are entered into computer databases such as the Integrated Automated Fingerprint Identification System, maintained by the U.S. Federal Bureau of Investigation.

The interactions of chemistry, physics, and biology in pattern formation in nature support the belief within science that no two natural patterns will ever be exactly alike. All the internal and external developmental noise, interactions, and timings that occur will

cause the anomalies that become a part of the configurations within natural pattern structures. All natural patterns in volar skin will be unique. This includes the ridges, furrows, creases, and pores and their anomalies and textures that make up the skin. Scarring will provide new unique features to the skin. The homeostatic regeneration of skin maintains the form and function of the features of the volar surface in persistent configural and sequential arrangements.

Basis of Testimony

The uniqueness and persistence of friction ridge skin is the rule of support for the proposition that an individual can be determined as having touched a particular surface. With this rule or law, the next step is to examine the latent and standard prints and determine whether the latent print was made by the person who made the standard print. The two prints are comparatively measured with each other. The first-level detail of general direction of ridge flow is examined, followed by examination of the second-level detail of lengths of individual ridge paths with their endings and bifurcations and, if needed, the examination of the third-level detail of edges, textures, and pore positions of the ridges. The details are examined to determine whether they correspond in sequences, shapes, and configurations in both prints. The examination results either in a determination that the person made the latent print (individualization) or that the person did not make the latent print (exclusion), or no determination is made whether the person made the latent print (inconclusive). This individualization or exclusion determination has, in principle, a philosophical problem: Comparisons between the latent print and all prints in the world are impractical. However, in practice this has been overcome with a high degree of certainty (although there are criticisms of this conclusion, which we will discuss in a later section). The expert makes the determination that there is definite agreement between the configural and sequential arrangement of details in the two images, indicating that they were made by the same unique and persistent source. The individualization decision basically comes down to the expert judgment that the recovered latent print is so similar to the inked print that it could only have come from the same person. Stated in a different way, the claim is made that there is no more similar print from any other source among all the prints in the world, which is of course impractical to test. In practice, the individualization often comes down to the expert rendering the opinion that the degree of match between the latent and the inked print is typical of known training, competency, and proficiency individualizations and casework peer-reviewed individualizations and is closer than any close correspondence from another source that the expert has ever seen or expects to see. Because this judgment is based on prior experience, presenting a conclusion in court depends on the expert establishing his or her credentials, which has become a major portion of latent print testimony and is discussed next.

The latent print expert examiner should have some basic knowledge before conducting case work, rendering conclusions, and testifying in court. This includes understanding the source of images, volar skin, and its unique and persistent features. The examiner also must understand the basics of fetal development, homeostasis, growth, aging, wound healing, scarring and imperfections of the volar skin, and the uniqueness of pattern formations in nature. Moreover, the examiner must understand distortions of the skin and variations in appearances of latent or standard prints or images. Latent and standard print development, capture, and imaging techniques must be understood to understand the variations in appearances. The examination method within the latent print community of analysis, comparison, and evaluation (ACE), possibly followed by verification (V), is the method used in conjunction with the sufficiency and judgment threshold of quality and quantity (QQ) of details in the images. Furthermore, the examiner must understand examination method and sufficiency and judgment thresholds. In addition, the examiner must understand the history of latent print examinations and latent print communities, the role of a community within science, and the role of the expert within a scientific community. Finally, the latent print examiner must be trained to be competent and demonstrate accuracy and proficiency within the community.

The goal of an examination is to judge whether developed unknown latent prints and known standard prints are sufficient for examination purposes and whether the considered source of the latent print can be determined or excluded. As noted earlier, three conclusions of the comparative examination can be reached: (1) the unknown print was determined to have been made by a specific source or person (individualization); (2) the unknown print was determined not to have been made by a specific source or person (exclusion); (3) no determination was made whether a

specific source or person made the unknown print (inconclusive).

When testifying in court, the examiner must be able to present the reasons that qualify him or her to testify as an expert for rendering opinions of judgments of examinations. This qualification requires the judge's determination of sufficiency of expertise based on the training and experience of the witness. The witness must be prepared to answer questions on qualifications and on anything to do with the science and method of latent print examination.

Criticism of Fingerprint Evidence

Recently, fingerprint evidence has come under intense criticism, and below we discuss the different forms of attack on latent print evidence. Since the *United States v. Byron Mitchell* case of 2003, in which defense attorneys began challenging the admissibility of forensic latent print examinations, fingerprint evidence has come under attack as an admissible science in the courts. A major issue surrounding fingerprint evidence is in the information content that can be extracted and identified in a latent print. While rolled inked prints taken under controlled conditions are usually very clear and rich in detail and information, latent prints are often inherently less clear, are distorted, and contain considerably fewer details due to the commonly partial nature of the print itself. It is up to the examiner to use his or her expertise to determine whether the latent print contains sufficient information to determine usability. Then, the examiner determines whether the details in the inked print and the latent print agree and have a common source. An individualization is made when the examiner claims that the two prints contain a high enough level of similarity that surpasses the similarity between any two prints from different individuals. However, determining the level of similarity between two prints is left to the examiner to establish on the basis of his or her training, skill, and experience within the forensic comparative science community. This makes fingerprint evidence somewhat different from DNA analysis, which codes a limited range of chemical sequences to establish an identification. Unlike DNA analysis, which has a specific set of known features, fingerprints can be matched on the basis of many different types of features, including minutiae, ridge flow, and even shapes of pores. Because the useful features are more difficulty to quantify, it is more difficult to establish a specific statistical model that would provide the probability of an erroneous identification. Thus, the procedures include a subjective element, albeit one that can be verified by third parties. The techniques of comparison and evaluation represent an objective application of documented procedures.

Despite this lack of statistical models, some examiners have made claims as to the "infallibility" of fingerprints, that identifications are "100% positive," and that the error rate of forensic fingerprint identification is zero. In fact, to date there have been approximately 20 known cases of misidentifications recorded, with some involving qualified examiners. Many of these misidentifications have been so widely publicized that the claim of "zero error rate" and infallibility has come under serious scrutiny. In addition, a series of tests conducted from 1995 to 2001 by a private independent testing service recorded misidentification rates ranging from 3% to 22%. As a result, authors have pushed for blind proficiency testing to reduce the amount of erroneous identifications. Many of these misidentifications are corrected with the use of additional fingerprint evidence, leading to the proposal that the criticism should fall on individual examiners rather than the science of latent print examinations as a whole.

Psychological Research Using Latent Print Examiners

An issue raised recently by Itiel Dror is the possibility that external sources of information about a case can affect the decision made by examiners. Known as confirmation bias or contextual biases, these sources of biases originate from knowledge such as whether other examiners called a particular individualization or whether other sources of evidence link the suspect to the crime. Once this information becomes known, it can be very difficult for an examiner to ignore this evidence. One fortunate aspect of fingerprints is that, unlike eyewitness testimony, they represent a form of physical evidence, and if confirmation is required or any bias is suspected, testimony from a new examiner can be sought.

Despite the attacks on fingerprint examiners and the push for fingerprint evidence to be omitted from the courts as scientific testimony, several authors have argued for demonstrable differences between expert examiners and novices. Recent behavioral and electrophysiological (electroencephalogram, EEG) research

by Tom Busey and colleagues has shown that experts appear to perceive fingerprints using the configural process or a holistic process, in which the observer appreciates not only the presence of individual features but the spatial relations between them as well. This process is known to occur when humans process visual information for faces, which produces a characteristic pattern in the EEG trace. Fingerprint examiners demonstrate similar brain-wave activity regarding fingerprints as the general population shows with respect to faces, and this fact suggests that experts recruit similar brain processes to support expertise in the fingerprint domain. This suggests that trained latent print examiners have perceptual abilities not shared by the rest of the population.

John R. Vanderkolk, Bethany Schneider, and Tom Busey

See also Expert Psychological Testimony, Admissibility Standards; Expert Psychological Testimony, Forms of; Expert Testimony, Qualifications of Experts

Further Readings

Ashbaugh, D. R. (1999). *Quantitative-qualitative friction ridge analysis: An introduction to basic and advanced ridgeology.* Boca Raton, FL: CRC Press.

Busey, T. A., & Vanderkolk, J. R. (2005). Behavioral and electrophysiological evidence for configural processing in fingerprint experts. *Vision Research, 45,* 431–448.

Cole, S. A. (2005). More than zero: Accounting for error in latent fingerprint identification. *Journal of Criminal Law and Criminology, 95*(3), 985–1078.

Cowger, J. F. (1983). *Friction ridge skin, comparison and identification of fingerprints.* New York: Elsevier Science.

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579, 113 S. Ct. 2786 (1993).

Dror, I. E., Peron, A., Hind, S., & Charlton, D. (2005). When emotions get the better of us: The effect of contextual top-down processing on matching fingerprints. *Applied Cognitive Psychology, 19,* 799–809.

United States v. Byron Mitchell, No. 02-2859 (3d Cir. September 9, 2003). Retrieved from http://vls.law.villanova.edu/locator/3d/April2004/022859p.pdf

Web Sites

Scientific Working Group on Friction Ridge Analysis, Study, and Technology: http://www.swgfast.org

Fitness-for-Duty Evaluations

A fitness-for-duty evaluation (FFDE) is just what the term suggests, an evaluation of an individual's fitness to do his or her job. In high-risk occupations, such as the police and public safety, the need for psychological suitability and fitness is generally established by statute or case law. In fact, some courts have held that agencies are required to assess an officer's fitness when significant evidence suggests a lack of fitness.

The specifics of what constitutes fitness are defined, if they are defined, in very general terms, usually by state statute. The gist is that job holders should be free of psychological factors, traits, and problems that would prevent them from performing their duties safely and effectively. The specifics of how to assess the fitness of job incumbents and the decision-making standards have received limited research attention. Instead, the standards are based on the experience of police psychologists. The Psychological Services section of the International Association of Chiefs of Police (IACP) developed guidelines for FFDEs. Their revised guidelines were published in 2004.

The first issue in FFDEs is whether an evaluation should be ordered. This issue is important because although the FFDE can be an important tool in protecting public safety, it has the potential for misuse. The current consensus, including the recommendation of the IACP, is that there should be objective evidence that the employee may be unable to adequately perform the job and a legitimate basis for believing that the problems are due to psychological issues.

FFDEs are also being increasingly used in a variety of other occupations when concerns about potential violent behavior by an employee are said to raise concerns about the employee's psychological fitness for duty. This use of FFDEs is more controversial and less clearly protected by statute or case law. The practice can be particularly problematic in the absence of clear written policies outlining the circumstances and procedures for fitness evaluations. Relevant legal concerns include violations of the Americans with Disability Act and the individual employee's privacy rights. However, the practice can be important to defend an employer from "wrongful retention" or "negligent supervision" complaints when people are injured by violent employees.

For any occupation, experts agree that FFDEs should not be used as a substitute for the normal disciplinary

process. However, employers may choose to use a psychological FFDE to mitigate discipline and develop rehabilitation or accommodation plans. It is best for this process to be outlined in the employer's written policies.

The FFDE begins with a referral. This referral normally involves a written summary statement of the employer's concerns and the evidence in support of those concerns. The referral also generally includes any specific issues the employer wishes to have addressed. It is best if the standards for triggering an FFDE and the process involved are in the employer's written policy. When accepting referrals for FFDEs, ethical concerns require evaluators to consider whether there are any dual-relationship or conflict-of-interest issues that interfere with the evaluator's ability to perform the evaluation competently and effectively.

The employer is normally considered the client in an FFDE, not the individual being evaluated. In most situations, employees referred for FFDEs are compelled to participate as a condition of employment. However, it is generally considered advisable to obtain the employee's written informed consent for the evaluation and the communication of the results of the evaluation to the employer. When informed consent is not sought, evaluators are still ethically obligated to inform the individual being evaluated of the nature of the evaluation and the expected use of the obtained information.

FFDEs include psychological testing, clinical interviews, and collateral information to enable the evaluator to determine if the incumbent employee is able to safely and effectively perform the essential job duties of the position or specialty assignment. The psychological testing frequently includes an objective psychological measure designed to assess psychopathology and an objective psychological measure designed to identify psychological strengths and weaknesses in nonpathological populations. Many evaluators also include some sort of measure of cognitive functioning. This test selection is similar to that used in pre-employment evaluations. However, in FFDEs, additional measures designed to assess relevant issues or problems may be included. The collateral information includes the job description (including any additional requirements of specialty assignments), employment and medical records, reports from supervisors and coworkers, and reports from family members and friends.

When the FFDE is complete, the evaluator must communicate the results, usually to the employer or the employer's legal representative. Many of the standards for what may be communicated to employers following an FFDE are regulated at the state level. Case law in some jurisdictions severely limits the information that evaluators may communicate to the employer without violating the employee's privacy rights. Without the written consent of the individual being evaluated, evaluators need to exercise caution in communicating any information about the individual other than fitness for duty to the employer. Even with consent, only essential and relevant information should be included. If a lack of fitness involves confidential issues or other people (e.g., a health problem in an employee's spouse), evaluators should ensure that the information communicated does not violate privacy standards in that jurisdiction.

Usually, the report will include an outline of the actions involved in the evaluation and the evaluator's conclusion concerning the individual's fitness for duty. The categories are fit for unrestricted duty, fit for restricted duty (which could include regular work activities with mandatory treatment), or unfit for any duty. Additionally, when the employee is unfit for unrestricted duty, it may be described as temporary or permanent. If the lack of fitness is temporary, recommendations for facilitating the return to fitness are appropriate. It is usually difficult to consider a psychological condition permanent without a treatment trial.

Nancy Lynn Baker

Further Readings

Borum, R., Super, J., & Rand, M. (2003). Forensic assessment in high risk occupations. In I. B. Weiner (Series Ed.) & A. D. Goldstein (Vol. Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 133–148). New York: Wiley.

IACP Police Psychological Services Section. (2004). *Psychological fitness-for-duty evaluation guidelines*. Alexandria, VA: Author.

Fitness Interview Test–Revised (FIT–R)

The Fitness Interview Test–Revised (FIT–R) is an instrument designed for use by mental health professionals in evaluations of competence to stand trial.

Designed as a structured clinical judgment instrument that guides evaluators through an assessment of the specific psycholegal abilities required of a defendant to stand trial, the FIT–R demonstrates reliability and predictive validity and is useful for screening out individuals who are clearly competent to stand trial.

Competence (or fitness) to stand trial is a well-established legal principle designed to ensure that criminal defendants have the ability to participate in legal proceedings. Defendants must be able to understand the charges against them, understand the possible consequences of legal proceedings, and communicate with their attorney. Defendants whose ability to participate competently in their trial is in question are typically referred for a forensic assessment, since mental health issues are central to the evaluation. If the court later determines that a defendant is competent, legal proceedings are resumed; if the defendant if found incompetent, the legal proceedings are suspended until competence is restored.

There are a number of forensic assessment instruments designed to assist in this process, and the FIT–R, a semistructured interview and rating scale, is one of them. While initially designed for use with adult defendants, research has also shown that it can be used to evaluate competence in juvenile populations. The current version is a revised and updated version of an earlier edition. A thorough review of pertinent U.S. and Canadian legislation is included in the introductory section of the FIT–R manual, and a brief review of research on fitness to stand trial is provided. However, the authors have noted that the FIT–R can be used in most common-law jurisdictions due to the similarity in legal criteria for competence to stand trial.

Administration of the FIT–R takes approximately 30 to 45 minutes. The instrument is intended to serve as a tool for assessing legal issues in concert with other methods of assessing additional clinical issues, including mental status and diagnostic considerations. The format follows a semistructured interview, ensuring that all legally relevant aspects of fitness criteria are addressed while allowing clinicians the flexibility to probe and further question the specific knowledge and abilities of the accused. Following the interview, the evaluator completes a rating scale in which the relative degree of incapacity for each of the items is evaluated. This semistructured format allows evaluators to conduct more uniform competence evaluations while still providing for flexible assessments.

The FIT–R comprises 16 items divided into three sections that parallel the Canadian and U.S. legal criteria for competence to stand trial. The first section, Understanding the Nature or Object of the Proceedings: Factual Knowledge of Criminal Procedure, examines a defendant's understanding of the arrest process, current charges, role of key participants, legal process, pleas, and court procedures. The second section, Understanding the Possible Consequences of the Proceedings: Appreciation of Personal Involvement in and Importance of the Proceedings, examines a defendant's appreciation of the range and nature of possible penalties, available legal defenses, and likely outcomes. The third section, Communication With Counsel: Ability to Participate in Defense, examines a defendant's ability to communicate facts to a lawyer; interpersonal capacity to relate to lawyers; and ability to plan legal strategy, engage in the defense, challenge prosecution witnesses, testify relevantly, and manage courtroom behavior. Each section comprises a number of items reflecting the requisite psycholegal abilities required for competence in each area. An individual's degree of impairment on each item is rated using a three-point scale (no impairment, possible/mild impairment, and definite/serious impairment), which is clearly explained and defined for evaluators. The evaluator then rates the accused's degree of impairment in each of the sections. These ratings as well as an assessment of the defendant's mental status are used by the evaluator to make an overall determination of the individual's competence to stand trial. In scoring the FIT–R, the instrument does not rely on "cutoff" or "total" scores for making decisions about an individual's competence, largely because the weight assigned to any one item will likely vary across individuals.

It is important to recognize that the FIT–R was designed to reflect the relative competence status of an accused individual at the time of examination, and it can serve neither a predictive nor a retrospective assessment function. Research has shown that few of the accused individuals ordered to undergo fitness assessments are found incompetent to stand trial. The FIT–R can be used as a brief screening instrument for assessing fitness, where individuals who score at an "unfit" or "questionably unfit" level will be referred for a more thorough evaluation. Research has demonstrated that it yields good sensitivity (the probability that the predictor variable is positive given a recommendation of unfit) and negative predictive power (the probability of a recommendation of fit given that the

predictor variable is negative) when used in this way and that it can reliably screen out individuals who are clearly competent to stand trial, thereby reducing the number of individuals referred for more lengthy and costly assessments. The FIT–R can also be used as part of a more comprehensive fitness evaluation.

Ronald Roesch and Kaitlyn McLachlan

See also Adjudicative Competence of Youth; Competency Screening Test (CST); Competency to Stand Trial; Evaluation of Competence to Stand Trial–Revised (ECST–R); Forensic Assessment; Interdisciplinary Fitness Interview (IFI); MacArthur Competence Assessment Tool for Criminal Adjudication (MacCAT–CA)

Further Readings

Grisso, T. (2003). *Evaluating competencies: Forensic assessment and instruments.* New York: Plenum Press.

Roesch, R., Zapf, P. A., & Eaves, D. (2006). *Fitness Interview Test–Revised: A structured interview for assessing competency to stand trial.* Sarasota, FL: Professional Resource Press.

Roesch, R., Zapf, P. A., Eaves, D., & Webster, D. (1998). *Fitness Interview Test–Revised Edition*. Burnaby, BC, Canada: Mental Health Law and Policy Institute.

Viljoen, J. L., Vincent, G. M., & Roesch, R. (2006). Assessing adolescent defendants' adjudicative competence: Interrater reliability and factor structure of the Fitness Interview Test–Revised. *Criminal Justice and Behavior, 33,* 467–487.

Zapf, P. A., & Roesch, R. (1997). Assessing fitness to stand trial: A comparison of institution-based evaluations and a brief screening interview. *Canadian Journal of Community Mental Health, 16,* 53–66.

Forced Confabulation

Forced confabulation can occur if an individual erroneously incorporates into his or her memory of an event, self-generated information that was not actually part of that event. Forced confabulation most commonly occurs when an individual (a) experiences an event, (b) thinks about or talks about that event, and (c) later confuses what actually occurred with what he or she talked about or thought about afterward. Every time an individual makes an error of commission and remembers a detail of an event that did not actually occur, it is not necessarily confabulation. In the research literature, forced confabulation is typically caused by (a) forcing an individual to answer an unanswerable question about an event (i.e., the relevant information to answer the questions was not actually part of the event) or (b) pressing an individual to answer a question even though the individual has indicated that he or she does not know or is unsure of the answer to the question. As a consequence, later, individuals will sometimes erroneously remember the information in their forced answer as part of the event itself. When this occurs, it is considered to be forced confabulation.

A number of studies have been conducted to assess how postevent information influences event memory. This research examines how memory of an event can be suggestively influenced by exposure to any related information about the event. In most of this research, the postevent information is other-generated (e.g., information in the interviewer's questions can be remembered as part of the actual event) rather than self-generated, but in fact, either would qualify as postevent information. Thus, forced confabulation is really a subtype of suggestibility that can occur from being forced to self-generate postevent information. A certain amount of self-generated confabulation will naturally occur as people think about and talk about events that they have observed. Although people rarely come to remember entire events that did not occur, it is common to confuse (a) what we correctly remember because we observed it with (b) what we erroneously remember from contemplating the event afterward.

A typical study of forced confabulation was conducted by Maria Zaragoza and her colleagues. They had adults and children view a brief video, followed immediately by a sequence of answerable and unanswerable questions. Unanswerable questions probed information that was not actually presented in the video. Half the participants were forced to answer every question and were told to guess if they did not know an answer. Control participants were told to respond only to questions for which they knew the answer; they were encouraged not to guess. One week later, all participants were asked whether they had seen various objects in the video. Individuals frequently misattributed to the video objects that they had self-generated.

One question of interest in the forced confabulation research is whether information is more likely to be incorporated into memory if it is (a) spontaneously self-generated or (b) forcibly self-generated—for

example, by pressing eyewitnesses to answer questions about events that they are unsure of. Kathy Pezdek and her colleagues conducted several studies to examine this issue. In this study, individuals viewed a crime video and then answered open-ended questions that included answerable and unanswerable questions about the video. Half the participants were in the "spontaneous guess" condition; the "Don't know" response option was available to them, so they did not need to guess any answers. The other half of the participants were in the "forced guess" condition and did not have a "Don't know" response option. One week later, the same questions were answered with a "Don't know" option available for everyone.

The primary finding concerns the following question: If participants were forced to guess answers to *unanswerable* questions at Time 1, were the answers they generated likely to be recalled 1 week later at Time 2, when they all had the option of responding, "Don't know"? The responses to unanswerable questions are the most revealing in this study, because we know that the individuals did not actually observe the information relevant to answering those questions. The mean proportion of responses that received the same answer at Time 1 and Time 2 was significantly higher in the spontaneous guess condition (M = .54) than in the forced guess condition (M = .40). This result suggests that although false confabulation does occur, false information that resulted from forced confabulation is less likely to persist in memory than false information that individuals spontaneously provided because they thought they had observed it. Furthermore, when the same answer was given to an unanswerable question both times, the confidence expressed in the answer increased over time both for answers that were spontaneously guessed and those that were forced guesses. Thus, erroneous memories that occur from self-generated false confabulation are confidently held. This is of course problematic from the point of view of assessing the veracity of eyewitness memories because it suggests that it may be difficult to differentiate between true and falsely confabulated memories.

This topic is relevant to the specialty of psychology and law because virtually 100% of all eyewitnesses to crimes who eventually testify in court are interviewed by police officers at least once, and typically multiple times. Forced confabulation can occur in police interviews when officers press an eyewitness to answer a question even though the eyewitness has indicated that he or she does not know or is unsure of the answer to the question. In addition, police interrogation typically involves techniques to pressure witnesses to answer questions they are reluctant or unable to answer. It is important to recognize that such techniques are likely to generate forced confabulations—even confidently held forced confabulations—as well as true information. Although no data exist documenting how frequently this practice occurs in real police interviews, Richard Leo has reported that this is not an unusual practice, that, in fact, forced confessions commonly occur under these circumstances.

Kathy Pezdek

See also Delusions; Eyewitness Memory; False Confessions; False Memories; Postevent Information and Eyewitness Memory

Further Readings

Ackil, J. K., & Zaragoza, M. S. (1998). Memorial consequences of forced confabulation: Age differences in susceptibility to false memories. *Developmental Psychology, 34,* 1358–1372.

Leo, R. A. (1996). Inside the interrogation room. *Journal of Criminal Law and Criminology, 86,* 266–303.

Pezdek, K., Sperry, K., & Owens, S. (in press). Interviewing witnesses: The effect of forced confabulation on event memory. *Law & Human Behavior.*

Forcible Medication

This entry discusses the involuntary administration of psychotropic medication, which continues to be one of the most controversial issues in mental health law. Whether mental patients in hospital, the community, jail, prison, or the judicial process may refuse psychotropic medication that the government would like to administer raises complex legal, clinical, moral, and social issues. Psychotropic medication is by far the leading treatment technique for patients diagnosed with mental illness. Although demonstrably helpful for many patients, it often imposes serious direct, often debilitating, and unwanted side effects that are beyond the patient's ability to resist and that may be long lasting. As a result, involuntary administration of these drugs raises serious constitutional questions.

Most states now have statutory and administrative restrictions on involuntary treatment. The limits

imposed by the U.S. Constitution and its state counterparts are the most significant restrictions on state authority in this regard as they drive other legal restrictions. This entry discusses these constitutional limitations, the level of scrutiny the courts will apply in weighing right to refuse medication claims, and the standards that must be satisfied for involuntary medication to be authorized. To meet these standards, the government must show that treatment is both medically appropriate and the least-restrictive alternative means of accomplishing one or more compelling governmental interests. The patient is entitled to a hearing concerning the satisfaction of these criteria, typically occurring before treatment may be imposed. In an emergency, the hearing may take place thereafter.

Constitutional Bases for the Right to Refuse Medication

Constitutional limits on involuntary intrusive treatment of the kind represented by the psychotropic drugs derive from several sources. The U.S. Supreme Court has recognized that unwanted antipsychotic medication invades a significant liberty interest protected by the due process clauses of the Fifth and Fourteenth Amendments. Substantive due process protects a liberty interest in bodily integrity and personal security, as well as a liberty interest in personal autonomy in health care decision making that involuntary medication would invade. Moreover, such medication also may invade the First Amendment's protection of mental privacy and freedom of mental processes from significant governmental intrusion. When administered as punishment, involuntary medication may also raise questions of cruel and unusual punishment banned by the Eighth Amendment. Moreover, because medication is not administered on an involuntary basis to medically ill patients, for whom informed consent would be required, but is for those with mental illness, an equal protection question may be raised. In more limited circumstances, when refusal of medication is based on religious objection, forced medication may infringe the First Amendment's protection of the free exercise of religion.

The level of constitutional scrutiny of governmental attempts to impose involuntary treatment will vary with the intrusiveness of the treatment in question. Traditional antipsychotic drugs can induce a variety of Parkinson-like effects that are distressing and several serious and permanent effects such as tardive dyskinesia. Even the newer atypical antipsychotic drugs impose serious risks, including diabetes and perhaps stroke. Although drugs used in the treatment of depression and bipolar disorder may raise fewer constitutional difficulties, their impact on mood and mental processes remains sufficiently significant to require some degree of heightened judicial scrutiny. Almost all these drugs intrude directly and powerfully into mental processes, bodily integrity, and individual autonomy and therefore would seem justified only on a showing of compelling necessity.

Constitutional Requirements for Forcible Medication

The Supreme Court's decisions in *Sell v. United States* (2003) and *Riggins v. Nevada* (1992), both involving criminal defendants seeking to refuse antipsychotic medication, seem to suggest a form of strict scrutiny. To justify the administration of antipsychotic medication, the Court required a finding that the involuntary medication was medically appropriate and the least intrusive means of accomplishing one or more compelling governmental interests. The government's interest in restoring criminal defendants to competence to stand trial and maintaining them in a competent state so that they may be tried will meet this test as long as the medication in question is clinically appropriate for the individual, no less intrusive treatments or medications will achieve this goal, and medication will not significantly impair the defendants' trial performance. When a criminal defendant seeks to refuse medication that the government contends is required to restore or maintain his or her competency, the criminal court will need to hold a hearing on whether these standards are satisfied and to make specific factual findings concerning them before medication may be imposed.

This strict scrutiny approach would seem generally applicable to the administration of unwanted, intrusive medication in hospital and community settings and even in jails that house pretrial detainees. A more relaxed standard will apply to sentenced prisoners, however. In *Washington v. Harper* (1990), the Supreme Court applied a reduced form of constitutional scrutiny to uphold the involuntary administration of antipsychotic medication in a prison hospital for an inmate who was found to be dangerous to other prisoners and staff. In prison contexts, as long as the medication is medically appropriate and reasonably related to the need to protect others from harm and to protect prison security, it may be imposed even if less restrictive alternatives, such as solitary confinement,

might suffice to protect others from violence. Outside the prison context, however, involuntary medication will need to be justified as necessary to accomplish one or more compelling governmental interests.

Governmental Interests That May Justify Forcible Medication

What are the interests that count as compelling? As previously noted, the state's interest in restoring an incompetent criminal defendant to competency so that he or she may stand trial will count as a sufficiently compelling governmental interest. Other state interests that will be deemed sufficiently compelling to outweigh the individual's assertion of the right to refuse treatment will include the police power interest in the protection of others from harm. When mental illness renders an individual in an institution dangerous to self or others, including other patients or institutional staff, the government interest in preventing serious harm that is imminent will be deemed sufficiently important to outweigh the individual's interest in avoiding unwanted medication, at least when other standards of strict scrutiny are satisfied. The state's parens patriae interest in the well-being of individuals rendered incompetent by their mental illness to make treatment decisions for themselves also will meet the compelling interest test. When the individual has been determined to be incompetent to make such decisions, involuntary medication may be authorized if it is in the patient's best medical interests and no less restrictive alternative treatments are medically indicated.

State statutes or administrative rules frequently authorize treatment in these circumstances for those who have been civilly committed or who accept voluntary admission to a hospital. An increasing number of states now authorize court-ordered involuntary treatment on police power or parens patriae grounds under statutes allowing outpatient commitment or conditional release from hospitalization. Similarly, state statutes or administrative rules will authorize involuntary medication in such circumstances for those suffering from mental illness in jails and prisons.

Medical Appropriateness and Least-Restrictive Alternative Requirements for Involuntary Treatment

Even when these compelling interests are present, involuntary treatment must be medically appropriate and the least-restrictive means to achieve compelling state interests. The medical appropriateness requirement will necessitate a finding that the medication in question and the dosage sought to be imposed are clinically indicated for the individual. For purposes of applying the least-restrictive alternative test, the burden of establishing the futility of less restrictive treatments or their lack of success will be placed on the state. Treatments less restrictive than psychotropic medication, such as verbal, behavioral, or cognitive behavioral treatment, therefore should be attempted before medication is sought to be imposed, unless they are deemed to be unlikely to succeed in the circumstances. In addition, if the individual can show that an alternative medication that is less intrusive would suffice, or even a lower dosage of the medication sought to be imposed, then these less restrictive alternatives should be attempted. If alternatives other than treatment are available that would fully satisfy the governmental interest in involuntary treatment, such treatment may be impermissible. For example, in the case of the government's police power interest in protecting other patients or institutional staff from the violent acts of a mentally ill individual who is institutionalized, alternative means of containing the danger, such as seclusion and restraint, may be more preferable to the patient than medication and therefore should be used instead.

The Right to a Hearing

Even when involuntary medication is constitutionally permissible, procedural due process will require notice and a fair hearing before treatment may be imposed. Some states require a formal, adversarial judicial hearing, but most courts have accepted the constitutionality of permitting informal and nonadversarial administrative hearings. Procedural due process also will require periodic review of the need for continued medication. Even though it may be overwhelmingly likely that the outcome of such hearings will result in approving the need for medication or continued medication, the hearing can have important value in educating the patient concerning why medication is needed and providing him or her with a form of participation in the decision-making process that provides the patient with a voice and a sense of validation. When these participatory or dignitary values of procedure are accorded, the patient may be more accepting of the decision to impose medication and more compliant with it. The attitudes that

procedural justice fosters may therefore increase the effectiveness of the medication that the individual is required to receive and the likelihood that he or she will continue to take it even when not forced to do so.

Waiver of Right to Refuse Treatment: The Informed Consent Doctrine

Of course, not all patients will refuse psychotropic medication. The right to refuse treatment may be waived as long as the requirements of the informed consent doctrine are satisfied. These include disclosure of treatment information, competency, and voluntary choice. In fact, when the requirements of informed consent are satisfied, patients may enter into advance directive instruments that express their wishes concerning the acceptance or rejection of treatment at a future time when they may become incompetent. Although not yet in widespread use for this purpose, advance directive instruments are likely to emerge as an important way for dealing with the right-to-refuse-treatment question in the future.

Professional Ethics and Therapeutic Jurisprudence

Apart from legal restrictions on involuntary medication, forced treatment raises ethical concerns for clinicians. The professional ethics of the various clinical disciplines strongly favor voluntary treatment. Moreover, psychological theory would suggest that voluntary treatment is more efficacious for many patients than coerced therapy. Coercion may spark patient resistance, whereas voluntary choice may engage the patient's intrinsic motivation and increase treatment compliance. As a result, the principles of beneficence and nonmaleficence, which are at the core of professional ethics, would strongly favor voluntary approaches and the use of less intrusive techniques before involuntary medication is attempted. Because psychological theory would predict that voluntary treatment will be more effective than coerced treatment and more likely to produce treatment compliance over time, considerations of therapeutic jurisprudence also would favor voluntary over involuntary treatment.

Of course, these therapeutic benefits of voluntary choice may not apply when the individual is incompetent to engage in rational decision making. However, even for patients rendered incompetent as a result of their mental illness, once medication has succeeded in restoring competency to make treatment decisions, these ethical and therapeutic jurisprudence concerns can present therapeutic opportunities.

Judges, attorneys, and clinicians called on to act in the forcible medication context, thus, should understand that they function as therapeutic agents in the way they treat the individual who seeks to resist unwanted medication. Judges and clinicians involved in involuntary treatment therefore should treat patients fairly, with dignity and respect, and accord them a sense of participation in the decision-making process. The hearing that often will be required before involuntary medication may be imposed, if structured to satisfy these conditions and properly conducted, can have a significant therapeutic value. Rather than resisting the patient's right to refuse treatment, clinicians should understand that recognition of such a right and the patient's participation in treatment decision making can present therapeutic opportunities.

Bruce J. Winick

See also Civil Commitment; Forensic Assessment; Mental Health Law; Therapeutic Jurisprudence

Further Readings

Riggins v. Nevada, 504 U.S. 127 (1992).
Sell v. United States, 539 U.S. 166 (2003).
Washington v. Harper, 494 U.S. 210 (1990).
Winick, B. J. (1997). *The right to refuse mental health treatment.* Washington, DC: American Psychological Association Books.
Winick, B. J. (2005). *Civil commitment: A therapeutic jurisprudence model.* Durham, NC: Carolina Academic Press.

Forensic Assessment

Forensic assessment is a part of the broader category of psychological assessment. The purpose of forensic assessment is distinct from that of traditional therapeutic assessment, and as such forensic evaluators have different training and practice guidelines. The settings in which forensic evaluations occur are vast, including law enforcement, correctional, and civil and criminal court settings. Forensic assessment may include traditional psychological assessments and specially designed forensic measures.

Psychological assessment refers to all the techniques used to evaluate an individual's past, present, and future psychological status. The primary goals of assessment involve providing explanations for past and present behavior and making predictions about the parameters of future behavior. Furthermore, psychological assessment may involve the use of psychological tests or measuring devices. Forensic assessment is a category of psychological assessment that is used to aid a legal fact finder and is one of the most common applications of psychology to the law, prevalent in a variety of legal settings. A relatively new specialty, forensic assessment is one of the fastest growing areas in clinical psychology. Increasing numbers of psychologists are conducting, analyzing, and presenting psychological data in various legal settings. It has been estimated that hundreds of thousands of forensic assessments are conducted annually by psychologists and other mental health professionals.

Differences Between Therapeutic and Forensic Assessment

Unlike therapeutic assessment, which occurs at the request of the patient, forensic assessment is commonly conducted at the bequest of the legal system. As such, forensic assessment is often not voluntarily sought by the person being evaluated and has more limited confidentiality than traditional therapeutic assessment. The person undergoing forensic assessment may resist the evaluation or may knowingly or unknowingly try to influence the assessment to further his or her legal situation. Attempts to feign mental illness or present oneself in a positive light are more common in forensic assessment than in traditional therapeutic assessment and should always be considered.

Traditional assessment is concerned primarily with the examinee's view of the problem or events. Although forensic assessment does pay attention to the examinee's perspective, it is more concerned with the accuracy of events than is traditional therapeutic assessment. Unlike therapeutic assessment, which casts the examiner in a supportive or helping role, the forensic evaluator's duty is to the legal fact finder, which may or may not assist the person being evaluated. In other words, the client in traditional therapeutic assessment is the person being evaluated, whereas in forensic assessment, the client is the legal fact finder.

Finally, the scope of the two types of assessment differs. Therapeutic assessment typically covers broad clinical issues such as diagnosis, personality, and treatment. Forensic assessment, in contrast, is solely determined by the legal question at hand and, as such, commonly concerns more narrowly defined issues or incidents than what is covered in traditional therapeutic assessment. Although an examinee's mental health and therapeutic needs may be discussed in forensic assessments, such discussions occur only in the context of the larger psycholegal referral question.

Training and Practice Guidelines

In most cases, forensic assessment is performed by mental health professionals who may or may not have had specialized forensic training. Recent years have seen a rapid increase in the teaching, training, and supervision of psychology graduate students, interns, and postdoctoral fellows. Numerous conferences and continuing education opportunities have proliferated as well. In the mid-1980s, the American Board of Professional Psychology (ABPP) began signifying psychologists who have advanced knowledge and competence in forensic psychology by the awarding of diplomate status, and in the early 1990s the American Psychological Association (APA) recognized forensic psychology as an APA specialty.

In addition to the ethical codes of conduct in psychological practice as well as standards for testing (e.g., Ethical Principles of Psychologists and Code of Conduct [EPPCC] and Standards for Educational and Psychological Testing), there are general and specific guidelines for forensic practice. The Specialty Guidelines for Forensic Psychologists (SGFP) were published in 1991, and a revision is under way. The SGFP are general in nature and apply to all areas of forensic psychological work. Unlike the EPPCC, which contain rules of conduct that are enforceable for APA members, the SGFP are aspirational and advisory. The SGFP inform psychologists about the nature and development of competent and responsible forensic practice with the goal of continuous improvement and enhancement. In addition to the SGFP, specialty guidelines and standards have been developed for certain areas of forensic work (e.g., Guidelines for Psychological Evaluations in Child Protection Matters and Standards for Psychology Services in Jails, Prisons, Correctional Facilities, and Agencies).

Several general instructions should be kept in mind when conducting forensic assessments. First, the conclusions and opinions need to be formed from

a scientific basis. Quality forensic reports substantiate opinions with data and outline the reasons for the conclusions drawn. Forensic examiners must be prepared to defend the method of data collection and its scientific basis. Therefore, data should be collected carefully, and the limits of any data collected should be recognized and reported. Interpretations made during a forensic assessment should be based on multiple methods of data collection. The response style of the examinee should always be assessed for attempts to minimize or feign psychological impairment. The best method for conducting a forensic assessment and writing a subsequent forensic report is to imagine that all methods and conclusions are being critiqued by an opposing attorney. Finally, testing instruments, if used, should be related to the legal issue at hand and should be theoretically and psychometrically sound.

Forensic Assessment Settings

Typically, when people speak about forensic assessment they are referring to psychological assessments as part of civil or criminal court cases. The broad definition of forensic assessment used in this entry also encompasses forensic assessment in law enforcement and correctional settings. Overlap may exist between settings; also, a forensic assessment might be conducted for use in more than one setting or might be completed for one setting only to be used later in another setting.

Law enforcement is, of course, a broad term for the work of police officers in a variety of settings. Psychological assessment in law enforcement settings may involve criminal profiling and psychological autopsies as well as direct work with police officers. Psychological assessment of police officers can include screening of police candidates, fitness-for-duty evaluations, and promotional evaluations.

Psychological assessment in correctional settings may be involved at any phase of incarceration or correctional involvement. Forensic assessment might be conducted to provide insight into and predict criminal behavior with the goal of preventing future criminality. This area of risk or dangerousness assessment has been quite popular in both clinical and research arenas, with much attention given to isolating the variables associated with recidivism, especially violent recidivism. Assessment in correctional settings can also be used to assess amenability to treatment and/or rehabilitation and may be subsequently used in reaching sentencing and parole decisions. Psychological assessment may also be used to evaluate the mental health needs of jail and prison inmates, as well as the psychological effects of imprisonment.

Both civil and criminal courts increasingly request and use psychological data. Civil courts handle disputes between citizens; criminal courts handle disputes between a citizen and the state. Examples of where forensic assessment might be involved in civil courts include divorce and child custody cases, competency to consent to treatment or provide care for oneself, examinations of testamentary competence, or civil suits where psychological or neurological injury might be involved (e.g., malpractice cases or automobile accidents).

Certain types of cases have been traditionally categorized as civil but, given the potential deprivation of liberty involved, have been labeled as "quasi-criminal" by scholars in the field. The two types of quasi-criminal cases are civil commitment hearings and juvenile delinquency cases. Forensic assessment is invaluable in civil commitment hearings, in which most states require a finding that the person is mentally ill and is a danger to self or others or in need of care or treatment. There are many stages in juvenile delinquency proceedings where forensic assessment can be of assistance. Issues that used to occur primarily in the adult criminal justice system, such as competency to stand trial, are increasingly being raised in juvenile cases. In addition, juveniles may be evaluated for their amenability to treatment in the juvenile justice system. If they are not considered amenable, their case may be waived to adult court. A child who is tried through the juvenile justice system may undergo a presentence evaluation to determine the best disposition of his or her case.

Forensic assessment can be involved at all levels of criminal proceedings, starting with evaluations of a defendant's capacity to waive *Miranda* rights at the time of arrest and concluding with evaluations of a defendant's competency to be sentenced or competency to be executed. Forensic assessment is most commonly requested in criminal cases to evaluate a defendant's competency to stand trial, with approximately 60,000 such evaluations performed annually. Evaluations of a defendant's criminal responsibility (insanity defense evaluations) are probably the second most common question posed in criminal forensic assessment, although the insanity defense is raised in less than 1% of all felony cases. Sometimes, *competency to stand trial* and

criminal responsibility are confused, and the terms are used interchangeably. Competency-to-stand-trial evaluations focus on a defendant's current mental functioning, whereas criminal responsibility evaluations focus on the defendant's mental state at the time of the offense. Other types of criminal forensic assessment include evaluations of competence to waive counsel and competence to plead guilty.

Tests and Assessment Instruments

Forensic assessment, as mentioned earlier, may involve the use of psychological tests or assessment instruments. The decision about how and when to use a test as part of a forensic assessment involves consideration of the relevance of the test to the legal question or to the psychological construct that underlies the legal issue. Whether a given test is relevant should be determined by the specific issues involved in the psycholegal referral question. Only tests or instruments with a sound theoretical and psychometric base should be used. Forensic examiners should assess any research findings concerning correlations between testing results and legally relevant behaviors. Testing results and generated hypotheses should be corroborated with archival or third-party data. Corroboration is crucial in forensic contexts because examinees may knowingly or unknowingly present themselves in a manner that helps their legal situation. Third-party data are often more important than testing in cases that involve retrospective inquiries about a person's prior psychological functioning (i.e., criminal responsibility evaluations). Finally, examiners should be concerned about how the selected test will be received by the legal system and should take pains to ensure that the test and its applicability to the legal question at hand are fully explained. The volume of tests that may be used in forensic settings is so vast that it is impossible to mention all types or examples. However, three general classifications exist, reflecting the degree of direct relevance the test has to a specific legal issue.

The first category includes tests and assessment techniques that were developed for the assessment, diagnosis, and/or treatment planning of nonforensic populations in primarily therapeutic contexts. Research has shown that in addition to clinical interviewing, this test category is the one most commonly used in forensic assessment. However, despite their widespread use, caution is advised when selecting these tests to aid in forensic assessment. Conventional psychological tests have limited use in forensic contexts because they were not devised to address psycholegal questions and typically do not use forensic populations in their development or validation. If such tests are used, it is essential that the link between the test and the legal issue at hand be adequately established. Examples of this category include tests to measure achievement, personality, or intellectual ability (e.g., Woodcock Johnson Tests of Achievement–Third Edition, Personality Assessment Inventory, Wechsler Adult Intelligence Scale–III).

The second category includes tests that were not specifically developed for addressing legal issues but are considered to be forensically relevant in that they address clinical constructs that are often pertinent to persons involved in legal situations. Perhaps the most popular of forensically relevant instruments are measures that assess an examinee's response style, specifically evaluating minimization or feigning of problems (e.g., Minnesota Multiphasic Personality Inventory–II or Structured Interview of Reported Symptoms). Other forensically relevant instruments include tests that may help in child custody assessments (e.g., Parenting Stress Index) or measures of psychopathy (e.g., Hare Psychopathy Checklist–Revised).

Forensic assessment instruments designed to address specific legal issues comprise the third category. These tests are directly relevant to the assessment of psycholegal capacities, abilities, or knowledge. Such instruments can enhance the quality of a forensic assessment by providing relatively standardized assessment procedures and methods for classifying or quantifying an examinee's responses. The use of forensic assessment instruments may serve to reduce examiner bias and/or error and may allow for meaningful comparisons over time or between different examiners. Forensic assessment instruments range from simple interview guides that help structure interviews around the appropriate legal issues to instruments that are constructed and validated with a solid research base. In conjunction with the rise in forensic assessment and the need for psychological input in legal cases, the development and validation of specialized forensic assessment instruments is becoming more critical.

Forensic assessment instruments exist in most areas of forensic assessment. For example, the Inwald Personality Inventory was developed to assess police officer candidates for behavior and maladjustments that might negatively affect their performance as police officers. The Jail Screening Assessment Tool

was developed to identify inmates during intake who may require a more formal mental health assessment. In addition to their usefulness in law enforcement and correctional settings, forensic assessment instruments are especially prevalent in civil, quasi-criminal, and criminal settings. Instruments in civil settings include measures of parenting capacity, daily decision making, and competency to consent to research or manage health care decisions (e.g., MacArthur Competence Assessment Tool for Treatment). Quasi-criminal settings that use forensic assessment instruments are primarily juvenile justice proceedings. The majority of forensic assessment instruments used with juveniles were designed primarily for use with adults (e.g., Competence Assessment for Standing Trial for Defendants with Mental Retardation), although instruments created specifically for addressing forensic issues with juveniles are on the rise (e.g., Juvenile Adjudicative Competence Interview). Forensic assessment instruments are most well-known for their use in adult criminal court settings and are especially prevalent in the area of competency to stand trial (e.g., Fitness Interview Test–Revised, MacArthur Competence Assessment Tool–Criminal Adjudication, and Evaluation of Competence to Stand Trial–Revised), although measures exist for other areas of criminal forensic assessment (e.g., Grisso's Instruments for Assessing Understanding and Appreciation of *Miranda* Rights and Rogers Criminal Responsibility Assessment Scales).

A marked increase in commercially available forensically relevant and forensic assessment instruments has occurred in recent years, with this trend showing no signs of slowing down. Measures have been developed and published in two ways. The first is more methodical and scientific in that a test is made commercially available only after it has been researched, peer-reviewed, and refined with the normative data collected. The second, and more questionable, method involves publication of an instrument after only preliminary research has been conducted. Prevailing testing standards and the SGFP caution against the use of tests that have not undergone adequate research and development.

In addition to these cautions, each state has varying requirements for the admissibility of expert testimony. Until recently, the standard employed by all states was that established in *Frye v. United States* (1923), whereby the tests used in reaching expert opinions must have "general acceptance" in the field. In many states, the *Frye* standard was supplemented by the standards established in three, more recent cases, *Daubert v. Merrell Dow Pharmaceuticals* (1993), *General Electric Co. v. Joiner* (1997), and *Kumho Tire Company v. Carmichael* (1999). These three cases increased the number of challenges made by attorneys regarding the instruments used by clinicians in reaching their expert opinions. Admissibility standards associated with these cases include increased scrutiny of the development, reliability, validity, peer review, and general acceptance of the tests or instruments used in forming expert opinions.

Virginia G. Cooper

See also Adjudicative Competence of Youth; Capacity to Waive Rights; Child Custody Evaluations; Civil Commitment; Competency, Foundational and Decisional; Criminal Responsibility, Assessment of; Ethical Guidelines and Principles; Fitness-for-Duty Evaluations; Juvenile Offenders; Malingering; Risk Assessment Approaches

Further Readings

American Association for Correctional Psychology. (2000). Standards for psychology services in jails, prisons, correctional facilities, and agencies. *Criminal Justice and Behavior, 27,* 433–493.

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999). *Standards for educational and psychological testing* (3rd ed.). Washington, DC: American Educational Research Association.

American Psychological Association. (2002). Ethical principles of psychologists and code of conduct. *American Psychologist, 57,* 1060–1073.

Archer, R. P., Buffington-Vollum, J. K., Stredny, R. V., & Handel, R. W. (2006). A survey of psychological test use patterns among forensic psychologists. *Journal of Personality Assessment, 87,* 84–94.

Committee on Ethical Guidelines for Forensic Psychologists. (1991). Specialty guidelines for forensic psychologists. *Law and Human Behavior, 15,* 441–448.

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

General Electric Co. v. Joiner, 522 U.S. 136, 118 S. Ct. 512 (1997).

Grisso, T. (1998). *Forensic evaluation of juveniles.* Sarasota, FL: Professional Resource Press.

Grisso, T. (Ed.). (2003). *Evaluating competencies: Forensic assessments and instruments* (2nd ed.). New York: Kluwer Academic.

Heilbrun, K., Marczyk, G., & DeMatteo, D. (2002). *Forensic mental health assessment: A casebook.* New York: Oxford University Press.

Kumho Tire Company v. Carmichael, 526 U.S. 137 (1999).

Melton, G. B., Petrila, J., Poythress, N. G., & Slobogin, C. (1997). *Psychological evaluations for the courts: A handbook for mental health professionals and lawyers* (2nd ed.). New York: Guilford Press.

Rogers, R. (Ed.). (1997). *Clinical assessment of malingering and deception* (2nd ed.). New York: Guilford Press.

Rogers, R., & Shuman, D. W. (2005). *Fundamentals of forensic practice: Mental health and criminal law.* New York: Springer.

Weiner, I. B., & Hess, A. K. (Eds.). (2006). *The handbook of forensic psychology* (3rd ed.). New York: Wiley.

G

Georgia Court Competence Test (GCCT)

The evaluation of competence to stand trial is by far the most common forensic evaluation conducted. It has been estimated that there are between 24,000 and 60,000 of these evaluations carried out across the United States each year. This entry describes the Georgia Court Competence Test (GCCT), an instrument used to assess competence to stand trial. The GCCT may best be used as a screening instrument at institutions that process numerous defendants each day. In this role, the GCCT can direct services to individuals who are showing clear signs that they may be incompetent to stand trial at that time. For the assessment of competence to stand trial during a criminal proceeding, however, a much more comprehensive evaluation is necessary.

In the landmark case of *Dusky v. United States,* the U.S. Supreme Court (USSC) established the legal standard for competence to stand trial. The USSC stated that "the test will be whether [the defendant] has sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding, and whether he has a rational as well as a factual understanding of the proceedings against him." The court did not define the procedure for determining competence, and as a result, mental health professionals assess this construct in a variety of ways, including the use of forensic assessment instruments—for example, the GCCT. The current version of the GCCT is a 21-item interview that assesses a defendant's knowledge of very basic information related to competence to stand trial. Although the test has been available for 27 years, research on the measure is limited, and recently, it was recommended that it be used only as a checklist to identify potential areas of concern.

In all evaluations of competence to stand trial, the defendant is required to answer questions related to the trial process. Defendants' ability to communicate with counsel, to understand their legal proceeding and their role as a defendant, and to make relevant legal decisions are areas that are investigated. Research conducted over the past 20 years has demonstrated that these issues are best evaluated when one or more standardized measures of competence to stand trial are included in the evaluative process. One such measure is the GCCT, created in 1980 by Robert W. Wildman and colleagues.

The initial version of the GCCT consisted of 17 items and was developed as a screening instrument that would differentiate defendants who were clearly competent from those who required further evaluation. The instrument requires approximately 10 minutes to administer and score and is conducted in an interview format. The most recent version of the GCCT, known as the Mississippi State Hospital Revision (GCCT–MSH), consists of 21 questions that fall into three broad domains: (1) knowledge of the courtroom and legal proceedings, (2) knowledge of current charges and associated penalties, and (3) relationship with counsel. Like the original measures, the GCCT–MSH is accompanied by a pictorial representation of the courtroom, on which the defendant is asked to identify where courtroom personnel will sit during the trial. The measure is scored out of 100 (raw score

multiplied by 2), and the recommended cut score is 69 or below; defendants who score in this range are recommended for further evaluation.

Research conducted on the GCCT–MSH has been limited, but that which is available suggests that the measure has good interrater reliability, has good internal consistency, and can be effective as a checklist to identify potential deficits in functional abilities. Three studies have looked at the factor structure of the GCCT–MSH, and the findings have indicated a lack of stability; consequently, the exact domains that are assessed by GCCT–MSH are not clear.

Much of the commentary regarding the utility of the GCCT–MSH relates to the narrow focus of the measure, specifically the almost exclusive focus on foundational competence (e.g., the ability to understand the purpose and process of the criminal proceedings) to the near exclusion of decisional competencies (e.g., knowledge of the legal options, capacity to engage in rational deliberations regarding legal strategy). Numerous scholars have discussed the relative importance of decisional competencies over foundational competencies, and they contend that foundational competence does not adequately capture what is required to demonstrate competence. Instead, they argue that it is the defendants' ability to function within the context of their own legal proceedings that is of paramount importance.

In addition to the narrow focus of the measure, concerns regarding the face validity of the GCCT–MSH have been raised and addressed in the literature. In 1995, Shayna Gothard and colleagues created the Atypical Presentation Scale to the GCCT–MSH. This scale is composed of 8 items that are scored on a 3-point scale (0 = *no*, 1 = *qualified yes*, 2 = *definite yes*). In the original study, scores of 6 or higher suggested atypical responding and the need for a more comprehensive evaluation of malingered incompetence. A more recent study indicated that the original cut score was too stringent, and it was suggested that the cut score be lowered to 3 or higher, or perhaps even 1 or higher.

The utility of the GCCT–MSH is limited to screening for possible concerns regarding the competence of the defendant. Although a cut score of 69 has been the recommendation for a further evaluation of competence to stand trial, this score should never be used as the sole criterion for such a determination. Like all forensic assessment instruments, the GCCT–MSH plays a small and unique role in the comprehensive evaluation of a defendant.

Karen L. Salekin

See also Competency to Stand Trial; Forensic Assessment; Presentence Evaluations

Further Readings

Bonnie, R. (1992). The competency of criminal defendants: A theoretical reformulation. *Behavioral Sciences and the Law, 10,* 291–316.

Dusky v. United States, 362 U.S. 402 (1960).

Gothard, S., Rogers, R., & Sewell, K. W. (1995). Feigning incompetency to stand trial: An investigation of the GCCT. *Law and Human Behavior, 19,* 363–373.

Rogers, R., Ustad, K. L., Sewell, K. W., & Reinhart, V. (1996). Dimensions of incompetency: A factor analytic study of the Georgia Court Competency Test. *Behavioral Sciences and the Law, 14,* 323–330.

Grisso's Instruments for Assessing Understanding and Appreciation of *Miranda* Rights

The Instruments for Assessing Understanding and Appreciation of *Miranda* Rights were originally developed in the 1970s by Thomas Grisso as a research tool to inform public policy about juveniles' and adults' capacities to waive rights. The tool, composed of four distinct instruments, was subsequently adopted for use in juvenile and adult forensic evaluations, and the instruments were published for clinical use in 1998. A revised version of the instruments, the *Miranda* Rights Comprehension Instruments–II, has been developed and normed, and the manual is in preparation.

Development and Purpose

Grisso organized an expert panel of lawyers and psychologists to offer comments about, and reach a consensus on, the organization of the instruments, item structure, and scoring criteria. In 1980, Grisso published the results of a large-scale study employing these instruments and, in that article, included the instruments' norms and psychometric properties.

Although the instruments were designed for research purposes, their clinical utility quickly became apparent. The U.S. Supreme Court, in *Miranda v. Arizona* (1966), established that a valid waiver of rights must be

provided *knowingly* (i.e., the suspect must demonstrate a factual understanding of the rights' meanings), *intelligently* (i.e., the suspect must demonstrate an appreciation of the consequences of waiving those rights), and *voluntarily* (i.e., the defendant must waive his or her rights without police coercion or intimidation).

Courts typically apply the *totality of circumstances* test to determine the validity of a suspect's waiver by considering multiple factors related to interrogation conditions (e.g., length of the interrogation) and suspect characteristics (e.g., age, intelligence, prior criminal history). The Instruments for Assessing Understanding and Appreciation of *Miranda* Rights may be used to provide a standardized assessment of a suspect's capacities related to the knowing and intelligent requirements of a valid waiver.

In addition to providing a reliable measure of an examinee's understanding and appreciation of *Miranda* rights through the use of standardized administration and scoring criteria, the Instruments for Assessing Understanding and Appreciation of *Miranda* Rights were created with sensitivity to developmental and contextual factors. For instance, visual stimuli are used for many items to maintain examinees' attention. In addition, because of the limited reading and verbal expressive skills of many adolescent and adult offenders, all items are read aloud, and examinees are offered multiple ways of demonstrating their knowledge.

Descriptions of Instruments

The measure is composed of the following four discrete instruments:

1. *Comprehension of* Miranda *Rights (CMR)* assesses an examinee's basic understanding of the four *Miranda* warnings. Each warning is read allowed to the examinee, and the examinee is asked to paraphrase each warning. Examinees' responses are scored 0 (*inadequate*), 1 (*questionable*), or 2 (*adequate*), and standardized questions are provided to probe questionable and inadequate responses. Total scores can range from 0 to 8, and administration requires approximately 15 minutes.

2. *Comprehension of* Miranda *Rights–Recognition (CMR–R)* also assesses an examinee's basic understanding of the four *Miranda* warnings but does so without relying on verbal expressive skills. Each warning is presented with three preconstructed sentences, and an examinee must determine whether the meaning of each preconstructed sentence is semantically identical to the associated warning. Scoring is bimodal, 0 for incorrect responses and 1 for correct responses. Total scores can range from 0 to 12. Administration requires approximately 5 to 10 minutes.

3. *Function of Rights in Interrogation (FRI)* assesses more than basic understanding by targeting an examinee's appreciation of the significance of the *Miranda* warnings. Four separate illustrations of police, legal, and court proceedings are each accompanied by a short vignette. After reading each vignette, the examiner asks questions about the boy in the vignette (e.g., what he should tell his lawyer, what would happen if he does not talk to the police). There are 15 standardized questions that assess appreciation of three areas: the adversarial nature of police interrogation (NI subscale), the advocacy role of attorneys (RC subscale), and the entitlement to the right to silence (RS subscale). Scoring for the FRI employs the same 0-to-2 scale as the CMR; total scores can range from 0 to 30. Administration requires about 15 minutes.

4. *Comprehension of* Miranda *Vocabulary (CMV)* assesses understanding of six vocabulary words that are typically used in *Miranda* warnings: *consult, attorney, interrogation, appoint, entitled,* and *right.* Initially, nine words were included in the CMV. However, the vast majority of participants in a pilot study adequately understood three of the words, and consequently, those three words were discarded. To administer the CMV, the examiner shows a vocabulary word to the examinee while reading it aloud, using it in a sentence, and repeating it. The examinee is then asked to define the word. Scoring procedures are identical to those of the CMR and FRI, and the total score may range from 0 to 12 points. Administration time is approximately 10 minutes.

Application, Interpretation, and Acceptability

The instruments are appropriate for delinquent and nondelinquent youths aged 10 to 17 and for offending and nonoffending adults. There is no overall *Miranda* comprehension score, because the instruments were designed to assess different aspects of comprehension. Instead, scores on each instrument can be compared with the established absolute or relative standard. To meet the minimal absolute standard, an examinee must not have any *inadequate*, or 0-point, responses. To meet a higher absolute standard, an examinee must achieve all *adequate*, or 2-point, responses. To assess

an examinee's scores using a relative standard, scores can be compared against norms.

The instruments have been strongly endorsed by forensic psychologists and are considered the gold standard by licensed clinical psychologists for use in forensic evaluations of capacities to waive *Miranda* rights. For instance, one survey of 64 diplomates of the American Board of Forensic Psychology revealed that these instruments, along with the Wechsler Adult Intelligence Scale–III (WAIS–III), were the only traditional or forensic assessment instruments that were recommended for use in *Miranda* rights evaluations by the majority of surveyed psychologists.

Although these instruments are well respected by experts in the field, several limitations should be considered. First, the instruments provide only an estimate of the examinee's understanding and appreciation of his or her rights at the time of the evaluation. Questions about the validity of a *Miranda* waiver typically are not raised at the time the waiver is offered, and a great deal of time may pass between the waiver and the evaluation. Thus, the examinee's understanding and appreciation of the *Miranda* rights may have changed in the interim as a result of discussions with the attorney, maturation, or experience.

Furthermore, although the instruments provide information about capacities related to the knowing and intelligent requirements of a valid *Miranda* waiver, they do not measure the validity of the waiver. Rather, the evaluator can use data from the instruments to inform the court about an examinee's capacities to understand and appreciate his or her rights. The court may then use this information, in conjunction with other factors considered in the *totality of circumstances* test, to determine the ultimate question of waiver validity.

Revised Instruments

Grisso's original instruments were developed nearly three decades ago using the language of the *Miranda* warnings in Saint Louis County, Missouri, the location of the instruments' development. Although there is no standardized wording of the *Miranda* warning, the language used in most jurisdictions today is far simpler than the warnings used in Grisso's instruments. In addition, many jurisdictions today include a fifth warning, informing suspects that they have the right to stop questioning at any time during a custodial interrogation to ask for an attorney.

To maintain the utility of the instruments, Naomi E. Sevin Goldstein, Lois Oberlander Condie, and Thomas Grisso have developed a revised version, the Miranda Rights Comprehension Instruments–II (MRCI–II). In addition to simplifying the wording of the rights and including the fifth warning, the updated instruments include additional vocabulary words in the CMVs and a supplemental instrument, Perceptions of Coercion During Holding and Interrogation Procedures (P–CHIP), designed to assess self-reported confession behavior in a variety of holding and interrogation situations. Research on the revised instruments has established updated norms for the 21st century, and the MRCI–II manual is in preparation.

Naomi E. Sevin Goldstein, Rachel Kalbeitzer, and Heather Zelle

See also Capacity to Waive Rights; Forensic Assessment; Juvenile Offenders

Further Readings

Goldstein, N. E. S., Condie, L. O., & Kalbeitzer, R. (2005). Instruments for assessing juveniles' capacity to waive Miranda rights. In T. Grisso, G. Vincent, & D. Seagrave (Eds.), *Mental health screening and assessment in juvenile justice* (pp. 357–369). New York: Guilford Press.

Grisso, T. (1998). *Instruments for assessing understanding and appreciation of Miranda rights.* Sarasota, FL: Professional Resource Press.

Miranda v. Arizona, 384 U.S. 436 (1966).

Guardianship

Guardianship is the process by which one individual (a legal guardian) is appointed by a court to care for the personal and property interests of another individual (a ward) in situations where the latter is unable to function independently. Guardians are appointed to represent children, developmentally disabled and mentally ill adults, and the elderly who have been deemed legally incompetent and to make decisions on their behalf. The appointment of a guardian represents a critical point in a ward's life as it essentially rescinds that person's right to make independent decisions.

Judges often rely on input from psychologists or other mental health professionals to help them determine whether guardianship is appropriate. Ideally, family members or close friends are appointed as guardians, keeping the ward's best interests in mind, though this is not always the case.

Guardianship statutes originate from the doctrine of parens patriae, which gives to the state the right and duty to protect people who cannot care for themselves due to infancy, disability, or incapacity. The request for guardianship often comes from a family member who petitions a court to be allowed to make decisions concerning a relative, though public guardians are sometimes appointed to represent the interests of wards who have no relatives or friends to assume that role. The appointment of a guardian essentially rescinds an individual's right to independence and self-determination and can result in the loss of freedom to make decisions about financial matters, health care, housing, education, employment, purchases and sales of property, travel, and marriage and divorce.

Guardianship practices are dictated by state statutes rather than by federal laws, resulting in subtle differences in the type and scope of guardianship arrangements, though nearly all statutes distinguish between protection of an individual and protection of an estate (in some jurisdictions, these responsibilities are termed *guardianship* and *conservatorship*, respectively) and between full (or "plenary") guardians, who make critical decisions in all realms of a ward's life, and partial (or "limited") guardians, who may act only in restricted domains as determined by a court. The intent of limited guardianship is to preserve a ward's autonomy as much as possible so that he or she may continue to function independently.

Guardianship of Children

In most jurisdictions, parents of a minor child are the legal guardians of that child, and they can designate the person or persons who would replace them in the event of their death. On occasion, parents are unable to care for and nurture their children, and the children are removed from their homes and placed in foster care. When neither reunification nor adoption appears to be feasible, alternative permanency options must be explored. Often, these arrangements involve a relative or a foster parent assuming the role of legal guardian of the minor child. In fact, kin care providers make up a large proportion of appointed guardians of children. Under ideal circumstances, that arrangement provides a more stable environment for the child and also allows retention of connections to the birth family (legal guardianship does not require the termination of parental rights), which can enhance the general well-being of many children. If and when their circumstances change, birth parents can ask a court to vacate guardianship and to return the child to their custody.

The Adoption and Foster Care Analysis and Reporting System monitors trends in the guardianship of children and the characteristics of children transferred from foster care to guardianship arrangements. Compared with children who are adopted, those who become wards tend to be older and are more likely to be members of a minority group.

Guardianship of Adults

It is estimated that more than 1,250,000 adult citizens have had guardians appointed on their behalf. An important milestone occurs when a young person reaches the age of majority and parental rights are transferred from the parent to the child, unless the child has been deemed incompetent. Family members of disabled or incompetent individuals often petition for guardianship at this critical juncture. A prime concern is that the ward is unable to make wise financial decisions. The severity of the ward's disability determines the scope of guardianship: Those with only mild impairments are likely to have a limited guardian, and those with severe impairments are likely to have a full guardian.

As our population ages, the number of adults with chronic diseases, functional impairments, and dementia will increase as well. Thus, guardianship is an important mechanism for protecting older adults who cannot care for themselves. In assessing the need for guardianship of an elderly person, a court must decide whether that individual has the ability to manage daily activities and to make important decisions independently. Because the loss of decisional autonomy can have serious consequences for some elderly wards, affecting their mental health, sense of personal control, and physical well-being, some commentators have suggested that guardianship should always be considered as a last resort.

Psychological Issues

Guardianship raises a number of interesting and complex psychological issues. The first concerns the difficulty

of assessing competence and determining the appropriateness of guardianship, especially in cases involving older adults whose functional and cognitive abilities and limitations fluctuate. Judges must balance an individual's right to self-determination against that person's and society's need to be protected. To assist them in these decisions, judges rely on evaluative data provided by medical or mental health professionals who have examined the proposed ward and may have conducted various psychological tests. Unfortunately, these evaluations often lack important information concerning diagnosis, prognosis, the strengths of the proposed ward, and his or her preferences.

A second concern is the ability of guardians to protect their wards without exceeding the bounds of their authority while also promoting the choices that the wards would make for themselves. Some data suggest that surrogate and proxy decision makers have difficulty predicting the choices and describing the status of the persons they represent.

A third issue concerns the impact of guardianship on the lives of the ward and the petitioner—namely, the extent to which guardianship enhances psychological and physical well-being. Undoubtedly, many people who become wards fare better with assistance than they would without, particularly in cases where abuse, neglect, or exploitation precipitated the petition. However, data also suggest that some older wards have felt angry, resentful, agitated, and upset by the guardianship proceedings and that the appointment of a guardian does not necessarily protect all of the interests of younger people with disabilities.

Edith Greene

See also Financial Capacity; Proxy Decision Making; Testamentary Capacity

Further Readings

Lisi, L., Burns, A., & Lussenden, K. (1994). *National study of guardianship systems: Findings and recommendations.* Ann Arbor, MI: Center for Social Gerontology.

Millar, D., & Rengazlia, A. (2002). Factors affecting guardianship practices for young adults with disabilities. *Exceptional Children, 68,* 465–484.

Moye, J. (2003). Guardianship and conservatorship. In T. Grisso (Ed.), *Evaluating competencies: Forensic assessments and instruments* (pp. 309–389). New York: Kluwer Academic/Plenum.

Testa, M. (2004). When children cannot return home: Adoption and guardianship. *The Future of Children, 14,* 114–129.

Wilber, K., Reiser, T., & Harter, K. (2001). New perspectives on conservatorship: The views of older adult conservatees and their conservators. *Aging Neuropsychology and Cognition, 8,* 225–240.

Gudjonsson Suggestibility Scales

The Gudjonsson Suggestibility Scales (GSS 1 and GSS 2) are clinical instruments designed to assess levels of interrogative suggestibility. The scales provide a total score for suggestibility based on responses to leading questions and negative feedback. They also provide measures of memory recall and confabulation. The scales are used in forensic assessments and are also useful research tools, as they provide a quantifiable measure of levels of interrogative suggestibility and an extensive range of norms against which various hypotheses can be tested.

Description

Gisli Gudjonsson developed two scales of interrogative suggestibility designed to be used as forensic tools to help assess the reliability of confessions that have been retracted. The scales also help identify those individuals who may be particularly vulnerable to the pressures associated with police interviews and who, as a result, may require extra care during interviewing. As well as their clinical applications, the scales are also used for research purposes to investigate the social psychological processes that influence the levels of interrogative suggestibility. The GSS 1 and the GSS 2 are identical in structure; each comprises a spoken narrative and 20 questions about that narrative. The content of the GSS 2 narrative is less complex than that of the GSS 1 narrative, and for this reason, the GSS 2 is more commonly used with children or adults with learning disabilities. The scales are therefore parallel in form and produce closely comparable norms.

Administration

The narratives each contain 40 distinct pieces of information. Of the 20 questions for both scales, 15 are

misleading, suggesting details that are not part of the narrative, and 5 are "true" questions, containing no misleading information. These 5 true questions are interspersed with the misleading or suggestive questions. Administration of the scales initially involves presentation of the narrative to the interviewee; the test administrator, or interviewer, reads out the narrative at a steady pace. Following this, the interviewee is asked to provide immediate free recall of the narrative. There is then a 50-minute delay, followed by the interviewee's providing delayed recall of the narrative. The 20 questions about the narrative are then asked. When all the questions have been answered, the interviewer gives the interviewee negative feedback. Regardless of level of accuracy, interviewees are told that they have made some mistakes and that it will be necessary to repeat the questions, and they are urged to try and be more accurate. This negative feedback is to be delivered both clearly and firmly so as to convey an appropriate level of interrogative pressure to the interviewee.

Scoring

Immediate recall and delayed recall are scored according to how many discrete pieces of information are recalled correctly. Information is scored as correct if the meaning is the same as the original item in the narrative. Each correct item earns 1 point, with the maximum score being 40. There is also a score given for Total Confabulation, which comprises a count of the number of distortions and fabrications included when recalling the narrative. A distortion represents a major change to an existing piece of information from the narrative, whereas a fabrication is the introduction of new material. There are four suggestibility scores obtained from the scales: Yield 1 is a measure of all leading questions that are answered affirmatively in the first round of questioning, with the range of possible scores being 0 to 15; Yield 2 is the number of leading questions accepted following the administration of the negative feedback, and again the range of scores is 0 to 15; Shift is a measure of any distinct changes in response to all 20 questions in the second round of questioning, with a range of 0 to 20; and Total Suggestibility is the sum of Yield 1 and Shift, giving a range of 0 to 35.

Reliability and Validity

Factor analysis of the GSS 1 and GSS 2 questions shows two clear factors, with items loading significantly on the appropriate Yield or Shift factors. The scoring of Yield and Shift are nondiscretionary in nature, and studies assessing interscorer reliability confirm that it is very high. Interscorer reliability for immediate and delayed recall is also very high. Scoring of confabulation is slightly less reliable, although correlations show that this is still relatively high. Owing to the nature of the scales, it is not possible to assess test-retest reliability within each scale, as any memory of the narrative and questions affects subsequent testing. However, comparison of the scores of individuals who have completed both the GSS 1 and the GSS 2 has shown high correlations. The scales can therefore be said to have temporal consistency.

Research

There has been extensive research using the scales to test the hypotheses derived from the theoretical model of interrogative suggestibility. The model postulates that interrogative suggestibility is largely dependent on individuals' cognitive appraisal of the interrogative situation. Research using the scales confirms that suggestible responding is related to cognitive abilities. For example, several studies have demonstrated that GSS scores are negatively related to intelligence and positively correlated with memory capacity. Studies have also shown that increases in the perception of psychological distance between the interviewer and the interviewee are related to increases in scores on the scales. Other research has demonstrated that there are intra-individual differences, such as self-esteem and self-monitoring, that also affect responses on the scales. The research using the scales demonstrates that interrogative suggestibility is a complex response mediated by a range of cognitive and social psychological processes.

Stella A. Bain

See also Competency to Confess; False Confessions; Forensic Assessment; Interrogation of Suspects; Postevent Information and Eyewitness Memory; Test of Memory Malingering (TOMM)

Further Readings

Bain, S. A., Baxter, J. S., & Ballantyne, K. (2007). Self-monitoring style and levels of interrogative suggestibility. *Personality & Individual Differences, 42,* 623–630.

Bain, S. A., Baxter, J. S., & Fellowes, V. (2004). Interacting influences on interrogative suggestibility. *Legal and Criminological Psychology, 9,* 239–252.

Gudjonsson, G. H. (2003). *The psychology of interrogations and confessions. A handbook.* Chichester, UK: Wiley.

Woolston, R., Bain, S. A., & Baxter, J. S. (2006). Patterns of malingering and compliance in measures of interrogative suggestibility. *Personality & Individual Differences, 40,* 453–461.

Guilty but Mentally Ill Verdict

The guilty but mentally ill (GBMI) verdict is a verdict option that enables juries and judges to find a defendant guilty of committing an offense while formally acknowledging that the defendant has a mental illness. The GBMI does not usually replace the insanity defense standard but presents an additional verdict option. The GBMI verdict has met with sound criticism and little empirical support; nonetheless, 20 states have adopted it.

Although the idea of holding mentally ill people "guilty" for their criminal acts has been brewing for some time, the single event that brought the guilty but mentally ill verdict to fruition may have been the Michigan Supreme Court's decision in *People v. McQuillan* (1974). In this case, the court held that it is unconstitutional to detain people who have been found not guilty by reason of insanity (NGRI) for indefinite periods, insofar as it violates their due process and equal protection rights. After some crimes were committed by those found NGRI and later released, the Michigan Legislature passed a law in 1982 introducing a new verdict—GBMI.

A defendant who receives a GBMI verdict is sentenced in the same way as if he or she were found guilty. The court then determines whether and to what extent the defendant requires treatment for mental illness. When, and if, the defendant's mental illness is deemed to have been stabilized, the offender is required to serve out the rest of his or her sentence. This is different from the case of individuals who have been found NGRI. In those cases, the insanity-defense acquittee is released from psychiatric commitment once he or she is deemed to be no longer dangerous.

Essentially, the GBMI verdict holds defendants criminally responsible for their acts but recognizes that the defendant is mentally ill. The GBMI verdict is typically employed as an option in addition to the NGRI and guilty verdicts, leaving it to the jury to decide, for example, if the defendant should be found guilty, not guilty, NGRI, or GBMI. The rationale for introducing the GBMI option was to reduce the number of insanity acquittals in Michigan and to prevent the early release of NGRI acquittees, which legislators feared would occur following the *McQuillan* case. The GBMI plea has been termed an "in-between classification," since defendants are neither acquitted nor found guilty in the traditional sense.

The introduction of the GBMI verdict has produced a rather tumultuous controversy. Proponents of the GBMI verdict assert that it provides for necessary treatment of mentally ill defendants while still ensuring that those defendants are punished for their crimes. Other supporters argue that the GBMI verdict protects the public because mentally ill defendants serve the remainder of their sentence in prison after they are well, which would not happen with defendants found not guilty by reason of insanity.

Some commentators argue that the verdict has been successful because it allows defendants to be held criminally responsible for their actions while also enabling them to seek treatment. In sharp contrast to these benefits, critics argue that the GBMI verdict is simply an overreaction to a problem that really does not exist—that is, that the insanity defense does not allow dangerous defendants to simply "get off." Moreover, research has not shown a reduction in the use of the insanity defense in states where the GBMI verdict has been introduced.

Similarly, critics argue that the GBMI verdict serves no necessary purpose and is a misleading verdict, introduced because of purely political reasons. It is argued that the verdict only confuses jurors and enables them to find a disproportionate number of defendants "guilty." Indeed, some mock jury research has found that mock jurors tend to use the GBMI verdict as a "compromise" verdict where members of the jury are torn between finding a defendant guilty or finding the defendant NGRI.

Perhaps the most significant criticism of the GBMI verdict is that the jury, when instructed about their verdict options, are not informed about the consequences of a finding of GBMI. Given the dearth of treatment

services available for people in prisons with mental illnesses and the disproportionate number of prisoners who suffer from a mental illness, the reality is that many people with mental illnesses do not receive the treatment they require when they are in prison—regardless of whether they have been found GBMI or not.

Despite the criticisms of the GBMI verdict and the general lack of support for it, the verdict has proven quite popular with politicians. Since its inception 25 years ago, at least 20 states have enacted GBMI provisions.

James R. P. Ogloff

See also Insanity Defense Reform Act (IDRA); M'Naghten Standard

Further Readings

Blunt, L. W., & Stock, H. V. (1985). Guilty but mentally ill: An alternative verdict. *Behavioral Sciences and the Law, 8,* 49–67.

Melville, J. D., & Naimark, D. (2002). Punishing the insane: The verdict of guilty but mentally ill. *Journal of the American Academy of Psychiatry and Law, 30,* 553–555.

People v. McQuillan, 392 Mich. 511, 221 N.W.2d 569 (1974).

H

HALLUCINATIONS

Hallucinations are abnormal sensory perceptions of stimuli that occur in the absence of external stimuli. Hallucinations can be visual, auditory, tactile, olfactory, or gustatory. There are numerous disorders that are associated with hallucinations, including, but not limited to, schizophrenia, posttraumatic stress disorder (PTSD), substance use and withdrawal, and mood disorders. To determine appropriate treatment, the etiology of the hallucinations must be ascertained by conducting a thorough medical history, psychological assessment, and, if warranted, imaging studies.

Definition

Hallucinations can be defined as conscious abnormal sensory perceptions that do not have a source in the outside world. Hallucinations can involve one or more senses, including visual, auditory, gustatory, olfactory, or tactile. People who experience hallucinations report experiences such as seeing things that aren't there, hearing voices that no one else can hear, feeling that there is something crawling on their skin, smelling things that no one else can smell, or tasting things that other people cannot taste.

In one study, Johns and colleagues found that prevalence of hallucinations in a community sample ranged from 2% to 10%. There is currently no evidence that hallucinations occur more frequently in some racial or ethnic groups than in others, and gender does not appear to affect the presence or frequency of hallucinations.

Disorders Associated With Hallucinations

Hallucinations are associated with numerous disorders, illnesses, and states. Currently, there does not appear to be a single underlying cause that can explain all types of hallucinations. Several explanations and hypotheses have been put forth for various disorders, but to date, the causes of hallucinations are not completely understood.

Hallucinations are most commonly associated with schizophrenia, a mental illness characterized by disordered perceptions, thoughts, and behaviors. According to the National Institute of Mental Health, approximately 75% of individuals with a diagnosis of schizophrenia experience auditory hallucinations, visual hallucinations, or both. The auditory hallucinations may be command hallucinations, in which the person hears voices ordering him or her to do something.

Other disorders are that are less frequently associated with hallucinations include eye disorders such as macular degeneration or glaucoma; high fever, particularly in children and the elderly; late-stage Alzheimer's disease; migraine headaches; intoxication or withdrawal from alcohol or drugs; severe medical illness such as liver or kidney failure or brain cancer; severe mood disorders such as bipolar disorder and depression; post traumatic stress disorder; and temporal lobe epilepsy. In addition, hallucinations are also associated with normal sleep-wake cycles. Approximately one third of adults experience hypnagogic hallucinations, which occur as a person passes from wakefulness into sleep; another 10% to 12% of adults report hypnopompic hallucinations, which occur as the person is waking up.

Hallucinations and Violence

The relationship between hallucinations and violent behavior has been the subject of debate. Some research has found a modest positive relationship between hallucinations and violence, whereas other studies found no immediate relationship. Dale E. McNeil and colleagues studied the relationship between command hallucinations and violence in a sample of 130 inpatients who were diagnosed with schizophrenia. They found that 30% of the inpatients reported that they had experienced command hallucinations to hurt someone else in the past year, while 22% of the patients reported that they complied with those command hallucinations. These findings suggest that patients who experienced command hallucinations were almost twice as likely to engage in violent behavior as patients who did not experience command hallucinations. Other studies have reported compliance for command hallucinations of violence ranging from 39.2% to 88.5%. Compliance with command hallucinations has been found to be related to whether or not the person recognizes the hallucinated voice, with those recognizing the voice being more likely to obey the command.

Hallucinations and Schizophrenia

Hallucinations are most commonly associated with schizophrenia. Patients with schizophrenia may experience auditory and/or visual hallucinations. Some research suggests that auditory hallucinations can be caused by high levels of the neurotransmitter dopamine in the patient's brain. Researchers have found evidence, however, both to support and to refute the dopamine hypothesis. The evidence that most strongly supports the dopamine hypothesis comes from the effects of drugs such as amphetamines and cocaine. These drugs are known to increase the levels of dopamine in the brain and can result in psychotic symptoms, including hallucinations, when large doses are consumed over long periods. Several studies have found that when patients with schizophrenia were administered drugs that produce increased dopamine levels, up to 75% of them had significant increases in their hallucinations and psychotic symptoms, while control subjects without schizophrenia showed no effects on being administered the same drugs. Further evidence supporting the dopamine hypothesis was found following the discovery of a class of drugs known as phenothiazines, which include antipsychotic medications. These drugs bind to dopamine receptors and have been found to decrease the positive symptoms of schizophrenia, including hallucinations.

With the advent of more sophisticated brain imaging techniques such as positron emission tomography (PET) scanning, newer findings challenged the dopamine hypothesis. In PET studies with schizophrenic patients, researchers found that in some patients, more than 90% of the dopamine receptors were blocked by the antipsychotic drugs, yet there was no observed diminution in psychotic symptoms, including hallucinations. However, the patients in this study had been receiving treatment with antipsychotic medications for more than 30 years. In another study, researchers found that 90% to 95% of patients who were only recently diagnosed with schizophrenia responded to antipsychotic medications, and scans of their brains revealed that only 60% to 70% of the dopamine receptors were blocked. Finally, in recent years, atypical antipsychotic medications have been developed to treat schizophrenia. While equally as effective as the typical antipsychotic medications, these atypical antipsychotic medications block fewer of the dopamine receptors (about 60–70%). Thus, confronted by some evidence that supports and other evidence that refutes the dopamine hypothesis, research continues into the etiology of schizophrenia.

There has also been a great deal of research investigating the structural and functional abnormalities in the brains of patients with schizophrenia. Researchers have found that some people with schizophrenia have changes in the density of the brain's gray matter in the frontal and temporal lobes. If these differences in brain structure were present since birth, then they could result in dopamine hypersensitivity as described above, resulting in psychotic symptoms such as hallucinations.

Researchers have also noted abnormal patterns in brain activity among patients with schizophrenia. More specifically, abnormalities were found in the corollary discharge mechanism, which enables people to distinguish between internal and external stimuli. Studies with electroencephalograms (EEGs) of the brains of patients with schizophrenia that were taken while the patients were talking found that the corollary discharges from the frontal cortex of the brain (the area where thoughts are produced) did not provide information to the auditory cortex (the area in which sounds are interpreted) that the sounds that were detected were self-generated. Therefore, this dysfunction would lead patients with schizophrenia to perceive internal stimuli as being generated by external sources, thereby producing auditory hallucinations.

Finally, there is some evidence that auditory hallucinations may be related to tissue loss in the primary auditory cortex. The receptors in the auditory cortex process information and then send it to the thalamus, which filters the information before sending it to be decoded in the brain. These complex processes transform abstract sensory information such as sound and light waves into recognizable images and voices of the world around us. While dysfunctions in any of these structures alone would not explain the presence of hallucinations, it is possible that patients with schizophrenia may experience the malfunction of several of these neurotransmitter and receptors networks simultaneously. None of these defects alone would cause schizophrenia or trigger a psychotic episode; however, they do confer a predisposition for developing schizophrenia. Thus, individuals with these defects would be more likely to experience auditory or visual misperceptions, which would present themselves as auditory or visual hallucinations.

Hallucinations and Posttraumatic Stress Disorder

Trauma survivors who develop PTSD often report visual and auditory hallucinations. Hallucinations in trauma survivors are often referred to as *flashbacks*. During these flashbacks, the person relives the traumatic experience as if they were really there. Although these flashbacks can be described as hallucinations, they are nonpsychotic in nature. It is believed that flashbacks in patients with PTSD occur following abnormal memory formation patterns that occur during the traumatic experience. In cases of trauma, it is hypothesized that instead of being processed in the hippocampus, where memories are described using language, traumatic memories are stored in the amygdala, which stores the memory as an emotional experience. As a consequence, the traumatic memories are stored in the amygdala without words but only with intense emotions, and the memories are associated with vivid sensations and sensory perceptions that can manifest themselves as hallucinations during stressful situations.

Hallucinations and Substance Abuse

Hallucinations can be caused by overdoses of prescription drugs, illegal drugs, and alcohol or drug withdrawal. Substance-induced hallucinations seem to occur because of blocking of the action of serotonin, while phencyclidine induces hallucinations by blocking glutamate receptors. Interestingly, individuals who have used lysergic acid diethylamide (LSD) have reported flashbacks, or spontaneous hallucinations, which occur when the person is no longer taking the drug. This phenomenon is referred to as hallucinogen persisting perception disorder.

Withdrawal from alcohol can also result in hallucinations. These types of hallucinations usually occur if a chronic alcoholic suddenly stops drinking alcohol. Initially, on withdrawal, patients report auditory hallucinations, such as hearing threatening or accusatory voices. After several days of withdrawal, patients can experience delirium tremens, a condition in which they feel disoriented, depressed, and feverish and experience visual hallucinations.

Hallucinations and Mood Disorder

Hallucinations have also been associated with mood disorders. Approximately 20% of patients in the manic phase of bipolar disorder and almost 10% of patients with major depressive disorder experience auditory hallucinations. It is not clear what causes patients with mood disorders to experience hallucinations. There appears to be a genetic link, as psychotic mood states have been found to run in families. Additionally, elevated levels of the hormone cortisol have been found in patients who experience depression with psychosis.

Assessment of Hallucinations

To assess hallucinations, the general physician, psychiatrist, or psychologist should conduct a thorough medical and psychosocial examination to rule out possible organic, environmental, or psychological causes. Depending on the patient's symptoms and medical history, such an evaluation may also involve laboratory tests and imaging studies. If a psychological cause such as schizophrenia is suspected, a psychologist will typically conduct an interview with the patient and his or her family and administer one of several clinical inventories, or tests, to evaluate the mental status of the patient. This could include the Mini-Mental Status Exam (MMSE), the Psychotic Symptom Rating Scales, the Positive and Negative Syndrome Scale, or the Scale for Assessment of Positive Symptoms. A total score of 20 or lower on the MMSE is generally indicative of delirium, dementia, schizophrenia, or severe depression.

Treatment of Hallucinations

If hallucinations are related to schizophrenia or another psychotic disorder, then the patient should be under the care of a psychiatrist. For schizophrenia-related hallucinations, the patient should be prescribed antipsychotic medication such as thioridazine (Mellaril), haloperidol (Haldol), chlorpromazine (Thorazine), clozapine (Clozaril), or risperidone (Risperdal). Treatment for hallucinations that are not related to schizophrenia are dependent on the disorder associated with the onset of hallucinations and could include anticonvulsant or antidepressant medications, psychotherapy, brain or ear surgery, or therapy for drug dependence. Hallucinations related to normal sleeping and waking are considered normal and do not require intervention.

Elizabeth L. Jeglic

See also Delusions; Mental Health Courts; Police Interaction With Mentally Ill Individuals; Posttraumatic Stress Disorder (PTSD); Violence Risk Assessment

Further Readings

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Behrendt, R. P. (2006). Dysregulation of thalamic sensory "transmission" in schizophrenia neurochemical vulnerability to hallucinations. *Journal of Psychopharmacology, 20*(3), 356–372.

Johns, L. C., Nazroo, J. Y., Bebbington, P., & Kuipers, E. (2002). Occurrence of hallucinatory experiences in a community sample and ethnic variations. *British Journal of Psychiatry, 180,* 174–178.

McNeil, D. E., Eisner, J. P., & Binder, R. L. (2000). The relationship between command hallucinations and violence. *Psychiatric Services, 51,* 1288–1292.

Ohayon, M. M. (2002). Prevalence of hallucinations and their pathological associations in the general population. *Psychiatry Research, 97,* 153–164.

Hare Psychopathy Checklist–Revised (2nd Edition) (PCL–R)

The Hare Psychopathy Checklist–Revised (2nd edition, PCL–R) is a 20-item rating scale for the measurement of the clinical construct of psychopathy. Although it was designed for use in research, its explanatory and predictive features have led to its widespread use within the criminal justice system. This entry describes the development of the PCL–R, its psychometric properties, and its use in the criminal justice system.

The PCL–R had its origins in the late 1970s at a time when a variety of clinical and self-report methods were being used to define what ostensibly was psychopathy. There was little evidence that these methods were conceptually or empirically related to one another, with the result that many research findings obtained with one method could not be replicated with other methods. The development of the PCL–R (and its predecessor, the PCL) was based on a rich clinical tradition that included the writings of, among others, Benjaman Karpman, Silvano Arieti, William and Joan McCord, and, especially, Hervey Cleckley. The selection of several items and the scoring protocols was influenced by the nature of the population with which the research was being conducted, namely incarcerated offenders. Prison populations continue to offer several advantages for the study and measurement of psychopathy: high prevalence and the availability of extensive amounts of "hard" information about the individual. The latter is particularly important, given that self-disclosed information (e.g., interviews, self-reports) typically is subject to impression management and often unreliable, not only in offenders but also in the general population.

The PCL–R scoring criteria first were distributed to researchers in 1985. With the subsequent accumulation of large amounts of empirical data, the criteria and accounts of the psychometric properties of the PCL–R were formally published in 1991. This was followed by a dramatic upsurge in the use of the instrument for both basic research and applied (clinical, forensic) purposes and the publication of a greatly expanded second edition in 2003, which contains data on more than 10,000 offenders and forensic psychiatric patients. Throughout, the scoring criteria have remained unchanged to ensure conceptual and measurement continuity.

Description and Psychometric Properties

The PCL–R uses a semistructured interview, case history information, and specific scoring criteria to rate each item on a 3-point scale (0, 1, 2) according to the extent to which the criteria are judged to apply to a given individual. Total scores can vary from 0 to 40 and reflect the degree to which the individual matches the prototypical psychopath.

There is good evidence that the PCL–R is a very reliable instrument when administered and scored by trained and experienced raters. Internal consistency is high (alpha coefficient is greater than .80). The intraclass correlation (ICC) typically exceeds .80 for a single rater (ICC_1) and .90 for the average of two raters (ICC_2). The standard error of measurement (SEM) of the PCL–R total score is approximately 3 for a single rating and 2 for the average of two ratings.

The PCL–R also has good generalizability across diverse forensic populations, although there may be sex, ethnic, and cultural differences in the way some features of psychopathy are manifested. Recent research suggests that the construct underlying the PCL–R is dimensional in nature, but a cut score of 30 has proven useful as a working definition of psychopathy. The utility of cut scores for clinical and forensic purposes will be influenced by the context in which the PCL–R is used (e.g., research, diagnosis, risk assessment, treatment options).

Although there is good evidence that the PCL–R measures a unitary construct, the items can be grouped, logically and statistically, into several correlated dimensions or factors. Recent confirmatory factor analyses of very large data sets clearly indicate that a four-factor model (18 items) fits the data well: *Interpersonal* (Glibness/superficial charm, Grandiose sense of self-worth, Pathological lying, Conning/manipulative); *Affective* (Lack of remorse or guilt, Shallow affect, Lack of empathy, Failure to accept responsibility for actions); *Lifestyle* (Need for stimulation/proneness to boredom, Parasitic lifestyle, Lack of realistic long-term goals, Impulsivity, Irresponsibility); and *Antisocial* (Poor behavioral controls, Early behavior problems, Juvenile delinquency, Revocation of conditional release, Criminal versatility). Two other items (Promiscuous sexual behavior, Many short-term marital relationships) do not load on any factor but contribute to the total PCL–R score. Some commentators have suggested that the Antisocial factor is a measure of criminality and that it is a manifestation of the more central features of psychopathy. In reality, it reflects a pattern of persistent and serious rule-breaking behavior. Clinical tradition, as well as recent findings from behavioral genetics and developmental research, clearly indicates that antisocial dispositions are an integral part of the construct and its measurement.

Association With Other Measures

Psychopathy, as measured by the PCL–R, is treated by some as being equivalent with the *DSM-IV* (*Diagnostic and Statistical Manual of Mental Disorders*, fourth edition) diagnosis of antisocial personality disorder (APD). However, the diagnostic criteria for APD place greater emphasis on antisocial behaviors than does the PCL–R and are more closely associated with the Lifestyle/Antisocial components of psychopathy than with its Interpersonal/Affective features. Most of those with APD do not have high PCL–R scores (i.e., in the 30+ range). Psychopathy and APD are related but not identical constructs.

The PCL–R is moderately correlated, in expected directions, with various self-report measures of psychopathy and with several omnibus personality scales. These instruments make it easy to collect large amounts of data and are beginning to play a role in delineating and elucidating the nomological network, behavioral genetics, and developmental pathways of psychopathy. They also provide support for the view that psychopathy is an extreme variant of normal personality dimensions.

Validity

The validity of the PCL–R in the criminal justice system is well established, a reflection of the central and pervasive role of psychopathy in criminal behavior. There is extensive evidence for the explanatory power and utility of the PCL–R in the prediction of recidivism, violence, and treatment outcome in criminals and in forensic and civil psychiatric populations. The PCL–R routinely is used in risk assessments, either on its own or, more appropriately, as part of a battery of variables and factors relevant to offending and violence. Besides forensic and applied areas, evidence for the validity of the PCL–R is provided by findings obtained from a wide variety of laboratory, cognitive/affective, and neuroscience paradigms, including functional magnetic resonance imaging.

Current Issues

The widespread acceptance of the PCL–R as the principal method for assessing psychopathy and its frequent description as the "gold standard" have led some commentators to express their concern that the measure has become the construct. The remedy is to introduce and validate supplementary or improved assessment methods. A more pressing concern is the potential for misuse of the PCL–R in the forensic context. Because assessments of psychopathy can have serious consequences for the individual and society, it

is crucial that the PCL–R (and other instruments) be used in accordance with the highest professional and ethical standards and that such use be subjected to careful scrutiny by the stakeholders.

Robert D. Hare

See also Antisocial Personality Disorder; Hare Psychopathy Checklist: Screening Version (PCL:SV); Hare Psychopathy Checklist: Youth Version (PCL:YV); HCR–20 for Violence Risk Assessment; Psychopathic Personality Inventory (PPI); Violence Risk Appraisal Guide (VRAG); Violence Risk Assessment

Further Readings

Hare, R. D. (2003). *The Hare Psychopathy Checklist–Revised* (2nd ed.). Toronto, ON, Canada: Multi-Health Systems.

Hare, R. D. (2007). Psychological instruments in the assessment of psychopathy. In A. R. Felthous & H. Sass (Eds.), *International handbook on psychopathic disorders and the law* (pp. 41–67). New York: Wiley & Sons.

Neumann, C. S., Hare, R. D., & Newman, J. P. (2007). The superordinate nature of the Psychopathy Checklist–Revised. *Journal of Personality Disorders, 21,* 102–117.

Leistico, A. R., Salekin, R. T., DeCoster, J., & Rogers, R. (in press). A large-scale meta-analysis relating the Hare measures of psychopathy to antisocial conduct. *Law and Human Behavior.*

Hervé, H., & Yuille, J. (Eds.). (2007). *The psychopath: Theory, research, and practice*. Mahwah, NJ: Lawrence Erlbaum.

Hare Psychopathy Checklist: Screening Version (PCL:SV)

The Hare Psychopathy Checklist: Screening Version (PCL:SV) is a 12-item symptom-construct rating scale designed for use by expert observers to assess the lifetime presence and severity of symptoms of psychopathic personality disorder. It was derived from the Hare Psychopathy Checklist–Revised, or PCL–R. The PCL:SV is intended for use with adult males and females in a broad range of settings, including correctional, forensic psychiatric, civil psychiatric, and community settings. As its name implies, the PCL:SV also can be used in conjunction with the PCL–R as a screening test in correctional and forensic psychiatric settings, with elevated scores on the PCL:SV triggering administration of a more detailed and comprehensive assessment using the PCL–R. Because of its demonstrated association with future violence, the PCL:SV is most often used as part of a comprehensive violence risk assessment, using structured professional guidelines for assessing violence risk such as the HCR–20, the Sexual Violence Risk–20 (SVR–20), and the Spousal Assault Risk Assessment Guide (SARA).

Description and Development

Development of the PCL:SV took place between 1986 and 1994, funded in part by the John D. and Catherine T. MacArthur Foundation's Research Network on Mental Health and the Law, under the direction of John Monahan, School of Law, University of Virginia. Its development culminated in the publication of the test manual by Multi-Health Systems Inc. in 1995. Originally written in English, the test has been translated into Swedish and German.

The PCL:SV was developed to address several recognized limitations of the PCL–R. First, scale length was reduced from 20 items in the PCL–R to 12 items in the PCL:SV by combining PCL–R items with overlapping content. Second, PCL–R items defined in terms of specific socially deviant behavior were excluded from the PCL:SV. Third, PCL–R items reflecting antisocial behavior were redefined in the PCL:SV so that they could be scored without reference to an official criminal record (i.e., formal charges or convictions). Finally, item definitions were shortened from an average of about 200 words in the PCL–R to about 50 words in the PCL:SV.

Each PCL:SV item reflects a specific symptom (i.e., clinical feature) of psychopathy. Part 1 comprises 6 items that reflect an arrogant and deceitful interpersonal style and deficient affective experience. Part 2 comprises 6 items that reflect an impulsive and irresponsible behavioral style and a history of criminal conduct in adolescence and adulthood. Parts 1 and 2 are parallel to Factors 1 and 2 of the PCL–R. Items are scored on the basis of an interview and a review of case history information; in some circumstances, it may be possible to base ratings solely on case history information. Items are rated on a 3-point scale according to the lifetime presence and severity of symptoms (0 = *absent*, 1 = *possibly or partially present*, and 2 = *present*); items may also be omitted in the absence of relevant information.

Items are summed (and prorated when necessary) to yield Total scores that can range from 0 to 24, as well as scores on Parts 1 and 2 that range from 0 to 12.

PCL:SV Total and Part scores can be interpreted dimensionally, with respect to data collected from 586 people in correctional, forensic psychiatric, civil psychiatric, and community settings. Total scores also can be interpreted categorically, with scores of 18 and higher diagnostic of psychopathic; when the PCL:SV is used as a screening test, scores of 13 and higher reflect the presence of elevated psychopathic symptomatology, which may trigger a more detailed evaluation using the PCL–R.

Psychometric Evaluation

Evaluations based on classical test theory indicate that PCL:SV Total scores have good structural reliability. Mean corrected item-total correlations average about .55, mean interitem correlations average about .35, and Cronbach's alphas average about .80. Total scores also have good interrater reliability, with intraclass correlation (ICC) coefficients (based on two independent raters) averaging about .80.

Evaluations based on modern test theory also support the structural reliability of Total scores. Item-characteristic curves based on item response theory (IRT) analyses indicate that all the PCL:SV items are reasonably discriminating with respect to the latent trait and also that they discriminate across a broad range of the latent trait. Test-characteristic curves from IRT analyses indicate that test scores provide reasonable information across a broad range of the latent trait.

Exploratory factor analyses of the PCL:SV appeared to support a two-factor structure parallel to that of the PCL–R. Subsequent confirmatory factor analyses of both the PCL–R and the PCL:SV have found a hierarchical structure, in which three or four specific factors—reflecting interpersonal, affective, and behavior symptoms, plus a possible fourth factor reflecting criminality—underlie a superordinate factor of psychopathy.

Validity

The PCL:SV has good concurrent validity with respect to the PCL–R. First, IRT analyses indicate that scores on PCL:SV items are strongly related to the PCL–R items from which they were derived. Second, the correlation between Total scores on the two tests is about .90, controlling for other facets of unreliability; similarly, in IRT analyses, the correlation between latent traits on the two tests is also about .90. Third, supporting its utility as a screening test, high scores on the PCL:SV have excellent sensitivity and good specificity with respect to PCL–R diagnoses of psychopathy.

The PCL:SV has been used in a wide range of research on psychopathy, including etiological and cross-cultural research. Numerous studies have examined its predictive validity, finding that PCL:SV Total scores typically have a moderate effect size with respect to institutional and community violence in various settings.

Stephen D. Hart and
Catherine M. Wilson

See also Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); HCR–20 for Violence Risk Assessment; MacArthur Violence Risk Assessment Study; Psychopathy; Sexual Violence Risk–20 (SVR–20); Spousal Assault Risk Assessment (SARA)

Further Readings

Cooke, D. J., Michie, C. E., Hart, S. D., & Hare, R. D. (1999). Evaluating the screening version of the Hare Psychopathy Checklist–Revised (PCL:SV): An item response theory analysis. *Psychological Assessment, 11,* 3–13.

Douglas, K. S., Strand, S., Belfrage, H., Fransson, G., & Levander, S. (2005). Reliability and validity evaluation of the Psychopathy Checklist: Screening Version (PCL:SV) in Swedish correctional and forensic psychiatric samples. *Assessment, 12,* 145–161.

Hart, S. D., Cox, D. N., & Hare, R. D. (1995). *Manual for the Hare Psychopathy Checklist: Screening Version (PCL:SV).* Toronto, ON, Canada: Multi-Health Systems.

Hare Psychopathy Checklist: Youth Version (PCL:YV)

The construct of psychopathy as applied to children and adolescents has received increasing attention in recent years. Many researchers and clinicians believe that psychopathic traits and behaviors are first manifested early in life, which has led to efforts to develop measures to identify psychopathic traits early in development. The Hare Psychopathy Checklist: Youth Version (PCL:YV) is a structured assessment instrument designed to assess

psychopathic traits and behaviors in adolescents. It was adapted from the Hare Psychopathy Checklist–Revised, developed by Robert Hare, which is widely used in research, clinical, and forensic settings for the assessment of psychopathy in adults. The PCL:YV was published in 2003 to provide researchers and clinical users with a common metric to assess psychopathic traits in adolescents and to encourage systematic research. Future research and input from practitioners will play an integral role in clarifying and refining the construct, identifying the causal mechanisms, delineating the psychobiological correlates, and designing effective intervention programs.

The PCL:YV consists of 20 items that measure the interpersonal, affective, and behavioral dimensions considered to be fundamental to the construct of psychopathy. The PCL:YV manual provides a detailed item description and examples of sources of information to use when rating the item. Each item is scored on a 3-point scale: A rating of 2 indicates that the *item definitely applies*, 1 indicates that it *applies to some extent*, and 0 indicates that the symptom *definitely does not apply* to the individual. Several sources of information are needed to score the PCL:YV—namely, a semistructured interview with the youth and a review of available file and collateral information associated with the youth.

Because of the increasing importance of the PCL:YV in the juvenile justice systems, the manual recommends that it should be used and interpreted in combination with information from a number of sources and should never be the sole criterion for decision making about treatment and/or adjudication. In addition, because the consequences of misuse are especially serious, Forth and colleagues state that it is inappropriate to label a youth as a psychopath and that it is unethical to use scores for exclusion from available treatment programs. Finally, it is not appropriate to rely on PCL:YV scores alone to impose harsher sentences or to use the scores in determining whether a young offender should be tried as an adult.

Psychometric Properties

PCL:YV: Factor Structure, Reliability, and Generalizability

Confirmatory factor analyses suggest that a model with four correlated factors provided a very good explanation for the pattern of covariation among PCL:YV item scores. Four items loaded on an Interpersonal dimension (e.g., impression management, pathological lying) and 4 items on an Affective dimension (e.g., lack of remorse, callous/lack of empathy). Five items loaded on a Behavioral dimension (e.g., impulsivity, lack of goals) and 5 items on an Antisocial dimension (e.g., poor anger control, serious criminal behavior). However, a model with only three correlated factors also provided reasonable fit. The interrater reliability of PCL:YV total scores is high (single-rater ICC of .90 to .96). The internal consistency of PCL:YV total scores is high, with alpha coefficients ranging from .85 to .94. Research has been conducted with institutionalized young offenders, young offenders on probation, psychiatric inpatient youths, and youths in the community. PCL:YV total scores do not appear to be unduly influenced by youths' age, gender, or ethnicity.

PCL:YV Validity

High scores on the PCL:YV are associated with substance use, conduct disorder, oppositional defiant disorder, and attention-deficit/hyperactivity disorder in adolescents.

The PCL:YV has been related to a range of relevant correlates and outcome measures. High PCL:YV scores are associated with academic problems, early onset of antisocial problems, instrumental motives for violence, increased frequency and versatility of nonviolent and violent offenses, and increased institutional nonviolent and violent infractions. In addition, PCL:YV scores are correlated with measures of cognitive, emotional, and social cognitive anomalies largely similar to those identified with adult psychopathic offenders.

Several studies have been conducted to examine the predictive validity of the PCL:YV. PCL:YV scores were predictive of nonviolent and violent/sexual recidivism in juvenile sex offenders and nonviolent and violent recidivism in adjudicated male youths. Recent research has not found the PCL:YV to predict general or violent recidivism in adjudicated female youths.

No controlled evaluations of intervention programs for youths scoring high on the PCL:YV have been completed to date. Research with offenders referred to a substance abuse program found that PCL:YV scores correlated negatively with days in the program, quality of participation, number of consecutive clean urine screens, and researchers' ratings (from discharge summaries) of clinical improvement. There is some encouraging evidence that adolescent offenders with high PCL:YV scores who complete a treatment program

have posttreatment violent recidivism rates that are lower than those who serve their dispositions in juvenile correctional facilities. Young offenders are more malleable than adult offenders, and early interventions are more likely to be effective than those directed at adults.

To date, much of the research has been conducted on older male adolescents who have been in contact with the juvenile justice system. Additional data are needed on female adolescents, younger adolescents, nonadjudicated community youths, and ethnically and culturally diverse groups.

Adelle E. Forth and David Kosson

See also Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); Juvenile Psychopathy; Psychopathy; Psychopathy, Treatment of

Further Readings

Forth, A. E., Kosson, D. S., & Hare, R. D. (2003). *The Hare Psychopathy Checklist: Youth Version*. North Tonawanda, NY: Multi-Health Systems.

Patrick, C. P. (2006). *Handbook of psychopathy.* New York: Guilford.

Hate Crime

See Bias Crime

HCR–20 for Violence Risk Assessment

The HCR–20 Violence Risk Assessment Scheme is a 20-item violence risk assessment tool, accompanied by a 97-page user's manual. It is intended to structure clinical decisions about the risk for violence posed by adult forensic psychiatric patients, civil psychiatric patients, and criminal offenders (whether mentally disordered or not). The HCR–20 is relevant to the field of law and psychology because violence risk assessment is a psychological decision-making task that routinely transpires within legal and forensic settings. This entry describes the development, content, and conceptual basis of the HCR–20, its intended application, user qualifications, and a summary of evaluation research.

Description and Use

The 20 HCR–20 risk factors are dispersed across three scales: Historical (10 risk factors), Clinical (5 risk factors), and Risk Management (5 risk factors). The Historical scale focuses on past events, experiences, and psychiatric conditions (e.g., past violence, young age at first violence, major mental illness, psychopathy, personality disorder, childhood maladjustment), while the Clinical scale addresses recent functioning (e.g., negative attitudes, psychiatric symptoms, noncompliance, impulsivity). The Risk Management scale deals with factors such as feasibility of plans, stress, and support.

The HCR–20 can be used on a person's entry to a facility such as a forensic hospital, during the course of institutional tenure, on consideration for release to the community, and while a person is being supervised in the community. In all applications and settings, users are encouraged to consider risk management strategies that align with identified HCR–20 risk factors and to incorporate such strategies into their risk reduction efforts.

The HCR–20 was developed as one of the first instruments belonging to the Structured Professional Judgment (SPJ) model of violence risk assessment. Therefore, the HCR–20 structures clinical decisions through (a) specification of a minimum set of risk factors that should be considered in each case, (b) operational definitions of risk factors, (c) explicit coding instructions for risk factors, and (d) recommendations for making final risk judgments about the nature and likelihood of violence and its mitigation. Instruments developed using the SPJ approach share common elements, such as the method of development. Risk factors are selected using the *logical item selection approach* (sometimes called rational, or analytic, item selection) to instrument derivation. This method entails wide consultation of the scientific and professional literatures to select risk factors with broad support. Items are not selected on the basis of empirical associations within single samples because of the threat to generalizability and the risk of selecting sample-specific variables that a purely empirical item selection approach entails. Logical item selection is intended to promote both generalizable applicability and comprehensiveness in risk factor domain coverage.

In considering the individual manifestation of each risk factor for an evaluee, the user rates each item as *absent* (score of 0), *possibly/partially present* (score of 1), or *definitely present* (score of 2). The evaluator

then makes a final summary risk rating of *low, moderate*, or *high risk for violence* depending on the number of risk factors present; their relevance to the individual case; and the degree of intervention, supervision, or risk management that is estimated to be necessary to mitigate risk. The HCR–20, like other SPJ instruments, provides a greater emphasis on risk management and risk reduction than do some actuarial approaches. It does this through the inclusion of *dynamic,* or changeable, risk factors (the C- and R-scale risk factors) and the recommendation that these be reevaluated at important decision-making junctures or according to some regular schedule.

Precise numeric algorithms or cut scores are not used for clinical decision making as they are in actuarial prediction methods because of the high likelihood of instability of such algorithms across settings and samples due to idiosyncracies (i.e., capitalization on chance associations) in their derivation.

User qualifications include expertise in violence and in mental health assessment. Common user groups include psychologists, psychiatrists, social workers, psychiatric nurses, and professionals in related fields. Some items (mental illness) may require users to possess advanced degrees (Ph.D. or M.D.), although other users can rate these under supervision or provisionally.

Evaluation Studies

Evaluation research primarily has focused on questions of interrater reliability and predictive validity of either the HCR–20 risk factors (numeric scores) or summary risk judgments. Studies of the risk factors and numeric scores are important to determine whether these can be rated reliably and whether, as they are defined by the HCR–20, they relate to violence. Studies of the summary risk judgments are important to test whether raters, on considering the HCR–20 risk factors and structured decision-making principles, are able to make reliable risk-relevant judgments that also are predictive of violence.

There have been several dozen peer-reviewed published evaluation studies on the HCR–20. These have been conducted across numerous countries (Canada, the United States, Sweden, the United Kingdom, Germany, the Netherlands) and settings (forensic psychiatric, civil psychiatric, prison). Although there is the expected variability in the findings, most research demonstrates acceptable interrater reliability of both the risk factors and the final summary risk judgment. Similarly, on average, the HCR–20 demonstrates moderate to large effect sizes with violence. Studies have shown that the HCR–20 summary risk ratings of low, moderate, and high risk perform as well as, or better than, numerical (actuarial) use of the HCR–20.

The HCR–20 has been translated into 15 languages. It currently is on Version 2, and Version 3 will be published in 2008 or 2009.

Kevin S. Douglas

See also Risk Assessment Approaches; Violence Risk Assessment

Further Readings

Douglas, K. S., & Kropp, P. R. (2002). A prevention-based paradigm for violence risk assessment: Clinical and research applications. *Criminal Justice and Behavior, 29,* 617–658.

Douglas, K. S., Ogloff, J. R. P., Nicholls, T. L., & Grant, I. (1999). Assessing risk for violence among psychiatric patients: The HCR–20 violence risk assessment scheme and the Psychopathy Checklist: Screening Version. *Journal of Consulting and Clinical Psychology, 67,* 917–930.

Douglas, K. S., Webster, C. D., Hart, S. D., Eaves, D., & Ogloff, J. R. P. (Eds.). (2001). *HCR–20: Violence risk management companion guide*. Burnaby, BC, Canada: Mental Health, Law, and Policy Institute, Simon Fraser University and Department of Mental Health Law & Policy, University of South Florida.

Doyle, M., & Dolan, M. (2006). Predicting community violence from patients discharged from mental health services. *British Journal of Psychiatry, 189,* 520–526.

Webster, C. D., Douglas, K. S., Eaves, D., & Hart, S. D. (1997). *HCR–20: Assessing risk for violence* (Version 2). Burnaby, BC, Canada: Mental Health, Law, and Policy Institute, Simon Fraser University.

Hearsay Testimony

The rules of evidence regarding the admissibility of hearsay testimony are complex, but in general, the law treats hearsay as inadmissible evidence. A number of exceptions to this general rule exist, however, and psychologists have conducted research to examine how jurors evaluate and use hearsay testimony in their decision making. No simple conclusions can be drawn at this point from the research literature owing to the large

number of variables that undoubtedly influence juror perceptions of hearsay witnesses.

Hearsay is an out-of-court statement made by an individual (the declarant) that is offered as evidence in court by another individual (the witness, but referred to here as the "hearsay witness" for clarity) to prove the truth of the matter asserted. Repeating a declarant's statement in court is hearsay if the witness is trying to convince the jury that what the declarant said is true, whereas it would not be hearsay if the witness is trying to show that the declarant speaks English, for example. Concerns about the trustworthiness of hearsay arise because the declarant was not under oath at the time of the statement, the demeanor of the declarant while uttering the statement cannot be observed by the jury, and cross-examination of the hearsay witness may not reveal shortcomings in the declarant's statement. The hearsay rule therefore establishes that hearsay is not admissible except in situations where there is some reason to believe that the declarant's statement is trustworthy. The Federal Rules of Evidence identify certain exceptions that are allowed only when the declarant is unavailable to testify (e.g., a statement made under the belief of impending death or a statement against self-interest), whereas other exceptions exist regardless of the declarant's availability (e.g., an excited utterance or statements made for purposes of medical diagnosis). The question of whether statements falling within these exceptions are truly more trustworthy (and thus more useful) to a jury than are statements currently excluded as hearsay is one potential avenue of research that has not yet been explored.

The vast majority of studies examining how jurors evaluate hearsay testimony have used either college students or adult community members as mock jurors, although at least one study presented written questionnaires to jurors who had just delivered a verdict in an actual case that involved hearsay. Evidence has been presented to mock jurors in a variety of ways; frequently, researchers provide participants with written trial summaries, but other studies have used either audiotapes or videotapes of trials or forensic interviews in which the critical variables are experimentally manipulated. Researchers have examined variables related to the declarant (e.g., the declarant's age), the hearsay witness (e.g., his or her relationship to the declarant), how the declarant made his or her statement (e.g., whether a suggestive or nonsuggestive form of questioning was used), and when the statement was made (e.g., the amount of time between the event and the declaration).

One basic question is whether jurors even distinguish between hearsay and nonhearsay evidence. Research into how jurors evaluate hearsay evidence began with studies comparing evidence presented by an eyewitness with the same information presented by a hearsay witness (therefore, the hearsay used in these studies would have been ruled inadmissible). Results suggest that jurors do not overvalue hearsay but instead seem to use the information in an appropriate way. The few studies examining the impact of judicial instructions to disregard inadmissible hearsay have led to mixed results regarding the instructions, but the results are generally consistent with the finding that hearsay is not overvalued as a form of evidence.

Many studies in recent years have focused on how jurors are influenced by hearsay testimony that is admissible either because it meets one of the standard exceptions to the hearsay rule or because of child hearsay statutes adopted by many states beginning in the 1980s. These statutes typically allow for hearsay in cases involving a child declarant who has been the victim of sexual abuse if a court determines that the hearsay information is reliable. The child hearsay statutes allow for hearsay only in cases involving sexual abuse, in part because the prospect of testifying in court in such cases may be especially terrifying to the child victim. Criminal defendants have the right to confront their accusers (provided by the Confrontation Clause of the Sixth Amendment to the U.S. Constitution), but facing the defendant may impair the child witness and reduce the accuracy of his or her testimony. Child hearsay statutes allow for an adult to present the evidence to the jury while sparing the child the trauma of testifying.

Research comparing the in-court testimony of the child victim with some form of adult hearsay witness testimony has yielded inconsistent findings; in some cases, conviction rates are higher when the child testifies, and in other cases the hearsay witness produces a higher conviction rate. No consistent patterns of how jurors evaluate hearsay have yet emerged, a fact that is likely due to the large number of potentially relevant variables and the relatively small number of studies conducted to date.

Consider the special difficulties facing a juror who is evaluating hearsay evidence. Like any other witness, the juror must consider how believable the hearsay witness is in terms of his or her perception, memory, and intention (e.g., is the witness trying to deceive the juror?). Unlike other witnesses, however, the juror must now make inferences as to the believability of the

declarant (who may never be seen by the juror). In addition, the juror will need to consider the nature of the relationship between the declarant and the hearsay witness as well as the circumstances regarding how and when the information was shared. Clearly, the task of evaluating hearsay testimony is daunting for both jurors and researchers alike.

Peter Miene and Sarah L. Shurbert

See also Children's Testimony; Child Sexual Abuse; Inadmissible Evidence, Impact on Juries; Juries and Eyewitnesses

Further Readings

Hearsay Reform Conference [Special issue]. (1992). *Minnesota Law Review, 76*(3).

Ross, D. F., Warren, A. R., & McGough, L. S. (Eds.). (1999). Hearsay testimony in trials involving child witnesses [Special issue]. *Psychology, Public Policy, and Law, 5*(2).

Homicide, Psychology of

Computed across a lifespan of 75 years, there is a 1 in 200 chance that an individual in the United States will be murdered. The frequency of homicide and this startlingly high statistic warrant more concerted efforts to research the psychological underpinnings motivating homicide. The history of the study of the psychology of homicide is replete with theoretical shifts—some of which have led to empirical dead ends and others to tremendous advances. Explaining the motivations of a murderer historically has been a difficult task for psychologists because of the wide array of individual, situational, and cultural variables influencing the development of homicidal behavior. Recent psychological research includes both theoretical and methodological advances that have allowed for new, unprecedented insights into the psychology of homicide.

Theoretical Perspectives

Several theories have been developed over the brief history of psychology seeking explanations of the patterns of homicide. These theories have followed larger movements within psychology. Movements have proceeded from individualistic explanations of homicide in the late 19th and early 20th centuries to more environmental explanations throughout much of the past century. Modern theories seek to address the limitations of previous theories by accounting for a broader range of causes of human behavior. Rather than discussing all the theories, this entry expands on those that are particularly influential and provides an organizational framework to anchor and interpret the changes in these theories.

George Vold organized various theories of the mid 20th century into *spiritistic* and *naturalistic* explanations. To focus on scientific explanations of human behavior, we will not discuss spiritistic accounts of homicide. Naturalistic explanations include those that lend themselves to empirical scrutiny and include hereditary and defectiveness theories, mental deficiency theories, and mental illness theories. Hereditary and defectiveness theories view homicide as the product of biological and genetic causes. Mental deficiency theories argue that homicide is the product of low intelligence. Mental illness theories, espoused first by Sigmund Freud, have been better received than mental deficiency theories. Although Freud's psychoanalytic theory was a starting point for explaining the psychology behind homicide, psychoanalytic theory is now recognized as empirically barren. Freud's influence was lasting, however, with many later contributions revealing Freudian pedigree. Evidence of views of homicide as the product of psychopathology is revealed by the first study on homicide, published in 1898 in the psychology journal *American Journal of Insanity* by Charles Bancroft. Continuing to the present day is the perspective of understanding homicide as the result of pathological psychological manifestations. The theories mentioned so far focus primarily on characteristics internal to an individual that may influence homicidal behavior. There was a focus on more environmental explanations of homicide in the early to mid 20th century, largely in reaction to the previous focus on intra-individual explanations of homicidal behavior.

Environmental Theories

Environmental theories can be described generally as focusing on sources or causes of homicidal behavior outside the individual. Examples of such theories include socialization theories, symbolic interactionism, social structural theories, control theory, and social ecology theory. Socialization theories of homicide and aggression have historically been among the most popular and

influential accounts of the motivations for homicide. The sex difference in the commission of violent crimes—including homicide—was one of the first and most obvious observations demanding explanation. Men are more often than women both the offenders and the victims of homicides. Socialization theories argue that men, more than women, have been socialized to view aggression as a permissible means to achieve certain ends. This differential socialization for aggressive behavior in men and women, it is argued, can explain the greater homicide rates among men. While this theory has been well received within psychology, there is growing evidence that an exclusive reliance on this theoretical position to explain homicide patterns leads to incomplete conclusions. Socialization theories push back one step many of the most intriguing questions psychologists working to understand homicide have tried to answer. Why are men and women differentially socialized to behave aggressively? Why are boys and girls differentially receptive to certain aspects of environmental input? Socialization theories cannot provide answers to such questions. Despite the limitations of environmental theories, insight has been gained from the research conducted by social scientists focusing on social and cultural influences. One notable finding reflecting the cultural and demographic variables within cultures has resulted from research on homicide rates across the United States.

Social scientists have identified key sociocultural beliefs and attitudes that vary by region and have analyzed homicide rates as a function of these different beliefs and attitudes. The Southern states in the United States adhere more strongly to a "culture of honor" than other regions. In the Southern states, men act more aggressively than men in the Northern states to protect their honor and their reputation. This difference is arguably generated by exposure to a culture in which honor and reputation are very important in protecting resources. Of the state executions that have occurred since 1977, 82% have occurred in the Southern region of the United States. In addition to these social explanations of homicide, recent breakthroughs have been made in understanding the biological roots of homicide.

Biological Theories

Advances in technology now provide researchers with an unprecedented window into the brain activity of murderers. These technological advancements include functional magnetic resonance imaging, electroencephalography, computed tomography, and positron emission tomography, all of which can be used to study neurological and neuroanatomical abnormalities in the brains of individuals who have perpetrated homicide. Research has shown distinct neurological activity in individuals who have homicidal thoughts or who exhibit violent behaviors.

One perspective explicit in the call for integration of biological (e.g., genetic predispositions), psychological (e.g., psychological disorders), and social (e.g., poverty) explanations of homicide has been aptly named the biopsychosocial perspective. There are limitations to this theory because many of the bidirectional relationships between these three metafactors have not yet been fully explored. Although this is a promising theoretical position, a wealth of new research is yet to be conducted exploring the links between these factors. Inherited predispositions for particular personality disorders may influence how an individual is perceived and treated by others. The way an individual is perceived and treated by others provides a feedback loop, altering cognitions about relationships with others that can influence personality. In sum, there are numerous potential pathways to homicide, and we will be better positioned to expand on these interrelationships with future research.

In many of the cases, links between abnormal cognition and brain activity have been documented. Murderers have been diagnosed with psychological disorders such as antisocial personality disorder or other personality disturbances, psychological stressors, various types of childhood trauma, and drug and alcohol abuse problems. Not all these psychological disorders, however, apply to all killers. Many known factors combine to result in individual differences in brain patterns and cognition and complicate our understanding of the psychology of homicide. We believe that insight gained from various areas of the psychological and other behavioral sciences will provide greater clarity into the motivations and development of homicidal thoughts and behavior. Various theories have recently shed light on homicidal psychology in ways that have previously escaped psychologists.

Evolutionary Perspectives

One particularly powerful theoretical perspective that has yielded insight has been the application of evolutionary perspectives to the study of homicide. An evolutionary psychological approach to homicide is relatively new

and allows for stronger anchoring of the psychological sciences with the biological sciences. Evolutionary psychologists argue for distinctions between various types of homicide. Inroads into the psychology of homicide have been made by an attempt to understand the relationships between the victim and the offender. There is a debate among evolutionary psychologists on whether there exist evolved psychological adaptations for homicide or whether homicide occurs as a by-product of adaptations selected for in response to other sets of social adaptive problems (e.g., sexual jealousy, same-sex competition, aggression). An evolutionary psychological approach informs us of many areas in the psychology of homicide that have not been fully explored. If homicides were a recurrent feature of our ancestral environment, for example, selection would have favored antihomicide psychological adaptations (e.g., avoid being killed, minimize the threats posed by others). Research on the existence of these possible evolved psychological adaptations is currently under way.

In many homicides, the offender and the victim are individuals with a history of previously close romantic or familial relationships. There are many known factors linked with homicide among romantic partners, including sexual jealousy and prolonged abuse of women by their partners. These variables demand a deeper understanding of interpersonal relationships that can add to the body of research informing the psychology of homicide. A particularly dangerous time for many women comes when they terminate a romantic relationship. From an evolutionary perspective, this termination prompts psychological adaptations in men that may have functioned in ancestral environments to retain a mate. These adaptations may prompt behavior such as vigilance over the partner's whereabouts, reassessment of the relationship, or, more dangerously, stalking behavior and homicidal rage over the termination of the relationship and a newly established relationship with a rival male.

Among homicides occurring between parents and children, men are more likely than women to kill their children when the children are older, whereas women are more likely to kill their children when the children are younger. Many of the results of analyses of filicides follow from predictions made by evolutionary psychologists. Men, relative to women, may harbor psychological adaptations that monitor genetic relationships between themselves and their putative children (e.g., cues such as female infidelity and their own similarity to the child). The features of homicides by mothers perpetrated against children are very different from those of homicides perpetrated by fathers against children. Mothers more often than fathers kill their children because of factors related to current states (e.g., absence of investing father, resource demands from children) or future prospects (e.g., bias toward future children rather than current children). Prior to the work done by evolutionary psychologists, no research platform had identified the presence of stepparents as a risk factor for child homicide. Researchers have documented a risk factor of filicide that is 100 times greater when a stepparent resides in the household.

Siblicides account for only 1% of all homicides, but analysis of this type of homicide has given us glimpses into the psychology of sibships. Among siblicides, for example, older siblings are more often the perpetrators earlier in life. In contrast, younger siblings are more often the perpetrators later in life—perhaps as an attempt to secure larger portions of inheritance that might otherwise be channeled to older siblings. Additionally, features of the precipitating conflict within the relationship may be revealed by the method of murder. Among siblings, for example, full siblings use a less brutal method of homicide than stepsiblings or half-siblings.

Future Directions and Integration

In addition to the theoretical strides that need to be made in the area, there are many empirical obstacles to be overcome. Data found in national and city-level homicide databases often do not contain enough information relevant for more detailed analyses of homicides. These obstacles are correctable with greater collaboration between law enforcement and social scientists. Another problem with our collective understanding of homicide is media misrepresentations. Those murder cases that are relatively rare (e.g., homicide of women and children, serial murders) are often the cases covered the most by different media sources. Very little is known by the public of the actual risk factors and probabilities of homicide.

The prospect of future research on the psychology of homicide is bright, with the overarching goal of understanding the biological, psychological, and social triggers producing homicidal cognitions and behavior. More detailed pictures of the minds of murderers will be made through the collaborative efforts of criminologists, sociologists, anthropologists, forensic psychiatrists and psychologists, neuropsychologists, clinical/counseling psychologists, and evolutionary psychologists. With such collaborative efforts focusing on the interplay between the biological, psychological, and social correlates of homicide,

further refinement of existing theories will lead to future discoveries in the psychology of homicide.

Jennifer Pryor and
Richard L. Michalski

See also Antisocial Personality Disorder; Child Maltreatment; Criminal Behavior, Theories of; Intimate Partner Violence; Media Violence and Behavior; Minnesota Multiphasic Personality Inventory–2 (MMPI–2); Mood Disorders; Psychotic Disorders

Further Readings

Bancroft, C. P. (1898). Subconscious homicide and suicide; their physiological psychology. *American Journal of Insanity, 55,* 263–273.

Buss, D. M., & Duntley, J. D. (2006). The evolution of aggression. In M. Schaller, J. A. Simpson, & D. T. Kenrick (Eds.), *Evolution and social psychology* (pp. 263–285). New York: Psychology Press.

Daly, M., & Wilson, M. (1988). *Homicide.* New York: Aldine de Gruyter.

Daly, M., & Wilson, M. (1997). Crime and conflict: Homicide in evolutionary psychology perspective. *Crime & Justice, 22,* 51–100.

Nisbett, R. E. (1993). Violence and U.S. regional culture. *American Psychologist, 48,* 441–449.

Smith, M. D., & Zahn, M. (2004). *Homicide: A sourcebook of social research.* Thousand Oaks, CA: Sage.

Hopkins Competency Assessment Test (HCAT)

The Hopkins Competency Assessment Test (HCAT) was developed as a brief screening measure for assessing a patient's capacity to provide informed consent and prepare advance directives regarding medical treatments. As mental health clinicians have increasingly recognized the importance of accurately assessing a patient's ability to provide informed consent, the need for measures to quantify this ability has grown. The HCAT represents one of the first such efforts at developing a standardized approach to evaluating the capacity to provide informed consent by providing a systematic measure of comprehension. Although primarily used in research settings, this measure has the potential to help inform clinical judgments about decision-making competence.

The HCAT, developed by Jeffrey Janofsky, consists of a short description of the informed consent process and the durable power of attorney, followed by six questions (e.g., What are four things a doctor must tell a patient before beginning a procedure?). These questions evaluate the patient's comprehension of the information disclosed and yield a score ranging from 0 to 10, with scores of 3 or lower signifying inadequate comprehension. In their validation study, Janofsky and colleagues provided interrater reliability for the HCAT by analyzing the ratings of two independent examiners on a series of 16 cases. Not surprisingly, given the simplicity of the scoring system, the authors found a correlation of .95, suggesting a high degree of consistency in HCAT scoring. Other forms of reliability, however, have not been analyzed and are potentially less salient. For example, because the clinical condition of many patients changes over time, test-retest reliability is not necessarily a meaningful index of scale reliability.

The content validity of the HCAT has been evaluated in several research studies. For example, Jeffrey S. Janofsky and colleagues compared the results of the HCAT with the opinion of an experienced psychiatrist who was not shown the HCAT results. All individuals whom the psychiatrist considered incompetent had received a score of 3 or less on the HCAT, whereas none of the individuals who "failed" the HCAT were considered competent by the psychologist (i.e., a 100% accuracy rate for determination of competence). Barton, on the other hand, found very little concordance between HCAT scores and clinician opinions regarding competence; however, the latter were based on hospital records indicating that a patient had been considered incompetent (which rarely occurred).

Subsequent studies have analyzed the association between HCAT scores and ratings of patient functional impairment, as well as performance on other measures of cognitive functioning. For example, Sorger et al. (2007) found markedly poorer decision-making ability, based on the HCAT, among elderly patients diagnosed with terminal cancer compared with a physically healthy elderly sample, even after controlling for other group differences (e.g., age, gender, etc). Nearly half (44%) of the terminally ill patients studied "failed" the HCAT compared with only 6% of an ambulatory nursing home comparison sample. Moreover, HCAT scores were significantly correlated with other measures of cognitive functioning including the Mini-Mental State Exam.

Despite strong preliminary data in support of the reliability and validity of the HCAT, this measure is rarely

used in either empirical research or clinical practice. There are numerous reasons for the limited popularity of the HCAT. Foremost among them is the "generic" nature of the information presented and assessed, focusing on the concept of informed consent and durable power of attorney rather than a specific treatment decision. Clinical evaluations, and much of the emerging research on informed consent and decision-making competence, focus on a patient's ability to formulate decisions, not simply comprehension of the right to make such treatment decisions. In fact, understanding of informed consent may have little association with the ability to make a rational choice among a set of complicated options. Without tailoring the information disclosed to the patient's particular medical conditions and treatment options, HCAT scores have relatively little bearing on the patient's capacity to consent to a specific intervention. These disadvantages are likely the reason why the HCAT has been eclipsed by the MacArthur instruments, which are designed to assess capacity to consent to treatment and research: MacArthur Competence Assessment Tool for Treatment (MacCAT–T) and MacArthur Competence Assessment Tool for Clinical Research (MacCAT–CR), respectively.

On the other hand, the HCAT has several advantages for clinical research, including brevity, ease of administration, and the generic nature of information presented. Thus, this measure can be easily administered in the context of a battery of assessment instruments (in both research and clinical settings) and is applicable to all patients, regardless of health state or treatment needs. In clinical settings, the HCAT may, with further research, become a useful screening measure that can quickly identify patients who need a more thorough evaluation. Of course, further research is clearly needed before the HCAT gains acceptance as a useful clinical or research instrument. For example, a comparison of the HCAT with more focused measures of decision-making capacity, such as the MacArthur instruments, would help clarify the relationship between the general comprehension of informed consent and the specific decision-making abilities that typically form the basis of such evaluations.

Barry Rosenfeld and
Rebecca A. Weiss

See also Capacity to Consent to Treatment; MacArthur Competence Assessment Tool for Clinical Research (MacCAT–CR); MacArthur Competence Assessment Tool for Treatment (MacCAT–T)

Further Readings

Barton, C. D., Mallik, H. S., Orr, W. B., & Janofsky, J. S. (1996). Clinician's judgment of capacity of nursing home patients to give informed consent. *Psychiatric Services, 47,* 956–959.

Janofsky, J. S., McCarthy, R. J., & Folstein, M. F. (1992). The Hopkins Competency Assessment Test: A brief method for evaluating patients' capacity to give informed consent. *Hospital and Community Psychiatry, 43,* 132–136.

Jones, B. N., Jaygram, G., Samuels, J., & Robinson, H. (1998). Relating competency status to functional status at discharge in patients with chronic mental illness. *Journal of the American Academy of Psychiatry & Law, 26,* 49–55.

Sorger, B. M., Rosenfeld, B., Pessin, H., Timm, A. K., & Cimino, J. (in press). Decision-making capacity in elderly, terminally ill patients with cancer. *Behavioral Sciences and the Law*.

Hypnosis and Eyewitness Memory

The use of hypnosis to enhance the memory of a witness to a crime often results not only in some additional accurate recall of information about the event but also in the incorporation of additional misinformation into the witness's memory of the event and a general increase in his or her confidence in the veracity of recall. Research has shown that hypnosis increases the amount of information that is recalled about an event. This effect often occurs with other techniques also, such as the cognitive interview. When techniques such as hypnosis and the cognitive interview are used to enhance a witness's memory, the amount of new information recalled turns out to be a mixture of accurate and inaccurate information. Furthermore, once accurate and inaccurate information get mixed into a coherent narrative, the witness is typically not very good at distinguishing those aspects of the story that are true from those that are false. The additional information will make the narrative the witness is trying to construct more coherent, and his or her confidence in it will increase. The witness's memory has not been refreshed. A more coherent narrative has been constructed that the witness feels is a more accurate representation of the event he or she is being encouraged to remember.

Admissibility of Hypnotically Refreshed Testimony

The problems associated with hypnotically refreshed testimony have been recognized in hundreds of decisions by American courts. In 1987, the U.S. Supreme Court considered the admissibility of hypnotically refreshed testimony in *Rock v. Arkansas.* Following the per se exclusionary rule, the trial judge in this case determined that the hypnotically refreshed memories of the defendant were inadmissible. There was a growing trend in state courts at the time toward total exclusion of hypnotically refreshed testimony. In *Rock v. Arkansas,* the Supreme Court acknowledged that the possibility for contamination of the witness's memory increases significantly when attempts are made to hypnotically refresh the witness's memory; however, the court determined that the per se exclusionary rule cannot be applied if in doing so a defendant is denied his or her constitutional right to testify. State courts that have to deal with this kind of testimony generally recognize the problems associated with it and often apply the per se exclusionary rule to the hypnotically refreshed testimony of witnesses other than the defendant. Those courts that do not follow the per se exclusionary rule are usually willing to allow hypnotically refreshed testimony only if certain safeguards have been adhered to in the conduct of the hypnotic interview.

Theories of Hypnosis

A number of different theories have been proposed regarding the nature of the hypnotic experience and its relation to the behavior of the hypnotized subject. There are several characteristics of the hypnotic state that distinguish it from the normal waking state. Ernest Hilgard has proposed the following list: increased suggestibility, enhanced imagery and imagination, subsidence of the planning function, and reduction in reality testing. Hilgard contends that hypnotic phenomena often reflect a split in consciousness. It appears that the experience of the hypnotized subject is dissociated from the subsystems of control that are regulating the subject's perceptions and behavior. The major alternative to this point of view is sociocognitive theory. The emphasis in sociocognitive theory is on the social psychological relationship between the hypnotist and the subject. According to this theory, there is no need to propose that the subject has entered into some kind of trance state or that some kind of split in consciousness has occurred; the hypnotized subject is engaged in the performance of a role in a social situation that is largely under the control of the hypnotist. Hilgard acknowledges the fundamental importance of the social psychological aspect of hypnotic phenomena, but he contends that changes in consciousness occur when a subject is hypnotized that cannot be accounted for by efforts on the part of a compliant subject to please the hypnotist. In their theory of dissociated control, Erik Woody and Kenneth Bowers propose that hypnotized subjects are in a state temporarily like that of patients with frontal lobe damage. According to their theory, the perceptions and behavior of the hypnotized subject are under the regulation of lower-level subconscious systems that are not being monitored by the frontal lobe executive.

If hypnotized subjects process information primarily at a subconscious level, then the kinds of rules that are applied in the evaluation of information by hypnotized subjects are likely to be very different from those applied in the conscious rational analysis of information. Seymour Epstein has provided considerable support for the idea that much of the information processing that occurs in our everyday lives consists of rapid evaluations of environmental stimuli that depend largely on subconscious schemata associated with emotionally significant past events. What we might have with hypnosis is an exaggeration of this aspect of normal experience. If the subconscious experiential system dominates information processing during hypnosis, then what may occur is not that missing material gets dragged up from the unconscious to fill in the gaps in memory but that the gaps in memory are filled in with plausible information that is suggested either directly or indirectly during the hypnotic interview. It turns out that hypnosis tends to produce this kind of effect whenever the subject is required to produce a narrative reconstruction of a highly emotional event. In studies that employ stimuli of low emotional impact, hypnosis does not produce an increase in the amount of information recalled. Furthermore, it is with free recall that we see the effect of hypnosis on the amount of information recalled; when specific questions are asked or when the subject is asked to decide between various alternatives, responses are restricted so that the tendency to produce more is not revealed.

Research Findings

Some individuals are more susceptible to hypnosis than others, and there has been a good deal of research devoted to the investigation of the individual differences

involved. Subjects who score high on tests of hypnotic susceptibility are generally more suggestible than those who are not very susceptible to hypnosis. Hypnotically susceptible individuals have also been found to have greater capacity for sustained attentional focus; they process information more rapidly and more easily, and they have a more active imagination and a more active fantasy life. It appears that the experiential system is particularly active in individuals who are highly susceptible to hypnosis. Subjects who are high in susceptibility to hypnosis appear to be particularly prone to accept misleading information, especially when the hypnotic interview is conducted by a trained hypnotist. Disturbingly, this is the situation where the greatest inflation of the subject's confidence in the accuracy of his or her memory is likely to occur also.

Subjects who are highly susceptible to hypnosis can be easily led to construct vivid and detailed false memories of childhood experiences in situations that are analogs to the clinical interview when various memory-enhancing techniques are used, including hypnosis, guided mnemonic restructuring, and visualization instructions. These kinds of results are particularly relevant to the courtroom battles based on repressed memories of childhood sexual abuse. Studies of hypnotic age regression show that hypnosis and other memory-enhancing techniques can produce fantastic memories of fictional events, such as vivid and detailed memories of the hospital environment the day after birth. Michael Nash and his colleagues were able to hypnotically age regress hypnotically susceptible subjects back to an event that allegedly occurred when they were 3 years old. The instructions that were used produced memories in the majority of subjects of a transitional object, such as a teddy bear, which when checked against the memory of the mother often turned out to be false. Subjects continued to believe in these false memories when they were questioned about them subsequently in a normal waking state. Thus, vivid and detailed memories of childhood events that never actually occurred can be produced with hypnotic age regression; however, Nash found that it does not appear that hypnotized subjects in these studies are transformed to a childlike state of mind.

The degree to which sexual trauma during childhood interferes with the victim's memory of the event or series of events is not a question that lends itself to experimental analysis. Even with the more general question of the effects of arousal on the memory of a witness, there are limits to the degree of stress that the subjects in our experiments may be exposed to. When staged events are used to examine the effect of high levels of arousal on a witness's memory of the perpetrator of a crime, it is generally found that arousal has a debilitating effect. During emotional events, the attention of the witness is often focused on those aspects of the environment that have the greatest significance for his or her well-being, such as a weapon used by the perpetrator in the commission of a crime. The evidence suggests that due to poorer encoding of target features during these kinds of events, the witness's ability to recognize the target in a subsequent lineup will be impaired.

When hypnosis is used to refresh a witness's memory of an emotional event, pressure is placed on the witness to remember aspects of the event that were not initially processed very well, if at all. Research has found that hypnotized witnesses do not perform any better on photographic lineups than witnesses who have not been hypnotized. Instead, the hypnotized witness may become particularly susceptible to cues that direct attentional focus to a particular individual in the lineup, leading in some cases to misidentification of an innocent suspect. Staged-event studies have also revealed that the level of anxiety experienced by a witness during a staged event is negatively correlated with the degree of confidence subsequently expressed by the witness in a decision he or she has made about the presence of the perpetrator in a lineup. This finding has important implications regarding the cohesiveness of memories of highly emotional incidents. Regardless of the actual accuracy of a witness's recollection of a stressful event, if he or she is less confident about it, then there is an increase in the probability that misinformation will be incorporated into the witness's recollection of the event when he or she is questioned about it. Several studies on the effects of hypnosis on memory have produced results consistent with this hypothesis. After exposure to emotionally arousing stimuli, subjects with high levels of hypnotic susceptibility showed an increased tendency to fill in the gaps in their memories while under hypnosis, taking information suggested by the hypnotist or confabulating on their own.

Robert K. Bothwell

See also Cognitive Interview; Eyewitness Memory; Postevent Information and Eyewitness Memory; Reconstructive Memory; Repressed and Recovered Memories

Further Readings

Deffenbacher, K. A., Bornstein, B. H., Penrod, S. D., & McGorty, E. K. (2004). A meta-analytic review of the effects of high stress on eyewitness memory. *Law and Human Behavior, 28,* 687–706.

Epstein, S. (1994). Integration of the cognitive and the psychodynamic unconscious. *American Psychologist, 49,* 709–724.

Hilgard, E. R. (1977). *Divided consciousness: Multiple controls in human thought and action.* New York: Wiley.

Kebbell, M. R., & Wagstaff, G. F. (1998). Hypnotic interviewing: The best way to interview eyewitnesses? *Behavioral Sciences and the Law, 16,* 115–129.

Kirsch, I., & Lynn, S. J. (1995). The altered state of hypnosis: Changes in the theoretical landscape. *American Psychologist, 50,* 846–858.

Nash, M. R. (1987). What, if anything, is age regressed about hypnotic age regression? A review of the empirical literature. *Psychological Bulletin, 102,* 42–52.

Ready, D. J., Bothwell, R. K., & Brigham, J. C. (1997). The effects of hypnosis, context reinstatement, and anxiety on eyewitness memory. *International Journal of Clinical and Experimental Hypnosis, 45,* 55–68.

Rock v. Arkansas, 483 U.S. 44 (1987).

Scheflin, A. W., & Shapiro, J. L. (1989). *Trance on trial.* New York: Guilford Press.

Spanos, N. P., & Chaves, J. F. (Eds.). (1989). *Hypnosis: The cognitive-behavioral perspective.* New York: Prometheus Books.

Spanos, N. P., Burgess, C. A., Burgess, M. F., Samuels, C., & Blois, W. O. (1999). Creating false memories of infancy with hypnotic and non-hypnotic procedures. *Applied Cognitive Psychology, 13,* 201–218.

Steblay, N. M., & Bothwell, R. K. (1994). Evidence for hypnotically refreshed testimony: The view from the laboratory. *Law and Human Behavior, 18,* 635–651.

Whitehouse, W. G., Orne, E. C., Dinges, D. F., Bates, B. L., Nadon, R., & Orne, M. T. (2005). The cognitive interview: Does it successfully avoid the dangers of forensic hypnosis? *American Journal of Psychology, 118,* 213–234.

Woody, E. Z., & Bowers, K. S. (1994). A frontal assault on dissociated control. In S. J. Lynn & J. W. Rhue (Eds.), *Dissociation: Clinical and theoretical perspectives* (pp. 52–79). New York: Guilford Press.

I

Identification Tests, Best Practices in

Perhaps the ultimate form of eyewitness evidence is the identification of a suspect from a live or photo lineup, as opposed to more general information provided by a witness, such as a verbal description of an event. Best-practice recommendations in this area are based on a combination of some good procedures used by law enforcement for decades, sound logic and probability theory, basic psychological principles, and dedicated psychology–law research. The primary goal of a good identification procedure is to let the witness's memory be the basis of his or her decision, rather than any implicit or explicit influences that derive from either the procedure used or the nature of the lineup itself. And, of course, the desired outcome of a good procedure is to secure either an accurate identification of a guilty suspect or a "Don't know" or "Not there" response if the actual offender is not in the lineup.

There are at least four techniques for obtaining an identification from an eyewitness, and most of the best-practice procedural recommendations apply in all of them (as opposed to filler-selection issues, for example, which don't apply for at least one of the techniques). The two techniques that have received the most attention by researchers and the legal community, and are the primary focus of this entry, are live lineups (also known as identification parades in the United Kingdom and some other countries) and photo lineups (also known as photo arrays or photo spreads and sometimes called a "6-pack" in the United States, in reference to the most common number of photos used). The other two procedures are the field identification procedure (often called a "showup"), in which just one individual is shown to a witness, usually soon after an event has occurred and within close proximity to the scene, and the in situ procedure, in which a witness is asked to view a group of individuals in a relatively informal setting, such as the lobby area of a police station or a public location that a suspect is known to frequent, such as a bar or a place of employment.

The showup is thought by most eyewitness researchers, and some courts, to be "inherently suggestive," and few researchers would recommend it as a best-practice technique. The two most obvious potential advantages of a showup are that a potentially dangerous person could be detained on the basis of a positive identification, often with the aim of protecting a person who might be revictimized otherwise, and that an innocent suspect could be quickly exonerated. The showup procedure is included as a legitimate option in the U.S. National Institute of Justice (NIJ) document "Eyewitness Evidence: A Guide for Law Enforcement," published in 1999, and the Wisconsin Department of Justice's "Model Policy and Procedure for Eyewitness Identification," released in 2005. Despite the situations in which the potential advantages of a showup might outweigh the otherwise prudent decision to conduct either a live or a photo lineup with nonsuspect fillers, the best practice-recommendation is to think of a lineup as the default procedure. It is not unreasonable, for example, to expect that law enforcement can use current and near-future technology to construct an electronic photo lineup at a crime scene using a digital image of a suspect who was found in the vicinity and benefit from the

immediacy associated with the showup and the safeguards associated with a lineup.

The relatively informal in situ identification procedure tries to take advantage of a naturally occurring situation where a witness gets a chance to observe a suspect when the suspect does not know that he or she is being observed for that purpose. As mentioned, this often happens when a suspect is casually waiting in a police station regarding an incident, usually with a number of other people, and a witness to the incident is asked to look through a door or window to see if he or she recognizes anyone. Although this technique has received little attention in the eyewitness research literature, the legal community typically accepts the results, as long as the basic principles of the more common and formalized procedures discussed below are included. Also, it is common that a more formal identification procedure will follow if an identification is made.

Viewing mug shots could also be construed as an identification procedure, but the phrase *identification test* implies that the police have a suspect in mind and that they are "testing" their hypothesis that the suspect is the offender (as opposed to testing the witness's memory per se). A mug shot viewing is typically used when the police do not yet have a suspect, so they show potentially hundreds of photos of people who have been arrested in the past for a similar crime and/or who match a general description of the offender. The result of a mug shot viewing could be a relatively positive identification from an eyewitness, but typically, the procedure just helps to narrow down what the witness remembers about an offender (e.g., "He had beady eyes like Number 55, long blond hair like Number 132," etc.).

Finally, a witness could be asked to work with a sketch artist to create a likeness of the offender, or use a facial composite system, but these procedures are more in the realm of witness recall as opposed to an identification test.

Constructing the Lineup

This aspect of identification procedures has received the most attention from eyewitness researchers, and several of the issues are addressed in detail in separate entries. A prototypic lineup consists of one suspect and at least five known-innocent fillers (variously called distracters, foils, stand-ins, shills, and other terms). *Known innocent* means that the police have no reason to believe that the person could have committed the crime in question, as opposed to meaning that the person has never committed a crime in general. The logical power of this single-suspect lineup is that the identification of anyone other than the suspect is a "known error," because that person could not have committed the crime. At that point, the police need to consider several possibilities—the suspect is not the offender, the witness's memory is not sufficient to recognize the offender if he or she is present, the offender's appearance is sufficiently different from the way he or she appeared at the time of the crime so that the witness cannot recognize the offender, or perhaps the witness is reluctant to identify the offender even if he or she is present.

The number of fillers is not as important as the degree to which the fillers serve to make the lineup unbiased against the suspect, yet they should not be so similar to one another and the suspect that it becomes very unlikely for even a witness with a good memory of the offender to recognize the offender if he or she is present. The best-practice recommendation here is that fillers be chosen based on their match to the witness's description of the offender, as opposed to their match with the suspect's actual appearance, with certain logical qualifiers. Suppose, for example, that a witness describes an offender as White, male, 30–35 years old, and with a distinctive feature, such as an "insect tattoo on his right cheek." Suppose further that the suspect in the case has a spider tattoo in the correct location. The other lineup members should also be White, male, 30 to 35 years old, but they need only have an "insect tattoo" on their right cheek (a bee, a scorpion, or even different kinds of spiders) in order to qualify as good fillers. Requiring the fillers to have the identical spider tattoo or covering up the suspect's tattoo and the corresponding spot on the fillers' faces serves only to remove a potentially useful memory cue for the witness to recognize the offender if he is in the lineup.

Instructions to the Witness

The most common instruction, recommended by eyewitness researchers since the early 1980s, is "The offender may or may not be present." The logic of this instruction, supported by empirical research, is that it provides witnesses with a "None of the above" alternative and counters to some extent any tendency of the witness to assume that the police wouldn't be bothering with an identification procedure if they didn't have the "right" person. This tendency might lead to witnesses guessing or choosing someone they don't feel very confident about, which is a primary concern

because it is of course possible that the suspect is in fact not the offender. The NIJ Guide for Law Enforcement goes a step further on this specific point and includes the additional instruction, "It is just as important to clear innocent persons from suspicion as to identify guilty parties."

At this point, it is important to discuss the potentially confusing use of the terms *suspect* and *offender* in this context. Many law enforcement agencies have actually changed their wording of the caution that the offender may or may not be present to read that the *suspect* may or may not be present, most often with a well-intentioned motive not to bias witnesses, but that wording change is not a legitimate substitution. It is just that *suspect* has become a more acceptable term to use for many people in law enforcement and the media when referring to offenders. Television viewers are exposed to this tendency on a regular basis on shows where a person is on videotape driving at well over the speed limit on the wrong side of the road, crashing into other cars and sometimes attempting to run down or shoot at police officers, all the while being referred to as "the suspect" by the narrator (just saying "the driver" would solve the problem). Granted, in some cases, the term refers to the fact that the driver is *suspected* of being involved in the bank robbery that initiated the chase, but it can blur the line between describing a person who by all reasonable standards is currently committing a crime (an offender) versus someone who has been apprehended after a crime has occurred as a possible candidate for the offender (a suspect). It also comes up when the media report that the "police are looking for two suspects in the case; the first suspect is described as male, White, average build," when they really mean to say that the police are looking for two *offenders*, the first of whom matches that description. *Suspect* would only work in that example if there's some reason to believe that the crime did not really occur. Of course many law enforcement policies—and the NIJ Guide, for example—do use an appropriate alternative for offender, such as "the person who committed the crime."

There are other important points to include as instructions for witnesses prior to participating in an identification test, detailed in the NIJ Guide, the Wisconsin Model, and other sources. In some cases, the relevance of a particular instruction depends on the particular procedure used, but one that deserves special attention concerns witnesses' confidence in their decision. Eyewitness researchers are in general agreement that it is crucial to get some expression of witness confidence at the time of the identification decision, instead of relying on what is provided at trial, often many months later. The concern is that a witnesses' experiences after making an identification might influence their confidence, most likely in an upward direction. These experiences can range from the unavoidable implication that the witness has identified the suspect, when the witness is summoned to testify at the trial against that suspect (now the defendant), to something subtle, such as a smile or a nod, to something explicit, such as "Good, you've picked the right person!" Therefore, it is recommended that witnesses be told prior to viewing the lineup that they are expected to state, in their own words, and not necessarily on a scale of some kind, how certain they are of their decision and that this confidence rating be obtained prior to any kind of feedback from the person conducting the lineup, subtle or otherwise.

Conducting the Identification Procedure

Almost all the research on procedure concerns photo and live lineups. The instructions for the showup and in situ procedures are the most important part, assuming reasonable safeguards against influencing a witness to say "Yes" or "No" in the case of the showup and against choosing a particular person in the case of the in situ procedure. The most recommended safeguard for all identification tests, except the showup (where it is not possible), is the double-blind procedure, the rationale for which is to avoid unintentionally influencing the witness's decision and, thereby, the outcome of the lineup procedure. In general, a double-blind lineup can be accomplished in one of at least two ways: The person conducting the lineup does not know who the suspect is and/or cannot see which photo or person the witness is viewing or discussing at any particular time. In practice, it can be difficult if not impossible to conduct a live lineup in such a way that the administrator cannot see the lineup members, so the only reasonable option is usually to have another person administer the lineup. With a photo lineup, however, there are at least two ways for a person who knows the suspect to conduct the procedure in a double-blind fashion (assuming a sequential presentation, as detailed below). The first, low-tech, approach is to randomize the position of the photos (but ensuring that the first photo is a filler) and then use folders or envelopes to conceal the photos until the witness views them, at an angle (or with some sort of small obstruction) that blocks the administrator's

view. This way, if the witness says something like "Number 4 looks a lot like the person I saw," the lineup administrator does not know whether the witness is referring to the suspect or a filler photo. The relatively high-tech approach is to use a computer to administer the lineup, with built-in randomization and with the screen positioned in such a way that the administrator can't see it. In fact, there are computer applications available to construct and present the lineup and record the procedure.

The other major recommendation is to present the members of a lineup one at a time (a sequential lineup), as opposed to all at once (a simultaneous lineup), and that the sequential presentation be done in a very particular manner (not *just* one at a time). The rationale for the sequential lineup is that it reduces the tendency of witnesses to choose the person from the lineup who looks *most* like the offender they saw (a relative judgment strategy), as opposed to choosing a lineup member only if he or she matches the witness's memory trace for the offender beyond some threshold level (an absolute judgment strategy). Of course, if the suspect is the offender, then the outcome from both strategies should be the same, but in the case where the suspect is not the offender, the relative judgment strategy can increase the chance of that person being chosen.

There is some criticism about the recommendation for a sequential procedure, based largely on the concern that the rate of witnesses accurately identifying guilty suspects might be lower. There are, in fact, some data showing that the rates for choosing suspects can be lower overall with the sequential procedure, but it is difficult if not impossible to determine if that means guilty people are being identified less often—the lower rate might mean that fewer innocent suspects are being chosen. Also, it has been argued that some of the "accurate" choices of guilty suspects from simultaneous lineups are essentially lucky guesses, which are less likely to occur with the sequential technique, and that lucky guesses are not a legitimate route to justice. So the best-practice recommendation is to use a double-blind, sequential procedure. Step-by-step details are available in the NIJ Guide and the Wisconsin Model.

Recording the Procedure

Ideally, the entire identification procedure would be video- and audiotaped. The camera(s) should be positioned such that the witness and the photos or persons in the lineup are viewable, and a microphone that can pick up any of the witness's spontaneous utterances should be used. This recommendation is not made with the intent of monitoring the conduct of the person administering the lineup but to capture the procedure and outcome in a way that provides as much information as possible, especially the confidence statement. In fact, most eyewitness researchers consider what happens during the identification procedure as the *only* relevant information, as opposed to what the witness says about it at trial. As mentioned previously, computers are ideal for administering the double-blind photo lineup procedure, with digital cameras that record directly to a disc or a hard drive, and for monitoring decision times and the order in which the photos were displayed.

John Turtle

See also Computer-Assisted Lineups; Confidence in Identifications, Malleability; Double-Blind Lineup Administration; Lineup Filler Selection; Lineup Size and Bias; Mug Shots; Showups; Simultaneous and Sequential Lineup Presentation

Further Readings

Kassin, S. M. (1998). Eyewitness identification procedures: The fifth rule. *Law and Human Behavior, 22,* 649–653.

Turtle, J., Lindsay, R. C. L., & Wells, G. L. (2003). Best practice recommendations for eyewitness evidence procedures: New ideas for the oldest way to solve a case. *Canadian Journal of Police and Security Services, 1,* 5–18.

U.S. National Institute of Justice. (1999). *Eyewitness evidence: A guide for law enforcement* (NIJ 178240). Washington, DC: Author.

Wells, G. L., & Luus, C. A. E. (1990). Police lineups as experiments: Social methodology as a framework for properly-conducted lineups. *Personality and Social Psychology Bulletin, 16,* 106–117.

Wells, G. L., Malpass, R. S., Lindsay, R. C. L., Turtle, J. W., & Fulero, S. M. (2000). From the lab to the police station: A successful application of eyewitness research. *American Psychologist, 55,* 581–598.

Wisconsin Department of Justice, Bureau of Training and Standards for Criminal Justice. (2005). *Model Policy and Procedure for Eyewitness Identification.* Retrieved from http://www.doj.state.wi.us/dles/tns/EyewitnessPublic.pdf

Inadmissible Evidence, Impact on Juries

What is the impact on juror verdicts of inadmissible evidence that surfaces in the courtroom and of judicial instruction to disregard such information? This question has been addressed in laboratory research by attention to its two component parts. First, the research establishes that the presence of inadmissible evidence has a significant impact on juror verdicts in line with the evidentiary slant of the information: The level of guilty verdicts rises with pro-prosecution evidence and decreases with pro-acquittal evidence. Second, the research demonstrates that once inadmissible evidence is present, a corrective judicial admonition does not fully eliminate the impact of the inadmissible information.

These conclusions come from a 2006 meta-analysis that summarized 175 experimental tests, from 48 studies and 8,474 research participants. Confidence in the findings is strengthened by the demonstrated convergence of data from multiple independent labs; 42 research teams contributed to the data set, no more than 6 tests coming from any one lab. Ninety-one percent of the tests involved criminal cases. Civil and criminal cases showed similar effects.

The greatest number of laboratory tests involve inadmissible evidence that favors the prosecution in criminal cases. When research participants heard problematic pro-prosecution evidence and were admonished to disregard it, the conviction rate was 10% higher than a no-exposure control group. Of additional interest is the finding that exposure to contested evidence that was subsequently ruled *admissible* accentuated that information, raising conviction rates 34% above the control group and significantly strengthening the impact of that evidence beyond its original influence.

Inadmissible evidence violates due process, and legal evidentiary standards dictate that a curative instruction is appropriate to minimize the risk that the jury is misled by the unacceptable information. Psychologists posit that jurors are likely to follow the prescribed corrective action only if motivated and able to do so. Research shows that jurors do attempt to use information in a fair manner and to align their decisions with the judge's instructions. However, juror motivation also may be affected by reactance—resistance to a judge's admonition when it is seen as constraining effective deliberation—unless the judge can offer a clear and compelling reason as to why the information is unreliable or irrelevant to the case. Jurors may resist giving up information that they find probative.

Even when they are motivated to do so, jurors' ability to effectively purge inadmissible evidence from their decision making is questionable. At times, the problem may be one of disentangling an inadmissible element from a broader coherent "story" that has developed in the juror's mind and of separating out any inferences that grow from that bit of evidence. Contamination of a juror's knowledge by inadmissible evidence may be exacerbated by simple source confusion: As the trial proceeds, jurors may misremember the origin of a piece of information—for example, nonevidentiary pretrial publicity versus testimony evidence—or fail to recall whether it is legally admissible. In addition, contested evidence is likely to become salient to jurors, and the judge's subsequent instruction to disregard the information may produce what researchers refer to as a "white bear effect"—an inability to *not* think of the "white bear" once the thought is forbidden.

Recent experimental research demonstrates that judges, like jurors, have difficulty ignoring inadmissible evidence. Specifically, the decisions of a sample of 265 judges in simulated cases were shown to be affected by nonevidentiary information from pretrial settlement proposals, conversations protected by attorney-client privilege, prior sexual history of a rape victim, prior convictions of a plaintiff, and defendant cooperation with the government. An impact on decisions was apparent even when the judges were reminded or they determined that the information was inadmissible. This sample of judges, however, was able to disregard information obtained in violation of a defendant's right to counsel and as the outcome of a search when deciding on probable cause issues.

Directed forgetting of inadmissible evidence prompts a very difficult cognitive task. Research firmly demonstrates the failure of judicial instruction to effectively eliminate jurors' use of inadmissible evidence, particularly in the absence of a good reason for rejecting the information. Far less research has addressed potential solutions to this problem. Jurors do respond to specific procedural information that they can understand and appreciate. Therefore, remedies may be found in the addition of up-front (pretrial) direction, clear

explanations during trial admonitions, and reinforcing charges at the end of the trial. Lessons from broader memory research suggest that any means to intercept errant information before or at the time it is encoded into memory is likely to be more successful than an attempt to remove the inadmissible evidence after it is merged into memory. Jury deliberation also may be expected to limit the influence of inadmissible evidence; however, few studies have addressed this specific hypothesis. The research and legal communities will benefit from future research that attends to creative solutions for the problem of inadmissible evidence.

Nancy K. Steblay

See also Juries and Judges' Instructions; Pretrial Publicity, Impact on Juries; Story Model for Juror Decision Making

Further Readings

Steblay, N., Hosch, H., Culhane, S., & McWethy, A. (2006). The impact on juror verdicts of judicial instruction to disregard inadmissible evidence: A meta-analysis. *Law and Human Behavior, 30,* 469–492.

Wistrich, A,. Guthrie, C., & Rachlinski, J. (2005). Can judges ignore inadmissible information? The difficulty of deliberately disregarding. *University of Pennsylvania Law Review, 153,* 1251–1345.

Insanity Defense, Juries and

The insanity defense is one of the most controversial legal defenses in the U.S. legal system, as demonstrated through the constantly evolving insanity laws and the public response to insanity cases. There is extensive evidence to suggest that juror attitudes, preconceived notions, and case-relevant biases and beliefs affect their judgments in insanity defense cases. Research provides strong support for the finding that negative attitudes toward the insanity defense have a robust effect on mock jurors' verdict decisions. Additionally, there is evidence that jurors, rather than relying on instructions and legal definitions, tend to rely on their own commonsense notions of what is considered sane and insane and to use these in determining their verdicts. At the same time, a number of other factors, such as the severity of the crime, characteristics of the perpetrator, and knowledge levels, may moderate the relationship between attitude and verdict, and these factors warrant further investigation. This entry briefly examines the evolution of insanity law, jurors' attitudes to and knowledge of the insanity defense, the influences on jurors' insanity verdicts, and the role of experts in insanity trials.

The insanity defense can be raised in criminal cases when a defendant has a mental illness that interferes with his or her capacity for criminal responsibility. The concept underlying the insanity defense is that it is fundamentally unfair to hold a person responsible for a crime when he or she lacks the capacity to form intent because of a mental illness. The idea that certain defendants should not be held responsible for their actions due to their mental state has been well established for centuries, starting with the "wild beast" test of the 1700s. Since then, the law has struggled to establish guidelines as to what constitutes insanity. This has led to a constantly evolving standard in these cases.

The changing standards for insanity reflect the difficult nature of the defense. The M'Naghten test, established in 1843, held that defendants were not responsible for their actions if they could not tell that their actions were wrong at the time they were committed. This test was subsequently criticized because it put heavy emphasis on the cognitive aspects of right and wrong but failed to take into consideration the issue of the defendant's volitional control. The M'Naghten test underwent many changes, each altering the balance of emphasis between the cognitive and volitional underpinnings of insanity and also changing the definitions of these concepts. Some of the standards currently in use include the M'Naghten test; the M'Naghten test with an allowance for the defendant having an "irresistible impulse"; the Durham or "product" rule, requiring only that the crime be the product of a mental illness; the American Legal Institute standard, which includes both cognitive and volitional reasons for insanity, and the Insanity Defense Reform Act of 1984, which includes only the cognitive element and requires the mental illness to be severe. Many of these changes in standards were in response to highly publicized insanity defense cases in which the verdicts were viewed unfavorably by the public. The most influential of these cases was the trial of John Hinkley for the attempted assassination of President Reagan.

Juror Decision Making in Insanity Cases

The changes in the law described above have resulted in multiple insanity standards, which raises the question of

how jurors will respond to these variations and if they are able to distinguish among them. The standards that jurors are supposed to use in any specific insanity defense case are delivered to the jurors via jury instructions. Research has investigated jurors' responses to these various standards as presented in jury instructions. This research has shown that jury decision making is not substantially affected by the standard that is used or by variations in jury instructions. Additionally, jurors who are given instructions and those who are given no instructions do not seem to significantly differ in their decisions. Whether a standard is present and, if so, which type of standard is used appears to have little effect on jurors' ultimate decisions, even though the standards are based on very different legal notions. This should not be interpreted to mean that jurors do not take the instructions into consideration when they are deliberating, nor does it indicate that they do not take their duties seriously. Some scholars suggest that jurors interpret insanity cases based on their commonsense understanding of mental illness and of the defense itself. It is argued by Norman Finkel (1988) and others that jurors may not distinguish among the varying standards because they rely on their own interpretation of insanity when judging the appropriateness of the defense.

If jurors are basing their decisions in insanity cases in part on their commonsense understanding of the defense, it is important to determine what this commonsense understanding might be. Michael Perlin has written extensively about the common misunderstandings that might be relied on in decision making in insanity cases. He identified eight "myths" that drive public perceptions of the insanity defense. These myths include the belief that the insanity defense is overused, defendants who plead insanity are usually faking, the insanity defense is used almost exclusively in cases that involve violent crimes, pleading not guilty by reason of insanity (NGRI) is a strategy used by criminal defense attorneys to get their clients acquitted, there is no risk to the defendant who pleads insanity, trials involving an NGRI defense almost always feature "battles of the experts," NGRI acquittees spend much less time in custody than do defendants convicted of the same offense, and NGRI acquittees are quickly released from custody. Perlin's myths are examples of the flawed knowledge about insanity that exists in the public domain. Each of these myths has been refuted by empirical findings from multiple sources. However, this misinformation has the potential to negatively influence jurors' consideration of the insanity defense in specific cases.

In addition to the faulty knowledge that prospective jurors might have, jurors may also have preexisting attitudes about the insanity defense that could affect their decision making. Surveys as well as experimental studies have revealed that people hold strong negative attitudes toward this defense. Many prospective jurors report viewing the insanity defense as a loophole in the legal system through which dangerous mentally ill people could reenter society or by which truly guilty criminals who were not mentally ill could be acquitted. In addition, people perceive the insanity defense as one that is too frequently used as well as abused. Research also indicates that negative attitudes about mental illness are largely fueled by this misinformation about mental illness. For example, people have a tendency to overestimate the number of defendants who plead insanity and who are acquitted by reason of insanity, while they tend to underestimate the period of confinement for insanity acquittees. The relationship between insanity knowledge and attitudes is such that more accurate knowledge is related to more favorable attitudes.

Negative attitudes have been shown to decrease jurors' willingness to consider and to render NGRI verdicts. Research indicates that attitudes toward mental illness and the insanity defense exert significant influence on mock jurors' verdicts in insanity cases, even more so than the case facts. Jurors with negative attitudes are far less likely to render NGRI verdicts. Attitudes toward the death penalty are also related to decision making in insanity cases. Jurors with positive attitudes toward the death penalty are crime-control oriented, tend to hold negative attitudes toward the insanity defense, and are significantly less willing to render NGRI verdicts.

Another focus of research on the origins of potential jurors' beliefs about the insanity defense has been in the study of insanity prototypes, or the concept of the typical insanity defendant. In several prototype studies, researchers have found that jurors' notions of insanity included extreme impairments at the time of the offense as well as extreme psychosis. They tended to inflate symptoms of psychosis, as well as portray the offender as extremely violent. These prototypes could produce expectations about defendants in insanity trials that could in turn affect decision making, although there has been little research on this phenomenon.

Once a trial in which insanity is claimed begins, it is the responsibility of the jurors to assess the evidence presented to them and the viability of the insanity defense in that case. Research has investigated the

impact of varying case facts on decision making in insanity cases. Mock jurors seem to construe case information differently depending on their prior beliefs and attitudes. As noted above, there is a tendency for jurors in insanity defense cases to rely more on their own notions of insanity than on the facts of the case. The type of mental illness can be influential, and much research has focused on schizophrenic defendants. Some case facts are also influential in insanity verdicts. For example, some research has found that defendants who had been more reckless, committed more gruesome crimes, and behaved with premeditation were found guilty more often.

Research has also investigated the impact of the personal characteristics of the jurors themselves. The importance of personal contact with mental illness (either through a personal experience or that of a relative or a friend) has been examined, with mixed results. For example, contact with people with mental illness has a somewhat positive effect on attitudes toward mental illness. Studies have shown that college students who had direct interactions with people suffering from depression or psychosis made more positive attributions about the causes of these illnesses. On the other hand, some research has found that those suffering from mental illnesses were less accepting of others who had mental illnesses. Juror gender has also been found to exert an influence on verdict in a limited number of studies; there is some indication that females may be more accepting than males of the insanity defense and of mental illness as a factor in determining criminal responsibility.

Expert Witnesses and the Insanity Defense

Expert testimony is typically proffered in trials where the defendant is raising an insanity defense. The typical successful insanity defense requires a showing of significant mental illness or impairment through expert testimony. The role of experts in insanity defense trials is somewhat unique. There has been substantial controversy about the role of expert psychological testimony in insanity defense trials, and some have advocated doing away with experts in these cases. The law places a number of constraints on experts in insanity trials. Psychologists in most instances testify about a diagnosis for the defendant and the symptoms associated with that diagnosis, and they give their opinions regarding the defendant's ability to understand the difference between right and wrong. However, after the Hinkley case, the Federal Rules of Evidence were amended to disallow expert mental health testimony on the ultimate issue—whether or not the defendant was sane or insane at the time of the alleged offense. This decision was left to the trier of the fact. Limited research has examined the effect of expert testimony in general or of ultimate opinion testimony on juror decision making. A consistent finding is that the ultimate opinions proffered by experts do not have a significant effect on decision making, contrary to the concerns underlying their prohibition.

Jennifer Groscup and Tarika Daftary

See also Criminal Responsibility, Assessment of; Criminal Responsibility, Defenses and Standards; Expert Psychological Testimony; Extreme Emotional Disturbance; Guilty but Mentally Ill Verdict; Insanity Defense Reform Act (IDRA); Mental Illness and the Death Penalty; M'Naghten Standard

Further Readings

Finkel, N. J. (1988). *Insanity on trial.* New York: Plenum Press.

Hans, V. P., & Slater, D. (1984). "Plain crazy": Lay definitions of legal insanity. *International Journal of Law and Psychiatry, 7,* 105–114.

Perlin, M. L. (1996). The insanity defense: Deconstructing the myths and reconstructing jurisprudence. In B. D. Sales & D. Shuman (Eds.), *Law, mental health, and mental disorder* (pp. 341–359). Belmont, CA: Thomson Brooks/Cole.

Poulson, R. L., Braithwaite, R. L., & Brondino, M. J. (1997). Mock jurors' insanity defense verdict selections: The role of evidence, attitudes, and verdict options. *Journal of Social Behavior & Personality, 12,* 743–758.

Zapf, P. A., Golding, S. L., & Roesch, R. (2006). Criminal responsibility and the insanity defense. In I. B. Weiner & A. K. Hess (Eds.), *The handbook of forensic psychology* (3rd ed., pp. 332–363). Hoboken, NJ: Wiley.

Insanity Defense Reform Act (IDRA)

The Insanity Defense Reform Act (IDRA), passed by Congress in 1984, imposed a uniform standard for legal insanity that applies in all federal trials in which

the defense is raised; it also established the burden of proof in such cases.

Although criminal law is primarily the province of the individual states, the federal government has independent jurisdiction to prosecute criminal activity that concerns the federal government. In 1984, all the states and the federal criminal law had some version of the insanity defense, but the federal criminal code did not contain an insanity defense. Instead, each of the courts of appeal in the 11 federal judicial circuits had judicially adopted an insanity defense that applied in that circuit.

Ten of the 11 circuit courts of appeal had adopted the American Law Institute's Model Penal Code (MPC) insanity defense, which permits acquittal by reason of insanity if

> at the time of [the crime] as a result of mental disease or defect [the defendant] lacks substantial capacity either to appreciate the criminality (wrongfulness) of his conduct or to conform his conduct to the requirements of law. (MPC, Sec. 4.01(1))

One circuit still used the traditional M'Naghten test, which permitted acquittal if the defendant, as a result of mental disorder, did not know the nature and quality of his or her act or did not know that it was wrong.

In 1982, John W. Hinckley Jr. tried to assassinate President Ronald Reagan. Reagan survived, and Hinckley was charged with the federal crime of attempted murder of the President. Hinckley raised the defense of legal insanity. The case was tried in the federal district court in the District of Columbia, which had adopted the MPC test quoted above, which placed the burden of proof on the prosecution to prove beyond a reasonable doubt that the defendant was *not* legally insane. A jury found Hinckley not guilty by reason of insanity.

The unpopular verdict unleashed widespread criticism of the insanity defense in Congress and in many state legislatures, especially of the "loss-of-control" prong of the MPC test. There were many proposals to abolish the insanity defense, including from the Reagan Justice Department. Five state legislatures did abolish the insanity defense, although in one, the state Supreme Court held that abolition unconstitutional. The American Medical Association favored abolition, but the American Bar Association and the American Psychiatric Association opposed abolition on the grounds that it would lead to unfair results and that it was unnecessary to protect the public.

Many of the criticisms of the insanity defense were unfounded. For example, the defense has not let large numbers of defendants "beat the rap." In fact, few defendants have succeeded with an insanity defense, and if those successful were not genuinely criminally responsible, then it would have been unjust to blame and punish them. Moreover, the arguments that all criminal defendants with severe mental disorder at the time of the crime were criminally responsible were morally and logically unpersuasive.

The Justice Department abandoned its call for abolition, and Congress decided to retain the insanity defense. The IDRA created a uniform insanity test applicable in all federal criminal trials in which the defense is raised. The test is as follows:

> It is an affirmative defense to a prosecution under any Federal statute that, at the time of the commission of the acts constituting the offense, the defendant, as a result of a severe mental disease or defect, was unable to appreciate the nature and quality or the wrongfulness of his acts. Mental disease or defect does not otherwise constitute a defense.

The IDRA also placed the burden of proof on the defendant to prove by clear and convincing evidence that he or she was legally insane.

The legal insanity test created is similar to the traditional M'Naghten test and thus is narrower than the MPC test, which had been "blamed" for Hinckley's acquittal. Criticisms of loss-of-control tests convinced lawmakers that they were unwise, and such a test was not included. Moreover, the federal test uses the phrase "unable to appreciate," which suggests that this is a bright-line, all-or-none, question, whereas the apparently more forgiving MPC test points to "lack of substantial capacity." Whether this wording difference makes a difference in practice is not clear.

Like M'Naghten, the federal test focuses on the defendant's understanding of the nature and quality of the act or its wrongfulness. The test is apparently broader than M'Naghten, however, because it uses the defendant's lack of "appreciation" rather than lack of "knowledge" as the operative criterion, and many think that appreciation includes an affective as well as a cognitive component. Whether this criterion is broader in practice is an open question. The test is also apparently narrower than M'Naghten because it explicitly requires that only a severe mental disease or defect will support a successful insanity defense.

Again, whether this restriction narrows the test in practice is an open question because few defendants suffering from less serious mental disorders were previously found not guilty by reason of insanity.

Perhaps the most important part of the IDRA was placing the burden of proof on the defendant, which makes it harder for the defendant to succeed. Placing the burden of proof on the defendant is constitutional because legal insanity is an affirmative defense rather than part of the definitional criteria for criminal offenses, and the Supreme Court has held that the prosecution must only prove the definitional criteria beyond a reasonable doubt. Jurisdictions are therefore free to impose the burden of proof for affirmative defenses on the defendant.

Later empirical research has confirmed that placing the burden of proof on the defendant is more successful in hindering insanity acquittals than narrowing the standard for legal insanity itself. This innovation is often criticized as unfair because it creates too much risk that a defendant who is genuinely legally insane will nonetheless by convicted, but it is constitutional, and Congress shows no inclination to change this rule.

The last sentence of the federal test quoted above has generally been interpreted by lower federal courts to mean that in federal criminal trials, evidence of mental disorder can also be used to negate the mental state required by the definition of most crimes, mens rea. Negation of mens rea using mental abnormality evidence is not considered an affirmative defense, so this interpretation is not inconsistent with the legislation. The Supreme Court held in *Clark v. Arizona* (2006) that jurisdictions are under no constitutional obligation to permit defendants to use evidence of mental disorder to negate mens rea, but most federal courts do permit this as a result of statutory interpretation of the IDRA.

Stephen J. Morse

See also Criminal Responsibility, Assessment of; Criminal Responsibility, Defenses and Standards; Mens Rea and Actus Reus

Further Readings

Clark v. Arizona, 548 U.S. ____ 126 S. Ct. 2709 (2006).

Morse, S. J. (1985). Excusing the crazy: The insanity defense reconsidered. *Southern California Law Review, 58,* 777–836.

Steadman, H. J., McGreevy, M. A., Morrissey, J., Callahan, L. A., Robbins, P. C., & Cirincione, C. (1993). *Before and after Hinckley: Evaluating insanity defense reform.* New York: Guilford Press.

Institutionalization and Deinstitutionalization

As recently as the mid-20th century, the U.S. public mental health system consisted largely of the state hospitals. These hospitals, originally constructed for the humane asylum and "moral treatment" of those deemed mentally ill, had evolved into overcrowded, understaffed, and inadequate responses to the general welfare burden of society. Since that time, there have been many attempts to change the world of psychiatric treatment, including the use of medication and deinstitutionalization. Unfortunately, most of the efforts to change the treatment of persons with mental illness have not been successful. Although policymakers have promised changes in the current mental health system, meaningful changes are not going to happen until it is realized that community-based care is necessary and there is no "quick fix." For deinstitutionalization to be successful, there must be adequately funded community alternatives—other than jail, prison, homelessness, or early death—for individuals diagnosed as mentally ill.

Historical Progression of Hospitalization of Persons With Mental Illness

Through the first half of the 20th century, state hospitals provided care, housing, employment (usually unpaid), and social control of people deemed unable to meet life's daily demands. Mental illness, alcoholism, mental retardation, advanced age, or chronic somatic illness, or a combination of these factors, were all reasons for admission. The census nationally peaked at 553,000 in 1955 and is today less than 10% of that number.

The evolution from small pastoral asylum to large, multiburdened institution—Pilgrim Psychiatric Center in New York had more than 14,000 patients in 1955—was less the result of a conscious, articulated social policy than a drift in policy by a relatively young

nation struggling with immigration, urbanization, poverty, disability, and industrialization.

By the 1950s, several factors had combined to alter this approach to serious mental illness. First, institutional abuses became widely publicized, resulting in the creation of the Joint Commission on Mental Illness and Health in 1955. Six years later, this commission was to produce recommendations for a community mental health system in a book titled *Action for Mental Health* (1961).

Second, in 1952, the world of psychiatric treatment was to change profoundly with the development of the antipsychotic drug Thorazine (chlorpromazine) by Henri Laborit. The introduction of this drug meant that many people with serious mental illnesses could control their symptoms with medication.

Third, the Civil Rights Movement began to gather momentum. Initially focusing on persons of color, civil rights attorneys eventually turned their attention to other disenfranchised populations, including people with mental disabilities. Court decisions such as *O'Connor v. Donaldson* (1975) reinforced the liberty interests of psychiatric patients and limited the goal of involuntary hospitalization to prevention of harm, as opposed to the alleged best interests of the patient.

Eventually, these pressures resulted in the passage of the Mental Retardation Facilities and Community Mental Health Centers Construction Act in 1963. The bill was passed with optimism and fanfare and promised that high-quality mental health services in the community would be less expensive and more effective than hospital care. However, these promises were never kept.

Meanwhile, the cost of institutional care began to rise dramatically. In part, this too was due to the efforts of civil rights attorneys and federal courts. Eventually, large class actions such as *Wyatt v. Stickney* resulted in court-mandated improvements in institutional care, which dramatically increased staffing requirements and costs.

Deinstitutionalization

There was insufficient provision for the comprehensive needs of both discharged patients and future generations of people with serious mental illnesses. These needs—housing, social support, employment—were largely neglected in the early decades of deinstitutionalization. Treatment services were expanded but were often focused on those with less severe mental illnesses.

In many ways, the decades since the massive deinstitutionalization of the 1960s and 1970s have been devoted to repairing the flaws of that era. Community support systems and supportive housing were gradually increased—although demand vastly outstrips supply in every state. The growth of the family movement and consumer empowerment movement brought new advocacy to the needs of those attempting to manage and recover from severe mental illness.

The results of our nation's implementation of deinstitutionalization have been mixed. A recent study found that people with serious mental illness are dying 25 years earlier than the general population. Between one-fourth and one-third of America's 2.3 million homeless persons have a serious mental illness, such as schizophrenia, bipolar disorder, or major depression. Furthermore, 6% to 20% of the nation's more than 2 million incarcerated people are estimated to have a serious mental illness. The high prevalence of mental illness in local jails and state prisons eventually became known as the "criminalization" of mental illness.

Yet when deinstitutionalization is done thoughtfully, the results are impressive. In Vermont, Courtney Harding and her colleagues found that linking comprehensive rehabilitation programs, housing, and clinical support to hospital downsizing produced positive, measurable results: Over half the patients 30 years later were productive, living independently with little social impairment, and over two-thirds were functioning "pretty well."

Implications for the Future

There are many lessons to be drawn from the flaws and triumphs of deinstitutionalization. The first is that public policy implemented without consultation with those directly affected—patients and their families in this case—can lead to major folly.

A second lesson is the danger of overpromising. Policymakers overestimated the impact of medication alone, ignoring the need for housing, social support, and an empowered, productive role for patients, all of which are essential to the recovery process.

Finally, society needs to learn that today there is no quick-fix or inexpensive solution to devastating, severe mental illness. Hospitals cost more than community services, but coordinated, comprehensive systems that include treatment, housing, empowerment, social support, and employment are also costly. Convincing

taxpayers to support such a system remains a major challenge.

Like it or not, community-based care is here to stay. The costs of hospital care remain prohibitive, and although some states have relaxed civil commitment statutes, in general, long-term hospital treatment remains targeted only at those with the most disabling conditions. Increasingly, the necessity for long-term hospital care is being questioned for anyone who has not committed a serious crime.

However, as our public policy remains committed to community living for persons with serious mental illness, the gap between needs and resources must continue to shrink. Alternatives to jail, prison, homelessness, and premature death must be funded and implemented if deinstitutionalization is to keep its lofty promises, and there is much work yet to be done.

Joel A. Dvoskin, James Bopp, and Jennifer L. Dvoskin

See also Civil Commitment; Mental Health Law

Further Readings

Abram, K. M., & Teplin, L. A. (1991). Co-occurring disorders among mentally ill jail detainees: Implications for public policy. *American Psychologist, 46,* 1036–1045.

Kiesler, C. A., & Sibulkin, A. E. (1987). *Mental hospitalization: Myths and facts about a national crisis*. Newbury Park, CA: Sage.

O'Connor v. Donaldson, 422 U.S. 563 (1975).

Wyatt v. Stickney, 325 F. Supp. 781(M.D. Ala., 1971), 334 F. Supp. 1341 (M.D. Ala., 1971), 344 F. Supp. 373 (M.D. Ala., 1972), *sub nom Wyatt v. Aderholt*, 503 F.2d 1305 (5th Cir. 1974).

Instructions to the Witness

The instructions given to a witness prior to the presentation of a lineup have an important influence on how the witness views the identification task and how the witness makes a decision whether to make an identification or whom to identify.

Biased Versus Unbiased Instructions

Because the suspect in the lineup may be innocent, it is important that police officers instruct the witnesses that the actual perpetrator may or may not be in the lineup and that they are not obligated to make an identification. Because these instructions are unbiased with respect to the presence or absence of the perpetrator, they are typically called *unbiased* instructions. In contrast, instructions that explicitly state or imply that the perpetrator is in the lineup and that the witness should make an identification are called *biased* instructions.

It is not surprising that biased instructions result in more identifications. Witnesses who are led to believe that the perpetrator is in the lineup and that it is their "job" to identify him or her make more identifications. The question, of course, is whether they make more correct identifications or more false identifications. As simple as the question is, it does not have a simple answer. Some studies have shown that biased instructions lead to increases in both correct and false identifications, and some studies show only increases in false identifications with little or no change in correct identifications.

The consistent increase in false identifications arises because biased instructions lead to more identifications, and if the perpetrator is not in the lineup (i.e., the suspect is innocent), then any identification made by the witness will be an error. The most critical errors, of course, are the false identifications of the innocent suspect. The proportion of identifications of the innocent suspect (rather than one of the foils—i.e., an innocent person in a police lineup) depends on the composition of the lineup.

The question remains: Is there variation in the outcomes for correct identifications? Some of the variation is likely due to ceiling effects. Considering only those lineups in which the perpetrator is present, if the identification rate is fairly high under unbiased instruction conditions, then it cannot increase very much under biased instruction conditions. Consequently, the correct identification rate cannot increase very much either.

However, the variability in correct identification rates cannot be explained by ceiling effects alone. Results showing an increase in the overall identification rate (when the perpetrator is in the lineup), with no increase in the correct identification rate, suggest that the biasing effect of the instructions is not simply to lower the witness's decision criterion. Instead, in studies showing this pattern of results, the biasing instructions may induce witnesses to change their decision rule or change the way they compare the lineup members with their memory. Another explanation

arises from the reasons why witnesses do not identify the perpetrator in the first place. If witnesses who are presented with a lineup that includes the perpetrator do not make any identification, it may be because their memories are quite distorted and inaccurate, such that if they are biased to make an identification, it is very likely that one of the lineup fillers will be a better match to their (distorted) memory of the perpetrator than the perpetrator himself (or herself).

Unbiased Instructions and Biased Lineup Administrators

Police officers may sometimes give witnesses a mixed message by reading an unbiased instruction but then follow that instruction with various encouragements and nudges, suggesting that they should make an identification and even who they should identify. Even seemingly innocuous comments to "take your time" or "look at each photograph carefully" can convey to witnesses that they should make, rather than not make, an identification. Other forms of prompting can direct witnesses as to whom to identify. The point here is that police officers can essentially "undo" their unbiased instructions with biased nudges and prompting.

The prompting may be explicit, or it may be quite inadvertent. Consider, for example, a police officer who knows that the suspect is in Position 4 and is quite certain that the suspect is the perpetrator. If the witness states, "Number 3 looks familiar," should that be considered an identification of Number 3 or a case of the witness thinking out loud? Because the police officer knows that Number 3 is a filler, he or she may interpret the witness's comment as thinking out loud and say something like "Take your time." Because of such interpretation problems, it is recommended that the police officer administering the lineup be blind to the identity and position of the suspect in the lineup.

Change-of-Appearance Instruction

It is also common to instruct witnesses, prior to the presentation of a lineup, that people can change their appearance. The perpetrator, as pictured in a photograph, may have lost or gained weight, grown or shaved a beard, and so on. (A booking photograph used in a photo lineup may have been taken years before or years after the witnessed crime.)

What effect does this instruction have? There is considerably less research on the effects of the appearance-change instruction than the "may or may not be present" instruction. However, one study by Steve Charman and Gary Wells showed that the appearance-change instruction had only one effect—to increase false identifications. They suggested that the appearance-change instruction may function to make witnesses more lenient and to decrease their decision criterion. What has not been shown is that the appearance-change instruction serves its presumably intended purpose of increasing the likelihood of correct identifications of perpetrators who have, in fact, changed their appearance.

Steven E. Clark and Anne K. Cybenko

See also Appearance-Change Instruction in Lineups; Eyewitness Memory; Identification Tests, Best Practices in

Further Readings

Charman, S. D., & Wells, G. L. (in press). Eyewitness lineups. Is the appearance-change instruction a good idea? *Law and Human Behavior.*

Clark, S. E. (2005). A re-examination of the effects of biased lineup instructions in eyewitness identification. *Law and Human Behavior, 29,* 395–424.

Steblay, N. M. (1997). Social influence in eyewitness recall: A meta-analytic review of lineup instruction effects. *Law and Human Behavior, 21,* 283–297.

Interdisciplinary Fitness Interview (IFI)

The Interdisciplinary Fitness Interview (IFI) is a semi-structured assessment device designed to help examiners explore systematically the domain of psycholegal abilities associated with adjudicative competency. Originally developed by Stephen Golding and Ronald Roesch for a National Institute of Mental Health (NIMH)–sponsored comparative validity study of methods of assessing competency, the IFI was developed on the basis of three assumptions. First, the Competency Assessment Interview, which was the most promising and articulated assessment device available at the time, was outdated and did not include many of the psycholegal abilities associated with adjudicative competency that emerged from an extensive review of competency case law and research. Second,

an approach was needed that stressed the possible, but not automatically assumed, linkage between psychopathology and incapacity. Third, an assessment approach needed to reflect the highly contextualized nature of adjudicative competence.

As originally designed and tested, the IFI manual stressed the linkage and contextual aspects of competency assessment and emphasized the importance of these aspects of competency evaluation by including both attorneys and forensic mental health professionals in the interview and evaluation process (hence the term *interdisciplinary*). It was a good, but impractical, idea. In the NIMH-funded pilot project, attorneys proved to be able to contribute in a meaningful and reliable fashion to the competency appraisal, but implementing their routine involvement proved difficult for financial and logistical reasons. In its modern form, the revised version (IFI–R) is designed so that the forensic examiner provides the linkage based on extensive training, knowledge of the legal issues, and consultation with both defense and prosecution about the particular context of a given case. The IFI–R is also designed to include a more extensive linkage analysis and includes additional psycholegal abilities associated with more modern competency cases. Thus, the IFI–R, in addition to the traditional competency domains, also focuses on competencies associated with the decision to proceed pro se or to plead guilty, the competency to comprehend and appreciate rights during a custodial interrogation, and the iatrogenic effects of medication.

The IFI–R organizes 35 specific psycholegal abilities associated with adjudicative competency into 11 broad domains. Thus, the IFI–R spans the entire domain of competency-related psycholegal abilities, ranging from fundamental issues such as understanding the prosecutor's adversarial role, through common competency concerns such as the ability to communicate relevant information to counsel, to higher-order decisional competencies such as the ability to make a reasoned choice of defense options. Special competency considerations that arise in the context of psychotropic medications, such as deficits in psycholegal abilities induced by such treatments and treatment refusal, are also addressed.

For each psycholegal ability, the IFI–R guides examiners through suggested inquiries meant to explore the linkage, if any, between psychopathological symptoms or cognitive deficits and impairment in each domain. While each psycholegal ability can be "scored" as to degree of impairment, the inherent idiographic nature of the instrument means that the scores are specifically not designed to be summed into a "competency score" but rather are meant to guide a forensic examiner's structured judgment. Subsequent research across various competency assessment instruments has demonstrated the validity of this assumption.

The IFI–R has not been thoroughly examined from an empirical perspective. The original NIMH developmental and validational studies found that the IFI items were scored with good to excellent interrater reliability. Furthermore, competency judgments based on the IFI aligned very well with both independent assessments by a "blue-ribbon panel" and court judgments. However, it should be pointed out that these results were obtained with a group of interviewers who received intensive training in both the logic and the methodology of the IFI as well as a detailed review of relevant case law. When untrained examiners' evaluations (using unstandardized methods) are "coded" according to the IFI–R domain/subdomain scheme or when untrained examiners are provided the IFI–R format *without training and supervision*, their assessments of individual domains or subdomains are quite unreliable. Thus, the IFI–R is meant to be used by highly trained and experienced forensic examiners. It has been favorably reviewed in terms of its conceptualization and its usefulness in guiding forensic competency assessments. Most research on the conceptualization of the IFI–R (i.e., using a contextualized semistructured interview to examine the linkage between psychopathology and articulated psycholegal ability domains) has been conducted with the Canadian cousin of the IFI–R, the Fitness Interview Test–Revised (FIT–R).

Unlike most other competency evaluation methods and procedures, the IFI–R and its Canadian cousin, the FIT–R, are the only procedures that have been examined with respect to their comparative validity in a real-world context. Most other competency instruments have been validated by showing that scores on the instrument are significantly different in groups adjudicated as incompetent versus those judged competent. Although such contrasted group designs do provide informative data, they are relatively weak tests of construct validity.

Stephen Golding

See also Competency, Foundational and Decisional; Competency Assessment Instrument (CAI); Competency Screening Test (CST); Competency to Stand Trial;

Evaluation of Competence to Stand Trial–Revised (ECST–R); Fitness Interview Test–Revised (FIT–R); MacArthur Competence Assessment Tool for Criminal Adjudication (MacCAT–CA)

Further Readings

Golding, S. L., Roesch, R., & Schreiber, J. (1984). Assessment and conceptualization of competency to stand trial: Preliminary data on the Interdisciplinary Fitness Interview. *Law and Human Behavior, 8*(3–4), 321–334.

Roesch, R., Zapf, P., & Eaves, D. (2006). *FIT–R: Fitness Interview Test–Revised: A structured interview for assessing competency to stand trial.* Sarasota, FL: Professional Resource Press/Professional Resource Exchange.

Viljoen, J., Vincent, G., & Roesch, R. (2006). Assessing adolescent defendants' adjudicative competence: Interrater reliability and factor structure of the Fitness Interview Test–Revised. *Criminal Justice and Behavior, 33,* 467–475.

Zapf, P. A., & Roesch, R. (2005). An investigation of the construct of competence: A comparison of the FIT, the MacCAT–CA, and the MacCAT–T. *Law and Human Behavior, 29*(2), 229–252.

Interrogation of Suspects

The interrogation of those suspected of wrongdoing, although of great importance to society, has not been researched extensively compared with other crucial topics in psychology and law. Effective interrogation (and therefore the prosecution and possible conviction) of guilty persons is of obvious and high relevance to this encyclopedia, as is the successful interviewing of those suspects who are, in fact, innocent. A number of different approaches to interrogation have been adopted in various countries around the world. Some involve a pressurizing, dominating, and possibly coercive approach; others involve a more humane approach. Research on what really happens in police interviews and on how interviewees view these experiences forms the background for consideration of the strengths and weaknesses of these respective approaches.

In many countries, the interrogation of suspects has had a strong focus on the obtaining of confessions. Although this may be, in general, a useful approach, some psychology-law scholars have emphasized that false confessions do occur. Also, if the primary aim of interrogation is seen as the obtaining of a confession rather than an account from the suspect (which may include a confession), then it may be difficult to be sure that the confession is reliable. Psychological research has been helping the police forces in some countries to reassess how best to interview suspects.

The Reid Technique

In the United States (and many other countries), extensive guidance on how to interrogate suspects has largely come from a book (now in its fourth edition) written by John Reid and colleagues. This book advocates a two-phase approach. In the first phase, the interviewer seeks to obtain relevant information from the suspect. If during this phase the suspect does not either confess/admit to the crime or provide sufficient information to substantiate his or her innocence, or appears to be lying, then the second phase commences. During this phase, which is more of an interrogation than an interview, the interviewer is recommended to use a variety of tactics (involving a stepped approach) to get the (now presumed guilty) suspect to confess.

A major criticism made by some psychologists regarding this approach is that the symptoms/cues of deception/truthfulness that it recommends to be used to determine if suspects are lying have not been found to be valid by the many published studies on cues to lying. Indeed, recent research suggests that focusing on such cues could impair lie/truth-detection performance.

What Really Happens in Police Interviews?

Very few published studies exist regarding the actual effectiveness of the two-step approach. A seminal paper published in 1996 was based on 9 months of fieldwork with a large police department in the United States, during which the researcher sat in on more than 100 interviews with suspects (and observed another 60 that had been recorded on videotape). He found that the police used many of the interrogation tactics recommended in relevant publications. These he categorized into positive incentives (which suggest that the suspect will benefit/feel better if he or she confesses) and negative incentives (which suggest that the suspect confess because no alternative course of

action is sensible). He concluded that the following techniques were very commonly used:

- Undermining suspects' confidence in their denial of guilt
- Offering justifications for their behavior
- Confronting suspects with fabricated evidence of their guilt

Some of the findings of this ground-breaking 1996 study were taken by others (along with their own reading of relevant guidance publications) to indicate that (a) police interviewing of suspects was a confrontational and accusatory process that purposely involved the application of considerable psychological pressure and (b) some of the recommended Phase 2 steps raised ethical questions (e.g., the discouraging/preventing of denials).

In the United Kingdom, a similar, if smaller, 1980 observational study found that among the tactics used were the following:

- Pointing out the futility of denial
- Minimizing the seriousness of the offense
- Manipulating the suspect's self-esteem
- Pretending that the police were in possession of more evidence than was, in fact, the case

In light of (a) this research finding, (b) some courts' decisions and judges' comments regarding inappropriate tactics and procedures being used, and (c) considerable media concern about the police interviewing of suspects, the government in England and Wales brought in legislation that from 1986 sought to discourage the use of unduly oppressive interviewing tactics (which could result in a confession not being deemed "voluntary") and required that all interviews with suspects be fully recorded (e.g., on audiotape).

Around this time, police forces in England and Wales were also becoming aware of research on detecting deception (some conducted by officers themselves, usually as part of their university studies) that was making it ever clearer that generally applicable, valid behavioral cues to deception are unlikely to exist.

The audiotaping of interviews with suspects (routine since 1986) set the scene for a series of studies conducted in the late 1980s to analyze these. Such studies found that while few interviews were now unduly oppressive, the extent and level of interviewing skill was not high. For example, a common tactic was to inform suspects (truthfully) at the outset of the evidence against them. If such evidence was strong, many such suspects confessed. However, if the evidence was weak or moderate, many suspects did not readily confess when informed of the evidence against them. Analyses of the tape recordings revealed that when confessions did not occur in these situations, many police officers seemed not to know what to do next. (They would have been fully aware that the relevant legislation precluded undue pressure.) The primary tactic of revealing the evidence bears similarity to the first phase of the two-phase approach advocated in the United States (and many other countries). However, if this did not work, many British police officers seemed unaware of what could be done in Phase 2.

Reform of Techniques

As soon as the research analyzing the tapes revealed this problem, the Association of Chief Police Officers, with support from the government, set up a working party to design new training and philosophy regarding the interviewing of suspects. This working party based their recommendations (which were adopted) on the fundamental realization that there are many essential similarities between the effective interviewing of suspects and the effective interviewing of witnesses/victims. For example, both need to be designed to encourage the interviewee to talk on relevant topics using methods prescribed by the law and various conventions on human rights. Thus, from 1992 on, all police officers in England and Wales had to undergo new training programs (the extent of which was determined by their job role) in what was termed *investigative interviewing*. The emphasis now was on "skills," in particular skills relevant to (a) encouraging interviewees to provide accounts (including those that could corroborate a confession provided early in the interview) and (b) strategically (in a planned/prepared way) disclosing evidence (piece by piece) at appropriate points in the interview that would encourage the interviewee to provide more information and demonstrate to the interviewee that what he or she has said (or failed to confirm) contradicts the evidence.

Only a limited number of (relatively large) studies have been conducted/published that have analyzed interviews conducted by police officers who have received this new form of training. Among the major

findings regarding interviews with suspects are the following:

- Although most make good efforts to encourage the suspects to give an account, few seemed good at building rapport.
- Use of leading questions and overtalking were relatively rare.
- Challenging what the suspects said did occur in most interviews, but this was often done poorly.
- Most interviewers did purposely provide, near the end of the interview, an opportunity for the suspect to correct or add to the officer's summary of what the suspect had said.
- Few interviews breached the law. (Of course, the officers who conducted these interviews did not know that later they would be analyzed in a research project.)
- The tactics of "intimidation," "situational futility," "minimization," and "maximization" (which would be of great concern to both psychologists and the courts) never or almost never occurred.

Even in interviews assessed as skilled (in terms of what the interviewer did and how this seemed to affect the suspects), however, some of the skills deemed important by police officers themselves were rarely present (e.g., empathy/compassion, flexibility, pauses/silences). Nevertheless, almost all interviewers, even those who were less skilled, now successfully avoided releasing to the suspect all the evidence/information at the beginning.

Suspects' Views

Until fairly recently, the only information available from suspects about their interrogation/interviews were anecdotes. However, 2002 saw the publication of a pioneering Swedish study (conducted by a former police officer) of a large sample of (subsequently convicted) suspects' views about the police interviewing they had experienced. Many indicated via a postal questionnaire that their interviewers displayed impatience, condemning attitudes, and a lack of empathy—which the researcher classified as a "dominating" style. However, other suspects reported experiencing a more "humane" approach, and it was these whose confession rate was higher. This crucial finding could call into question the routine use of a dominating style. However, interviewee denial could cause a dominating style.

Importantly, subsequent research in Canada and Australia on suspects' views can be taken to confirm the Swedish finding. In Canada, a large number of men in a maximum security prison, 45% of whom had confessed to the police, filled in a number of questionnaires. When asked what motivates suspects *not* to confess, the inmates indicated that "the negative attitude of the police officer" and "lacking confidence in the police officer" were among the most important factors. The researchers also examined which of the inmates' questionnaire responses actually related to whether they had confessed or not and found that suspects' perception of the strength of the evidence against them was significant.

The research in Australia asked convicted sex offenders what interviewers should do to increase the likelihood of a genuine confession. Their responses included being compassionate, neutral, clear, and honest and not making false accusations. When asked what would make confessions less likely, the most common response was officer aggression.

In light of research at the psychology-law interface (e.g., on police interviewing), a number of European countries have decided that their police officers be trained in what they call the "British approach." While this approach may have a positive effect not only on minor criminals, who make up the vast bulk of police suspects, but also on major criminals (e.g., of the types studied in Sweden, Canada, and Australia), research on its effectiveness with the most dangerous perpetrators, such as terrorists, is not available. However, those who interview/interrogate suspects will want to be fully aware of what psychology and the law have to say.

Ray Bull

See also Behavior Analysis Interview; Detection of Deception in Adults; False Confessions; Reid Technique for Interrogations; Videotaping Confessions

Further Readings

Buckley, J. (2006). The Reid Technique of interviewing and interrogation. In T. Williamson (Ed.), *Investigative interviewing: Rights, research and regulation* (pp. 207–228). Cullompton, UK: Willan.

Bull, R., & Milne, R. (2004). Attempts to improve the police interviewing of suspects. In G. D. Lassiter (Ed.), *Interrogations, confessions and entrapment* (pp.181–196). New York: Kluwer.

Davis, D., & O'Donohue, W. (2003). The road to perdition: Extreme influence tactics in the interrogation room. In W. O'Donohue & E. Levensky (Eds.), *Handbook of forensic psychology* (pp. 877–996). New York: Elsevier.

Gudjonsson, G. (2003). *The psychology of interrogations and confessions.* Chichester, UK: Wiley.

Intimate Partner Violence

The phrase *intimate partner violence* encompasses a pattern of psychological and emotional abuse, physical abuse, sexual abuse, and stalking between past or present intimate romantic partners. Scientific and clinical evidence indicates that intimate partner violence can result in a plethora of mental health and physical maladies due to ongoing patterns of abuse within relationships, and those most at risk of victimization are women and their children. This entry reviews the incidence and definition of intimate partner violence, the risk factors, and the effects of violence on both victims and perpetrators. Interventions for such abuse now cut across multiple public and private sectors (criminal/civil justice systems, the health care system, child services, battered women's shelters, etc.), and mental health professionals must know how to negotiate such systems in order to help victims and their children. Various prevention and intervention strategies are described below. Finally, current issues concerning intimate partner violence include the controversies surrounding batterer treatment, the unintended consequences of contemporary changes in the law (e.g., mandatory/preferred arrest), and the recent increase in effective yet damaging manipulation of criminal, civil, and family court processes by batterers.

Incidence of Intimate Partner Violence

According to the latest reports from the United Nations and the World Health Organization, intimate partner violence extends across class, culture, ethnicity, and nationality and results in devastating physical and financial costs to individuals, families, and communities across the globe. In the United States, it is estimated that nearly 5.3 million incidents occur each year among women 18 years or older, and 3.2 million occur among men. Fortunately, most intimate partner violence assaults within the United States are relatively minor and are limited to pushing, grabbing, or slapping. Nevertheless, intimate partner violence results in nearly 2 million officially reported injuries and 1,300 deaths each year, with the overwhelming majority of perpetrators of such severe violence being men and the majority of victims being women. Even so, most intimate partner violence incidents are not officially reported to the authorities, and the Centers for Disease Control Injury Center estimates that only about 20% of intimate partner sexual assaults/rapes, 25% of physical assaults, and 50% of stalkings against women are reported. Thus, most authorities agree that available data nationwide are gross underestimates of the problem.

Defining Intimate Partner Violence

Research points to the importance of societal factors that influence individual and collective perceptions of the abuse. For some intimate partner violence victims, the abuse is perceived as a normal part of relationships and is not defined as criminal behavior. For many perpetrators, the abuse is perceived as the correct and most effective way to get their needs met within an intimate romantic relationship. This should not be surprising, because intimate partner violence has only recently been defined as criminal behavior. During the Civil Rights Movement in the United States during the 1960s and 1970s, intimate partner violence was named and brought out from behind closed doors. Prior to that time, violence between partners was viewed as private business and not a place for the state to intervene. Battered women's shelters and rape crisis centers sprang up across the country and are now located within every major metropolitan area in the United States. Due to the work of women's rights advocates, intimate partner violence is now defined as a crime worthy of police intervention and prosecution, similar to assaults that might occur on the street between strangers. Every state in the union now has some form of intimate partner violence law on the books (often referred to as "domestic violence" in the statutes), and many states now also include stalking within these laws. In addition, most states no longer require intimate partners to be married or living together for these laws to apply. Based on variation by state, a complex set of laws protecting intimate partner violence victims now exist (ranging from civil protective orders to mandatory/preferred arrest at the scene), and perpetrators can no longer abuse their partners with impunity.

Physical abuse is now defined as any act that is physically aggressive or violent against another, from

slapping or shoving, up to and including homicide. Unfortunately, some of the best-known and widely used measurement tools (e.g., the Conflict Tactics Scale) do not differentiate between mild forms of such aggression and that which results in intimidation, coercion, and control, not to mention severe injury or death. Sexual abuse is defined as any sexual behavior that is imposed on another without that person's full consent, from sexual imposition or fondling up to and including rape. Psychological or emotional violence is defined as behavior meant to intimidate, control, and coerce. This would include things such as threats to harm, put-downs and insults, monitoring of actions, control of the environment, and inducing fear in others. Often, psychological violence will overlap with stalking behavior, such as following, tracking down, leaving unwanted phone calls at work or home, contacting coworkers or friends and family, and other unwanted contacts after being told to stop. As noted above, mild violence such as pushing, grabbing, or slapping is the most common form of intimate partner violence in the United States, leading some to label such actions as "common couple violence." These types of actions are reported about equally by both men and women. However, serious forms of intimate partner violence that result in patterns of abuse over time, coercion and control, sexual assault/rape, stalking behavior, injury, and homicide are overwhelmingly perpetrated by men (about 85–95% of all perpetrators). This latter type of intimate partner violence has been labeled by some as "intimate terrorism" or "battering" and constitutes a severe public health problem. As will be shown below, the primary perpetrators of such battering behavior are overwhelmingly male, while the victims are overwhelmingly female.

Risk Markers

While it is well-known that intimate partner violence is underreported, those incidents that are severe enough to come to the attention of public and private social service agencies (the police, hospitals, shelters, etc.) suggest that most victims are women, most perpetrators are men, and most are relatively young (15–39 years of age). In terms of ethnicity, some suggest that people of color are more likely to be involved in intimate partner violence than Caucasians. However, when socioeconomic status is controlled, these racial patterns tend to disappear. For instance, when one compares police and emergency room patterns with those found in more private services such as battered women's shelters or advocacy centers, public services seem to be used more often by those in poverty, while the more private services seem to be accessed by those who reflect the racial/ethnic proportions found in the general population. Thus, it is safe to say that intimate partner violence cuts across all races and ethnicities and is most likely to come to the attention of the criminal justice system within the context of poverty and the risks that are associated with being poor.

Substance use has also been shown to be a risk marker, and some researchers have suggested that intoxication lowers inhibitions and increases impulsivity, thus leading to a higher propensity for violence of all kinds (not just intimate partner violence); however, research has shown that substance use is correlational and not causal.

The single largest, repeatable risk marker for battering is being a man within our culture, leading many to suggest that the problem is largely one of patriarchal gender socialization concerning intimate relationships. Indeed, a recent national survey revealed that cohabiting with a man, whether in a heterosexual or a homosexual intimate relationship, was a much stronger risk marker for victimization than cohabiting with a woman. Others, however, reject this hypothesis because women can also be primary perpetrators. Nevertheless, severe intimate partner violence remains overwhelmingly a male problem.

Men who have been abused in childhood or witnessed violence in parents or caregivers are at higher risk of becoming a batterer in the teen years and adulthood than those who have not. Conversely, women who have been abused in childhood or witnessed violence in the home are at higher risk of being victimized. Thankfully, most individuals with such a history do not become abusive or victimized in the teen years or adulthood, and protective markers are similar to those for other types of violence (the presence of nonviolent peers and adults in the formative years, etc.). Nevertheless, it has been known for some time that children learn how to negotiate intimate relationships from adult caregivers of both genders, and if abusive relationships are the norm, there is a higher chance that such relationships will be repeated in their own lives into adulthood. This is known as the "intergenerational transmission" of violence. Disturbingly, estimates suggest that children are present in the home and know about, witness, or are directly involved in up to 75% of all intimate partner violence incidents between adults.

Lethality Assessment

Trying to predict severe injury or death as a result of battering is difficult. Many of the risk markers for severe violence never result in death because homicide has an extremely low base rate within the general population. In addition, some intimate partner homicides occur "out of the blue," meaning that others are unaware of problems within the relationship until after homicide has occurred. Nevertheless, there is amassed evidence for highly lethal risk markers from reviews of intimate partner homicides, whether or not prior knowledge of the problem was available. Such risk markers include severity of past violence (attempts/threats to harm or kill, sexual assault/rape, strangling/choking of partner, child and pet abuse, serious injury, etc.), other criminal behaviors (history of prior arrests, threats/harassment of others besides partner, etc.), failure of past interventions (others have intervened but violence continues, ignoring protective and court orders, numerous police calls, etc.), obsessive stalking behaviors (following, watching, monitoring, isolation, sense of ownership of partner, etc.), and psychological risk markers (previous suicide/homicide threats or attempts, military history or weapons training, depression or other mental health disorders, external life stressors such as job loss or death in the family, drug/alcohol use, etc.). *However, the single largest risk marker for severe injury and homicide is when the victim attempts separation from the perpetrator.* It appears that when batterers can no longer control their partners or the relationship, their violence escalates. Indeed, in the most extreme cases, batterers will kill their partners, their children, and then commit suicide rather than allow separation of any kind.

Negative Effects of Intimate Partner Violence

Similar to any other form of trauma, once the abuse stops, most victims will recover to the emotional and functional levels that were present before the abuse started. Indeed, most battered women will not enter into another abusive relationship in their lifetime. On the other hand, batterers often go from one violent relationship to the next and, without intervention, will often abuse a string of intimate partners. Not surprisingly, data have shown that among intimate couples reporting violence, women report significantly more fear of their partner and fear for their safety than do men.

Victimized women can present with cognitive disturbances due to repeated head banging or beatings, hyperarousal and anxiety disturbances, attentional deficits, seclusion, denial, minimization, somatization, depression, and classic posttraumatic stress disorder symptoms such as dissociation, nightmares, and flashbacks. These symptoms can unfortunately result in misdiagnosis if the effects of intimate partner violence are not taken into account. Such victimization can also cause changes in personality that usually remit on cessation of abuse and establishment of safety but that can also be easily misdiagnosed if the context of intimate partner violence is not taken into account. This is not to say that victimized women never have prior comorbid health issues, only that misdiagnosis is likely to occur if the abuse is not identified. Perpetrators, on the other hand, often cannot be distinguished from other men in terms of personality disorders, depression, anxiety, or any other mental health issue. They are more likely, however, to hold more traditional views concerning men's and women's roles than those who are not abusive.

The effects on children in a home where battering is present are quite negative. As mentioned above, children in such families are at higher risk of becoming future perpetrators or victims themselves. Children from such homes can also experience anxiety and depression, become withdrawn and secretive, struggle in school, have trouble with attention and memory, or begin to act out aggressively. If they attempt to intervene during an intimate partner violence incident, they can suffer mild to severe physical injuries. Perhaps most disturbingly, it has been estimated that in up to 60% of all homes where battering is present, child abuse in some form also occurs.

Types of Interventions

Similar to other types of public health problems, there are three classes of interventions that are currently being applied for the problem of intimate partner violence: (a) primary prevention strategies, (b) secondary prevention strategies, and (c) tertiary intervention strategies.

Primary Prevention

Primary prevention refers to public access educational efforts that attempt to reach most or all members of a population. Such efforts include educational material presented through the media (television, radio, newspapers, the Internet, etc.) that defines the problem of intimate partner violence and provides

information about services available and how to access them and what to do if you or someone you know is a victim or a perpetrator.

Secondary Prevention

Secondary prevention refers to efforts that are tailored to those groups most at risk for perpetration (young males) and victimization (young females). Such interventions are usually presented within educational institutions, religious institutions, and other community organizations such as hospitals and include information similar to that found in primary prevention efforts.

Tertiary Intervention

Tertiary intervention refers to "after the fact" interventions directly targeting known victims and perpetrators. Such services include police intervention and prosecution of the batterer, probation and parole monitoring, civil and criminal protective orders issued by the courts, family divorce courts, legal advocacy centers, battered women's shelters and rape crisis hotlines, child protective services after abuse or threats of abuse, emergency room visits after injury, and access to private or public physicians and mental health workers after the abuse has occurred.

There is evidence that some medical and mental health professionals overlook intimate partner violence victimization in terms of information gathering and diagnosis, even though females nationwide access such health services in larger numbers than males. As noted earlier, misdiagnosis can result from a lack of professional knowledge about intimate partner violence, not to mention ineffective interventions and perhaps even an increase in risk to clients. Nevertheless, more and more health workers are dealing with the unique problems that intimate partner violence can pose in clients' lives, and there has been a call to increase the amount of training concerning such issues across health professions. In addition, the treatment of perpetrators has become a widespread concern, especially since many court jurisdictions now use batterer treatment as an adjunct to or instead of incarceration.

Victim Intervention

In terms of victim intervention, the single largest issue is safety. Mental health providers cannot assist victims and their children in overcoming the effects of trauma if the abuse is continuing or they continue to live in fear of their batterers. Thus, providers must know how to design and monitor client safety plans, be aware of local resources for victims and how to access them, be well versed in lethality factors (especially recent separation), and be willing to call in outside resources such as the police if victims or their children report especially lethal behavior on the part of the batterer. While there are no mandated reporting requirements on the books because victims are enfranchised adults, standard lethality assessment requirements nevertheless apply. Of course, for child victims, mandated reporting is required. Once victim safety is established, mental health providers often serve in the triple roles of therapist, advocate, and case manager. This is because, as noted above, the tertiary interventions for intimate partner violence victimization now cut across multiple public and private systems. In addition to helping victims and their children cope with the psychological aftermath of abuse within an ongoing lethality analysis, therapists often find themselves assisting victims to access services such as shelters, crisis lines, and advocacy centers; helping victims navigate within the criminal, civil, and family courts and child protective services; and testifying in court.

Batterer Intervention

In terms of batterer intervention, many criminal jurisdictions require batterers to attend and successfully complete treatment in lieu of sentencing or jail time or as part of probation/parole requirements. Studies show that batterer treatment is relatively unsuccessful due to high drop-out rates nationwide. Unfortunately, courts are inconsistent and vary by jurisdiction concerning the penalties for such treatment failures on the part of batterers. Still, when court-ordered batterers do complete treatment, studies suggest that recidivism is reduced when measured as future arrests for intimate partner violence. However, batterer treatment remains controversial because of the high drop-out rates, the problems inherent in court-ordered treatment in general (similar to court-ordered drug/alcohol treatment), and the finding that following treatment, some batterers have learned to become more savvy in their abuse in order to avoid future detection by the authorities. Overall, studies suggest that if perpetrators are not personally ready to change their behavior at the time of treatment, at best treatment is ineffective and at worst it creates more savvy batterers. Nevertheless, for those ready to

change, treatment is quite helpful as long as it is conducted within an ongoing lethality analysis. Once again, mental health providers who deal with batterers often find themselves in multiple roles. Therapists are not only expected to deliver antiviolence treatment to batterers, they are also usually required to interact with probation and parole officers, judges, child protective services, and victims to ensure that the violence has stopped. Not only are therapists required to play multiple roles, they must also be quite clear in identifying the "client" when providing batterer treatment. This means that, often, the client is the court and the goal is victim safety, not necessarily the "best interests" of the batterer.

Contemporary Issues

Sadly, with the advent of mandatory arrest policies, there has been an unintended increase in victim arrests at intimate partner violence scenes across the United States, and therefore an increase in victims being mandated for batterer treatment. Nationwide, the best estimates suggest that only about 2% to 3% of all intimate partner violence arrests are of actual primary female perpetrators, and the remainder of these women have been erroneously arrested. Therapists need to be cognizant that erroneous victim arrest can result in job loss, loss of aid and access to other services, charges of unfit parenthood, and future threats by batterers to have them arrested again. Furthermore, those therapists providing batterer treatment should provide thorough assessments of all referrals to ensure that primary perpetrators are identified and separated from their victims regardless of gender and that treatment is then tailored accordingly.

Yet another contemporary issue of which therapists should be aware is that harassing and manipulative behaviors on the part of batterers are becoming more and more commonplace within the criminal, civil, and family court systems. This can be seen not only in the recent increase in victim arrests as noted above but also in the increase in the number of batterers obtaining criminal and civil protection orders against their victims as well as the number of batterers using invalid "parental alienation" arguments in custody battles in the family courts. Even though many states and local communities forbid the issuing of dual protective orders, batterers are nevertheless obtaining them because of the lack of communication across most jurisdictions resulting in inadequate tracking of such cases. Similarly, batterers are using the family courts during highly conflictual custody proceedings to make unjustified claims against their victims concerning unfit parenthood, with the children caught squarely in the middle. Mental health professionals need to be cognizant of such manipulative batterer behavior in the treatment of victims, perpetrators, and their children.

Kathy McCloskey

See also Child Custody Evaluations; Child Sexual Abuse; Conflict Tactics Scale (CTS); Criminal Behavior, Theories of; Posttraumatic Stress Disorder (PTSD); Reporting Crimes and Victimization; Stalking; Victimization

Further Readings

Centers for Disease Control and Prevention. (n.d.). *Intimate partner violence: Overview*. Atlanta, GA: Author. Retrieved May 2, 2007, from http://www.cdc.gov/ncipc/factsheets/ipvfacts.htm

Geffner, R. A., & Rosenbaum, A. (Eds.). (2001). *Domestic violence offenders: Current interventions, research, and implications for policies and standards*. New York: Haworth Press.

Hamburger, K. L., & Phelan, M. B. (2004). *Domestic violence screening and intervention in medical and mental healthcare settings.* New York: Springer.

McCloskey, K., & Grigsby, N. (2005). The ubiquitous clinical problem of adult partner violence: The need for routine assessment. *Professional Psychology: Research and Practice, 36*(3), 264–275.

Mills, L. G. (2003). *Insult to injury: Rethinking our responses to intimate abuse.* Princeton, NJ: Princeton University Press.

United Nations General Assembly. (2006). *In-depth study on all forms of violence against women: Report of the Secretary-General.* New York: United Nations Organization. Retrieved May 1, 2007, from http://www.springtideresources.net/resources/show.cfm?id=161

World Health Organization. (2005). *WHO multi-country study on women's health and domestic violence against women: Initial results on prevalence, health outcomes, and women's responses.* Geneva, Switzerland: Author.

Involuntary Commitment

See Civil Commitment; Outpatient Commitment, Involuntary

J

Jail Screening Assessment Tool (JSAT)

The Jail Screening Assessment Tool (JSAT) is a screening tool developed for the purpose of identifying mentally disordered offenders in jails and prisons. The JSAT is administered by a mental health professional during a brief interview. Initial studies support the JSAT's validity and use as an effective screening device to identify inmates' mental health needs.

Incontrovertible evidence now exists to show that the prevalence of mental disorder among those in the criminal justice system (prisoners, offenders on community orders, and accused on remand) is significantly greater than is found in the general population. Despite the prevalence of mentally disordered people in the criminal justice system, and the potential consequences of failing to adequately address the related issues, relatively few services exist either in prisons or in the community to help identify these people and prevent them from entering or remaining in the criminal justice system.

A number of contributing factors have been identified that help explain the high numbers of people with mental illnesses in the criminal justice system. Considerable concern has been raised about the capacity of community-based mental health services to address the needs of mentally ill offenders. Community-based mental health services work best for those who have reasonable connections and support within the community. While the presence of mentally ill people in the criminal justice system presents challenges and raises concerns, the fact is that the justice system provides an opportunity to identify and deliver treatment to people who are otherwise likely to remain outside the reach of services. As such, it has been suggested that mental health services in the judicial system present an opportunity for identifying those with mental illnesses and making services available to them that would otherwise be nonexistent.

Estimating the prevalence of mental disorder in the criminal justice system is a somewhat inexact practice as the population is inconsistently defined and markedly heterogeneous. Differences may exist on the basis of age, gender, diagnosis, or culture. The prevalence of mental disorder in the criminal justice system indicates that identifying such disorders is of paramount importance. Nonetheless, given the volume of prisoners admitted to jails and prisons on a daily basis, it is not possible to conduct a comprehensive mental health assessment with every person who enters the institution. Thus, screening is vital to identify those who do require a comprehensive evaluation. The aims of screening are to identify mentally disordered offenders and provide the necessary treatment, prevent violent and disruptive incidents in institutions, allocate resources for those with the greatest or most immediate need, and reduce the cycle of admissions to the criminal justice system. To ensure that those requiring mental health treatment are seen by mental health professionals in jails and prisons, screening processes should aim to minimize the number of "false negatives" (failing to identify an actually mentally disordered person), even at the expense of making "false positives" (those identified as possibly being mentally disordered who are not).

The JSAT was developed and refined over a 10-year period that included screening assessments on

almost 50,000 prisoners. According to the authors of the JSAT, there are several aims involved in screening for mental disorders in the criminal justice system: identifying mentally disordered inmates for the purpose of treatment, preventing violent behavior, allocating limited resources for the inmates most in need of services, and reducing the demands on the criminal justice, health, and social welfare systems.

Mental health screening should normally be completed within the first day of admission to jail. The purpose of this screening is to detect serious mental disorder requiring rapid management, treatment, or further evaluation. It is desirable to minimize false-negative errors at this screening stage (inmates who have a mental disorder that is not detected). It will allow those inmates who do have a mental illness to be evaluated further.

Administration of the JSAT involves a brief interview with the prisoner (i.e., approximately 20 minutes) and consideration of relevant history. Although the interview is brief, the JSAT is designed to elicit sufficient information to make initial decisions about the mental health needs of incoming inmates. The JSAT is designed to be administered by a mental health professional, most typically a psychiatric nurse, a clinical psychologist, or an intern.

The screening procedure includes completion of a brief semistructured mental status interview and a revised version of the Brief Psychiatric Rating Scale. The interview covers 10 content areas: personal/demographic information and social background, legal status, mental health assessment and treatment, suicide and self-harm risk, violence issues, criminal history, recent social adjustment, recent mental status, substance use and abuse history, and mental health history. Following the administration of the JSAT, the clinician makes recommendations for any prisoner needs if mental health concerns are identified. Typically, a more comprehensive assessment is then recommended and undertaken.

The JSAT is not a standardized psychological test and does not use cut scores for identifying people requiring further assessment. Rather, the JSAT is an example of structured professional judgment, a decision-making approach in which professional judgment is guided by a formal, standardized structure. The JSAT is also unique in that it involves screening inmates for violence and victimization as well as self-harm, suicide, and mental disorder.

Validation data reported by Nicholls and colleagues indicated that the JSAT has a very high degree of validity. The JSAT has been validated for both male and female prisoners. Indeed, 100% of those identified as having psychotic illnesses, obsessive compulsive illnesses, or suicide risk were subsequently referred to a mental health program.

James R. P. Ogloff and Michael R. Davis

See also Risk Assessment Approaches; Structured Assessment of Violence Risk in Youth (SAVRY); Violence Risk Appraisal Guide (VRAG)

Further Readings

Nicholls, T. L., Lee, Z., Corrado, R., & Ogloff, J. R. P. (2004). Women inmates' mental health needs: Evidence of the validity of the Jail Screening Assessment Tool (JSAT). *International Journal of Forensic Mental Health, 3,* 167–184.

Nicholls, T. L., Roesch, R., Olley, M. C., Ogloff, J. R. P., & Hemphill, J. F. (2005). *Jail Screening Assessment Tool (JSAT): Guidelines for mental health screening in jails.* Burnaby, BC: Simon Fraser University, Mental Health, Law, and Policy Institute.

Judges' Nonverbal Behavior

Early studies by Martin Orne on demand effects and Robert Rosenthal on experimenter expectancy effects established the impact of a sender's nonverbal communication and the way in which it might alter the behavior of others. In the courtroom, judges' nonverbal behavior (e.g., tone of voice, demeanor) often communicates their expectations (sometimes termed *leakage*) about the case at hand. Jurors, for instance, may interpret a judge's nonverbal cues as evaluations of evidence, attorneys, and parties. In some circumstances, these inferences may become information that affects jurors' decisions, in ways not recorded in the trial record. One meta-analysis of studies examining the impact of trial judges' nonverbal behavior on juror verdicts found a significant and nontrivial relationship (r = .14). Therefore, depending on the nature and extent of the nonverbal cues, the due process rights of defendants (that is trial fairness) may be impacted.

Research examining judges' nonverbal behavior has found four distinct "global" styles (general behavior that governs interactions that may be verbal or nonverbal): judicial, directive, confident, and warm. These

global styles were found in content-present and content-absent channels. Judges high in the "judicial" style are viewed as concerned with fairness and propriety; conversely, the "directive" style is seen as managerial and task oriented. Judges high in the "confidence" style are seen as comfortable and patient, and judges themselves have noted that patience is an important quality that helps avoid tyranny in the courtroom. Finally, judges high in "warmth" are seen as supportive and accepting of other trial participants.

The impact of these global styles reaches beyond the abstract perceptions that jurors may have of trial judges. They also predict the "micro"-level, nonverbal behaviors (e.g., eye contact and body posture) that jurors perceive and use as information regarding judges' perceptions of the trial, trial participants, and evidence. These perceptions, in turn, may affect jurors' own perceptions of the trial, trial participants, and evidence and thereby influence their decision making.

Studies using field-based, quasi-experimental, and experimental methodologies have demonstrated that trial judges form expectations about likely jury verdicts that are related to characteristics of the case, the parties, and the jury. Judges are more likely to expect jury verdicts of guilt when the defendant has a more serious criminal history or is of lower socioeconomic status. Jury characteristics also influence judicial expectations. Judges are more likely to expect that the jury will return a guilty verdict on the first count of indictment (a higher charge) when jurors are more educated and a guilty verdict on the second count of indictment when jurors are younger. Moreover, the nonverbal behavior of judges (as rated by study participants viewing tapes of judges during actual trials) is related to these expectations; more specifically, judges expecting a guilty verdict are rated as less warm, less competent, less wise, and more anxious when they deliver jury instructions. When these studies investigated the impact of judges' nonverbal behaviors, they found them to be related to jury verdicts but not consistently so.

Concerns that judges' nonverbal behavior influences juror decisions, thereby compromising trial fairness, have led to research investigating ways to mitigate such an impact. One study examined the complexity of jury instructions and judges' expectations for trial outcomes. Mock jurors were more likely to vote in accordance with judicial expectations when standard instructions were given. However, when simplified jury instructions were presented, participants were more likely to decide in opposition to the judges' expectations.

As is evident, then, existing literature suggests that the effect of judges' nonverbal behavior on jury verdicts is a complex issue. Part of the impact relates to the context in which jurors make their judgments; while interpretations of behavior may be predictive in everyday social situations, they often are less predictable in novel contexts, such as in trial settings. Generally, people are adept at interpreting explicit and implicit nonverbal messages in a variety of social contexts. For the nonlegal professional though, a courtroom is a novel context. The formality of the situation in which jurors find themselves and the novel instructions governing behavior make usual judgments of behavior often inapplicable. Maintaining stoic behavior when one is faced with accusation is not usually seen in social contexts; in a courtroom, such behavior on the part of a defendant may be governed by circumstances or even explicit directions from one's attorney or the judge. Importantly, jurors may infer such behavior to reflect "cold" or "calculating" characteristics, and these inferences may influence their interpretations of other behavior and testimony—and ultimately their decisions.

Other studies show that the courtroom context matters. In one study, participants were exposed to mock trials that simulated British or American trial procedures. British procedures are generally less adversarial, with attorneys more constrained in their participation. British judges (rather than attorneys) issue objections and summarize the evidence at the end of a trial. Though it was hypothesized that the less adversarial environment would provide fewer distractions and thus diminish the influence of judges' nonverbal behavior, the opposite was found to be the case. Perhaps in British trials, the trial judges are more involved in the trial proceeding, which places them even more under the watchful eye of the jury.

In sum, assessing the determinants of juror decision making and judges' nonverbal behavior is complex. Trial judges' interpretations of evidence, parties, and expectations of the verdict appear to relate to their behavior during the trial. In turn, judges' behavior is apparent to observers (e.g., jurors). Jurors' decisions are not strongly predicted from judges' nonverbal behavior alone (as should be the case), and it is possible that this mitigated effect is because jurors are not always accurate at interpreting nonverbal behaviors in the courtroom. This view is consistent with demonstrations showing that changing trial contexts relates to jurors' reliance on judges' nonverbal behaviors and

increased reliance occurring when judges have more active roles.

Meera Adya and Peter Blanck

See also Detection of Deception: Nonverbal Cues; Scientific Jury Selection

Further Readings

Blanck, P. D. (1991). What empirical research tells us: Studying judges' and juries' behavior. *American University Law Review, 40*(2), 775–804.

Collett, M. E., & Kovera, M. B. (2003). The effects of British and American trial procedures on the quality of juror decision making. *Law and Human Behavior, 27*(4), 403–422.

Halverson, A. M., Hallahan, M., Hart, A. J., & Rosenthal, R. (1997). Reducing the biasing effects of judges' nonverbal behavior with simplified jury instructions. *Journal of Applied Psychology, 82*(4), 590–598.

Searcy, M., Duck, S., & Blanck, P. (2005). Nonverbal behavior in the courtroom and the "Appearance of Justice." In R. Riggio & R. Feldman (Eds.), *Applications of nonverbal communication* (pp. 41–61). New York: Lawrence Erlbaum.

Juries and Eyewitnesses

The role of an eyewitness can be extremely important in the legal system, as eyewitness testimony and eyewitness identifications play a major role in the prosecution of a criminal defendant. Often the courts are left to rely solely on an eyewitness because there is no other physical evidence. This leaves the jury to rely on a witness's testimony. Jurors are asked to determine the credibility of an eyewitness at trial when rendering a verdict, and jurors have been found to place more emphasis on eyewitness testimony than on any other kind of evidence. However, there are numerous documented cases of mistaken identifications, and erroneous identifications have been regarded as a leading cause of wrongful convictions. One of the reasons for juries' wrongful convictions based on eyewitness misidentifications is that jurors are not sensitive to the factors that affect identification accuracy. Because jurors rely heavily on eyewitness testimony, it is important to determine what lay people understand about eyewitness performance.

Laypeople's Intuitions About Eyewitness Memory

Psychological research has used various methods to evaluate potential jurors' intuitions concerning eyewitness memory. For example, some studies have used multiple-choice questions that ask potential jurors about the factors that have been found to influence the accuracy of an eyewitness's performance. Another method that has previously been used by researchers is to ask mock jurors whether they agree or disagree with statements concerning eyewitness performance—for example, "Do you agree or disagree that confidence is a poor predictor of an eyewitness's identification accuracy?" The final method researchers use to assess juror knowledge of the factors that influence eyewitness identification testimony is trial simulations. In these simulations, researchers have participants play the role of jurors in a trial, and the researchers manipulate various factors. The goal of these studies is to test either how sensitive the mock jurors are to the factors or how the factors influence perceptions of eyewitness identification accuracy. Certain factors have a significant impact on eyewitness accuracy, while others, such as an eyewitness's confidence rating, are weak predictors of accuracy.

Researchers who began studying mock juries in the late 1970s quickly discovered that participants were unable to distinguish between accurate and inaccurate witnesses. No matter which method was used, the studies indicate that potential jurors' intuitions are correct about some factors that affect eyewitness accuracy but are often incorrect concerning other factors. This unpredictability of jurors' knowledge means that prospective jurors vary widely in their responses when assessing an eyewitness's credibility and rendering a verdict in cases involving eyewitness testimony.

Accuracy and Confidence

Studies have determined that potential jurors' intuitions are not correct concerning certain factors that affect eyewitness accuracy. One factor that jurors overestimate is the power of hypnosis. Mock jurors overestimate the capability of hypnosis in helping memory retrieval. Another factor they overestimate is the relationship between confidence and accuracy. Confidence has been found to have, overall, a somewhat weak relationship to eyewitness identification accuracy. However, mock jurors consistently believe that highly confident

witnesses are more likely to make an accurate identification than less confident witnesses. Consequently, potential jurors' verdicts are predicted by the confidence of the witness. Thus, mock jurors are more likely to believe confident eyewitnesses, but confident eyewitnesses are not more likely to be accurate than less confident witnesses. A common finding is that confidence of the eyewitness is the overriding determinant of the weight mock jurors give an eyewitness when rendering the verdict, regardless of whether or not the identification is accurate.

Lineup Procedures and Situational Characteristics

In relying heavily on confidence, which is a weak predictor of accuracy, jurors simultaneously ignore other variables that have a stronger relationship to eyewitness reliability. Such factors include both lineup procedures and characteristics of the witnessing situation. Mock jurors predict far fewer false identifications in a target-absent lineup (i.e., one in which the perpetrator is missing) than in a target-present lineup (containing the perpetrator), which contradicts empirical evidence. Another lineup factor that laypeople do not consider important when predicting accuracy, but which does in fact influence the accuracy of a witness, is lineup instructions. Mock jurors are able to identify when lineup instructions, as well as foils (innocent persons in a lineup), are suggestive; however, they do not consider these factors important when rendering their verdicts.

Jurors also tend not to consider sufficiently aspects of the witnessing situation that can have a significant impact on eyewitness performance. For example, they underestimate the effect of the amount of time an eyewitness has to view the culprit. Research has determined that the longer the exposure to the culprit, the better the accuracy of the eyewitness. Thus, jurors underestimate the importance of lineup selection procedures and exposure time when evaluating the accuracy of an eyewitness.

Cross-Race Identifications

Jurors also may fail to consider individual characteristics that affect eyewitness behavior. One common area of misidentifications is the "cross-race effect," which refers to a person's tendency to be better at identifying a member of his or her own race than members of a different race. Although the cross-race effect influences an eyewitness's accuracy, many potential jurors are unaware of the effect. In one survey, only half the participants agreed that a White eyewitness would be worse than a Black eyewitness at identifying a Black culprit.

Although jurors are not knowledgeable about some factors, there are other factors that laypeople are intuitively knowledgeable about. For instance, they correctly believe that an eyewitness tends to overestimate the duration of an event, that the presence of a weapon negatively affects memory, and that the wording of a question influences an eyewitness's report. Potential jurors also understand that the attention paid to the criminal during the crime, the opportunity to view the criminal, and the amount of time between the crime and the identification of the suspect are important factors concerning the reliability of eyewitness identifications.

In summary, laypeople's intuitions when determining the credibility of an eyewitness vary depending on the factors present in a specific case, but they are often inaccurate. This failure to appreciate many of the factors that affect identification accuracy has significant implications for jurors' verdicts in eyewitness cases. If jurors do not appreciate that a factor, such as cross-racial identification, can influence eyewitness accuracy, then they will not use the information correctly when deciding a defendant's guilt.

Jurors' Intuitions and Their Verdicts

Another question to consider is whether laypeople use their intuitions correctly when rendering a verdict. For example, laypeople have knowledge—some correct, some incorrect—about the various factors that influence the accuracy of an eyewitness. Do they use these intuitions when weighing an eyewitness's credibility and rendering a verdict? To what extent do jurors follow their intuition in reaching a verdict?

Several trial simulations have assessed whether jurors are sensitive to the impact of various witnessing and identification conditions that do and do not influence eyewitness identification accuracy. Specifically, these studies examined the influence on mock jurors' judgments of the perpetrator's wearing a disguise, the presence of a weapon, the use of violence during the crime, the length of the retention interval, the presence or absence of instruction bias, foil bias, and the level of witness confidence. Results indicated that none of these factors influenced the verdict except the

level of witness confidence. Therefore, even though mock jurors indicate that they have knowledge concerning the impact of these factors (e.g., weapon focus), they do not use the information correctly when rendering the verdict.

In many cases, mock jurors report knowledge of some relevant factor, such as the cross-race effect, and that factor influences their evaluation of the eyewitness's credibility but does not affect their verdict. It is also the case that mock jurors who are relatively knowledgeable about eyewitness memory—both in general and with respect to specific factors—are not more likely to use this information when rendering their verdict than those who are less knowledgeable. This raises the possibility that expert testimony on eyewitness memory would improve jurors' fact-finding ability.

Expert Testimony

Would providing expert testimony aid the jury in using the factors found to increase or decrease identification accuracy? Several surveys have collected opinions from eyewitness experts. When the experts were asked what the role of an eyewitness expert was, 77% of them said that their primary purpose was to educate the jury. There was also a high rate of agreement among the experts concerning many (though not all) eyewitness phenomena as being reliable enough for presentation in court. The majority of the experts polled believed that eyewitness experts generally have a positive impact on juries.

Apart from the opinions of the experts, a line of research has looked at the impact expert testimony has in a trial scenario involving eyewitness testimony. For example, participants might watch a videotape of a trial in which the primary evidence was an identification of the defendant (a robber) by an eyewitness. Half the participants would be exposed to a *poor* witnessing condition, in which the perpetrator was disguised, the robber was carrying a weapon, the identification took place 14 days after the robbery, and the lineup instructions were suggestive. The remaining participants would be exposed to a *good* witnessing condition, where the robber was not disguised, the weapon was hidden, the identification took place 2 days after the robbery, and the lineup instructions were not suggestive. In half the trials, an expert provided testimony concerning the effect of the factors on eyewitness accuracy. The results showed that the expert testimony increased the sensitivity of the participants to the eyewitness evidence. However, the jurors who were not presented with expert testimony did not rely on the witnessing conditions when evaluating the accuracy of the eyewitness. These results provide justification for the use of expert testimony in trials that rely heavily on eyewitness testimony.

In summary, despite the fact that mock jurors are aware of many of the limitations of eyewitness identification, they seem to be unable to apply this knowledge in a trial situation, or they use it in assessing witness credibility without applying it further to their verdicts. Jurors consider eyewitness testimony to be highly credible, but their understanding of the topic is fragmentary and often erroneous. Previous findings suggest that expert testimony could be beneficial in improving jurors' understanding of eyewitness memory and aid them in using the evidence properly to arrive at a more informed decision.

Cindy Laub and Brian H. Bornstein

See also Confidence in Identifications; Cross-Race Effect in Eyewitness Identification; Expert Psychological Testimony on Eyewitness Identification; Hypnosis and Eyewitness Memory; Lineup Filler Selection

Further Readings

Abshire, J., & Bornstein, B. H. (2003). Juror sensitivity to the cross-race effect. *Law and Human Behavior, 27,* 471–480.

Boyce, M., Beaudry, J. L., & Lindsay, R. C. L. (2007). Belief of eyewitness identification accuracy. In R. C. L. Lindsay, D. F. Ross, J. D. Read, & M. P. Toglia (Eds.), *Handbook of eyewitness psychology* (Vol. 2, pp. 501–525). Mahwah, NJ: Lawrence Erlbaum.

Devenport, J., Penrod, S. D., & Cutler, B. L. (1997). Eyewitness identification evidence: Evaluating commonsense evaluations. *Psychology, Public Policy, and Law, 3,* 338–361.

Kassin, S. M., & Barndollar, K. A. (1992). The psychology of eyewitness testimony: A comparison of experts and prospective jurors. *Journal of Applied Social Psychology, 22,* 1241–1249.

Juries and Joined Trials

Joinder is a legal term that refers to the combination of several counts, parties, or indictments in a single trial. Although there has been limited empirical research examining joinder trials, the research that has been conducted has focused almost entirely on the

influence of the inclusion of additional indictments on juror decision making. In this context, a joinder trial refers to a trial in which one defendant is tried for multiple offenses that have similar characteristics or arise from the same incident. The court has the discretion to try a defendant for each offense individually in separate trials or combine the offenses into a single trial if the offenses are related. However, there has been a general consensus among researchers that trials with joined offenses lead to a proconviction bias; jurors are more likely to vote for conviction when offenses are joined than when the defendant is tried separately for each offense. Although the courts have addressed the potential prejudice inherent in joining offenses or defendants by specifying safeguards to protect defendants, the adequacy of these safeguards is still subject to debate.

The Law Concerning Joined Trials

Rule 8(a) of the Federal Rules of Criminal Procedure allows for defendants to be tried for two or more offenses in a single trial if the offenses are similar in character or are part of a single scheme or plan of action. Furthermore, Rule 8(b) allows for two or more defendants to be tried in a single trial if they are accused of jointly engaging in the same criminal transaction. Although these rules are for federal courts, many states have patterned their own rules of criminal procedure after these federal rules. The primary purpose of the combination of offenses is judicial expediency. Separate trials for each offense or defendant would result in many more trials, increasing court costs. In essence, the issue becomes balancing the need to conserve resources with providing defendants fair trials.

The law does recognize that joining offenses and/or defendants may result in a pro-prosecution bias. Rule 14 of the Federal Rules of Criminal Procedure states that the court must protect defendants from the prejudice that may arise from joined trials by separating the charges into separate trials, severing the trials of two or more defendants, or employing any other remedy necessary. If defendants wish to be tried for each of the charges separately or be tried separately from other defendants, they can make a motion for severance of the offenses or from the defendant. However, judges frequently will rule in favor of joining offenses and defendants, unless a case can be made that a joined trial will prejudice the jury. Prejudice may be inferred if the defendant would be likely to rely on contradictory defense strategies if the charges were severed, if the jury would be likely to infer from one of the charges that the defendant has a criminal disposition, or if the jury would be likely to accumulate evidence across charges when determining the defendant's guilt.

Judges may be disposed to join offenses or defendants because case law argues that any prejudice that does arise from joinder can be easily remedied. Specifically, the U.S. Supreme Court has ruled that prejudice from joining offenses or defendants in a single trial can be prevented by instructing jurors to consider the evidence for each charge individually and decide independently the verdicts for each of the charges or defendants.

Empirical Evidence

Researchers have sought to determine whether the courts' assumptions about the ways that jurors decide verdicts in joined trials are supported by empirical evidence. Although there has been limited research in the area, the studies that have been conducted produced relatively consistent findings. Some researchers have posited that joining offenses may lead to a deprivation of the defendant's right to an unbiased trial. The empirical evidence suggests that when offenses are combined in a single trial, defendants are more likely to be convicted than if the offenses were tried separately. Several jury simulation studies show that trials with joined offenses result in higher conviction rates than if each offense was tried in separate trials. Moreover, although the courts have opined that the prejudice that results from joining offenses can be prevented by proper judicial instruction, most studies suggest that judicial instruction is insufficient to prevent this bias toward conviction. In addition, other factors can affect the nature and degree of the prejudicial nature of joined trials.

In one of the first studies to examine the effects of joining offenses in a single trial, researchers examined the differences in conviction rates when mock jurors made judgments in severed trials, where the defendant was charged with a single count of rape in each of two trials, or in a joined trial, in which the defendant was tried for two charges of rape in the same trial. When the offenses were joined, the judge also instructed the mock jurors that they were to consider each charge with its respective evidence separately. Despite the judicial instruction, the jurors were more likely to find the defendant guilty of the first offense when the offenses were joined than when the offenses were

severed. Joinder did not influence rates of conviction on the second offense, but of course, in real cases, the same jury would never hear evidence for both of the severed offenses. This bias toward conviction has been demonstrated across a number of studies that vary on a number of dimensions, including participant type, the presence of deliberations, and the medium used to present the trial (written, audiotaped, or videotaped stimulus).

Studies have also examined the mediators of this pro-prosecution bias in joined trials. As noted previously, courts have acknowledged three possible sources of prejudice in a joined trial: (1) confusion in relating the evidence to the charges, (2) the accumulation of evidence across the charges, and (3) jurors inferring that the defendant has a "criminal disposition" because he or she is being tried for multiple crimes. As early studies merely demonstrated that joining offenses increased convictions and did not address how joining offenses altered juror evaluations that lead to verdicts, researchers such as Sarah Tanford and Steven Penrod began to examine empirically whether various attributes of the joined trial, such as charge similarity, evidence similarity, and judicial instruction, increase jurors' confusion about which evidence relates to which charges, their accumulation of evidence across charges, and their tendency to draw inferences about the defendant's criminal disposition. After watching a videotaped mock trial in which the similarity of the charges, the similarity of the evidence, and the presence of judicial instructions were manipulated, jurors were more likely to render a guilty verdict when the offenses were joined than when they were tried separately, which is consistent with earlier research. In contrast, evidence similarity had no effect on verdicts, and charge similarity was related to verdicts in some studies and not others. Across studies, joining offenses did result in confusion of the evidence, an accumulation of prosecution evidence, and negative inferences about the defendant's criminality. Although the jurors' perceptions of the defendant's criminality mediated the effects of joinder on verdicts, confusion of the evidence did not. Early research by this research team using representative jurors suggested that elaborated judicial instruction designed to reduce the prejudicial effects of joinder had no effect on verdicts; however, follow-up research conducted with undergraduate students found the same instructions to have an ameliorative effect.

Edie Greene and her colleagues have explored other potential mediators of the prejudicial effect of joinder on verdicts. In two experiments, these researchers replicated previous findings that conviction rates are higher in joined trials. They also tested several previously examined mediators of these effects, including negative inferences about the defendant and evidence confusion. Their findings comported with previous research findings that jurors' inferences that a defendant had a criminal disposition seem to drive the increased conviction rate in joined trials. They also examined previously untested mediators of the joinder effect. They hypothesized that jurors who possess the knowledge that the defendant is charged with multiple offenses may be more distressed than jurors who are aware of only a single offense. This increase in distress may lead jurors to lower their criterion required for a conviction; that is, jurors in joined trials may have a lower threshold for finding a defendant guilty than jurors who hear the severed charges. It is also possible that joining offenses creates a greater memory load for jurors in joined trials and this greater load leads to less accurate or detailed memories of the trial evidence. A third hypothesis is that the greater amount of information presented at joined trials may cause jurors to remember only the more salient information that confirms their verdict choice. There was no evidence to support the viability of any of these additional potential mediators of the prejudicial joinder effect.

Although there are some areas in which the empirical evidence is equivocal, there are certain findings about the effects of joinder on jurors that have been repeatedly demonstrated. There is consensus that the joinder of offenses in a single trial results in a pro-prosecution bias. There is also consensus that the effects of joining offenses on the verdict are mediated by jurors' perceptions of the defendant's criminality rather than by confusion over the evidence. Similarly, although the courts have stated that judicial instruction is an adequate safeguard against prejudicial joinder, there is consensus that the judicial instructions generally provided when offenses are joined in one trial are ineffective in protecting jurors' decisions from the prejudicial effects of joinder. There is some evidence that alternative judicial instructions that are designed to reduce the prejudicial effects of joinder may work under certain circumstances; however, further research is needed to replicate these findings and to determine the limitations of these elaborated

instructions in reducing the prejudicial effects of joinder on juror decisions.

D. David Barnard and Margaret Bull Kovera

See also Juries and Judges' Instructions

Further Readings

Greene, E., & Loftus, E. I. (1985). When crimes are joined at trial. *Law and Human Behavior, 9,* 193–207.

Horowitz, I. A., & Bordens, K. S. (1985). Joinder of criminal offenses: A review of the legal and psychological literature. *Law and Human Behavior, 9,* 339–353.

Tanford, S., & Penrod, S. (1984). Social inference processing in juror judgments of multiple-offence trials. *Journal of Personality and Social Psychology, 47,* 749–765.

Tanford, S., Penrod, S., & Collins, R. (1985). Decision making in joined criminal trials: The influence of change similarity, evidence similarity, and limiting instructions. *Law and Human Behavior, 9,* 319–337.

Juries and Judges' Instructions

When a jury trial is conducted, community members who typically have no special legal training or knowledge are called on to serve as jurors. During the trial, the judge instructs jurors as to the relevant law and the procedures to be used to determine an appropriate verdict in the case. Unfortunately, jurors do not always render a verdict congruent with the law. Frequently, jurors misunderstand a large portion of the instructions that are presented to them. In some cases, jurors may also decide to disregard the instructions they have been given. A variety of factors contribute to instruction ineffectiveness, including the language used to convey the instructions, jurors' education level, and jurors' preexisting "commonsense" beliefs about the law. A number of proposed improvements to the instruction process, such as rewriting the instructions, changing the timing of delivery of instructions, providing written instructions, and providing a special verdict form or flow chart/decision tree, have been empirically evaluated. The effectiveness of each of these potential solutions is discussed.

Purpose of Instructions

During a trial, the judge delivers relevant substantive and procedural instructions to jurors. Substantive instructions refer to laws that apply to the specific case at hand (e.g., the definition of first- and second-degree murder, manslaughter, sexual assault, and arson; relevant civil laws, etc.). Procedural instructions refer to the general duties of jurors and are relevant across cases (e.g., legal thresholds such as "reasonable doubt" in criminal cases or "clear and convincing evidence" in most civil cases in the United States, the decision rule to be used—either a unanimous or a majority decision, concepts such as burden of proof, etc.).

Development of Pattern Instructions

Historically in the United States, judges would create jury instructions on a case-by-case basis with input from the attorneys involved in the case. However, this process was time-consuming and led to frequent objections on the ground that the relevant law had been incorrectly explained to jurors. In addition, there was not always consistency in the instructions used in cases of a similar nature. Finally, there was concern that jurors did not understand the instructions they were presented with due to the complexity of the law and because judges were forced to focus their attention on delivering instructions that were legally accurate rather than on explaining the law in a manner that jurors could easily understand, to avoid having cases appealed.

To resolve these problems, prewritten "pattern jury instructions" were developed. Pattern instructions are instructions that have been preapproved by relevant sources (legislatures, state bars, commissions) and can be used repeatedly. In 1938, California was the first state to adopt a set of pattern instructions. This practice quickly spread to jurisdictions across the United States at both the state and the federal level.

Pattern instructions were efficient for judges to use, reduced the number of appeals due to the use of erroneous instructions, and successfully ensured that jurors in similar cases heard consistent instructions. However, a well-established body of social science research has demonstrated that jurors still have considerable difficulty in understanding the law when pattern instructions are used.

Jury Instruction Comprehension Rates

Instruction comprehension problems have been found in jurisdictions throughout the United States and in other countries that use laypersons as jurors (e.g., Canada, New Zealand, Australia, Scotland, and England). Many

studies have found that jurors typically understand a little more than half the instructions they are presented with and that in some cases there is no difference in comprehension rates between participants who receive pattern instructions and those not instructed at all. Some studies have found comprehension rates below 40%, and some have found comprehension rates in the 70% to 80% range. This variability may be due in part to the measure used to assess comprehension, with higher rates obtained when True/False or other multiple-choice recognition questions are used and lower rates when participants are asked to paraphrase instructions.

Comprehension problems exist for both substantive and procedural instructions. In terms of substantive law, a variety of criminal instructions have been shown to be problematic, including those on murder, assault, robbery, theft, and insanity. For example, research has shown that about one third of jurors are unable to articulate that intent is an essential part of first-degree murder. In addition, other research has shown that jurors are not sensitive to the subtle, but important, differences between different insanity standards (i.e., the M'Naghten Standard, the American Law Institute standard, and the Guilty but Mentally Ill standard). Instead, jurors tend to use their own beliefs about insanity in their decision making.

Death penalty instructions appear to be particularly problematic to jurors. In death penalty cases, jurors are typically asked to weigh aggravating factors (specific aspects of the crime that must be present to sentence a defendant to death) against any mitigating factors (aspects of the crime or the defendant's life that make life imprisonment an appropriate verdict). Although the concept of aggravation appears to be reasonably well understood by jurors, mitigation (a critical safeguard that prevents the defendant from being unjustly executed) is not. Jurors sometimes confuse the factors as well (i.e., erroneously believe a mitigating factor to be an aggravating factor).

Research has indicated that jurors have considerable difficulty in comprehending a variety of concepts from civil trials, such as negligence and liability, and have difficulty in determining appropriate damage awards as a result. Some problems associated with civil instructions are likely a result of the complexity of civil law. Difficulties with civil instructions may also occur because jurors are less familiar with civil legal standards than criminal law concepts (as civil issues are portrayed less frequently in news reports and fictional legal stories presented on television, in films, and in books). In addition, in the United States, civil jurors are typically given minimal guidance as to how abstract concepts such as pain and suffering should be transformed into specific monetary amounts for damages.

Procedural instructions are also problematic for jurors. Some research has shown that jurors do not fully comprehend the meaning of presumption of innocence and burden of proof in criminal cases. There is confusion in the minds of jurors as to whether the burden of proof rests entirely on the prosecution and the defendant does not have to present any evidence.

In addition, jurors do not appear to have a complete understanding of the different "standards of proof." The standard of proof is the level of certainty necessary for a fact finder (i.e., the jury) to find that charges against a defendant in a criminal case or the claims against a defendant/respondent in a civil case are true. In the United States, "beyond a reasonable doubt" is the standard used in criminal trials. Individuals in the legal community have estimated this standard to mean requiring approximately a 90% certainty of guilt. It is the highest standard of proof required, reflecting the belief that it is far worse to convict an innocent person than to acquit a guilty one, yet absolute certainty need not be achieved for a conviction. "Preponderance of evidence" is the standard of proof used in most civil cases and requires that the plaintiff establish a certainty above 50% that the allegations against a defendant are true. In addition, in cases of deprivation of liberty, such as civil commitment, denaturalization, deportation, and termination of parental rights, the standard of "clear and convincing evidence" is also used. This third standard is intended to be an intermediate threshold that falls between the other two and has been interpreted as requiring a certainty level between 67% and 75%. Although some research has shown that jurors provide estimates of the meaning of reasonable doubt that are close to those given by members of the legal community, there is still considerable variability in the estimates provided. In addition, jurors express considerably more variability (reflecting greater uncertainty) when asked to estimate the meaning of the preponderance of evidence and clear and convincing evidence standards. Courts do not typically elaborate on the meaning of standards of proof when jurors are instructed. In cases where definitions of the concepts are given, the explanations typically do not shed much light on the concepts (e.g., for reasonable doubt: a doubt "that is not trivial or

imaginary" or a doubt "that would cause a reasonable man to hesitate in making an important decision").

Instructions that caution jurors as to how to use evidence are also problematic. For example, some research has shown that jurors exposed to eyewitness testimony cautionary instructions (commonly known as "Telfaire" instructions) are no more sensitive to the problems associated with eyewitness testimony than jurors not given instructions. Periodically, the judge must instruct jurors to ignore inadmissible information that they have heard in court or in the form of pretrial publicity. These types of instructions have been typically shown to be ineffective. In some cases, jurors may actually pay more attention to evidence that has been ruled as inadmissible than if the judge had said nothing at all about it. This tendency has been termed the "backfire effect" and may be the result of either a sense of resistance (i.e., reactance) building up in jurors because they feel that their freedom to consider the evidence is being threatened or cognitive factors causing a person to pay more attention to information that he or she is actively trying to ignore.

Factors Affecting Instruction Effectiveness

A number of factors have been identified that affect the overall effectiveness of instructions. Comprehension issues are a primary problem and result from the language used to convey the instructions. As previously noted, historically, the focus of instructions has been on stating the law in a legally accurate manner rather than on creating instructions that are designed to maximize comprehensibility. In addition, this problem may be compounded in complex trials in which difficult legal concepts must be explained and a greater amount of instructions must be given. Education level has also been consistently shown to relate to instruction comprehension, with higher instruction comprehension rates found among well-educated jurors, although a number of researchers have found that even law students have difficulty in comprehending the instructions they are presented with.

As previously mentioned, in certain cases, jurors may decide to ignore the instructions they are given. This may happen in cases where a judge rules certain information as inadmissible. In addition, jurors may ignore the law and decide that even though a defendant has broken the law (as they understand the law to be), it would be morally wrong to render a conviction, because the defendant did not violate the spirit of the law or because the law is viewed to be unjust. This phenomenon is known as "jury nullification."

Finally, jurors' beliefs about the law may also interfere with the effectiveness of instructions. There is evidence that jurors tend to rely on their own beliefs regarding the meaning of legal concepts rather than on the specific instructions they are given. This process is known as using "commonsense justice." Jurors may use commonsense justice in their decision making because their beliefs regarding certain legal concepts such as insanity may be particularly strong or because jurors are forced to rely on whatever relevant concepts they possess when given instructions that are unclear.

Improving the Jury Instruction Process

Social science researchers have examined a variety of techniques for improving jurors' comprehension levels for instructions. The most effective technique appears to be rewriting the instructions using general psycholinguistic principles. A variety of research teams across the United States have successfully improved comprehension rates using this approach, with improvement gains between 20% and 30% often detected. It is unclear whether additional revisions to instructions would lead to even higher gains.

In the process of revising instructions, researchers have focused on revisions such as breaking down complex sentences and reorganizing the material using a more logical structure, in addition to replacing legal jargon and uncommon words with more familiar language and replacing abstract words (e.g., "plaintiff") with more concrete terms or specific names (e.g., the plaintiff's actual name). Other changes include eliminating negatively modified sentences, using the active rather than the passive voice, removing prepositional phrases, and replacing nominalizations (nouns that have been constructed from a verb) with verbs (e.g., change "the thinking of" to "think about"). In the process of applying these psycholinguistic principles and improving comprehension, the legal accuracy of instructions has not been sacrificed.

Jurors typically are given instructions just prior to deliberations. However, several studies have found that delivering instructions twice, once at the beginning of the trial and again after the evidence has been presented, improves comprehension somewhat. In addition, delivering pretrial-instructions gives participants

a framework for interpreting the evidence, making them more attentive to due-process issues designed to protect the defendant such as burden of proof. However, comprehension has not been improved on a reliable basis when jurors are only given pretrial instructions (that are not repeated following attorneys' closing statements).

Traditionally, the judge delivers instructions to jurors orally. However, an alternative delivery approach is to provide written instructions to the jurors that can be brought into the deliberation room. Several studies have shown that comprehension levels are increased when written instructions are provided, and that jurors are better able to apply the law. However, other studies have produced contradictory findings and have not found improvements for comprehension or verdict differences when written instructions are used.

Special verdict forms may be used to ensure that jurors attend to key elements that are conveyed in jury instructions. A special verdict form consists of a series of questions regarding separate issues of fact to which jurors must respond. These forms are used in both civil and criminal trials in the United States and in other countries. Similarly, flow charts (also known as decision trees) indicate the order in which decisions regarding different legal questions should be answered and the appropriate verdict that should be rendered as a result of those decisions. It is possible that instruction comprehension can be improved through the administration of these forms and charts because jurors are required to attend to key legal questions that must be resolved. To date, only a few studies have examined the effectiveness of special verdict forms and flow chart/decision-tree models, and those studies have produced mixed results. Some research has shown that instruction comprehension is improved by these techniques and that jurors believe that special verdict forms are helpful in improving their understanding of instructions and rendering a verdict that they are confident in and satisfied with. However, other research has shown that comprehension is not increased by these techniques and that jurors do not use flow charts when they are provided during deliberations.

When jurors are unsure as to the meaning of instructions, they may attempt to resolve their confusion during deliberations by discussing the matter with each other. If one or more jurors have a very good understanding of the instructions, it may be possible for them to clarify the instructions for others, thus improving the overall comprehension level of the jury. Research has indicated that jurors have some discussion regarding the meaning of instructions in most trials. Unfortunately, jurors are unable to clarify misunderstood points on a regular basis and, as a result, deliberation does not appear to be a successful remedy for comprehension problems. Rather, it has been demonstrated that jurors are as likely to replace an initially correct understanding of instructions with an incorrect one as to correct a misunderstood point of the instructions.

Jurors may also turn to the judge to clarify instructions. Although judicial clarification may be the best possible solution to instruction comprehension problems, judges typically either re-read the problematic instructions or do nothing at all and simply allow jurors to proceed relying on their best memory and understanding of the instructions originally delivered. The lack of judicial responsiveness to jurors' requests for clarification is based on concerns regarding appeals. It is unlikely that a decision will be reversed on the basis of the instructions provided when the judge restricts his or her comments to the pattern instructions. However, if he or she deviates from the specific wording in the pattern instructions, it can be argued that the language used to clarify the instructions was inappropriate.

The "Plain English" Movement and the Future of Jury Instructions

The primary problem associated with judicial instructions is that they have traditionally been conveyed in a manner that emphasizes legal accuracy, with minimal attention paid to comprehensibility among a nonlegal professional audience. The development of pattern instructions was seen as an improvement to the instruction process, and it did reduce the time judges spent developing instructions for jurors as well as the number of appeals based on instructions while increasing instruction consistency across cases. However, pattern instructions did not serve to remedy comprehension problems.

Recently, states have begun to respond to the recommendations of social scientists by redrafting pattern instructions using a "plain English" approach and applying psycholinguistic principles. For example, in 2003, California approved approximately 800 new civil jury instructions and special verdict forms and revised its criminal jury instructions in 2006. Other

states are either considering or in the process of making similar revisions (including Delaware, Iowa, Michigan, Minnesota, Missouri, North Dakota Arizona, Florida, Vermont, and Washington). It is hoped that in the future, continued assessment and revision of instructions accompanied by the application of theoretical perspectives from cognitive and social psychology will continue to improve the jury instruction process, leading to verdicts that are based on a true understanding of the law by jurors.

Joel D. Lieberman

See also Damage Awards; "Dynamite Charge"; Inadmissible Evidence, Impact on Juries; Jury Nullification; Jury Understanding of Judges' Instructions in Capital Cases

Further Readings

Ellsworth, P. C., & Reifman, A. (2000). Juror comprehension and public policy: Perceived problems and proposed solutions. *Psychology, Public Policy, & Law, 6,* 788–821.

Elwork, A., Sales, B. D., & Alfini, J. J. (1982). *Making jury instructions understandable.* Charlottesville, VA: Michie.

Finkel, N. J. (2000). Commonsense justice and jury instructions: Instructive and reciprocating connections. *Psychology, Public Policy, and Law, 6,* 591–628.

Greene, E., & Bornstein, B. (2000). Precious little guidance: Jury instruction on damage awards. *Psychology, Public Policy and Law, 6,* 743–768.

Lieberman, J. D., & Sales, B. D. (1997). What social sciences teaches us about the jury instruction process. *Psychology, Public Policy, and Law, 3,* 1–56.

Ogloff, J. R. P., & Rose, V. G. (2005). The comprehension of judicial instructions. In N. Brewer & K. D. Williams (Eds.), *Psychology and law: An empirical perspective* (pp. 407–444). New York: Guilford Press.

Jury Administration Reforms

Over the past half-century, courts have implemented a host of reforms to the administrative processes involved in qualifying and summoning prospective jurors for jury service. These reforms have largely focused on improving the demographic representation of the jury pool and alleviating the burden of jury service on citizens. This entry describes the legal and theoretical basis for administrative reforms and the specific efforts that courts have made to ensure that the jury pool is broadly inclusive of the entire population and reflects a fair cross-section of the community.

Legal and Theoretical Basis for Administrative Reforms

The U.S. Supreme Court first ruled that African Americans could not be systematically excluded from the jury pool on the basis of race in 1880, but widespread efforts to ensure a demographically representative jury pool began in earnest only with the civil rights and women's rights movements during the mid-20th century. The legal principle requiring a racially and ethnically diverse jury pool derives mainly from the Sixth Amendment requirement that criminal defendants be tried by "a fair and impartial jury," which the U.S. Supreme Court has interpreted as a jury selected from "a fair cross-section of the community."

The principle is premised on the belief that a jury that reflects a broad spectrum of life experiences and viewpoints is less likely to succumb to unchallenged assumptions or biases during deliberations. This understanding is supported by a substantial body of empirical research concerning the implications of the story model of juror decision making, which posits that jurors filter trial evidence as it is presented through a preexisting framework of life experiences, opinions, and attitudes (e.g., how the world works, how people interact, etc.), which in turn affects the inferences that each juror takes away from that evidence. During deliberations, jurors have the opportunity to present competing interpretations of evidence and discuss their credibility in the context of the entire case and come to a consensus about the facts and the appropriate application of law to those facts in their verdicts. Due to the widespread public acceptance of this premise, courts have also justified administrative reforms to the jury system to bolster public perceptions of the fairness and legitimacy of jury verdicts produced by diverse and representative juries.

A secondary principle—tangentially related to the first—is that jury service is a civic obligation that all citizens must be prepared to undertake if the American justice system is to continue to uphold its democratic ideals. This principle derives less from specific constitutional requirements and more from the belief that a well-functioning democracy engages citizens across every dimension of cultural identity, socioeconomic status, and political orientation in a process of shared decision making. Thus, no segment of society should

be considered too marginal or too elite to be spared from the basic task of jury service.

A number of institutional and social factors affect citizens' ability and willingness to serve, and they often have a disproportionate effect on minority populations. For example, voter registration lists, the most popular source list for compiling the master jury list, have long been criticized for overrepresenting populations that are older, more affluent, and highly educated and being less representative of minorities. The high mobility rates of youth and lower-income individuals result in substantial numbers of jury summonses—on average, 15% nationally—being returned as undeliverable by the U.S. Postal Service. Some qualification criteria, such as citizenship and English language fluency, disproportionately exclude Hispanic, Asian, and other immigrant populations. Occupational exemptions for various types of professionals place a disproportionate burden of jury service on those who do not qualify for an exemption. The length of time that citizens are required to serve can last up to 6 months or more in some jurisdictions, and juror fees rarely cover more than daily travel and out-of-pocket expenses. Consequently, an average of 9% of prospective jurors are excused for hardship. Another 9% of individuals—again disproportionately lower income and less educated—fail to respond to their jury summonses.

Specific Reforms

To address these myriad issues, state and federal courts have gradually implemented various improvements in jury administration that are designed to expand the jury pool to encompass all jury-eligible citizens, equalize the burden of jury service across the entire population, and make it possible for all jury-eligible individuals to serve if summonsed. For example, half of all state courts now use both registered voters and licensed drivers lists to compile the master jury list, and 20% of courts use three or more source lists. Each new source list adds unique names that were not found on the previous source lists, thus expanding the pool of prospective jurors. Many courts also employ sophisticated mailing list management tools, such as those developed by mail order retailers, to verify and update addresses and reduce the proportion of undeliverable summonses. Several jurisdictions have eliminated occupational exemptions; 12 states and the District of Columbia provide exemptions only for previous jury service.

To reduce the burden of jury service on individuals, nearly one in four courts (23%), whose collective jurisdiction encompasses more than half the U.S. population, now employs a "one day/one trial" term of service. That is, if a person reports for jury service and is impaneled as a trial juror, he or she serves until the completion of that trial and then is released for some statutorily defined period of time. If the juror is not impaneled as a trial juror by the end of the day, he or she again is released from jury service for the statutorily defined period of time. Many courts have also enacted deferral policies that permit citizens to select a new reporting date if the original summons date conflicts with a prior obligation. From a purely logistical standpoint, a shorter term of service in which jurors are used and released, rather than reused in subsequent jury trials, requires courts to summon more citizens for jury service to ensure a sufficient number of prospective jurors to try cases. Thus, this arrangement simultaneously relieves the burden of jury service on individual jurors and distributes the burden more equitably among the jury-eligible population of the community.

Other jurisdictions have increased juror fees to more adequately reimburse jurors' out-of-pocket expenses. Because the fiscal implications of these changes on state and local governments can be quite substantial, many jurisdictions are moving away from a flat daily payment for jury service and toward a graduated payment system in which jurors receive a reduced fee, or no fee, on the first day of jury service and then an increased fee on subsequent days. This type of payment arrangement works well in jurisdictions with one day/one trial terms. It minimizes the cost of jury service incurred by courts on the first day of service, when large numbers of jurors report for jury selection, but provides somewhat better compensation to those citizens who serve for longer periods of time as sworn trial jurors. Some states have also coupled improved juror compensation systems with legislation mandating that employers compensate employees while on jury service for a given period of time (usually 3–10 days), thus minimizing the financial hardship jurors might experience due to lost income. Finally, Arizona, Louisiana, Mississippi, and Oklahoma have enacted legislation authorizing a "Lengthy Trial Fund" to reimburse jurors who are impaneled on longer trials (e.g., 10 days or more) for lost income up to a statutorily defined maximum ($100 to $300 per day).

Along with efforts to reduce the burden of jury service, many courts have stepped up enforcement

proceedings on citizens who fail to respond to the jury summons. Nearly two thirds of courts report some form of follow-up on nonresponders, most often in the form of a follow-up letter or second summons that informs jurors that they have failed to report for jury service and assigns them a new reporting date. Courts that have formally evaluated this approach find that the response rate to a second summons ranges from 35% to 50% and that individuals responding to a second summons qualify for jury service in roughly the same proportion as those responding to the first summons. If a juror fails to appear a second time, sanctions can increase in severity from civil contempt proceedings and fines to arrest and incarceration. Practically, serious juror scofflaws constitute a relatively small proportion of the population in most communities. Thus, these more aggressive enforcement measures often are conducted sporadically, but with a great deal of publicity, as a deterrent to future jurors who might ignore the summons.

The result of these efforts has been a remarkable improvement in the diversity of jury pools over the past three decades. Although some disparity in racial and ethnic representation still occurs in most communities, typically the difference between the proportion of a given minority in the community and the proportion of that minority in the jury pool ranges from 2 to 4 percentage points. These changes, especially expanding the inclusiveness of the master jury list and reducing the term of service, have also dramatically increased the proportion of the American population that has experienced jury service—from 6% in 1977 to 29% in 2004. It may be this direct and personal experience with jury service that has continued to bolster popular support for the institution even in light of the precipitous decline in the proportion of cases tried by jury over the past 30 years.

Paula Hannaford-Agor

See also Jury Deliberation; Jury Reforms; Jury Selection; Story Model for Jury Decision Making; Voir Dire

Further Readings

American Bar Association. (2005). *Principles for juries and jury trials.* Chicago: American Bar Association.

Hannaford-Agor, P. L., Waters, N. L., Mize, G. E., & Wait, M. (2007). *The state-of-the-states survey of jury improvement efforts: A compendium report.* Williamsburg, VA: National Center for State Courts.

Hastie, R., Penrod, S. D., & Pennington, N. (1983). *Inside the jury.* Cambridge, MA: Harvard University Press.

Munsterman, G. T., Hannaford-Agor, P. L., & Whitehead, G. M. (Eds.). (2006). *Jury trial innovations.* Williamsburg, VA: National Center for State Courts.

Jury Competence

Many observers praise the abilities of juries in making decisions in both criminal and civil cases. Others, however, criticize the competence of juries, arguing that juries are not effective legal decision makers. Psychologists have conducted a variety of studies to evaluate how juries make decisions, using simulation and field experiments, archival data, and interviews of jurors and judges. Overall, juries show a relatively high degree of competence—jurors take their decision-making tasks seriously, understand the nature of the adversary process, attempt to make decisions that achieve many (sometimes conflicting) goals simultaneously, and perform at a level that is similar to that of judges. However, there are clear areas in which jury performance could be improved, and a variety of procedural mechanisms have been developed to assist juries in their decision-making tasks.

Models of Juror Decision Making

Research has shown that jurors attend to the trial evidence presented and show relatively high levels of comprehension and recall of the facts at issue. Mathematical models of juror decision making—i.e., Bayesian models, algebraic models, and stochastic process models—posit that jurors begin with a preliminary judgment and update that judgment as evidence is introduced throughout the trial. In contrast, the "story model" of juror decision making is an explanation-based model of juror decision making that contends that jurors construct a narrative story that best accounts for the (often conflicting) trial evidence and then select the verdict option that best fits that narrative.

Jurors' Use of Evidence

In reaching their verdicts, jurors endeavor to make decisions that account for the evidence and that follow the law. Research has shown that in doing so, jurors do tend to make use of the evidence that the law

defines to be relevant to their decisions. For example, jurors use evidence about offenders' conduct in determining criminal guilt and civil liability and evidence about the severity of plaintiffs' injuries in setting compensation. Indeed, the substantive trial evidence turns out to be the best predictor of verdicts.

Extralegal Evidence

In some instances, however, jurors may use information that has been held to be legally irrelevant. First, research has demonstrated that jurors sometimes use information that is related to the case but that is not part of the legally admissible evidence. For instance, jurors have difficulty ignoring evidence to which they are exposed but that is ruled to be inadmissible by a judge—even when they are explicitly told to disregard such evidence. In addition, jurors are influenced by information about a case that that they obtain through the media—pretrial publicity—but that is not part of the evidence admitted in the court.

Second, jurors sometimes use evidence that is appropriately offered for one purpose to inform another decision for which that evidence is legally irrelevant. For example, evidence about a criminal defendant's prior record is not admissible to establish guilt, but it may be admitted to discredit the defendant's testimony. However, jurors have difficulty in limiting their use of such information. In the same way, jurors have been shown to conflate their liability and damages decisions, using evidence that is relevant to one in making decisions about the other. Similarly, there is evidence that jurors take into account their assessment of a plaintiff's own fault in determining the level of damage that plaintiff has suffered. Because these decisions are supposed to be made separately and then combined by the judge, this can result in a "double discounting" of the plaintiff's damages.

Third, jurors have also been found to rely on preexisting cognitive schemas about the law in ways that may be inconsistent with legal rules. For example, jurors may bring with them ideas about offenses or verdict categories that may conflict with the relevant law. Similarly, in the absence of guidance from the court about whether or how their decisions should take into account the possibility that a party is insured or will incur attorney fees, jurors must rely on their own notions about the likelihood and nature of any insurance or fees and about how their decisions should be informed by these possibilities.

Some, but not all, of the difficulties that jurors have in appropriately dealing with these evidentiary issues may be related to difficulties that they have in understanding jury instructions (see below). In addition, some studies have shown that jurors are better able to avoid misusing evidence in some of these ways when given instructions that explain the rationale underlying the legal rules. For example, jurors are better able to keep evidence about plaintiff or defendant culpability from influencing their damage awards when the reasons for doing so are explained.

Hearsay Evidence

There has also been research examining how jurors use particular types of evidence. For example, some studies have examined how jurors assess hearsay evidence—testimony by a witness relaying what was said by another person (the "declarant") that is used to prove the truth of the matter asserted. Jurors appear to be able to competently assess hearsay evidence, distinguishing more reliable hearsay testimony as more accurate, more helpful to their decisions, and of higher quality than less reliable hearsay testimony.

Confession and Eyewitness Evidence

How jurors assess incriminating evidence, such as confession evidence or eyewitness testimony, has also been studied. With regard to confession evidence, there is some evidence that jurors are not influenced by factors—such as evidence of coercion—that are associated with the reliability of confessions. There is similar evidence with respect to eyewitness testimony. Psychological research has documented a number of factors that can influence the accuracy of an eyewitness, including the presence of a weapon, the use of a disguise, or other conditions under which the eyewitness observed the suspect. However, unaided, juror decisions—such as verdicts, culpability judgments, or assessments of the accuracy of the eyewitness—may not be influenced by these factors. In addition, juror decisions can be insensitive to differences in lineup procedures. In contrast, there is evidence that jurors are influenced by the confidence of the testifying eyewitness, even though confidence is only weakly correlated with witness accuracy. Expert testimony about the influences on eyewitness accuracy (e.g., witnessing conditions), however, has been shown to increase juror sensitivity to such factors and to decrease the

effect of witness confidence. When experts testify for both sides, however, jurors appear to become skeptical of all eyewitness testimony, including identifications made under relatively good conditions.

Scientific and Statistical Evidence

Finally, it has been found that jurors can have particular difficulty with certain types of complex evidence, such as statistical, scientific, or other forms of expert testimony. On the one hand, expert evidence often proves helpful to juries—for example, helping them better evaluate other evidence, such as eyewitness testimony or confessions (see above). In addition, there is evidence that jurors carefully evaluate such expert testimony, approaching expert witnesses with some skepticism and working to evaluate both the experts (e.g., their credentials and motives) and the substantive testimony. On the other hand, it has been found that jurors sometimes have difficulty in understanding and using such evidence properly. For example, there is evidence that jurors are not skilled at identifying flaws in the design of scientific research studies and may not discount the value of such research appropriately. Studies with confounding variables, missing control groups, problems with the validity of measures, and the opportunity of experimenter demand are as influential as better-designed studies, and witnesses presenting such flawed research are not seen as any less credible than witnesses presenting studies without such flaws. Similarly, interviews with jurors as well as experimental studies have shown that jurors experience difficulty in reasoning about and making inferences from statistical evidence, such as probability estimates and information about population base rates. Recent research, however, suggests that improved judicial instructions may help jurors better understand scientific testimony.

Civil Decision Making

Civil juries in particular have been criticized as unpredictable, arbitrary, biased against plaintiffs, and prone to making large damage awards. Data from actual cases, however, provide little evidence of juries that are out of control; most jury awards are modest. However, while jury damage awards are appropriately influenced by legally relevant factors, they can also be highly variable, such that different amounts are awarded in cases involving what seem to be similar injuries. In addition, studies have found that juries tend to overcompensate small injuries but undercompensate large injuries. Moreover, there is evidence that for noneconomic damages, such as damages for pain and suffering, and for punitive damages, jurors have some difficulty in translating their judgments into dollar figures and can be influenced by cognitive biases such as anchoring.

Concern is often expressed that juries are biased in favor of plaintiffs and against defendants, particularly those defendants with "deep pockets." However, there is evidence that jurors are relatively skeptical of plaintiffs and their claims. In addition, there is little evidence that the wealth of the defendant influences jurors' liability determinations or their compensatory damage awards. In contrast, however, corporate defendants do seem to be held to a higher ("reasonable corporation") standard of conduct than are defendants who are individuals.

Jury Instructions

The primary way in which juries are schooled in the requirements of the law is through the legal instructions that trial judges give them to guide their decisions. These instructions explain the jury's role, inform the jury about the legal rules that govern the case that it is to decide, define the standard and burden of proof, and define the possible alternative verdicts available to the jury. Typical instructions focus on stating the law precisely rather than on comprehensibility; contain many legal terms of art; and consist of lengthy, complex sentences. Perhaps not surprisingly, therefore, a large body of research has demonstrated that while jurors perform relatively well at understanding and remembering the factual evidence presented at trial, they often have difficulty in understanding, remembering, and applying these legal instructions. For example, jurors have particular difficulty in understanding the "beyond a reasonable doubt" standard in criminal cases, the "negligence" standard in civil cases, and legal terms such as "aggravation" and "mitigation" in capital punishment instructions. Similarly, typical instructions limiting the use of particular evidence or indicating that particular evidence is to be ignored are poorly understood.

Significantly, there is evidence that the comprehension of and ability to follow instructions is improved when instructions are rewritten following the basic principles of psycholinguistics. Removing legal jargon,

negatives, and words with multiple meanings; using more common words; replacing abstract concepts with concrete terms; using party names; simplifying sentence structure; and providing an analytical structure to guide decision making can all help make instructions more comprehensible. In addition, there is some evidence that providing jurors with written copies of instructions can lead to improved memory for and comprehension of the legal instructions. As noted above, research has also shown that jurors are better able to follow legal instructions when they include explanations and reasons for the underlying legal rules.

Deliberation

Much research examining jury competence has been conducted by examining the decisions and judgments of individual jurors. Indeed, the predeliberation preferences and judgments of individual jurors are predictive of ultimate jury verdicts. Juries, however, operate as group decision-making bodies. Thus, it is important to consider the ways in which the deliberative process might influence jury competence. Importantly, juries may be advantaged over an individual decision maker (such as a judge) in that they can draw on the memories and understandings of the collective. Research has demonstrated that jurors who deliberate are more likely to engage in complex reasoning about the law and the evidence and make more counterarguments, have better memory for the trial evidence, are less susceptible to some judgmental biases, and reach more consistent decisions. On the other hand, group deliberation has been found to worsen judgmental biases in some circumstances, and group decisions can become more extreme.

Comparing Jurors With Judges

Any discussion of jury competence must consider the standard by which competence is to be evaluated. One common standard by which to evaluate jury competence is to compare jurors with the most likely alternative—trial court judges. In general, research has shown that judges and jurors show substantial agreement in their decisions. High rates of agreement are found both in cases classified by judges as relatively easy to understand and in cases involving a high degree of legal and factual complexity. Moreover, in those cases in which there is disagreement between jury and judge, the judges do not attribute the disagreement to jury misunderstandings of the case. Rather, judges are more likely to disagree with jury decisions in cases that are "closer calls"—that is, in cases in which there are credible arguments to support either decision. Several studies have also shown relatively high rates of agreement between juries and other expert decision makers; for example, jury verdicts in medical malpractice cases tend to correlate with the judgments of physicians.

In addition, research has shown that judges and jurors engage in similar decision *processes.* For example, judges and jurors consider the same factors in assessing plaintiffs' pain and suffering in personal injury cases, rank the severity of cases in similar ways, take into account similar factors in setting punitive damage awards, and are influenced by the same variables when assigning blame in criminal cases. Judges also suffer from many of the same difficulties that jurors do. For example, judges, like jurors, are typically not trained in math or science and have difficulty in evaluating statistical and scientific evidence. In addition, judges, like jurors, have been shown to be unable to ignore inadmissible evidence. Similarly, judges are subject to the same sorts of cognitive illusions as are jurors; their decisions are influenced by anchoring, outcome and hindsight bias, and other heuristics.

Judges—as the trial participants who are in a position to most closely observe the jury—are also well suited to comment on jury competence. When asked their opinions about juries, judges report high levels of satisfaction with juries and believe that juries understand the issues and attempt to follow the legal instructions.

Aids to Jury Decision Making

A variety of aids have been proposed to assist juries with their decision tasks. Many of these aids have been controversial, but over time more courts have become willing to incorporate some of these procedures into their processes. This increased openness has also facilitated empirical assessments of the effects of these reforms in field settings. These reforms attempt to improve jury decision making through a range of mechanisms. First, a number of reforms are aimed at assisting jurors in making sense of and remembering the evidence. For example, instructing juries about the law prior to the introduction of evidence provides jurors with a framework that helps them structure the trial evidence as they hear it. Similarly, allowing jurors to take notes and ask questions of witnesses helps jurors understand the testimony presented and remember it better. Providing access to trial transcripts, witness lists, or

trial summaries helps jurors refresh their memories, allows them to clarify the evidence when memories differ, and makes it more likely that they will systematically process the evidence. Allowing jurors to discuss the case throughout the trial may help jurors comprehend the evidence and formulate useful questions.

Other reforms are targeted at helping jurors follow the legal rules. For example, bifurcating the trial—that is, separating trials into multiple parts at which different questions are considered may help jurors focus on the evidence that is most relevant to the separate decisions at hand. For example, decisions on punitive damages could be postponed until after the jury has determined liability and compensatory damages. Then, evidence relevant to punitive damages could be heard at a separate proceeding. Similarly, asking jurors to respond to a series of questions ("interrogatories" or a "special verdict") can be used to focus jurors on the relevant legal questions. Reforms directed at judicial instructions are also likely to improve jurors' ability to understand and follow the law. Rewriting judicial instructions to make them more understandable and easier to follow, drafting instructions to assist jurors with scientific and statistical evidence, and formulating reason-based instructions may all help jurors comprehend and apply the law better.

Jennifer K. Robbennolt

See also Chicago Jury Project; Confession Evidence; Damage Awards; Expert Psychological Testimony; Expert Psychological Testimony on Eyewitness Identification; Hearsay Testimony; Inadmissible Evidence, Impact on Juries; Juries and Eyewitnesses; Juries and Judges' Instructions; Jury Decisions Versus Judges' Decisions; Jury Deliberation; Jury Reforms; Statistical Information, Impact on Juries; Story Model for Juror Decision Making

Further Readings

Greene, E., Chopra, S., Kovera, M. B., Penrod, S., Rose, V. G., Schuller, R., et al. (2002). Jurors and juries: A review of the field. In J. R. P. Ogloff (Ed.), *Taking psychology and law into the twenty-first century* (pp. 225–284). New York: Kluwer Academic/Plenum.

Hans, V. P. (Ed.). (2006). *The jury system: Contemporary scholarship.* Aldershot, UK: Ashgate.

Kalven, H., & Zeisel, H. (1966). *The American jury.* Boston: Little, Brown.

Lieberman, J. D., & Sales, B. D. (Eds.). (2000). The jury instruction process [Special issue]. *Psychology, Public Policy, & Law, 6*(3).

Robbennolt, J. K. (2005). Evaluating juries by comparison to judges: A benchmark for judging? *Florida State University Law Review, 32,* 469–509.

Robbennolt, J. K., Groscup, J., & Penrod, S. D. (2005). Evaluating and assisting civil jury competence. In I. Weiner & A. Hess (Eds.), *The handbook of forensic psychology* (pp. 392–425). New York: Wiley.

Vidmar, N. (1998). The performance of the American civil jury: An empirical perspective. *Arizona Law Review, 40,* 849–899.

Vidmar, N., & Hans, V. P. (2007). *American juries: The verdict.* New York: Prometheus Books.

Jury Decisions Versus Judges' Decisions

In American trials, the verdict is reached by either a judge or a jury, raising questions as to how these two fact finders reach their decisions and whether their decisions systematically differ. Most research has focused on the jury, though some key studies have compared the decisions of judges and juries. The available archival studies, case-specific judicial surveys, and experimental research reveal substantial similarities and a few differences.

Before a civil or criminal trial begins, the parties decide whether it will be a trial by jury or a trial by judge ("bench trial"). A bench trial occurs if both sides waive the right to a jury. Although rates vary across jurisdictions, approximately one third of felony trials and one in four civil trials in the United States are bench trials. Outside the United States, a mixed tribunal consisting of both lay and professional members may determine the outcome of a trial. Some critics of the American jury suggest that the justice system would be improved by transferring more decision-making responsibility to professional judges. Thus, in evaluating the performance of the jury, the policy-relevant comparison is not some hypothetical ideal decision maker, whatever characteristics that model might have, but rather the professional, legally qualified judge. Yet most research on trial court decision makers has focused on the jury rather than on the judge, perhaps because the jury is both a cultural icon and a favorite whipping boy, because relying on conscripted amateurs rather than professionals to decide outcomes of important conflicts raises questions, and because laypersons are more accessible than judges as subjects for research on decision making.

Judges and juries differ in several potentially important ways. Modern judges are legally trained professionals, while jurors are not. Although the modern jury may include members with legal training, most jurors are legal novices. Although some members of a jury may be more educated than the judge or have more expertise in a particular trial-related topic, the judge is typically more educated than the average juror. While the trial judge sits and deliberates alone, jury members have an opportunity to pool their experiences and opinions and to correct misunderstandings. Jurors, unlike judges, must reach a group decision. Finally, the judge is a repeat player, employed by the state to preside regularly over legal matters. In contrast, for the citizen selected to serve as a juror, jury service is an unusual event. The differences between the decisions of judges and juries may be due to one or a combination of these factors.

Direct comparisons of judge and jury decision making are challenging to make, and whether the data are obtained in the field or the laboratory, the implications of the results are sometimes ambiguous. Nonetheless, they are necessary to draw policy conclusions about the decision-making behavior of these two parties. Although still rare, their number is increasing, providing some systematic evidence on two central questions. First, do judge and juries differ in the likelihood of their deciding on conviction or liability or in the level of sentence severity or damage amounts they choose? Second, do juries and judges consider different factors or weigh them differently in reaching their decisions?

Researchers compare the decisions of judges and juries using three methods: archival analyses examining outcomes in jury versus bench trials, judicial surveys in which the judge indicates how he or she would have decided the case that a jury decided, and experiments in which judges and jurors respond to the same (or similar) simulated evidence. All three methods have strengths and weaknesses. A picture of current knowledge about judge–jury similarities and differences emerges from a composite of these findings.

Archival Research

Archival studies capture the real decisions of judges and juries, but they must attempt to control statistically for differences between the cases tried by judges and those tried by juries. Because the tribunal that hears the case is determined by the choice of the litigant not to plead guilty or to settle as well as whether or not to waive the jury, the selection of cases is far from random and must be modeled for successful control. Most of the archival research comparing judge and jury verdicts has been conducted on civil trials. Researchers have not found consistent differences in overall liability rates between juries and judges. They have shown, however, that differential win rates on liability in federal civil trials vary across categories of cases, with plaintiffs winning more often in bench trials than in jury trials in some major types of tort cases and less often in bench trials than in jury trials in others. Before concluding that these patterns indicate that the win rates on the decisions of the judge and the jury do not differ on average or differ systematically by case type, it is necessary to determine how much of the apparent similarity or difference is attributable to selection effects. A key difficulty is that in attempting to control for selection differences, researchers do not have even an approximate measure of the strength of the evidence for liability and must rely on the limited case characteristics that have been recorded in the archives.

The same modeling problem arises for comparisons of judge and jury verdicts on damages. Several archival studies report that damage awards from jurors tend to be higher than those from judges, although a substantial portion of the apparent difference disappears when controls for differences in the cases they decide are introduced. Other studies have found no overall differences. Similarly, some researchers using archival data to study punitive damages and the size of punitive damage awards have found more frequent and higher awards given by juries, while others have found no differences.

Case-Based Judicial Surveys

Nearly 50 years ago, to address the selection problems that plague archival comparisons of judge and jury verdicts, Harry Kalven and Hans Zeisel developed the innovative approach of a case-based judicial survey for their classic national study of the American jury. In each of the 7,500 cases they studied, the trial judge completed a questionnaire describing the characteristics of the case, the jury's verdict, and how the judge would have decided the same case in a bench trial. Studies using this approach depend on the independence of the judges' personal verdict reports—that is, whether the judge reports a personal verdict preference before learning the jury's verdict or, if the

report comes after, whether the judge has been affected by that knowledge. Nonetheless, the case-based judicial survey ensures that the judge and jury verdicts being compared come from equivalent cases because the judge in each case is providing a judicial verdict in precisely the same real trial that a jury decides. The judge and jury in the Kalven-Zeisel survey of 3,500 criminal cases agreed in 78% of the cases on whether or not to convict. When they disagreed, the judge would have convicted when the jury acquitted in 19% of the cases, and the jury convicted when the judge would have acquitted in 3% of the cases—a net leniency rate of 16%. Disagreement rates were no higher when the judge characterized the evidence as difficult than when the judge characterized it as easy, suggesting that the disagreements were not produced by the jury's inability to understand the evidence. Disagreement rates did rise when the judge characterized the evidence as close rather than clear, indicating that disagreement cases were, at least in the judge's view, more likely to be those cases that were susceptible to more than one defensible verdict. Primary explanations offered for the overall differences were differences in judgments about the credibility of witnesses and a different threshold of reasonable doubt. Two smaller, more recent studies using the Kalven-Zeisel method have shown remarkably similar patterns in criminal cases, obtaining 74% to 75% agreement, with a greater leniency of 13% to 20% from the jury. Studies outside the United States have shown similarly high levels of agreement between professionals and juries or lay judges in criminal cases.

For the 4,000 civil trials in their judicial survey, Kalven and Zeisel obtained the same agreement rate of 78% on liability, but disagreement was almost equally divided, so that in 12% of the cases, the jury found for the plaintiff, while the judge favored the defense and in 10% of the cases, the jury found for the defense, while the judge would have made an award. Awards by juries were 20% higher on average than awards by judges. Several smaller, recent studies of civil jury cases in several locations have indicated agreement rates on liability between 63% and 77%, but it is unclear whether any overall change has occurred over time because no national study comparable with the Kalven and Zeisel study has been conducted. Because punitive damages are awarded so rarely (in roughly 3% of contract and tort cases), researchers conducting case-specific judicial surveys have not been able to compare judge and jury decisions on punitive damages.

Simulations and Experiments

A third approach comparing judge and jury decision making asks judges and laypersons to reach decisions based on simulated trial materials in the form of written materials or videotaped presentations. Comparability is ensured by having the judges and laypersons read or view precisely the same stimulus. In addition, by experimentally varying the stimulus within each group, researchers have tested how specific variations in the evidence (e.g., exposure to inadmissible evidence) affect judges and laypersons differently. The extent to which these simulated decisions reflect what the decision makers would do in a real trial is contingent on the extent to which the simulation captures the relevant factors that would affect trial judgments. The materials in these studies generally must be brief to obtain judicial participation. Trial elements such as jury instructions are often truncated or missing. Mock jurors frequently are not asked to deliberate, so that the judicial responses are compared with those of individuals rather than the group decisions of multiple jurors. Nonetheless, the few experiments comparing judges and laypersons reveal a striking overall similarity between their decisions.

Experiments showed that exposure to inadmissible evidence influenced judges and laypersons similarly, and both groups were reluctant to impose liability based on mere statistical evidence. In several experiments involving personal injury cases, both professionals and laypersons responding to the same cases used the severity of injury in determining pain and suffering awards, but in one study, laypersons were more variable in their awards. It is unclear how much, or whether, variability in decisions by lay decision makers would drop if their awards were determined by group verdicts rather than individual judgments. In determining criminal sentences in a series of cases, laypersons favored lower penalties than judges did, indicating that the same greater leniency was shown by juries in criminal conviction cases in case-based judicial surveys.

In a few of the experiments directly comparing the judgments of judges and laypersons, the samples tested raise questions about the representativeness of the findings because the laypersons were students or the judges sampled came from a unique subgroup (e.g., those who had signed up to attend a law and economics seminar). Much more research is needed to

map experimentally the differences and similarities between the judgments of judges and juries before concluding that judges are better than juries at specific tasks (e.g., assessing risk) or that deliberations enable juries to outperform judges on other tasks (e.g., assessing conflicting testimony).

Finally, in addition to the few studies that have exposed judges and laypersons to the same stimulus, in several experiments with judges, researchers conducted conceptual replications of the impact of heuristics (e.g., anchoring, hindsight, framing) or of extralegal factors, which had previously been tested on laypersons. With a few exceptions, these experiments have revealed that judges show a similar susceptibility to these cognitive illusions.

Shari Seidman Diamond and Pam Mueller

See also Juries and Judges' Instructions; Jury Competence; Jury Deliberation; Jury Selection; Leniency Bias

Further Readings

Diamond, S. S., & Rose, M. R. (2005). Real juries. In J. Hagan (Ed.), *Annual Review of Law & Social Science* (Vol. 1, pp. 255–284). Palo Alto, CA: Annual Reviews.

Eisenberg, T., Hannaford-Agor, P. L., Hans, V. P., Waters, N. L., Munsterman, G. T., Wells, M. T., et al. (2005). Judge-jury agreement in criminal cases: A partial replication of Kalven and Zeisel's *The American Jury*. *Journal of Empirical Legal Studies, 2,* 171–207.

Guthrie, C., Rachlinski, J. J., & Wistrich, A. J. (2001). Inside the judicial mind. *Cornell Law Review, 86,* 777–830.

Kalven, H., Jr., & Zeisel, H. (1966). *The American jury*. Boston: Little, Brown.

Robbennolt, J. K. (2005). Jury decision making: Evaluating juries by comparison to judges: A benchmark for judging? *Florida State University Law Review, 32,* 469–509.

Jury Deliberation

Jury deliberation begins when a trial ends and the jury moves to a secluded location to discuss the evidence and arrive at a decision. Understanding how juries reach their decisions is a prerequisite for answering the question of how well they serve their function in a democratic society. Jury deliberation has been studied empirically by social science researchers for more than 50 years now, but direct access to the jury room has been always greatly limited due to a concern that any "external" presence in the deliberation room could influence the jury's decision. As a result, researchers have relied on two other methodologies to study jury deliberation: experimental studies with mock juries and posttrial reconstructions of actual deliberation via surveys of and/or interviews with former jurors.

This entry summarizes what has been learned about jury deliberation using these two methodologies. The picture that emerges is one in which juries take their task seriously and generally do a good job of reviewing the evidence, although they often struggle with their instructions. Influence in juries is a function of information exchange and the pressure to conform. An excellent predictor of the jury's final verdict turns out to be the distribution of verdict preferences on the jury's first vote; the verdict favored by the initial majority ends up being the jury's final verdict about 90% of the time. However, the initial majority does not always prevail, and these "reversals" represent some of the most interesting products of jury decision making.

A General Model of Deliberation

A simple stage model provides a reasonable framework for thinking about jury behavior in many, if not most, deliberations. In the first stage, jurors get oriented toward each other and their task. They settle in, introduce themselves, select a foreperson, and discuss how they will do things. In the second stage, which takes up the bulk of the time spent in deliberation, jurors discuss the evidence, take opinion polls (or "votes"), and confront disagreement among members. During this stage, conflict often surfaces, efforts are made to persuade other jurors to change their minds, and the jury moves toward a consensus. In the final stage, the jury achieves sufficient agreement (usually unanimity) to reach a verdict, followed by attempts to smooth ruffled feathers, reconcile individuals to the group's decision, and help everyone feel good about the collective verdict. Jury deliberations vary considerably in length, but most last somewhere between 2 and 4 hours.

The Foreperson

Juries typically receive little instruction regarding how they ought to deliberate, but one thing they are all told to do is choose a foreperson. Forepersons are usually selected early, often immediately after members assemble in the jury room but occasionally not until the end of deliberation. Most of the time, the selection process is brief and even perfunctory,

particularly in criminal juries. Forepersons tend to be White, male, better educated, seated at the end of the table, and the first to speak or the first to identify the need to select a foreperson. This profile suggests that juries tend to eschew confrontation and rely on stereotypes and subtle interpersonal cues (such as seating and order of speaking) to identify a "natural leader." Only two task-relevant characteristics have been found to be associated with forepersons: They tend to have previous experience as jurors, and they sometimes have a relevant occupational background in civil settings (e.g., an accountant being chosen in a trial featuring complex financial transactions). Much of the research on forepersons was conducted before 1970, however, and it is unclear if the findings related to a foreperson's demographic characteristics still hold in the wake of systematic efforts to increase the demographic diversity of juries as well as significant changes in societal attitudes over the last 40 years.

Speaking and Discussion Content

In general, research has shown that speaking during deliberation is not spread evenly across jurors—several individuals tend to do the lion's share of the talking, while a few members typically say little or nothing (especially in larger juries). As might be expected, forepersons generally speak more than the typical juror. Although there has been a pervasive fear that juries will get sidetracked easily and end up spending much of their time talking about irrelevant topics, this apprehension appears to be unfounded. A robust finding has been that juries (both real and mock) take their jobs very seriously and try to stay focused on the task at hand. Indeed, most of the deliberation time is taken up with discussion of legally relevant topics, such as the evidence (around 75%) and the jury's instructions (around 20%). Juries also generally do a good job of correcting inaccurate statements made by their members, exhibiting good collective recall. Furthermore, when individual jurors introduce legally irrelevant considerations (e.g., the similarities between the current trial and a recent movie), this is often noted and sanctioned (corrected) by other members.

Initial Distribution of Verdict Preferences

One of the strongest and most reliable findings about juries is that the distribution of verdict preferences at the beginning of deliberation is a very good predictor of the jury's ultimate verdict. Specifically, the verdict option favored by the initial majority tends to be the jury's final verdict about 90% of the time. This finding is based on extensive research with mock juries where individuals were asked to provide an explicit verdict preference prior to deliberation, as well as several field studies where the first vote was reconstructed later and used as a proxy for the initial preference distribution in real trials. This robust phenomenon has often been referred to as the "majority effect."

A good deal of research on "social decision schemes" in the 1970s and 1980s aimed to identify the specific probabilities associated with the various verdicts that occurred given every possible initial distribution of juror verdict preferences. Early studies suggested that factions within the jury would usually "succeed" in getting their preferred verdict in the end if they began with a strong majority or a higher share of the vote (defined as two-thirds or more). If no two-thirds majority existed initially, juries were theorized to acquit or hang with high probability. Subsequent work provided support for the majority effect but also identified an asymmetry in the probabilities working in favor of the defendant in criminal trials—a so-called leniency effect. The leniency effect essentially corresponds to an increase in the likelihood of a prodefense verdict for any given preference distribution relative to what would be expected if the nature of the verdict had no impact on the majority's chance of succeeding. For example, a weak majority of 7 people in a 12-person jury is considerably more likely to succeed if it favors acquittal as opposed to conviction. This prodefense shift is consistent with the explicit value placed on giving the defendant the benefit of the doubt in criminal trials and the strict standard of proof needed to convict (i.e., "beyond a reasonable doubt").

Consistent with both the majority and the leniency effects noted above, a recent meta-analysis of studies measuring early-verdict preference distributions (i.e., predeliberation or first vote) and final verdicts in criminal trials identified two critical thresholds of member support related to potential verdicts. When there existed a strong early majority favoring conviction (i.e., 75% or more of the jury), a "guilty" verdict was the usual result. Conversely, if 50% or less of the jury initially supported conviction, a "not guilty" verdict was extremely likely. The only time the jury's final verdict could not be forecasted correctly was when a weak initial majority favored conviction, in

which case "guilty," "not guilty," and "hung" verdicts were all relatively common.

The Dynamics of Consensus

In most deliberations, it becomes obvious at some point that all members do not favor the same verdict and some jurors will have to change their minds if the jury is to accomplish its task. A number of studies have examined how juries go from an initial nonunanimous distribution of preferences to a consensus verdict, and two general sources of influence have been identified: informational and normative. *Informational influence* is associated with the content of the jury's discussion; it stems from the articulation of case "facts," interpretations, and arguments supporting a particular verdict. *Normative influence* comes about from a desire by individuals to fit in with others and not be seen as deviant, incorrect, or even disagreeable. In essence, normative influence represents a pressure to conform that is rooted in the desire to avoid the social costs associated with standing apart from the collective.

Research on the dynamics of deliberation has shown that majority factions exert both informational and normative influence on minority (i.e., dissenting) jurors. In particular, several different theoretical models of majority influence converge on the conclusion that the degree of influence exerted is proportional to the size of the majority faction. In addition to exerting normative influence in direct proportion to their size, majority factions exert informational influence as well. In this regard, majority factions have a "sampling advantage" over minority factions during deliberation in that they have more members to draw on for evidence-related recollections, observations, and views consistent with their preferred verdict. Conversely, in keeping with their smaller size, minority factions are forced to rely primarily on informational influence. Research has also shown that juries tend to move away from their initial distribution slowly at first but with increasing speed as the majority faction grows and its influence increases in a snowball-like fashion. In essence, as the majority is given time to deploy its normative and informational advantages, it becomes harder and harder for the minority to prevail. Interestingly, though, a few studies have observed a momentum effect as well: Once the jury begins moving in either direction toward a verdict (whichever it happens to be), it rarely stops and changes direction. This suggests that a key event underlying a "reversal" of the early majority is when the *first* juror to change votes joins the minority faction.

Opinion polling is one procedural variable that may influence the dynamics of deliberation. Polling during deliberation can vary on several dimensions, including timing (e.g., early vs. late) and secrecy with regard to individual votes. In particular, early opinion polls conducted in a "public" fashion (where members can observe how other jurors vote) may bring considerable normative pressure to bear on members of the minority faction to change their vote. In one clever series of studies using mock juries with known verdict preference distributions (i.e., an even 3:3 split or a 4:2 weak majority), polling was structured so that all members of one faction voted first in sequence. Consistent with the research on conformity, the first member of the second faction was much more likely than chance to switch his or her vote and join the faction that voted first. This was particularly so when the vote was taken early and when the first faction voted "not guilty." Of note, some research suggests that minority factions may have more influence if subgroups emerge (or are specifically formed) before a general collective discussion and the minority faction finds itself having a "local majority" in one or more of the subgroups. Taken together, these findings support the notion that the *order* in which things are done may distort the influence of faction size by affecting how obvious the factions are.

Another stream of research on the dynamics of deliberation has identified two general deliberation "styles" that juries may adopt as they go about their task: evidence driven and verdict driven. *Evidence-driven* juries work toward the goal of establishing the "facts" of the case as they see them before any discussion of the appropriate verdict. They spend a great deal of time in reviewing the evidence and take their first (and sometimes final) vote relatively late in the process. On the other hand, *verdict-driven* juries take an early first vote to get a sense of their members' standing and then organize their discussion around the verdict options and which one seems more appropriate given what seems to be generally accepted by the group. Research suggests that a substantial number of juries (perhaps 33–50%) adopt a verdict-driven style, and studies in which deliberation style was manipulated suggest that its influence on the final verdict may depend on other variables, such as the required legal elements for the available verdicts.

Sometimes the influence process fails to produce a critical mass of opinion, however, and the jury cannot reach a verdict (i.e., it "hangs"), resulting in a mistrial. In a classic early study in the 1950s, the frequency of hung juries was found to be about 5%. More recent work with samples of juries drawn from several large metropolitan areas suggests that the frequency rate varies considerably across jurisdictions and may be as high as 15% to 20% in some places, although the observed frequency rate depends on whether hanging is defined at the level of the defendant as a whole or the specific charge. A primary determinant of hanging is the ambiguity of the evidence, with trials involving moderately strong evidence producing initial preference distributions without strong majorities. Small minority factions—especially those composed of only one individual—are rarely able to hold out.

The Dynamics of Monetary Award Decisions

Research on civil juries has increased dramatically since the 1980s, but the study of how juries arrive at damage awards is still in its infancy. Nonetheless, experimental research using mock juries has established a number of influences on both the likelihood and the amount of compensatory damage awards, including whether or not the trial is bifurcated (divided into liability and award phases), the characteristics of the two parties (e.g., the number of plaintiffs and the variability of their injuries), trial complexity, the explicit mention of "appropriate" damage awards by the attorneys, and the actual severity of the plaintiff's injury. However, relatively little attention has been devoted thus far to the issue of how juries arrive at a specific figure, and at least three models are possible: (1) juries begin with a salient benchmark figure explicitly identified by one party or the other during the trial and modify it based on the content of the deliberation; (2) juries break down the award into components, assign dollar values to the various elements of the claim through discussion, and then sum the component values to achieve a total value; and (3) juries simply choose an amount that seems appropriate in a holistic fashion. Distinct from the issue of when these models might apply is the question of whether they would be executed by individual jurors, the jury as a whole, or both in a mixed fashion. Research examining the relationship between the amounts preferred by individual jurors and the collective jury award has shown that jury awards tend to be (a) larger than the central tendency of their constituent individual members and (b) less variable than individual award preferences (particularly in 12-person juries as opposed to 6-person juries). Related to the first point, some research suggests that the median of the individual award preferences (as opposed to the mean or mode) is the best predictor of the actual collective award.

Deliberation Quality

Much of the research on juries can be viewed as a search for variables that influence the nature of the verdicts observed (i.e., guilty vs. not guilty). Relatively little attention has been directed at the question of how *well* juries deliberate and the extent to which this influences the nature of their decision, but several notable empirical findings bear on the issue. First, considerable research on the impact of jury size and assigned decision rule (e.g., unanimous, critical majority, simple majority) has generally shown these procedural variables to have little influence on verdict distributions. However, larger juries and those required to reach unanimity tend to take more time, generate a greater exchange of information, produce more satisfied members, and show less variability in their damage awards—all characteristics that might be taken to indicate a higher quality of deliberation. Second, evidence-driven deliberation styles tend to be associated with longer deliberations, a more thorough examination of the evidence, and less normative influence. In other words, juries that are larger, evidence driven, and/or required to be unanimous may be more likely to have higher-quality deliberations than smaller, nonunanimous, and verdict-driven juries.

Another question related to the notion of deliberation quality is whether the deliberation process amplifies or suppresses the biases of individual jurors. An early, well-known hypothesis was that the biases of individual jurors would tend to manifest themselves when the evidence was ambiguous and not clearly supporting any verdict, but the empirical research has been mixed. In some situations, deliberation seems to reduce the biases of its members, but in other situations it appears to magnify them. Most likely, there is no simple, straightforward answer to this question—whether deliberation accentuates or attenuates individual bias probably depends on the strength of the evidence as well as how that bias is distributed across jurors (and particularly whether it is concentrated in an early majority).

Finally, it is worth noting that a variety of initiatives intended to improve the functioning of juries have been identified, implemented, and occasionally examined in the past 25 years or so. These initiatives include rewriting and simplifying legal instructions, providing copies of the instructions to jurors, allowing jurors to take notes and/or ask questions through the attorneys, and allowing jurors access to exhibits and/or transcripts during deliberation. Most recently, jurors in some jurisdictions have been allowed to discuss the evidence prior to deliberation so long as all members are present. Most of these initiatives have been aimed at making jurors' jobs easier by reducing their cognitive burden and removing any constraints on the process. While these changes have generally not been found to systematically influence the nature of observed verdicts and jurors almost always react positively to them, there have been few efforts to evaluate how the deliberation process itself is affected.

A Final Thought

An unfortunate consequence of an early (and well-known) likening of jury deliberation to the development of a predetermined photographic image appears to have been a squelching of scholarly interest in the dynamics of the deliberation process. After all, what value is there in studying what juries do if the final outcome is so reliably predicted by the preference of the initial majority? However, even though reversals of the initial majority preference are relatively rare, their absolute occurrence is still considerable given the thousands of jury trials held each year. In a free and democratic society, and with so much at stake for the individual participants as well as the community, it is clearly important that we understand how juries go about making their decisions. Furthermore, in a large number of those trials, deliberation itself is a critical determinant of what those decisions are.

Dennis J. Devine

See also Chicago Jury Project; Jury Size and Decision Rule; Leniency Bias

Further Readings

Davis, J. H., Kameda, T., Parks, C., Stasson, M., & Zimmerman, S. (1989). Some social mechanics of group decision making: The distribution of opinion, polling sequence, and implications for consensus. *Journal of Personality and Social Psychology, 57,* 1000–1012.

Devine, D. J., Clayton, L. D., Dunford, B. B., Seying, R., & Pryce, J. (2001). Jury decision making: 45 years of empirical research on deliberating groups. *Psychology, Public Policy, and Law, 7,* 622–727.

Ellsworth, P. C. (1989). Are twelve heads better than one? *Law and Contemporary Problems, 52,* 207–224.

Hastie, R., Penrod, S. D., Pennington, N. (1983). *Inside the jury.* Cambridge, MA: Harvard University Press.

Kalven, H., & Zeisel, H. (1966). *The American jury.* Chicago: University of Chicago Press.

Tanford, S., & Penrod, S. (1986). Jury deliberations: Discussion content and influence processes in jury decision making. *Journal of Applied Social Psychology, 16,* 322–347.

Jury Nullification

Juries have the implicit power to acquit defendants despite evidence and judicial instructions to the contrary. This power, called *jury nullification*, is embedded in the jury's right to return a verdict by its own moral compass and has historically permitted sympathetic juries to acquit those whom the jurors perceive as legally guilty but morally upright. The criminal jury's power to deliver a verdict counter to both the law and evidence resides in the fact that a general verdict requires no explanation by the jury. Some citizens' groups and some legal scholars believe that the jury not only should have the ability to nullify but also the right to be explicitly informed of this right. However, the majority of the legal community, with near unanimity among sitting judges, prefers the status quo—juries are not informed of this nullification power but are free to exercise it without prompting when the jury believes that a guilty verdict clearly violates community sentiment. Research has shown that juries informed of their nullification power are more likely to consider extralegal factors and may be more prone to be persuaded by emotional biases.

A Short History of Jury Nullification

Judges uniformly instruct the jury that they must apply the law as provided by the court. However, jurors traditionally have been able to act as the "conscience of the community," a long-standing role that

implicitly enabled juries to return verdicts that fly in the face of the proffered law. Depending on one's point of view, this much-disputed power of the jury has served the interest of justice or has led to injustice and chaos in the legal system.

Juries in England historically had been constrained by the King. The jury's power to deliver an unfettered verdict was essentially nonexistent, although there is evidence that the English jury, in its various guises, refused to convict defendants who were unfairly charged or for whom the sentence was wildly disproportionate to the crime. However, juries did this at great peril. The Crown had the means and the will to punish the jury for verdicts of which it disapproved. Juries could be incarcerated, without food or drink, until they returned a suitable verdict. Indeed, their very fortunes and families were put at risk.

In 1670, this state of affairs began to change. A seminal case, known as *Bushell* (the name of the jury foreman), prohibited the Crown from punishing the jury for verdicts deemed unlawful or rebellious. *Bushell* involved a trial in which the famous Quakers, William Penn and William Mead, were charged with fomenting revolution by preaching in the streets. Against all expectations, the jury returned a not-guilty verdict and maintained their stance against the King's fearsome intimidation. The result was revolutionary: an independent jury.

Juries in the American colonies often served as a buffer between colonists and unpopular British laws. Famously, an 18th-century jury acquitted the printer John Peter Zenger of sedition when he had certainly violated the local law prohibiting criticism aimed at representatives (New York's Mayor) of the Crown. Colonial juries routinely acquitted smugglers (most notably, John Hancock) and others who defied unpopular laws. Jury power was rather untrammeled from the Revolution until the middle of the 19th century. And in the absence of a highly professional legal community, juries often decided on the basis of their own notions of what was just, the law notwithstanding. The proponents of the jury's right to nullify the law suggest that juries have historically had that power and right.

It is clear that the nullification power was extant during the early days of the Republic. It was perhaps not as ubiquitous as presumed. In very few colonies was the nullification power explicit, and according to one scholar, there are indicators that there was no such right for much of the colonial era in Georgia, Maryland, and Massachusetts.

Some historical indications suggest that the jury's right to nullify moved only in one direction—toward mercy, but some scholars disagree. This power did not include the power to legislate new law. American juries that stood against the oppressive power of the British King were held in high esteem, as were the fiercely independent agrarian juries in the early part of the 19th century. It is no coincidence that concerns about the power of the jury began to surface primarily in the middle of the century, when immigration from Europe increased at a remarkable rate. By the 1850s, powerful legal figures, such as Justice Joseph Story, were arguing vigorously against an unfettered jury.

Despite the attempts of a number of state legislatures to sustain jury power, an increasingly professional legal community, through a cascading series of appellate cases, began to rein in the power of jurors to decide cases with little or no concern for the relevant law. In 1895, the U.S. Supreme Court offered its only opinion on the jury's nullification power. In *Sparf and Hansen v. United States*, the Court proscribed the jury's explicit power and authority by indicating that the jury's obligation was to follow the law as received from the Court and to apply that law to the facts. Nevertheless, the issue of nullification resurfaced at various times, almost always during periods of social and political unrest. Some Northern juries refused to convict violators of the Fugitive Slave Act in the 1850s. Juries refused to convict labor organizers of conspiracies during the 1890s. The Eighteenth Amendment, known as the Volstead Act, which prohibited both the manufacture and the consumption of intoxicating liquor, was widely violated by both the public and the criminals who illegally imported or manufactured the banned substances. Citizens who violated this act during the period known as Prohibition often walked out of the courtroom free men because juries were opposed to what they perceived as unwelcome government interference in their daily life and pleasures. In the tumultuous 1970s, juries sometimes set free those who had illegally avoided the draft during the later, more unpopular stages of the Vietnam War, and other juries refused to convict physicians for euthanizing the terminally ill. Jury behavior in these circumstances either made the laws moot or convinced prosecutors not to bring cases that they would surely lose.

Without question, the jury's nullification power also has a dark side, most notably when (mostly) Southern juries from the Reconstruction onward acquitted transparently guilty Whites for depredations

committed on Black citizens. This disturbing side of nullification ("jury vilification") was seen when juries returned verdicts that reflected prejudiced or bigoted community standards and violated the benign standard of nullification proponents that such verdicts should be merciful rather than vindictive. In fact, one nullification scholar notes that the difference between vengeance and mercy is an unprincipled one and that, while nullification may have had some legal basis in colonial days, it is now a legal anachronism. Modern proponents of jury power argue that the jury has both the right and the power to judge both the defendant and the law. It is an obvious understatement to say that the right of the jury to nullify has more support among legal academics than among judges.

Some legal scholars and jury activists argue that judges and courts are actively attempting to constrain the jury's unfettered right to return a verdict according to its own views. One scholar points to the antinullification section appended to the California Jury Instructions. Proponents want judges to inform jurors directly that they can exercise their right to nullify. Indeed, much of the empirical research on nullification has focused on the effects of providing just such an instruction to the jury. One practicing attorney eloquently argues that defense attorneys should aggressively seek nullification in cases where their technically guilty clients are morally blameless. Proponents believe that nullifying juries inform the legal process and militate against unjust laws. Furthermore, the pronullification argument contends that research shows that laypeople are more sophisticated than the courts assume and that anarchy emanates not from jury disobedience but when laws are in conflict with community sentiment.

Jury Research and Nullification Instructions

The modern debate as to the limits of the jury's power was most clearly limned in *United States v. Dougherty* (1973), in which a 2:1 majority rejected a defense request that the nullification instruction be permitted in this trial of antiwar activists. Judge Harold Leventhal, writing for the majority of the D.C. Court of Appeals, while noting that the pages of history abound with shining examples of juries that refused to convict virtuous defendants, nevertheless suggested that if juries were given explicit nullification instructions, their behavior would be anarchic. Such an instruction would result in "chaos" because the verdict would not be predicated on the law. Furthermore, an explicit declaration of the jury's power to nullify would, in Judge Leventhal's view, require the jury to "fashion" the law. Judge Leventhal argued that without explicit knowledge of nullification, juries would use their implicit power more carefully and judiciously, not chaotically.

A number of researchers have explored the impact on verdicts of jury instructions that include a nullification clause. These are laboratory-based studies of varying levels of similarity to legal processes. Results suggest that juries that received nullification instructions spent less time deliberating the evidence and focused more on defendant characteristics, attributions, and personal experiences. Jurors in receipt of nullification instructions were more likely to take account of the extralegal factors of race, gender, and social class. One researcher reported that mock jurors were significantly less likely to return a guilty verdict for an individual accused of murder in a context where the act might be characterized as euthanasia. When in receipt of nullification instructions and when the act was committed out of compassion (such as disconnecting a respirator or increasing a morphine drip), the jury verdicts were the same as those returned by juries given standard instructions. Note that much may depend on the nature of the nullification instructions, which are usually appended to the standard instructions. Thus, what we see in many studies is a fairly circumscribed use of jury power, as Judge Leventhal had suggested.

However, researchers have reexamined this "chaos" hypothesis by examining situations that evoke jurors' emotional biases. These biases are evoked by information that strongly affects jurors' emotions (e.g., gruesome crime-scene photos) but that implies nothing directly about the guilt or innocence of the defendant. In several experiments, researchers have found that nullification instructions can indeed change and intensify jurors' responses to such emotionally biasing information. For example, in one study, information about the victim of a crime affected jurors' emotions so that they were much more upset at the alleged murder of an upright, admirable person than that of a less-worthy citizen. When mock jurors were given standard jury instructions (which tell them that they must follow the law as it is explained by the trial judge), these emotional reactions did not affect their verdicts.

In another research example, mock jurors heard one of two versions of a trial in which a physician

was charged with murder. In the first version, the physician had euthanized a patient he knew (to relieve suffering); in the second version, the physician was charged with murdering the patient for financial gain. In other words, while the euthanatizing procedure was the same—increasing a drug dose beyond the recommended dosage, the motive for that act was different in the two circumstances. When jurors were given standard instructions, the apparent motive of the surgeon had no effect. Jurors found the defendant guilty irrespective of the motive. However, when the jury was in receipt of nullification instructions, a surgeon who increased the drug dose to relieve suffering was less likely to receive a guilty verdict. Nullification instructions induced jurors to attend to emotionally biasing information (e.g., how sympathetically the victim was portrayed). Proponents of jury nullification would likely argue that these results sustain their view that juries will use their right to nullify judiciously. Those opposed to jury nullification would suggest that the law should determine trial outcomes, not the whims, however well meant, of the jurors.

Irwin A. Horowitz

See also Juries and Judges' Instructions; Jury Competence; Jury Deliberation

Further Readings

Brown, D. K. (1997). Jury nullification within the rule of law. *Minnesota Law Review, 81,* 1149–1200.

Conrad, C. S. (1998). *Jury nullification: The evolution of a doctrine.* Durham, NC: Carolina Academic Press.

Finkel, N. J. (1995). *Commonsense justice.* Cambridge, MA: Harvard University Press.

Horowitz, I., Kerr, N. Park, E. S., & Gockel, C. (2006). Chaos in the courtroom reconsidered: Emotional bias and juror nullification. *Law and Human Behavior, 30,* 163–181.

Horowitz, I. A., & Willging, T. E. (1991). Changing views of jury power: The nullification debate, 1787–1988. *Law and Human Behavior, 15*(2), 165–182.

Howe, M. (1939). Juries as judge of criminal law. *Harvard Law Review, 52,* 582–616.

Sparf and Hansen v. United States, 156 U.S. 51 (1895).

St. John, R. R. (1997). License to nullify: The democratic and constitutional deficiencies of authorized jury lawmaking. *Yale Law Review, 106,* 2563–2597.

United States v. Dougherty, 473 F.2d 1113 (1973).

Jury Questionnaires

Jury questionnaires are often used during the voir dire process to help judges and attorneys identify prospective jurors who are not suitable for jury service. Jury questionnaires typically include items dealing with hardship or medical issues that may make it difficult for some individuals to serve as jurors. Often, at the discretion of the court, jury questionnaires may delve into experiences or opinions related to the case, sometimes in considerable detail. Of course, jury questionnaires are self-report measures that are vulnerable to forgetting, distortions, or deception. Lengthy jury questionnaires completed by a large group of prospective jurors can make it difficult to extract useful information in a short amount of time. Moreover, there are situations where trial attorneys would be ill-advised to request a detailed jury questionnaire.

The Sixth Amendment of the U.S. Constitution provides defendants with the right to an impartial jury. Often a part of the voir dire process, jury questionnaires may help identify sources of bias in prospective jurors that may interfere with their impartiality or ability to follow the law. The fundamental assumption underlying the use of jury questionnaires is that people are more likely to disclose information on a survey than in open court, particularly information about sensitive issues. There is a general tendency for people to appear open-minded and to provide socially desirable responses to questions posed during attorney- or judge-conducted voir dire. In theory, jury questionnaires serve to measure more accurately the relevant attitudes, expectations, and experiences related to the case.

Generally used at the discretion of the court, generic jury questionnaires have become much more common throughout the United States. The format, content domain, and scope of the items vary considerably, but there is some common content. Most jury questionnaires tap into factors that may lead to a challenge for cause, reflecting a legitimate difficulty or problem with jury service. These items include hardship issues, such as having to care of an infant or elderly parent, serious financial difficulties, or other related factors. Other items common to jury questionnaires include those dealing with medical problems, disabilities, and the use of medication that might interfere with a prospective juror's ability to serve as a trier of fact. Most include a question relating to difficulties in reading or understanding the English language and

difficulties with following the law as provided by the court. Finally, most jury questionnaires include some measures dealing with familiarity with the case (particularly if there was some pretrial publicity) and knowledge of the witnesses, lawyers, parties, or others associated with the case.

Beyond these typical items, jury questionnaires may delve into a number of other topics. Demographic items are common and often include those dealing with race or ethnic affiliation, gender, place of birth, and so forth. General experiences are also often measured: These usually include service in the U.S. military; jury experience; and prior involvement in the criminal or civil justice system as witness, plaintiff, defendant, or other party. Sometimes jury questionnaires delve into case-related experiences, such as having experience with complex business transactions, having been a victim of a workplace accident, or having personal experience with a drug dependency problem. Jury questionnaires may also include attitudinal items that could tap into constructs such as legal authoritarianism, juror bias, or beliefs about a just world, although entire scales are rarely included. More often, there is a focus on more narrow, case-related attitudes (e.g., Do you believe that politicians should be held to a higher standard of moral or ethical conduct than other people?). Finally, some jury questionnaires are quite detailed and delve into leisure activities, bumper stickers (presumably, these reflect jurors' values or concerns), newspaper readership, television-viewing habits, and other items in the same vein. Indeed, jury questionnaires can be relatively short (10 items) or remarkably lengthy (exceeding 200 items).

Of course, attorneys are typically looking for red flags or any information that might raise concerns so that they can decide whether to explore these issues during attorney-conducted voir dire (if permitted), whether to use a challenge for cause in an attempt to excuse the juror from jury service, or whether to exercise a peremptory challenge (typically in the event that an initial attempt at using a challenge for cause is unsuccessful). Trial attorneys may also use jury questionnaires to look for indicators of leadership and receptivity to a case, relying on the assumption that a juror who exhibits leadership potential may guide the jury toward a particular view of the case.

When trial teams provide input into jury questionnaires, they often consider a number of strategic issues. First, to the extent that the survey is lengthy or acquires a lot of information, trial teams will face challenges in gathering the relevant information and evaluating each juror in time for jury selection. The lengthier the survey, the more difficult it is to make sense of the information and formulate a strategy and the greater the need for ample time to examine the surveys. In some cases, trial teams might receive 40 to 50 completed jury questionnaires and have only a short time to examine them before jury selection begins. Well-developed coding sheets are often helpful in these situations.

Jury questionnaires are particularly helpful when prior jury research reveals that certain characteristics can predict verdicts and these predictors can be incorporated into the juror questionnaires. It is possible then to estimate the probability that a particular juror will favor one side or the other. Of course, there are myriad factors that make these sorts of predictions tenuous at best.

Strategically, detailed jury questionnaires may not always be advantageous to a party. Some courts permit juror questionnaires at the expense of attorney-conducted voir dire, leaving lawyers with little opportunity to explore the responses further. If a party believes that jurors are likely to support its view of the case, a juror questionnaire may reveal supportive jurors, giving the opposing side an advantage.

Jury questionnaires suffer from the self-report problem; people are not very accurate at reporting their thoughts or behaviors because of memory or social desirability problems. Few people would disclose their use of illegal drugs, production of child pornography, or history of spousal abuse, for example. Occasionally, individuals respond dishonestly in an attempt to survive the jury selection process and serve as jurors on a case. Responses should be considered in light of these limitations.

There are a number of different ways in which jury questionnaires are administered. In some areas, individuals who are summoned for jury service complete the surveys online and submit them in advance of the trial date. In other areas, the jury questionnaire is mailed to prospective jurors, who complete it and return it to the court. Typically, the trial teams prefer to have sufficient time to examine these completed surveys before the voir dire process begins.

Veronica Stinson

See also Jury Selection; Legal Authoritarianism; Pretrial Publicity, Impact on Juries; Scientific Jury Selection; Voir Dire

Further Readings

Posey, A. J., & Wrightsman, J. S. (2005). *Trial consulting.* New York: Oxford University Press.

Jury Reforms

Over the past 15 years, courts have begun implementing a host of reforms to the jury system in response to growing criticism about jurors' competence to decide cases. Of particular concern was the ability of jurors to set aside preexisting biases and to understand increasingly complex evidence and legal principles. This entry describes the efforts undertaken by the courts to address these concerns. In particular, the section on voir dire focuses on efforts to elicit complete and candid information from prospective jurors during jury selection while balancing competing interests in courtroom efficiency and juror privacy. The second section focuses on the techniques employed by judges and lawyers during trial to enhance juror comprehension and performance.

Voir Dire

The process of selecting trial jurors from a panel of prospective jurors is called *voir dire*, a term derived from 14th-century legal French, which, loosely translated, means "to speak the truth." Typically, voir dire consists of a limited question-and-answer period in which the trial judge and attorneys examine prospective jurors to determine if they can serve fairly and impartially on that trial. If the judge concludes from this examination that a particular juror has life experiences, opinions, or attitudes that would prevent him or her from serving impartially, that juror will be removed "for cause." After all the "for-cause" jurors have been excused, the attorneys have the opportunity to remove those jurors who they suspect may be predisposed against their clients by using a statutorily defined number of "peremptory challenges." After all the for-cause and peremptory challenges have been executed, the jurors who remain are sworn as the trial jurors. The amount of time needed to select a jury varies according to the type of case to be tried (e.g., felony, misdemeanor, civil), the legal requirements and mechanics of voir dire, and the local legal culture, but it generally ranges from 1 to 3 hours.

A number of concerns about the voir dire process have risen in recent years. Some of these focus on the legitimacy of the criteria that judges and attorneys employ when deciding to remove or retain jurors. Most often, these debates take place in the context of proposals to reduce the number of peremptory challenges in order to minimize the opportunity for attorneys to discriminate on the basis of race, ethnicity, or gender—a practice ruled unconstitutional by the U.S. Supreme Court in *Batson v. Kentucky* (1986) and its subsequent progeny. The counterargument by the practicing bar is that peremptory challenges are needed as a remedy for the failure of trial judges to grant challenges for cause, even when a juror's responses to voir dire questions indicate bias or prejudice. Thus far, Maryland is the only state to successfully reduce the number of peremptory challenges, and that legislation was driven as much by cost considerations as by concerns about the discriminatory use of peremptory challenges. However, several other jurisdictions—notably California, New Jersey, and the District of Columbia—are seriously considering legislation that would substantially reduce the number of peremptory challenges.

Other proposals for improving voir dire focus on the efficacy of the voir dire process in eliciting candid and useful information from jurors. Empirical studies have repeatedly found that up to one in four prospective jurors fail to disclose case-relevant information during voir dire. In some instances, jurors are reluctant to reveal personal or sensitive information to a courtroom full of strangers. In other instances, jurors are unwilling to disclose information that they believe is not relevant to the case. Often the mechanics of the voir dire process—for example, whether the judge or lawyers question the jurors, whether jurors are told to raise their hands or respond orally to questions—send subtle messages about the judge's desire, or lack thereof, for complete disclosure by jurors.

Attorney-conducted voir dire, which is the predominant practice in most state courts, but not in federal courts, is considered the better practice insofar as jurors are more likely to respond with candid, rather than socially desirable, answers to questions posed by lawyers rather than judges. Moreover, attorneys typically are more familiar with the nuances of the case and thus are in a position to question jurors about issues that a judge might not immediately view as relevant. Another technique that is gaining in popularity is the use of written questionnaires asking either general background information or case-specific information,

which gives jurors the opportunity to disclose sensitive information to the judge and attorneys without having to do so orally in open court. This technique is also useful for trials involving substantial pretrial publicity because it permits jurors to disclose their knowledge of the case without tainting other jurors who may not have read or heard as much about it.

Many judges now invite jurors to indicate if they would prefer to respond to questions about potentially embarrassing or sensitive information (e.g., criminal background, substance abuse, or criminal victimization) privately in a sidebar conference or in chambers with the attorneys; approximately 30% of jurors take advantage of this opportunity. A small, but increasing, number of judges now advocate giving all prospective jurors an opportunity for individual voir dire, regardless of the nature of the case or the questions to be posed, as it alleviates some of the intimidation of the courtroom environment and invites jurors to disclose any information that they believe relevant to their impartiality even if no question has directly solicited that information.

In spite of increased awareness about how traditional voir dire techniques can discourage fully candid and complete self-disclosure by jurors, trial judges in many areas of the country have been reluctant to embrace voir dire reforms, largely out of concern over the additional time and effort that they might cause in the jury selection process. Many judges also voice skepticism about the need for a more expansive voir dire, claiming that lawyers' desire for more information about jurors' backgrounds too often intrudes on jurors' privacy without actually eliciting useful information about jurors' ability to serve impartially. Because of the traditional deference given to judges' management of the voir dire process by reviewing courts and legislatures, reforms to voir dire have taken place more slowly and incrementally than reforms to other stages of the trial process.

Jury Comprehension and Performance

The most dramatic reforms to jury trials in recent years are those designed to enhance juror comprehension and decision making during the trial and deliberations. The growing popularity of these reforms among judges, lawyers, and policymakers reflects a change in the traditional understanding of how jurors perceive and process evidence and what, given this new understanding, the appropriate role of jurors should be in the trial.

Traditional jury trial procedures were developed with the intent of reinforcing juror passivity, which was believed essential to maintaining their neutrality throughout the evidentiary portion of the trial. Consequently, jurors were traditionally discouraged from taking notes because it might distract them from observing the witnesses' demeanor or they might confuse their own notes with the evidence actually presented. Jurors were prohibited from asking questions of witnesses because they might become inappropriately adversarial. They were prohibited from discussing the evidence among themselves or with others because they might begin to draw conclusions before hearing the entire case. And they were not informed about the legal principles that they would be required to apply until just before deliberations because it might cause jurors to disregard evidence that seemed unrelated to those principles. All these restrictions were intended to ensure that nothing interfered with jurors' ability to accurately remember, understand, and consider all the evidence presented to them at trial.

A substantial body of research from the field of social and cognitive psychology emphatically contradicts this traditional understanding of juror decision making. Empirical studies have conclusively established that jurors are not simply "blank slates" or "empty vessels" waiting to be filled but instead actively process and interpret information as it is received during the trial, in spite of the restrictions imposed on them. Indeed, many of those restrictions have been found to actually hinder jurors' ability to efficiently and effectively process information. Thus, the reforms that have been introduced in recent years are intended to capitalize on jurors' natural ability to understand and process information while emphasizing to jurors the continued importance of their neutrality during trial.

The least controversial reform, and the one that appears to have caught the attention and support of the legal community most strongly, is permitting jurors to take notes during trial, which helps jurors remember evidence. In a recent study of jury trial practices nationwide, jurors were permitted to take notes in 70% of trials in state and federal courts. Moreover, jurors in 64% of the trials were actually given notepaper and writing instruments with which to do so. Only two states—Pennsylvania and South Carolina—prohibit juror note taking in criminal trials, and only South Carolina prohibits it in civil trials; all other

states either mandate that jurors be permitted to take notes (Arizona and Indiana) or make the practice discretionary.

Other techniques have encountered somewhat greater resistance in actual practice, in spite of empirical studies documenting their effectiveness, favorable reports from jurisdictions that have implemented those techniques, and endorsement by prominent judicial and bar organizations (e.g., the American Bar Association, the Conference of Chief Justices). Two of the techniques involve permitting jurors to submit questions in writing to witnesses and permitting jurors to discuss the evidence among themselves during trial provided that they refrain from making conclusions about ultimate issues (guilt/innocence, liability/no liability). Both of these techniques are intended to provide jurors with an opportunity to clarify confusing or ambiguous evidence while it is still reasonably fresh in their minds. The vast majority of states (37 in civil trials, 36 in criminal trials) grant trial judges the discretion to permit juror questions to witnesses; however, only 15% of judges routinely exercise this discretion. Only 11 states permit civil jurors to discuss the evidence before the final deliberations, and only 10 states permit criminal jurors to do so. Nationally, juror discussions were permitted in less than 2% of all trials.

Juror comprehension of instructions also continues to be a challenging area for many courts. Unlike disagreements over factual issues, in which jurors routinely combine their collective memories and judgments to make accurate conclusions, jurors' unfamiliarity with the form and substance of the law often prevents them from correctly interpreting and applying the law. In addition to poorly drafted jury instructions, the form and timing of their delivery—typically orally and immediately before deliberations—also contributes to juror confusion. To address these issues, the majority of judges and lawyers (69%) now provide jurors with a written copy of the instructions—if not during the oral delivery of the jury charge, at least for their use during deliberations. Increasingly, judges are delivering jury instructions earlier in the trial. More than 40% of judges instructed juries before the closing arguments in their most recent trial, and 18% gave preliminary instructions on substantive issues before the evidentiary portion of the trial. In addition to providing jurors with the legal context in which to consider the evidence and closing arguments, the repetition of instructions at different points in the trial also helps jurors understand and retain that information. Finally, judicial and bar leaders have become increasingly aware of the importance of pattern jury instructions, especially their credibility to trial judges, lawyers, and reviewing courts in terms of both legal accuracy and clarity to jurors. This has led to efforts by pattern jury instruction committees across the country to improve the comprehensibility of instructions for laypersons and to increased education for trial judges on the appropriate use of pattern jury instructions.

Empirical studies of these various techniques present a mixed picture of their effectiveness. Juror note taking has conclusively been found to enhance juror recall of evidence, but it has a less apparent effect on juror comprehension. Studies of juror questions and juror discussions have arrived at differing conclusions about their impact on juror comprehension—most finding a small effect in longer, more complex cases but little or no impact in routine trials. Improvements in the clarity and organization of jury instructions have been found to improve juror comprehension of the law, but recent revisions to pattern jury instructions have not been rigorously evaluated. Virtually all investigations of these techniques have reported greater juror satisfaction in jury service and confidence in their verdicts, and concerns initially raised about these techniques—for example, that they would disrupt the trial process or undermine juror impartiality—have been unfounded.

Paula L. Hannaford-Agor

See also Juries and Judges' Instructions; Jury Competence; Jury Deliberation; Jury Questionnaires; Jury Selection; Pretrial Publicity, Impact on Juries; Story Model for Juror Decision Making; Voir Dire

Further Readings

American Bar Association. (2005). *Principles for juries and jury trials*. Chicago: Author.

Batson v. Kentucky, 476 U.S. 79 (1986).

Dann, B. M. (1993). "Learning lessons" and "speaking rights": Creating educated and democratic juries. *Indiana Law Review, 68,* 1229–1279.

Hannaford-Agor, P. L., Waters, N. L., Mize, G. E., & Wait, M. (2007). *The state-of-the-states survey of jury improvement efforts: A compendium report.* Williamsburg, VA: National Center for State Courts.

Hastie, R., Penrod, S. D., & Pennington, N. (1983). *Inside the jury.* Cambridge, MA: Harvard University Press.

Munsterman, G. T., Hannaford-Agor, P. L., & Whitehead, G. M. (Eds.). (2006). *Jury trial innovations.* Williamsburg, VA: National Center for State Courts.

Jury Selection

Before a jury trial begins, attorneys must select a jury from a panel of community members who have reported for jury duty. Rather than choosing jurors to sit on the jury, attorneys choose people to exclude from the jury. The attorneys may excuse anyone who exhibits demonstrable bias that would interfere with his or her ability to serve as a juror. Attorneys are also given a limited number of challenges that they may exercise for any reason except an attempt to exclude members of certain identifiable groups. When attorneys make their decisions to exclude potential jurors based on intuition or experience, the process is known as traditional jury selection. Scientific jury selection refers to the process where attorneys rely on social science surveys of community members to determine which types of jurors will be most favorable to their case.

Definition of Jury Selection

Jury selection is the process of choosing a petit jury of independent fact finders from a pool of venire members for a criminal or civil trial. Potential jurors are subjected to a system of examination known as voir dire, which allows judges and attorneys to obtain information about individual venire members. During voir dire, the judge and attorneys pose questions to individual jurors and the panel as a whole. Although the term *jury selection* gives the impression that the people are selected to remain seated on the jury, the process actually involves removing prospective jurors for a number of reasons. The Sixth Amendment of the U.S. Constitution gives defendants the right to be tried by an impartial jury. To fulfill the requirement of impartiality, jurors who harbor biases or cannot be fair to both sides are excluded from the jury through challenges. Individual venire members certainly have various expectations, beliefs, and experiences, but the legal system requires that members of the jury agree to set aside any preexisting biases and decide the case solely on the evidence. Although the Sixth Amendment states that jurors must be chosen from a representative cross-section of the community, this does not mean that the petit jury is representative of the community once the jury selection is finished. However, there are rules in place to protect against discrimination in the jury selection process, such as the Jury Selection and Services Act of 1968, which was created to ensure nondiscrimination in federal jury selection and services.

During jury selection, there are two types of challenges that attorneys can use to remove venire persons from the jury: challenges for cause and peremptory challenges. A challenge for cause is a request to remove a potential juror when there is reason to believe that he or she cannot serve as an impartial juror. When challenges for cause were first introduced, very few circumstances warranted their use. Only jurors who were related to the defendant by blood or marriage or those who possessed an economic interest in the case were excused for cause. Apart from those reasons, a juror could not to be removed from the jury for cause. In 1911, the Sixth Amendment was codified, and it provided both parties the right to challenge jurors for cause. Currently, the challenge for cause may be used to exclude prospective jurors who possess biases and are unable to follow the law in a given case. In addition, most states now acknowledge that potential jurors may be challenged for cause if they have a relationship with anyone involved in the trial, if the juror has prior experience with a similar case, or if an obvious bias or disability exists that would warrant removal. Judges are usually in charge of exercising the challenges for cause and striking out those people who appear to have a conflict with the case that cannot be corrected through juror rehabilitation.

The peremptory challenge is the second type of challenge offered to attorneys during voir dire. Peremptory challenges allow attorneys to remove a prospective juror without having to offer a reason for doing so. Attorneys from each side of the case are afforded a predetermined number of peremptory challenges with which to eliminate jurors and the number of peremptory challenges allowed varies depending on the state, the case, and even the judge. Initially, the peremptory challenge was permitted only in capital cases, and only the prosecution was allowed to use this device. Now, however, defendants are also afforded the use of peremptory challenges, and depending on the nature of the case, they may be allowed a greater number of peremptory challenges than the prosecution. Although the adoption of the Federal Rules of Criminal Procedure in 1946 attempted to reduce this prodefense advantage for capital, noncapital, and felony cases, the prosecution is still typically awarded

fewer challenges than the defense. Once judges have struck ineligible jurors for cause, attorneys may still have concerns about prospective jurors that are insufficient to justify a challenge for cause. The peremptory challenge is intended to serve as a curative device for removing potentially biased jurors who cannot be removed for cause. For example, this type of challenge is appropriate to remove a juror who has avoided answering questions to remain on the jury, when the attorney suspects that the juror holds a bias that could not be demonstrated.

Peremptory challenges are legitimate provided that attorneys are not targeting people who are members of cognizable groups. According to the ruling in *Batson v. Kentucky* (1968), attorneys may not use peremptory challenges to exclude prospective jurors on the basis of race. The Supreme Court recognizes that excluding certain populations from jury service is a form of discrimination and jeopardizes the integrity of the justice system and has extended the *Batson* rule to include other cognizable groups such as gender, sexual orientation, and religion. Accordingly, if a peremptory challenge is contested by the opposing side, a reason for the removal must be stated, and the rationale for the challenge must be neutral to the cognizable groups. More commonly known as the *Batson* test, there are three steps taken to remedy the misuse of peremptory challenges. First, complainants have to demonstrate a prima facie case of discrimination, then the court needs to uncover the prejudice motives, and finally the attorney has to provide a valid reason for removing the prospective juror. Recently, the Supreme Court's decisions have supported a more stringent enforcement of *Batson*'s requirements after a challenge was found to be racially motivated, in which a prosecutor excluded 10 of 11 qualified Black venire members from the panel. Some insist that the courts are unable to control the mandated use of peremptory challenges appropriately and suggest that they should be eliminated altogether to constrain attorney discretion. However, others argue that peremptory challenges provide parties with essential protection from the risk of partiality.

Many attorneys believe that the ability to sculpt a jury can have considerable bearing on the outcome of the trial. Currently, attorneys employ both traditional jury selection and scientific jury selection techniques to shape the jury. However, research is inconclusive as to which approach is more likely to achieve a desired outcome or result in a less "biased" jury. Traditional jury selection entails reliance on attorney experience and intuition to identify undesirable jurors, whereas scientific jury selection identifies unfavorable jurors by collecting case-relevant attitudes and demographic information from the community and analyzing it using statistical techniques. Each party then attempts to use peremptory challenges to exclude the prospective jurors who have been identified as possessing a bias, an opinion, a trait, or a characteristic that may be injurious to that party. Attorneys can use challenges to remove a potentially harmful juror; however, there are legal limitations to these challenges. That is, attorneys are not legally permitted to remove whomever they like for whatever reason. While the legal purpose of peremptory challenges is to eliminate jurors who may be biased, in practice, peremptory challenges are used for a variety of goals. Attorneys' objectives may not necessarily be to obtain a fair jury but instead to obtain the jury that is most advantageous for their side of the case. In contrast, the court aims to seat a jury that best replicates the collective sentiment of the community and that is able to be fair to both sides of the case.

Traditional Jury Selection

Traditional jury selection refers to the strategies and techniques that derive from attorney experience and legal folklore. Traditional jury selection encompasses strategies such as previous experience with juries, common sense, expectations, intuition, and implicit stereotypes. Simply put, attorneys attempt to collect as much meaningful information as they can during voir dire and rely on stereotypes, instinct, hunches, and common sense to interpret that information. However, critics of this approach opine that in some cases, commonsense stereotypes can lead to opposite conclusions about the favorability of a particular of a juror. On the one hand, a prosecutor might assume that females are ideal jurors for a rape case because women are more inclined to identify and sympathize with the victim and are more likely to render a guilty verdict. On the other hand, a defense attorney might prefer female jurors on a rape case because women may need to believe that the victim put herself in a vulnerable position so that they can continue to believe that the world is just. Some civil attorneys assume that poor jurors should be avoided because they are more likely to make large awards of money due to their resentment of their own situation, whereas other civil attorneys assume that poor people would be less likely to award such large sums because they are not accustomed to that amount of money. These

examples highlight the difficulties inherent in using stereotypes to formulate reliable assumptions about juror favorability.

Another factor that attorneys often consider during jury selection is juror nonverbal communication. It has been suggested that factors such as posture, pitch of voice, and willingness to express opinions go into the decision of who should stay on the jury and who should be removed. Other attorneys use information such as facial expression and perceived level of friendliness or extroversion to make decisions about prospective jurors. Although research has not proved traditional jury selection to be superior to other methods, it does not necessarily follow that the traditional approach should be abandoned. It is quite possible that in individual cases, attorneys may use their implicit theories about jurors based on years of experience to exercise peremptory challenges in their favor.

Scientific Jury Selection

Scientific jury selection refers to the use of community surveys and data analysis to yield probabilities that different types of prospective jurors will be favorable to a particular side. Scientific jury selection is a systematic method for identifying information that would be useful to elicit during the voir dire process and to rely on when deciding which jurors to challenge. The core of this approach assumes that different people who view the same evidence may render different verdicts and that verdict preference can be predicted by individual juror characteristics. This approach also assumes that attitudes and individual differences can be measured accurately; the attitudes themselves or proxies for the attitudes, such as demographic characteristics, must be discernable during voir dire. In addition, this approach requires that these attitudes and characteristics can ultimately be used to predict verdicts.

When conducting a community survey, trial consultants recruit a random sample of participants from the same pool from which an actual jury is being selected. These surveys are often conducted over the telephone by using a random digit dialing sampling technique. Respondents are asked questions that measure demographic characteristics, attitudes toward the legal system, knowledge of case facts, and case-relevant attitudes. Participants may also be provided with evidentiary information about the case. Participants are then asked to render a verdict. By using statistics to test for significant relationships between demographic characteristics, general attitudes, and case-relevant attitudes, trial consultants can educate attorneys about the likelihood that prospective jurors with certain attitudes or demographic characteristics will be favorable or unfavorable to their side. The techniques used during scientific jury selection must take into account the nature and scope of voir dire. For example, the information gleaned from a community survey that indicates that political affiliation is likely to be a strong predictor of verdict preference is helpful only if the judge allows the venire panel to be questioned about political affiliation. Because the judge determines which questions attorneys are allowed to pose to the venire panel, the scope of voir dire can vary widely. When only minimal voir dire is permitted, attorneys may not have any opportunity to pose any questions to the potential jurors, let alone questions that have been identified through the community survey to be predictive of verdicts. In more expanded voir dire situations, attorneys may be allowed to administer a questionnaire to the panel that could contain questions known to predict verdicts.

Individual Characteristics as Predictors of Verdicts

An abundance of research has been conducted on the relationship between individual juror characteristics and jurors' verdict preferences. Research generally suggests that there is no single set of personality or demographic predictors that can be used for all types of cases. Unfortunately, those characteristics that are the most visible, such as gender and race, tend to be weakly correlated with verdict across cases. Although these characteristics are not good predictors in general, race and gender may be good predictors in specific types of cases in which these racial and gender issues are salient. For example, although juror gender is important when gender is an issue in the trial, such as in rape or sexual harassment cases, gender is not a stable predictor of verdicts in other types of cases. There is also evidence that personality characteristics such as authoritarianism, liberalism, and the need for social approval affect juror decisions. For example, jurors who score high on measures of authoritarianism are more conviction prone. It is arguable that group membership and political beliefs may have a greater influence on verdict judgments than race or gender because, unlike gender and race, people choose their affiliations. Jurors are affected by their cultural backgrounds, prior

experiences, and personal affiliations. These factors influence the manner in which they understand and judge the details of the case. Social psychological research on in-group/out-group bias suggests that jurors may have an inclination to judge a witness who is similar to them as more credible and reliable than a witness who is dissimilar to them. However, research on the black sheep effect indicates that jurors may perceive in-group members more negatively than out-group members when the in-group member has committed a transgression. Therefore, the nature of the interaction between jurors' group memberships and the defendant and witnesses' group memberships will depend on the context of the particular case.

Although demographic and personality variables are not stable predictors of verdict judgments across cases, research suggests that case-relevant attitudes, such as death penalty attitudes or attitudes about business, predict verdicts. Studies on death penalty attitudes indicate that those who are pro–death penalty are more likely to render a guilty verdict than those who are against the death penalty. Finally, some research indicates that attitudes toward business and tort reform predict verdicts and awards in civil cases.

Efficacy of Jury Selection

A number of mock jury studies and field studies have been conducted to investigate the influence of jury selection strategies on jury verdict. In general, the research in this area indicates that the evidence accounts for the greatest amount of variance in juror verdicts, and that juror's individual characteristics account only for approximately 5–15% of the variance. However, in cases such as capital cases where defendants have a possibility of receiving the death penalty, it can be argued that factors influencing this small percentage of variance become very important to study. Research has also demonstrated that case-relevant attitudes, such as attitudes toward the death penalty or attitudes toward the insanity defense, are better predictors of verdicts than general attitudes or demographic characteristics.

Investigating the utility of scientific jury selection is often done using mock jury simulations. Critics of this method argue that mock jury studies provide little practical utility for real jury selection because it is virtually impossible to replicate every aspect of a trial. Because participants know that their decisions in a study have no impact on a defendant in a real case, they may find it easier to render a guilty verdict because there are no real consequences for doing so.

Jury selection research has not conclusively established the superiority of one technique over another, in part because research in this area is difficult. To demonstrate that scientific jury selection is efficacious, it is necessary to establish its superiority over traditional jury selection and the random selection of jurors. However, some research suggests that traditional jury selection may result in a jury with attitudes similar to a jury composed of the first 12 jurors to be considered for the jury or a jury that is randomly selected from the jury pool. Nevertheless, instead of trying to identify which approach is more useful, it may be possible that a combination of an attorney's experience and a trial consultant's advanced research methodology would prove to be the most effective approach. Because the role of the jury is an integral part of the legal system, the process of selecting the jury is important and needs further empirical evaluation.

F. Caitlin Sothmann, Caroline B. Crocker, and Margaret Bull Kovera

See also Scientific Jury Selection; Voir Dire

Further Readings

Batson v. Kentucky, 106 S. Ct. 1712 (1986).

Diamond, S. S., & Zeisel, H. (1974). A courtroom experiment on juror selection and decision-making. *Personality and Social Psychology Bulletin, 1,* 276–277.

Hepburn, J. R. (1980). The objective reality of evidence and the utility of systematic jury selection. *Law and Human Behaviour, 4,* 89–101.

Horowitz, I. A. (1980). Juror selection: A comparison of two methods in several criminal cases. *Journal of Applied Social Psychology, 10,* 86–99.

Kovera, M. B., Dickinson, J. J., & Cutler, B. L. (2003). Voir dire and jury selection. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 161–175). New York: Wiley.

Jury Size and Decision Rule

Both the size of the jury and the number of jurors who must be in agreement for a verdict to be concluded (the group's "social decision rule") have been the subject of litigation at the U.S. Supreme Court as well as

a subject of research by psychologists and other social and behavioral scientists. The number of jurors and the minimum proportion of them who must be in agreement are set by formal legal rules (e.g., state statutes, federal rules of civil procedure), and those rules are in turn subject to constitutional requirements. The Supreme Court has framed its analysis of jury size and decision rule questions in terms of the effects of those variables on jury behavior. Thus, the findings of research on group decision making as a function of group size and social decision rule are of central relevance to the Court's constitutional analysis. Yet a considerable tension exists between the Court's conclusions and the empirical findings.

Jury Size

For 600 years of common-law history and 200 years of American constitutional history, the jury was considered to have 12 members. But several states and federal districts in the United States began to use smaller juries, and in the 1970s, challenges to the use of juries with fewer than 12 members reached the U.S. Supreme Court. The Court analyzed the constitutionality of smaller juries by rejecting the guidance of history, tradition, and its own precedents. Instead, the Court reasoned that because the size of the jury was not specified in the Constitution and the framers' intentions regarding jury size could not be divined, the answer would have to be found through a "functional" analysis of the jury's purpose: If smaller juries did not behave differently from juries of 12, then they were their functional equivalent and therefore were constitutional.

In a series of cases—*Williams v. Florida* (1970) (state criminal juries of 6), *Colgrove v. Battin* (1973) (federal civil juries of less than 12), and *Ballew v. Georgia* (1978) (state criminal juries numbering 5)—the Supreme Court held smaller juries to be constitutionally permissible because it found no important differences between 6- and 12-member juries in the reliability of their fact finding, the quality or quantity of their deliberation, their cross-sectional representation of the community, the ability of jurors in the minority to resist the social pressure to conform, or their verdicts. These findings were reached through a combination of judicial intuition, misconstruing nonstudies as empirical studies, misreading the findings of actual empirical studies, and failing to see elementary flaws in actual empirical studies.

What the empirical research findings actually indicate is that smaller groups foster behavior that is beneficial in some respects, but in view of the purposes for which juries are employed, most of the advantages appear to favor keeping juries at 12. On the positive side, in smaller juries, members share more equally in the discussion, find the deliberations more satisfying, and are more cohesive.

A meta-analysis of studies specifically of juries (both simulated and actual) found that larger juries are more likely than smaller juries to contain members of minority groups, deliberate longer, hang more often, and recall trial testimony more accurately. Turning to studies of small-group behavior generally, one finds that larger groups tend to discuss and debate more vigorously, collectively recall more information, and make more consistent and predictable decisions. The latter finding means that as juries grow smaller, they will tend in criminal cases to make more errors of acquitting the guilty or convicting the innocent; and in civil cases, not only will the rate of erroneous verdicts rise, but juries will tend to render damage awards that are more variable and unpredictable. (Because such differences will be small, very large sample sizes would be necessary to detect them.) In accord with classic research on the psychology of conformity, because in larger groups there is greater likelihood that a dissenter will have at least one ally, a dissenter in larger juries will usually find an ally and therefore be better able to resist the pressure to submit to the majority.

In short, the *Williams* Court had scant support for its conclusion that "there is no discernible difference between the results reached by the two different-sized juries"; the little research evidence that existed then and most of the evidence that developed later supported the opposite conclusion: that 6-person juries did behave differently from 12-person juries and most of those differences represented less-desirable decision-making processes.

In the *Ballew* case, the Supreme Court drew the line, holding juries of 6 to be the constitutional minimum. Justice Harry Blackmun's opinion announcing the judgment of the Court extensively reviewed the empirical research on the subject, much of it having been prompted by the *Williams* decision. Curiously, although the research summarized in the opinion mostly compared 6- and 12-person juries and indicated that the former did not perform as well as the latter, the Court did not reverse its earlier holdings. Instead, it reaffirmed the earlier decisions finding

equivalence between large and small juries, but it now held that juries smaller than 6 were unconstitutional because, in Justice Blackmun's opinion, the studies raised serious concerns about the performance of juries of fewer than 6 members.

The research findings have been recognized in other legal settings. The Standing Committee on Federal Civil Rules recommended 12-person juries for federal civil trials (a recommendation not adopted by the Judicial Conference). During the administration of President Reagan, the Department of Health and Human Services promulgated a model medical malpractice statute for the states that specified 12-person juries (specifically for their greater predictability). And the New Hampshire Supreme Court—citing the factual findings of *Ballew* but rejecting its legal holding—ruled that a reduction in jury size below 12 would violate the New Hampshire State Constitution (which similarly did not specify a jury size).

Social Decision Rule

From the 14th century in England until the latter part of the 20th century, juries had been required to reach unanimous verdicts. Several American states began to permit quorum verdicts, and in the 1970s, challenges to the constitutionality of quorum verdicts came before the U.S. Supreme Court.

The principal motivation for eliminating the unanimity rule seems to have been a desire to reduce the incidence of hung juries. Without quorum verdicts, hung juries occur at a national rate of about 5% or 6%, and allowing quorum verdicts reduces that rate by a few percentage points.

In *Apodaca v. Oregon* (1972) and *Johnson v. Louisiana* (1972), the Supreme Court held verdicts split as widely as 9:3 to be constitutional, and in *Burch v. Louisiana* (1979), the Court held that the verdicts of 6-person juries had to be unanimous. The Court's reasoning was much the same as in the jury-size cases: As to the social decision rule for a jury verdict, the Constitution does not say and the intentions of the framers are unknown, so the "inquiry must focus upon the function served by the jury in contemporary society."

The main issues about group behavior that were debated in the Court's functional analysis were whether juries required to reach only quorum decisions would pay less attention to the arguments of the unneeded minority, whether the jury's verdicts would be less accurate, and whether the weight of evidence sufficient to produce a conviction would be reduced. The last of those questions is an especially interesting one. The standard or proof (preponderance, beyond a reasonable doubt) is directed at individual jurors, seemingly separate from the issue of the rules for combining individual views into a group decision. But the two together will surely have a bearing on the group's collective confidence in their verdict and on the quantum of proof needed to lift the jury over those several individual-to-group decision thresholds to a verdict.

The Supreme Court's opinions assert that jurors will not behave differently when a nonunanimous decision rule is in place—at least not when the jury numbers 12—or not differently enough to matter. Less research has been done on social decision rules than on group sizes, but what research has been conducted does not generally support the Court's majority.

Compared with unanimous rule juries, juries operating under a nonunanimous decision rule deliberate for a shorter time, do not let dissenters have sufficient say so as to change the minimum consensus once it is achieved (while in unanimous rule juries, jurors in the minority participate disproportionately in the deliberation), are more vote oriented and less evidence oriented, are less certain of the defendant's guilt when convicting, and are less likely to end in a deadlock. In research on group decision making generally, groups required to reach unanimous decisions are found to be more likely to reach correct solutions (on problems with clear right/wrong answers) than groups working with less-demanding social decision rules.

Notwithstanding the Supreme Court's rulings permitting nonunanimous verdicts under the federal Constitution, the great majority of states continue to require unanimous verdicts in felony trials, and all do in capital murder trials.

Michael J. Saks

See also Jury Deliberation; Jury Reforms; U.S. Supreme Court

Further Readings

Apodaca v. Oregon, 406 U.S. 404 (1972).

Arnold, R. S. (1993). Trial by jury: The constitutional right to a jury of twelve in civil trials. *Hofstra Law Review, 22,* 1–35.

Ballew v. Georgia, 435 U.S. 223 (1978).

Burch v. Louisiana, 441 U.S. 130 (1979).

Colgrove v. Battin, 413 U.S. 149 (1973).
Hastie, R., Penrod, S., & Pennington, N. (1983). *Inside the jury.* Cambridge, MA: Harvard University Press.
Johnson v. Louisiana, 406 U.S. 356 (1972).
Saks, M. J. (1977). *Jury verdicts: The role of group size and social decision rule.* Lexington, MA: Lexington Books.
Saks, M. J., & Marti, M. W. (1997). A meta-analysis of the effects of jury size. *Law and Human Behavior, 21,* 451–467.
Williams v. Florida, 399 U.S. 78 (1970).
Zeisel, H. (1971). . . . And then there were none: The diminution of the federal jury. *University of Chicago Law Review, 38,* 710–724.

Jury Understanding of Judges' Instructions in Capital Cases

Research has shown that jurors in many types of cases frequently fail to understand the jury instructions they receive. However, this failure to understand has special implications in capital, or death penalty, cases. As in other cases, juror comprehension of instructions in death penalty cases is very low, and the difficulty of some of the terms and concepts used in the death penalty context exacerbates their confusion. But this misunderstanding carries with it an additional set of consequences in capital cases. Not only will jurors who misunderstand a judge's instructions in a death penalty case have difficulty in applying the law accurately, but these jurors may also be more easily influenced by bias or prejudice in their decision-making process and may be more likely to vote for a sentence of death.

Guided Discretion

In 1972, in *Furman v. Georgia*, when the Supreme Court held that the death penalty was unconstitutional, it based its decision in part on the fact that the jury's decision-making processes in capital cases at the time seemed "arbitrary" and "capricious." When the Supreme Court approved new death penalty laws 4 years later, in *Gregg v. Georgia* and several other cases, it was because the Court felt that the new laws provided jurors with a framework intended to guide their decision-making process, guaranteeing that the jury's discretion was controlled or channeled. Because this sort of guided discretion (communicated to the jury through jury instructions) was central to the Court's decision to bring back the death penalty in the United States, it is important that jurors in capital cases actually understand the jury instructions intended to provide that guidance.

Several components of death penalty cases make the jurors, the trials, and the jury instructions in those trials unique. During the jury selection process, for example, the death qualification process eliminates from service those potential jurors who have such strong views about the death penalty that those views might affect their ability to make an unbiased decision in an individual case. In addition, a capital trial is frequently divided into two phases: a "guilt phase," in which jurors are asked to decide if the defendant is guilty or not guilty, followed by a "penalty phase" if the defendant was found guilty during the first phase. In the penalty phase, the same jurors are asked to decide whether a defendant should be sentenced to life in prison without the possibility of parole or to death.

Penalty Phase Instructions

A significant amount of research has focused on the jury instructions used in the penalty phase of capital trials. This research has focused on several concepts that are central to the penalty phase and the structure approved by the Supreme Court. First, the term *aggravating circumstances* is used in death penalty cases to describe the evidence that suggests that the defendant should receive a death sentence. This evidence is usually presented by the prosecution. Aggravating evidence includes those aspects about the crime or the defendant that, if true, should encourage jurors to vote for the death penalty. Aggravating factors are frequently limited to those listed in state statutes and can include things such as prior felony convictions or the circumstances of the crime in question. The term *mitigating circumstances*, on the other hand, describes the evidence to be considered by jurors that weighs in favor of a life sentence. Mitigating evidence is information about the crime, the defendant, or his or her life circumstances that, if true, should encourage a life sentence. Sometimes, specific examples of mitigation are included in jury instructions (e.g., the age or mental capacity of the defendant or social history), but mitigating evidence is not limited by law. The Supreme Court has said that jurors in death penalty cases should be able to consider any and all mitigating circumstances. As a result, death penalty statues frequently include a "catch all" category to let jurors

know that mitigating evidence can include anything they believe should weigh in favor of a life sentence.

Both aggravating evidence and mitigating evidence are presented during the penalty phase of a capital trial, to inform the jury's life and death decision. Although most jury instructions refer to these terms, many instructions do not provide definitions of the terms for jurors. Similarly, some states provide a list of "factors" that can be considered in the penalty phase but do not indicate whether the individual factors should be considered as aggravating or mitigating. In most jurisdictions, jurors are instructed to "weigh" aggravating and mitigating evidence in order to decide on the appropriate punishment. However, no specific formula for this weighing process or information about how it should take place is provided to jurors.

Juror Confusion

Evidence from mock jury studies, case studies, and interviews with actual jurors in death penalty cases shows that jurors have a great amount of trouble understanding these terms and applying the concepts. In some studies, jurors understood less than half the instructions they heard. This confusion extends beyond a failure to understand the words used; it also affects the ability of jurors to identify whether particular types of evidence should be used in favor of a life sentence or a death sentence and their ability to weigh the evidence presented in a legally appropriate manner. For example, studies have shown that many jurors believe that they are required to impose a sentence of death in certain situations, when in fact a death sentence is never required by law.

Many possible explanations for this confusion have been advanced. For example, some explanations focus on the use of confusing, passive language and the excessive use of jargon in the instructions. Others have suggested that jurors may become confused because they hold incorrect assumptions about crime and punishment at the time of the trial and these assumptions prevent them from understanding the accurate legal meanings of terms and instructions.

It is significant to note that in addition to the general lack of comprehension of instructions in the penalty phase of capital cases, the confusion does not seem to be evenly distributed, or to have a neutral impact. Although jurors have trouble with all these concepts, they seem to have more trouble understanding the concept of mitigating (the evidence that should be used in support of a life sentence) than aggravating circumstances. There are several possible explanations for this confusion. For example, in cases where the terms are not defined, jurors may rely on their personal knowledge of the terms. Because *aggravating* is a term we use more often than *mitigating* in our daily lives, it may be more familiar to jurors. No matter what the reason, this confusion means that sometimes jurors may not recognize mitigating evidence as being relevant to their decision. At other times, jurors may mistake mitigating evidence as being aggravating instead and use it against the defendant (to vote for death) rather than in his or her favor (by sparing the defendant's life). This sort of error, a direct result of juror confusion, can have significant consequences for the accuracy of the decision-making process and for the defendant's future.

Jury Decision Making

This lack of comprehension affects the jury decision-making process in capital cases in both direct and indirect ways. For example, as described above, research suggests that the skewed nature of the confusion may bias jurors toward death, rather than life, sentences, although the specific impact of juror comprehension on verdict choice is currently unclear. There is also some concern that this bias toward the death penalty embedded within the jury instructions works in combination with several other aspects of the capital-sentencing structure (including the use of two phases with the same jury for both and the death qualification process) to make death verdicts even more likely.

In addition to the direct impacts of juror confusion on verdict choice, research shows that jurors who are confused by the instructions will rely instead on the things they know and understand—if jurors do not understand the judge's instructions, they are more likely to make their decisions based on their personal schemas and stereotypes. While a juror with a good understanding of the instructions is likely to base his or her decision on the relevant evidence and adhere to the weighing process in a legally appropriate way, the confused juror's reliance on stereotypes allows for bias and prejudice to enter the decision-making process. Research has shown, for example, that mock jurors with lower comprehension levels are more likely to sentence a Black defendant to death than those with higher comprehension levels. In addition,

mock jurors with lower comprehension levels find mitigating evidence to be more persuasive in the case of a White defendant than in the case of a Black defendant. Mock jurors with high comprehension levels do not exhibit the same discriminatory behaviors.

Finally, above and beyond the impact of low comprehension on juror verdict choices, it is clear that jurors—citizens who are being called away from their everyday lives and asked to make a very difficult decision—experience frustration with the instructions themselves, and many feel confused and upset during the decision-making process.

Improving Comprehension

Despite the limitations of the capital-sentencing instructions being used today, several studies have demonstrated that it is possible to improve comprehension levels using a variety of techniques. For example, several studies using psycholinguistic improvements designed to simplify and clarify the language in the penalty phase instructions have shown improved comprehension levels in jurors. Similarly, researchers have experimented with penalty phase instructions that incorporate case-specific details, instructions that include definitions of the terms *aggravating* and *mitigating*, enhancements designed to improve both the declarative and the procedural knowledge of jurors, and other innovations, all of which have been successful in improving jurors' comprehension of penalty phase instructions to some degree.

Although there is a significant body of social scientific evidence documenting the limitations of juror comprehension in capital cases, and providing techniques and suggestions for improvement, juror comprehension of capital penalty phase instructions continues to represent an area of tension between psychology and the law. The Supreme Court has consistently upheld the death sentences of defendants challenging the instructions used in their trials, reasoning that there is a presumption that the jury both uses and understands the instructions provided in any case.

Amy E. Smith

See also Aggravating and Mitigating Circumstances, Evaluation of in Capital Cases; Aggravating and Mitigating Circumstances in Capital Trials, Effects on Jurors; Death Penalty; Death Qualification of Juries; Juries and Judges' Instructions

Further Readings

Diamond, S. (1993). Instructing on death: Psychologists, juries, and judges. *American Psychologist, 48*(4), 423–434.

Furman v. Georgia, 408 U.S. 238 (1972).

Gregg v. Georgia, 428 U.S. 153 (1976).

Haney, C., Sontag, L., & Costanzo, S. (1994). Deciding to take a life: Capital juries, sentencing instructions, and the jurisprudence of death. *Journal of Social Issues, 50*(2), 149–176.

Luginbuhl, J. (1992). Comprehension of judges' instructions in the penalty phase of a capital trial: Focus on mitigating circumstances. *Law and Human Behavior, 16*(2), 203–218.

Lynch, M., & Haney, C. (2000). Discrimination and instructional comprehension: Guided discretion, racial bias, and the death penalty. *Law and Human Behavior, 24*(3), 337–358.

Ogloff, J., & Chopra, S. (2004). Stuck in the dark ages: Supreme Court decision making and legal developments. *Psychology, Public Policy and Law, 10,* 379–416.

Wiener, R. L., Rogers, M., Winter, R., Hurt, L., Hackney, A., Kadela, K., et al. (2004). Guided jury discretion in capital murder cases: The role of declarative and procedural knowledge. *Psychology, Public Policy, and Law, 10,* 516–576.

Juvenile Boot Camps

Correctional programs designed to be similar to military basic training are called "boot camps." Although there are some programs for youths at risk of delinquency, these vary widely, and most juvenile boot camps are designed for children adjudicated as delinquent. This entry describes the program and operations of typical boot camps for adjudicated youths, reviews the development of correctional boot camps, and examines how they have changed over time. It then discusses controversies concerning the risks and benefits of boot camps, including the issue of net widening, and reviews research on their effectiveness.

Most boot camps for adjudicated juveniles require that they serve 3 to 6 months in a boot-camp-type facility. The programs resemble those of military boot camps; for example, staff are usually called drill instructors, and staff and juveniles wear military-type uniforms. Youths must say "Yes, sir" or "Yes, ma'am" in response to staff, and they cannot speak unless spoken

to or given permission to speak. There is a rigorous daily schedule of activities. Strict rules govern all facets of the juveniles' activities and comportment. They are required to respond immediately to staff commands. Rule violations are punished immediately, referred to as summary punishments, often with some physical activity (e.g., pushups, running laps). If they do not comply with the rules of the program, the juveniles may be required to serve a longer period of time in another type of juvenile detention facility.

A Day in a Boot Camp

On a typical day in a boot camp, participants arise before dawn, dress quickly, and march in cadence to an exercise area, where they do calisthenics and other physical exercise. They return to their dormitory for quick showers and then march to the dining hall for breakfast. After breakfast, they may practice drill and ceremony until they march to their classrooms for the required educational activities. Later in the day, they may have other classroom activities such as cognitive skills training or drug treatment. Before dinner, they may again be required to practice drill and ceremony or participate in additional physical exercise. Evenings may include additional therapeutic programming or required homework. They are not permitted to watch television unless it is an educational program, nor do they have access to radios, other musical devices, or computer games.

Strict rules exist at mealtimes. Participants are required to stand at parade rest when the serving line is not moving and execute crisp military movements and turns when the line does move. They are often required to approach the table and stand at attention until ordered to sit and eat. Frequently, they must eat without conversation.

The Development of Correctional Boot Camps

Boot camps began in the adult correctional systems of Georgia and Oklahoma in the early 1980s. By the early 1990s, there were more than 21 programs for adults in 14 state correctional systems. Juvenile boot camps developed in the late 1980s. By the mid-1990s, approximately 35 juvenile boot camps were operating. The number of camps keeps varying because some of the old camps have closed down while other new camps have opened.

Several factors account for the rapid growth of correctional boot camps. One important influence was the conservative political climate of the 1980s. Politicians felt the need to be tough on crime. Many sanctions appeared to be "soft" on the criminal. Boot camps were a different story. Boot camps appealed to the "gut instincts" of a public that wanted criminals punished swiftly and harshly in a place where they were required to respect authority and obey rules.

Another important factor influencing the rapid development of the camps was the media. Boot camps provided powerful visual images of juveniles snapping to attention in response to staff members. The tough drill sergeant yelling at the young street thug made great television for a public that wanted to get tough responses to crime. It was ideal for the 60-second feature in the evening news.

Differences in Boot Camps

Juvenile boot camps have changed dramatically over time. The biggest change was in the move away from an emphasis on the basic training model. The first boot camps emphasized the basic military training with strict rules and discipline, physical training, and hard labor. Later, the camps began to emphasize other aspects such as education, leadership training, drug treatment, or cognitive skills. In fact, many of the camps no longer referred to themselves as "boot camps." They used a variety of other names for the programs, such as leadership academy, leadership development, highly structured program for juveniles, or challenge program. While these programs still had strict rules and discipline, physical training, and drill and ceremony, they placed a greater focus on leadership, education, and other therapeutic activities.

Camps differ greatly in the amount of time devoted to different activities. Some still emphasize basic training, and the juveniles spend a great deal of time in physical training and drill and ceremony. Other camps focus on therapeutic activities such as drug treatment, cognitive skills training, vocational training, or education, and the daily schedule reflects this emphasis. Furthermore, the follow-up supervision and aftercare vary among camps. Some have a long-term aftercare program with therapeutic activities, other camps may have intensive supervision, and others may have little follow-up supervision or care. These differences depend, in part, on the philosophy of those who manage the programs or the correctional administrators

who oversee the programs. Money available for programming is also an important factor in determining the type of activities included in the boot camp; therapeutic programming and aftercare may greatly increase the cost of the program.

Controversies Over Juvenile Boot Camps

Boot camps have been controversial since they first opened. Advocates believe that the strict discipline and control in these camps is what these youths need. Many adults who have spent time in the military argue that this was a life-altering and positive experience for them, and camps can have the same impact on juvenile delinquents. Others point to the fact that the orderly environment and control help the youths focus on their problems and make positive changes in their lives. They believe that these undisciplined youths will prosper in an environment that requires them to obey and respect adults.

Critics of boot camps have other concerns. Correctional psychologists argue that the confrontational nature of the interactions do not reflect the type of supportive interpersonal interactions that are conducive to positive change. They maintain that 90 days of verbal abuse, push-ups, and marching cannot be expected to address the problems related to addiction, low educational attainment, or gang membership and other problems faced by these juveniles. In their opinion, boot camps do not include components that are associated with effective correctional treatment, such as therapeutically trained staff and individualized treatment. Furthermore, military training in the armed forces is followed up by 2 years or more of service that emphasizes the skills learned in basic training. Juvenile boot camps do not continue to give participants such long-term follow-up services and treatment.

The Problem of Net Widening

Boot camps appear to be a deceptively seductive alternative for youths with behavior problems. Thus, there is a good chance that low-risk juveniles may be sent to boot camps when they would otherwise have been given a community alternative such as probation. This essentially widens the net of control over juveniles. Net widening is viewed as a disadvantage because increased numbers of juveniles are incarcerated in facilities when there is little advantage in incarcerating them. There may be little risk that they will commit future delinquencies. Also, these low-risk youths may be negatively affected by the programs. From the perspectives of both costs and the impact on youths' lives, there may be little advantage in widening the net of control.

Dangers of the Boot Camp Environment

The rigorous physical activity, confrontational interactions, and summary punishments in boot camps carry with them the chance of abuse or injury. The environment is apt to be mentally and physically stressful for the participants. There have been several deaths in the juvenile camps, and law cases are pending regarding responsibility for the deaths. Many people question whether the dangers of the boot camp atmosphere outweigh any benefits of the programs. While physical activity can be healthy, some of the camps have been criticized for requiring activities that are beyond the health status of the participants (e.g., the required long-distance running for overweight juveniles). This is a particular concern if the staff has not had adequate training to be able to determine when juveniles are experiencing extreme mental or physical stress.

Do Juvenile Boot Camps Work?

The effectiveness of correctional programs can be measured in many ways. For example, boot camps may have an impact on the conditions of confinement. From this perspective, research may investigate whether boot camps are safer than other facilities or whether they increase positive changes such as increased educational attainment or decreased antisocial attitudes. Often the major interest of policymakers and the public is whether correctional programs reduce the recidivism or future criminal activities of participants.

There is some research examining the effectiveness of correctional boot camps in reducing recidivism. MacKenzie and her colleagues conducted a meta-analysis comparing the recidivism of boot camp participants with the recidivism of comparison groups. A meta-analysis is a statistical analysis that uses studies as the unit of analysis. The meta-analysis of boot camps included 44 different studies of adult and juvenile boot camps. The studies used different measures of recidivism, including rearrests, reconvictions, and reincarcerations. For each study, an effect size was

calculated. The effect size indicates whether recidivism was lower for the boot camp participants or the comparison group and how large this difference was. The researchers found that the recidivism rates of the participants and of the control group that did attend a boot camp were almost exactly the same. This was true for both the adult and the juvenile programs. Thus, from this research, it does not appear that juvenile boot camps are effective in reducing the later criminal activities of juvenile delinquents.

Some research has indicated that boot camps have a positive impact on participants' attitudes. In this research, the participants were found to have become less antisocial and develop better attitudes toward staff and programs. However, these results are not consistent. It may be that the results differ depending on the emphasis of the camp. Boot camps that emphasize therapeutic treatment may have a more positive impact on attitudes than camps that emphasize basic military training, consisting of physical training, drill and ceremony, and hard labor. We don't have enough research to clearly assess whether the camps have a positive impact on attitudes.

Another way the effectiveness of boot camps can be studied is to examine the cost of the programs. It is costly to build and operate facilities. If the boot camps widen the net by putting juveniles in facilities when they would otherwise have been in the community, there may be a substantial cost to the programs. On the other hand, if the camps reduce the amount of time juveniles spend in facilities, they could reduce costs. Most juvenile programs are relatively small, so the costs of the programs may not have a large impact on the jurisdictions operating them. This may be the reason why there is no research investigating the issue of the cost of juvenile boot camps.

The Future of Juvenile Boot Camps

Boot camps were a popular correctional approach that fit the philosophy of the conservative 1980s and 1990s. The programs appeared tough on crime and therefore answered politicians' needs to show that they supported tough programs. They answered the public's desire to punish juveniles instead of coddling them. The media liked them because they made good short news pieces for national television. But will they last? This is a question that many people are asking. There have been deaths of both staff and juveniles in the boot camps; as a result, people are beginning to question whether this is good correctional practice. Critics continue to advocate the elimination of the camps because they do not follow the principles of effective correctional practice. It is impossible to tell at this point whether boot camps will continue to operate. Given the disappointing results of the recidivism analyses, it appears that there is little reason to continue to operate the camps. Unless some additional justification for the camps is discovered, most likely there will be fewer and fewer juvenile boot camps in the future.

Doris Layton MacKenzie

See also Antisocial Personality Disorder; Juvenile Offenders

Further Readings

Gover, A. R., MaccKenzie, D. L., & Styve, G. J. (1999). The environment and working conditions in juvenile boot camps and traditional facilities. *Journal of Criminal Justice, 28*(1), 53–68.

Lutz, F., & Murphy, D. (1999). Ultra-masculine prison environments and inmate adjustment: It's time to move beyond the "boys will be boys" paradigm. *Justice Quarterly, 16*(4), 709–733.

MacKenzie, D. L. (2006). *What works in corrections? Examining the criminal activities of offenders and delinquents.* Cambridge, UK: Cambridge University Press.

MacKenzie, D. L., & Armstrong, G. S. (Eds.). (2004). *Correctional boot camps: Military basic training or a model for corrections?* Thousand Oaks, CA: Sage.

Juvenile Offenders

Interest in juvenile offenders has increased in the past few decades due to the large number of youths coming into contact with the law and the rising violent crime. Research by Howard Snyder and Melissa Sickmund provides extensive juvenile population and crime statistic data, and some of their pertinent information is summarized here to provide a rough picture of the characteristics of juvenile offenders in the United States. From 1989 to the mid-1990s, juvenile violent crime was on the rise, and it peaked in 1994. From 1994 to 2003, the juvenile crime rate decreased, with a particularly steep decline of 48% in the juvenile violent crime arrest rate. Juvenile offending remains a significant social problem, and subgroups

of juveniles engage in different levels of criminal behavior. Specifically, the arrest rate for female juveniles has increased over this 10-year period, while the juvenile male arrest rate has declined. Furthermore, while the violent crime arrest rate for Black youth has declined, it still is greater than the rate for any other racial group. Several environmental factors, social factors, and personal traits contribute to the persistence or desistance of juvenile delinquency. While different developmental trajectories for the progression of delinquency and different risk factors for male and female juveniles exist, juvenile offenders generally are at greater risk for mental health problems, less education, substance abuse problems, and low socioeconomic status.

Juvenile Population and Crime Statistics

In 2002, the juvenile population in the United States was nearing 73 million. Just over 2 million juveniles (i.e., under age 18) were arrested in 2003, but fortunately, over the 10-year period from 1994 to 2003, juvenile arrests declined by 18%. Property crimes (e.g., burglary and larceny), which accounted for 463,300 juvenile arrests in 2003, constituted the largest crime category, and violent crimes, such as murder, accounted for 92,300 juvenile arrests. The overall trend for very young offenders, but not for juvenile female offenders, mirrored that for juvenile offenders in general. In fact, the rate of offending for girls increased. Additionally, arrest rates differed by racial group but were similar to the overall pattern for juveniles.

Very Young Juvenile Offenders

Marked differences in the rate of offending across age exist, and there are also general trends in the extent to which very young people engage in antisocial conduct. Very young offenders are of particular concern because it is not expected that young children would be breaking laws. This phenomenon might also signal substantive problems with our parenting practices and broader problems with communities in that both may be less than effective in developing prosocial behavior in youth. Recent trends show that among very young juvenile offenders (10–12 years of age), the arrest rates for violent (+27%) and drug-related (+105%) crimes increased, while their overall arrest rate declined, from 1980 to 2003. Furthermore, for most offense types, more females were arrested than males in the 10- to 12-year age range. For example, the violent crime index for young juvenile female offenders increased by 135% between 1980 and 2003, while it increased only by 14% in the same time period for young juvenile male offenders. Very young juvenile offenders form a unique subgroup in that they are particularly at risk for substance use and gang affiliation.

Gender Trends

Taking into account the total number of arrests in 2003, the arrest rate for juvenile females was higher than that for juvenile males (20% vs. 15%). Additionally, from 1994 to 2003, the arrest rate for juvenile males declined by 22%, which is greater than the decrease in the juvenile female arrest rate (–3%) over this period. Additionally, the juvenile female arrest rate either increased more or decreased less than the juvenile male arrest rate for most offense types. For example, simple assault arrests increased by 1% for juvenile males and by 36% for juvenile females from 1994 to 2003. Juvenile females accounted for 29% of all juvenile arrests and were disproportionately arrested for prostitution (69%) and running away from home (59%). These findings indicate the importance of examining gender differences in juvenile offenders and that trends found with boys do not necessarily reflect what will occur with girls who are offending in the community and vice versa.

Race Trends

White juveniles accounted for 71% of all juvenile arrests in 2003, while Black youths were responsible for 27% of juvenile arrests. Sixteen percent of Black and of White arrests in 2003 were attributed to juveniles. However, Black juveniles, who represented only 16% of the juvenile population (ages 10–17), accounted for 63% of the arrests for robbery, 48% of murder arrests, and 40% of the arrests for motor vehicle theft. The proportion of juvenile arrests varied across offense type. For example, 9% of all arrests for murder involved juveniles, while 51% of all arrests for arson involved juveniles. The proportion of White and Black juvenile arrests also differed across offense types. Juveniles were responsible for a larger proportion of Black arrests than of White arrests for robbery (27%) and motor vehicle theft (33%), while the proportion of White arrests attributed to juveniles was

greater for arson (53%) and vandalism (41%). However, Black and White juveniles were both responsible for the same proportions (9%) of Black and White arrests for murder in 2003. Although there has been some discussion about the inequity in charges across race, it is difficult to determine the specific causes of these disparities.

Violent Crime Trend

As mentioned, the violent crime rate varied across years, with the late 1980s to early 1990s evidencing high rates of juvenile violent crime. The Violent Crime Index for juveniles was generally stable from 1980 to 1988, but by 1994, it had increased to 61%. By 2003, the Violent Crime Index for juvenile arrests had dropped below its level in the early 1980s. The juvenile male arrest rate, which was 8.3 times the rate for juvenile females in 1980, dropped to 4.2 times the female arrest rate in 2003. From 1988 to 1994, the increase in the arrest rate for juvenile females (98%) was larger than it was for juvenile males (56%). Additionally, the greater decline in the male than the female rate (51% vs. 32%) from 1994 to 2003 was largely responsible for the decline in the overall rate of juvenile violent crime. While some of these statistics are encouraging, there continue to be a large number of juvenile offenders.

Surprisingly, the murder arrest rate increased 110% from 1987 to 1993. For juvenile males, the arrest rate for murders increased 117% in this time period, which accounted for the overall rise in the juvenile murder arrest rate. The juvenile female arrest rate did not contribute to the overall increase because this rate increased only by 36% during this time period. In 2003, the murder arrest rate for both juvenile males (78%) and juvenile females (62%) declined the most since 1980 or earlier. The violent crime trend for several minority groups, including Black, Asian, and Native American, mirrored the trend for White juveniles, with each group's arrest rate peaking in 1994. The rate for Black juveniles declined the most, but their violent crime arrest rate was still higher than the rate for any other racial group in 2003. In 2003, the violent crime arrest rate for Black juveniles, which had decreased by 35%, was approximately four times the rate for White juveniles, which was the next highest rate (800 arrests vs. 200 arrests per 100,000 juveniles, respectively). The large number of youths who come into contact with the law, which affects their own personal mental health, ability to excel in school, and other aspects of life that could lead to well-being, has led researchers to attempt to better understand youths with conduct problems. This research has led to further efforts to understand juvenile offenders and, thus, further subtyping of juvenile offenders and of youths with conduct problems.

Developmental Pathways of Delinquent Behavior and Juvenile Offending

Childhood- Versus Adolescent-Onset Antisocial Behavior

According to Terrie Moffitt, childhood-onset or life-course-persistent antisocial behavior has a different developmental pathway from adolescent-onset antisocial behavior. Early-onset antisocial behavior is the result of a child's characteristics and a poor family and social environment. Traits increasing a child's risk of antisocial behavior include a difficult temperament, cognitive deficits, developmental motor delays, and hyperactivity. Environmental influences include weak or broken familial bonds, poverty, poor parenting, and strained relationships with teachers and peers. Childhood-onset antisocial behavior commonly persists into adulthood, and these children have much poorer prognoses than children with adolescent-onset behavior. Additionally, the life-course-persistent group of antisocial youth, which is much smaller than the adolescent-limited group, is responsible for a disproportionately large amount of crime. In contrast, adolescent-onset antisocial behavior is considered developmentally normal and occurs in otherwise healthy children. Adolescent-onset antisocial behavior is deemed normal because it is a means by which youths establish independence from their parents, and these children generally outgrow this behavior as they progress into young adulthood. However, desistance in adolescent-onset youths may be delayed if they encounter problems, such as addiction.

Triple-Pathway Model

Rolf Loeber and David Farrington identified three categories of troublesome behavior in children aged 7 to 12 years. These authors developed a triple-pathway model to explain the links between various pathways in the context of increasingly severe delinquency. First, children exhibiting disruptive behaviors, such as

aggression, should be considered at risk of becoming juvenile offenders because they frequently exhibited similar behaviors early in life. Approximately, one quarter to half of these children are at risk of progressing to delinquency. Next, low-level juvenile offenders commit less serious and generally nonviolent crimes (e.g., shoplifting), but these delinquent behaviors frequently serve as precursors to more serious crimes. Serious juvenile offenders, who have committed homicide, rape, or arson, are of greatest concern because they are responsible for 10% of all juvenile arrests. Additionally, this subset of offenders committed 2%, or 600, of the murders attributed to juveniles, and weapons were used in more than 50% of these murders. Furthermore, juveniles who had access to weapons began committing crimes at a younger age than those juveniles without access to weapons.

The development of delinquent behavior in boys has been shown to occur through three pathways—overt, covert, and authority conflict. Juveniles on the overt pathway initially engage in low levels of aggression but graduate to physical fighting and then violence. In contrast, the covert pathway is associated with the commission of minor acts of delinquency (e.g., shoplifting) before 15 years of age and progresses to property damage (e.g., fire setting) and then to moderately severe forms of delinquency (e.g., fraud). Finally, in juveniles under 12 years of age, the authority conflict pathway is characterized by defiant behavior at low levels and by avoidant behavior (e.g., running away) at the highest level. For these boys, higher levels of avoidant behaviors are associated with a greater risk of covert and overt delinquent behaviors. In all three pathways, as the severity of behaviors increases, the number of juveniles engaging in these behaviors decreases. Additionally, juvenile males with an earlier onset of delinquency are more likely to progress to the more severe behaviors within each pathway. Another trend in the development of delinquent behavior is the expansion of such behavior from the home to the community. However, normal levels of disruptive behavior are commonly seen in 2- and 3-year-old children and, therefore, must be distinguished from problematic levels. Two major indicators of future delinquency are developmentally inappropriate (i.e., elevated) levels of disruptive behaviors in terms of frequency and severity and the persistence of these behaviors beyond 3 years of age.

Gender Differences in Risk Factors for Developing Antisocial Behavior

Female and male juvenile offenders share many risk factors, including poor academic histories, living in high-crime neighborhoods, family dysfunction, and poverty. However, female juvenile offenders are more likely than male juvenile offenders to have experienced physical or sexual abuse. For girls, having at least one parent with a criminal record greatly increases the likelihood that they will be arrested by age 15.

While the overall juvenile female arrest rate exceeds the rate for juvenile males, young females are less likely than boys to possess the risk factors associated with the life-course-persistent trajectory of antisocial behavior. For example, female children exhibit fewer developmental motor delays, temperamental difficulties, and neuropsychological and cognitive problems, including learning and reading difficulties. As predicted, fewer females than males were classified as life-course-persistent, but their backgrounds were similar in that they shared several of the life-course-persistent risk factors. However, adolescence-onset antisocial girls are expected to be more numerous than their life-course-persistent counterparts because they are exposed to the same antisocial peers as are adolescent boys. Yet the opportunities to engage in antisocial behavior may be more limited for adolescent girls than for adolescent boys because girls are more likely to experience physical harm (e.g., sexual assault), which may reduce their involvement in delinquent behaviors.

Predictors of Desistance and Persistence

The initial commission of a criminal act by age 13 is associated with a 2 to 3 times greater risk of chronic, violent offending. Depending on environmental factors and personality or behavioral traits, criminal behavior in juveniles can be prolonged. The presence or absence of snares (e.g., delinquent peers) could respectively limit or promote desistance of criminal behavior in juveniles. For example, economically depressed neighborhoods have high rates of juvenile crime and violence, and they have more risk and fewer protective factors. Within neighborhoods, additional sources of influence include a youth's family and peers, and the interaction of these microsystems must be collectively considered to gain a more complete

understanding of juvenile delinquency. Additional environmental factors associated with juvenile offending include poverty, tenuous community bonds, minimal social control from other residents in the neighborhood, and low parental supervision. A consistent finding in juvenile delinquency research is that associating with a delinquent peer group is a strong predictor of serious, chronic offending. In contrast, protective factors include consistent discipline and positive, warm parental interactions.

Personality traits of juveniles also influence the frequency and severity of their committing delinquent or criminal acts. Callousness and impulsivity have both been linked to future juvenile delinquency. Low restraint (e.g., impulsivity) and high distress (e.g., anxiety) are associated with rearrest. However, high-restraint youth committed fewer but more severe crimes.

Callous and unemotional traits (e.g., lack of empathy) have consistently been linked to a subgroup of antisocial youth with particularly severe aggressive behavior. Furthermore, callous children also express a preference for arousing, dangerous stimuli and have lower levels of reactivity to threatening or emotionally upsetting stimuli.

Consequences of Juvenile Offending

Several consequences of juvenile offending exist, and they are particularly salient for juveniles with early-onset of delinquency. Early-onset juvenile offenders are more likely to continue engaging in delinquent behavior, and the repeated commission of such acts throughout childhood is also a factor in persistent delinquency. In other words, involvement in delinquency precludes juveniles from engaging in prosocial behaviors and is associated with low educational attainment, inadequate social skills, limited employment opportunities, low socioeconomic status, and, for males, early parenthood. These juveniles also have higher rates of externalizing behaviors (e.g., aggression), internalizing behaviors (e.g., depression), substance abuse, and suicide. The increased number and severity of mental health problems in juvenile offenders lead to their greater involvement with child welfare service, mental health providers, and the criminal justice system. Juvenile offenders and their victims have more psychological and occupational problems and, overall, a lower quality of life. Moreover, juvenile delinquents who develop into chronic offenders cost society $1.3 to 1.5 million. Because of the great impact juvenile offending has on the children involved in criminal activity and on society, further research into prevention and intervention needs to be conducted.

Haley L. Ford and Randall T. Salekin

See also Juvenile Offenders, Risk Factors; Juvenile Psychopathy

Further Readings

Grisso, T., Vincent, G. M., & Seagrave, D. (2005). *Mental health screening and assessment in juvenile justice*. New York: Guilford Press.

Loeber, R., & Farrington, D. P. (2000). Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Development and Psychopathology, 12,* 737–762.

Moffitt, T. E. (1993). "Life-course-persistent" and "adolescence-limited" antisocial behavior: A developmental taxonomy. *Psychological Review, 100,* 674–701.

Snyder, H. N., & Sickmund, M. (2006). *Juvenile offenders and victims: 2006 national report.* Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Juvenile Offenders, Risk Factors

Broadly defined, a risk factor for juvenile offending is any experience, circumstance, or personal characteristic that increases the probability that a given youth will commit a legal transgression. No single risk factor *causes* offending; many youths who have been exposed to various risk factors never commit a crime. Rather, juvenile offending typically emerges as a result of complex interactions among a wide variety of risk and protective factors that vary from child to child. Combined risk factors tend to exhibit additive effects, with the likelihood of offending increasing as the number of risk factors increases. Also, the impact of a given risk factor varies across the life course; some may have an effect only at a particular developmental stage. Attempts to mitigate possible risk factors must, therefore, take into account a youth's developmental status. The risk factors for different types of offending vary as well. Studies have found that juvenile offenders tend to

follow one of two possible patterns of offending. The majority exhibit *adolescence-limited* offending, which begins during adolescence and subsides during the transition to young adulthood. *Life-course-persistent* offenders, in contrast, tend to exhibit conduct problems early (prior to adolescence) and continue to offend into adulthood.

Risk factors for juvenile offending are numerous and wide-ranging. Some (such as gender) are unalterable. Others (such as neighborhood conditions or family dynamics), though changeable in theory, are systemic and difficult to control. Nevertheless, by understanding the wide range of risk factors for juvenile offending, prevention programs and treatments can be tailored to meet the unique needs of the various populations of youths they aim to help. The predominant factors can be grouped into three broad categories: individual characteristics, social influences, and community conditions. This entry describes well-established risk factors in these domains.

Individual Characteristics

Antisocial Behavior

One of the best predictors of future delinquency is a history of antisocial behavior in childhood. Adolescents who engage in antisocial behavior (e.g., theft, fighting, vandalism, fire setting, etc.) before puberty (prior to age 13) are more likely to be delinquent than those who have not engaged in these acts prior to puberty. Research also suggests that violent careers often begin with relatively minor forms of antisocial behavior that escalate over time. Those with an early arrest (before age 13) are more likely to become chronic offenders by age 18. Such chronic offenders make up a small percentage of the offending population but are responsible for the majority of serious violent crimes. In addition, youths whose delinquent careers begin early tend to engage in a broad range of antisocial behavior rather than specialize in a particular type of offending. Early childhood may thus be an important developmental period to target for the prevention of juvenile delinquency.

Substance Abuse

Chronic abuse of drugs and alcohol is a precursor to other dangerous behaviors, including criminal activity. Although some degree of experimentation with drugs and alcohol is not unusual during adolescence, excessive use is a risk factor for delinquency.

Cognitive Deficits

Cognitive deficits have also been implicated as a risk factor for delinquent behavior. Low intelligence quotient (IQ) scores, weak verbal abilities, learning disabilities, and difficulty with concentration or attention have all been associated with subsequent delinquent behavior. Social-cognitive development is especially important because it affects one's ability to learn social norms and expectations. For example, studies have shown that delinquent youths are more likely than their peers to think that other children's behavior is deliberately hostile, even when it is not. Though not conclusive, studies suggest that such cognitive deficits usually precede the development of delinquency and not vice versa.

Psychological Factors

Youths who are impulsive, hyperactive, and engage in risk-taking behaviors are more prone to delinquent acts than those who are not. In fact, self-control (or the lack thereof) has been suggested by some to be the root individual-level determinant of crime throughout the life course. Persons with low self-control lack diligence, find it difficult to delay gratification, have little tolerance for frustration, lack interest in long-term pursuits, and have little ability to resolve problems through verbal rather than physical means. While youths who react to new stimuli with anxiety or timidity tend to be less likely to commit antisocial acts, youths who approach new stimuli impulsively or aggressively tend to be more likely to offend. Interestingly, motor restlessness (fidgeting, or the inability to sit still) in kindergarten is a stronger predictor of delinquency between 10 and 13 years of age than low anxiety or a lack of prosocial behavior. In fact, children who become persistent offenders are more likely than their peers to suffer from attention-deficit/hyperactivity disorder (ADHD).

Brain Development

Neuropsychological deficits (often initially manifested as subtle cognitive deficits or a difficult temperament) have been linked to delinquency and chronic offending. Anatomical, chemical, and neurological

abnormalities are more prevalent among chronic criminal offenders and those exhibiting recurrent antisocial behavior than among the general population. These abnormalities may be caused by damage to a specific brain region (i.e., through injury) or by a variety of behavioral or environmental factors (e.g., poor nutrition, exposure to violence, substance abuse). For example, research has found that prenatal and perinatal complications have been associated with later antisocial behavior. Adolescence is a time of marked brain development in many regions, including areas implicated in various aspects of self-control. As such, neurological development during adolescence has a significant effect on emotion regulation. Researchers are actively investigating the complex interrelations among biological and psychological factors as correlates of conduct problems.

Social Influences

Family

Family structure, family characteristics, and family dynamics have all been connected to juvenile offending. The effect of family characteristics is most pronounced in early childhood. While some research has reported that children from single-parent households are at increased risk of delinquent behavior, these differences are often found to be negligible when differences in socioeconomic status are taken into account. Interestingly, family size has been connected to juvenile offending, with youths having more siblings being more likely to engage in delinquent behaviors. The most powerful family-level predictors of juvenile delinquency include lack of parental supervision, inconsistent discipline, and hostile or rejecting parenting styles. Also, children who witness or are victims of abuse in the home are at even greater risk of engaging in antisocial behavior. Aggressive behavior has been found to run in families: Having an antisocial sibling, especially one who is close in age, increases a child's likelihood of engaging in delinquent behavior, and youths whose parents engage in antisocial behavior are more likely to do so themselves.

Peers

The importance of peers in youths' social networks grows substantially during adolescence. It is thus not surprising that most youths commit crimes in groups and that certain characteristics of a youth's peer group increase his or her likelihood of offending. Foremost, individuals with delinquent friends are more likely to offend than individuals without delinquent friends. While peers are known to influence an individual's behavior (known as *socialization*), research also demonstrates that adolescents who are delinquent are more likely to seek out and befriend other delinquents (known as *selection*). Antisocial peer influence can thus be self-reinforcing. The age and gender of an adolescent's peers are also important factors; having older friends is associated with a greater likelihood of offending, and male peers are generally more likely to encourage antisocial behavior than female peers. Gang membership reflects the most extreme example of deviant peer influence on offending. Interestingly, aggressive children who are universally rejected by their peers are at greater risk of becoming chronic juvenile offenders than are aggressive children who are not rejected.

The negative influence of peers tends to arise as a key risk factor later in development, whereas family influences typically are most important during earlier stages. Nevertheless, the influence of peers is magnified when the family environment is not healthy.

Community Conditions

Neighborhood

Children raised in disadvantaged neighborhoods are at greater risk of becoming juvenile offenders than children from more affluent neighborhoods. This neighborhood effect remains significant even when differences in school quality and family socioeconomic status are taken into account. Since disadvantaged neighborhoods have weak social controls due to isolation and high residential turnover, delinquent behavior is more likely to go unnoticed or be ignored by others in the community. The lack of social control in poorly monitored neighborhoods not only provides more opportunities for antisocial behavior but also increases youths' exposure to criminal behavior by others in the community. Such exposure is yet another risk factor for subsequent offending.

School

Youths who experience problems at school are at increased risk of becoming delinquent. Problems at school can include a wide range of experiences, such

as poor scholastic performance, weak connections to school, and low educational aspirations. Such factors are associated with delinquent behavior even when cognitive factors (such as intelligence or attention deficits) are taken into account. Youths who drop out of high school are more likely than those who graduate to engage in delinquent activities. School policies such as suspension and expulsion have been found to exacerbate delinquent behavior among at-risk youths.

Prediction

Risk factors combine in complex ways to influence individual behavior. Although these factors can be used to predict the relative probabilities of offending in large groups with similar characteristics, they cannot be reliably used to predict the behavior of specific individuals. Even among groups with numerous risk factors, the majority of youths generally do not offend, making it extremely difficult to use such factors to identify individual future offenders with meaningful accuracy. The number of "false positives" from such predictions would exceed the number of "true positives," and the potential stigma of being labeled as a "future offender" would itself be detrimental.

Elizabeth Cauffman

See also Child Maltreatment; Child Sexual Abuse; Classification of Violence Risk (COVR); Conduct Disorder; Criminal Behavior, Theories of; Divorce and Child Custody; Extreme Emotional Disturbance; Juvenile Offenders; Juvenile Psychopathy; Mental Health Needs of Juvenile Offenders; Risk Assessment Approaches; Substance Use Disorders; Victimization

Further Readings

Farrington, D. P. (1995). The development of offending and antisocial behavior from childhood: Key findings from the Cambridge Study in Delinquent Development. *Journal of Child Psychology and Psychiatry, 36,* 929–964.

McCord, J., Widom, C. S., & Crowell, N. A. (2001). *Juvenile crime, juvenile justice. Panel on juvenile crime: Prevention, treatment, and control.* Washington, DC: National Academy Press.

Moffitt, T. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review, 100,* 674–701.

Office of the Surgeon General. (2001). *Youth violence: A report of the Surgeon General.* Washington, DC: U.S. Department of Health and Human Services, Office of the Secretary, Office of Public Health and Science, Office of the Surgeon General. Retrieved from http://www.surgeongeneral.gov/library/youthviolence/toc.html

Tremblay, R. E., & LeMarquand, D. (2001). Individual risk and protective factors. In R. Loeber & D. P. Farrington (Eds.), *Child delinquents: Development, intervention, and service needs* (pp. 137–164). Thousand Oaks, CA: Sage.

Juvenile Psychopathy

Despite disagreement about its exact contours, most conceptualizations of psychopathic personality disorder emphasize traits of emotional detachment, including callousness, failure to form close emotional bonds, low anxiety proneness, remorselessness, and deceitfulness. Nevertheless, most measures of psychopathy go beyond these interpersonal and affective features to assess repeated involvement in antisocial behavior, which many scholars view as peripheral to the construct. Chiefly, this is because most measures are based on the Psychopathy Checklist–Revised (PCL–R), which weighs past violent and antisocial behavior as strongly as traits of emotional detachment. Over the past decade, researchers have extended this adult measure of psychopathy downward to adolescents and children, with the goal of assessing "juvenile psychopathy." This research has gained considerable momentum, despite ongoing controversy about the appropriateness of diagnosing psychopathy before youths' personalities have reached a period of relative developmental stability. Most contemporary research and virtually all practical interest revolve around the reliability and utility of measures of juvenile psychopathy in forecasting youthful offenders' violent and antisocial behavior. In this entry, this movement is noted, but research on the validity of extending this construct to youths is emphasized. Theoretically driven research on the potential mechanisms that underpin psychopathy reveals the importance of emotional detachment as a likely manifestation of psychopathy in youths. However, there is no compelling evidence that the purported traits of psychopathy (a) remain stable during the transition to adulthood or (b) do not respond to treatment. This limits the utility of measures of psychopathy for informing legal decisions with long-term consequences concerning youth. Although relevant measures have been developed for children as young

as 3 years, the focus of this entry is on preteens and adolescents.

Extending Psychopathy From Adults to Youths

Several factors have encouraged the extension of psychopathy from adults to youth. Foremost among them are (a) the recognition that the chief tools for diagnosing psychopathy predict violence and criminal recidivism and (b) the juvenile justice system's increasingly punitive policies, which have created a demand for identifying inalterably dangerous youths. Although researchers hoped that psychopathy assessments would be used to identify a subgroup of at-risk youths to target for intervention, recent legal reviews suggest that the youths identified are likely to be excluded from treatment and set up for harsh sanctions.

Most measures of juvenile psychopathy modify the PCL–R items and scoring criteria to reference youths' peer, family, and school experiences. They are built on the assumption that the features of psychopathy manifested by adult psychopaths will, when exhibited in youths, identify a small subgroup of offenders who are maturing into psychopaths. That is, psychopathy is manifested similarly, whether one is 13 or 33 years old. This assumption is challenged by a study of clinical psychologists' conceptions of juvenile psychopathy. Clinicians viewed some of the features of adult PCL–R psychopathy (e.g., impulsivity, the failure to accept responsibility, a parasitic lifestyle, criminal versatility) as nonprototypic of juvenile psychopathy. Although this raises the possibility that the manifestations of psychopathy differ as a function of developmental stage, no "bottom-up" measures of juvenile psychopathy have been developed.

Reliability and Predictive Utility of Juvenile Psychopathy Measures

The most widely validated measures of juvenile psychopathy were derived from the PCL–R, including the Psychopathy Checklist: Youth Version (PCL:YV), the Antisocial Process Screening Device (APSD), and the Child Psychopathy Scale (CPS). Like its parent measure, the PCL:YV is based on a clinical interview and file review; the other measures are based on self- or collateral report. Perhaps, given these method differences, the PCL:YV correlates only moderately with the remaining measures.

These measures share two general strengths. First, each has been shown to be reliable (interrater, internal consistency, and/or short-term test-retest). Second, each has demonstrated some utility in predicting youths' violent or antisocial behavior. The typical degree of association with these behavioral outcomes is similar to that observed in adults (i.e., $r \neq .25$). Although most prospective studies follow youths for only 1 to 2 years, one retrospective study indicates that youths' (mean age = 16) file-based PCL:YV scores moderately predict violent recidivism over an average 10-year follow-up period. Most of the PCL:YV's predictive utility in this study, however, was attributable to its assessment of an impulsive, antisocial lifestyle rather than traits of emotional detachment. This finding is consistent with much of the adult literature and challenges the assumption that the measure's association with violence is an indication that emotionally detached psychopaths use violence to prey on others. Instead, the measures may tap traits of aggression or externalizing features that predict violence but are not specific to psychopathy.

Construct Validity of Juvenile Psychopathy: Potential Mechanisms and Etiology

For such reasons, predictive utility (which seeks clinical utility) cannot be mistaken for construct validity (which seeks construct identification). To determine whether psychopathy is a valid construct when applied to youths, juvenile psychopathy must be (a) evaluated against a validation hierarchy dictated by a theory of the disorder and (b) shown to be a stable personality disorder that does not dissipate as youths become adults.

Despite the differences among them, most theories describe psychopathy as a largely inherited affective or cognitive processing deficit. These theories dictate a validation hierarchy that places pathophysiologic and etiologic mechanisms at the top, as they offer the greatest potential for explaining the disorder and potentially altering its course. The question is whether diagnostic criteria for juvenile psychopathy identify a homogeneous group of youths with clearly delineated deficits and largely genetic pathophysiology.

Paul Frick and his students have begun to address this question. Their work highlights the importance of features of emotional detachment, or "callous/unemotional" (C/U) traits, in defining juvenile psychopathy. Theoretically, traits of emotional detachment

are underpinned by a fearless temperament and deficient processing of emotionally distressing stimuli, which causes insensitivity to socializing agents and interferes with the typical development of conscience. At the symptomatic level, Frick and his colleagues have found that youths with traits of emotional detachment tend to be fearless, thrill and adventure seeking, and low in anxiety. At the pathophysiological level, they have found that emotionally detached traits identify—among a *pool* of youths with early and persistent antisocial behavior—those who possess information-processing and emotional deficits similar to those found among psychopathic adults. These include reduced sensitivity to cues of punishment when a reward-oriented response set is primed and diminished reactivity to threatening and emotionally distressing stimuli. Although such results might be interpreted as evidence that psychopathy is genetically influenced, caution should be exercised in drawing premature inferences because the heritability of these laboratory variables is unclear.

Only one behavioral-genetic study of psychopathy has been conducted with youths to date. In this study, psychopathy was operationalized using teachers' ratings of C/U traits on an unvalidated but internally consistent scale. Based on a selection of 661 7-year-old probands with extreme C/U traits (>1.3 *SD*), the authors found concordance rates of 39% and 73% for dizygotic and monozygotic twins, respectively, yielding an estimate of moderate heritability for C/U traits ($h = .67$). Although observational studies suggest that childhood maltreatment relates more strongly to antisocial behavior than features of emotional detachment per se, more research is needed to determine whether features of emotional detachment are more highly heritable.

In summary, existing research provides some support for the validity of emotional detachment or C/U traits in defining juvenile psychopathy. The importance of these traits is bolstered by psychometric studies. Studies that apply item response theory indicate that interpersonal and affective items convey more information about the underlying juvenile psychopathy construct than items that tap aggressive and antisocial conduct. Some of the recently developed measures of juvenile psychopathy (e.g., the Youth Psychopathic Traits Inventory; the Inventory of Callous Unemotional Traits) focus on emotional detachment, de-emphasizing antisocial behavior. It remains for future research to determine whether these measures more "cleanly" assess the construct than their predecessors.

Malleability of Juvenile Psychopathy

The fact that we can reliably assess features of emotional detachment in youths that relate in a theoretically coherent manner to cognitive and affective deficits provides some support for extending psychopathy measures downward from adults to youth. Presently, however, we lack the necessary collateral evidence that what we are assessing in youths is psychopathy, a personality disorder that will remain stable into adulthood.

Scholars have expressed two main concerns about the stability of juvenile psychopathy. First, downward translations of the PCL–R include normative and temporary features of adolescence such as impulsivity, stimulation seeking/proneness to boredom, poor behavior controls, and irresponsibility. At least one study indicates that measures of juvenile psychopathy correlate moderately with measures of psychosocial maturity. To the extent that measures of juvenile psychopathy tap construct-irrelevant variance related to psychosocial maturity, a youth's score will gradually decrease as he or she matures. It is possible that recent measures of juvenile psychopathy that focus specifically on emotional detachment may capture less construct-irrelevant variance related to psychosocial maturity. Indeed, a cross-sectional item-response theory study indicates that PCL:YV items that assess emotional detachment are more defining of psychopathy across age groups than items that tap impulsive, antisocial behavior.

The second concern is that there is no compelling evidence that youths assessed as psychopathic will mature into psychopathic adults. Because personality and identity may not be well formed until adulthood, our nosological systems generally forbid applying diagnoses of personality disorders to children and adolescents. Although psychopathic adults probably manifested similar traits when they were younger, relatively few youths with psychopathic features may mature into psychopathic adults. Reasoning by analogy, the majority of children with conduct disorder desist acting out and do not mature into adults with antisocial personality disorder.

Three relevant studies have been conducted. In the first, the APSD was repeatedly administered to 100 nonreferred fourth graders. Across a 4-year period, the stability of APSD scores and rank order was excellent

(interclass correlation [ICC] = .80), suggesting that parent ratings change little from late childhood to early adolescence. The two remaining studies focused on the transition from adolescence to adulthood. In the second study, more than 200 youths were administered the CPS at age 13 and a screening version of the PCL at age 24. Over this 10-year period, there was relatively poor stability (ICC = .27), and most of the shared variance was between the CPS and PCL's antisocial scale. Of the adolescents who obtained extremely high CPS scores (i.e., the top 5%) at age 13, less than one-third (29%) were classified as psychopathic at age 24. In the third study, PCL measures were repeatedly administered to approximately 200 adolescents and 100 adults. Over a 2-year period, the stability of adolescents' PCL:YV scores was limited (ICC = .34). Adolescents' PCL:YV scores decreased significantly more than adults' PCL–R scores, indicating that psychopathy assessed during adolescence is less stable than that assessed during adulthood.

The apparent features of psychopathy can change not only as a function of maturity but also as a function of intervention. The results of recent research challenge the long-standing therapeutic pessimism about psychopathy. Although three studies of youth have been conducted, only one is prospective and includes a control group. In this study, of approximately 150 youths with pronounced PCL:YV scores and long histories of acting out, those who participated in an intensive treatment program were 2.4 times *less* likely to recidivate violently the year after release than those who participated in treatment as usual.

Legal Implications

Although juvenile psychopathy is a promising construct, the available evidence cannot support its application to legal decisions about youth that have long-term consequences. First, given the lack of evidence that these measures identify inalterably dangerous youths who will mature into adult psychopaths, it is inappropriate to apply these measures to determine whether a youth should be tried in the adult court system. Second, these measures should not be used as an exclusion criterion for treatment programs. Indeed, juveniles with high psychopathy scores should be reframed as high-risk cases in need of intensive treatment rather than hopeless cases to incapacitate.

What legal uses of these measures might be appropriate? Given their predictive utility, one might use a measure of juvenile psychopathy as a risk assessment tool to inform short-term decisions about placement (particularly levels of security). However, risk assessment tools that have been designed and validated for youth are available. Before selecting a diagnostic measure of psychopathy over a validated risk assessment tool, one must consider the potential for stigmatizing a child or an adolescent with the unsavory label "psychopath." Studies of juvenile justice professionals and mock juries alike indicate that this label invites assumptions that the youth is inalterably dangerous. Although this assumption does not enjoy empirical support, it pushes decision makers away from rehabilitative efforts toward harsh sanctions and incapacitation. Because adolescence is a time of significant developmental change, it is imperative to learn more about the stability, nature, and manifestations of psychopathy before embracing this construct as a component in the evaluation of juvenile offenders.

Jennifer Skeem, Eva Kimonis, and Sarah Vidal

See also Conduct Disorder; Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); Hare Psychopathy Checklist: Youth Version (PCL:YV); Psychopathy

Further Readings

Edens, J. F., Skeem, J. L., Cruise, K. R., & Cauffman, E. (2001). Assessment of "juvenile psychopathy" and its association with violence: A critical review. *Behavioral Sciences and the Law, 19,* 53–80.

Frick, P. J., & Dickens, C. (2006). Current perspectives on conduct disorder. *Current Psychiatry Reports, 8,* 59–72.

Salekin, R. T. (2006). Psychopathy in children and adolescents. In C. J. Patrick (Eds.), *Handbook of psychopathic traits* (pp. 389–414). New York: Guilford Press.

Juveniles and the Death Penalty

The controversy surrounding the juvenile death penalty is not new; the courts have struggled with the issue for decades. Meanwhile, psychologists have presented research results on both the capabilities of juveniles and the public's support for the juvenile death penalty. Although the Supreme Court has not

consistently relied on psychological findings, those findings are relevant to the legal debate.

Supreme Court Rulings

In 1988, the U.S. Supreme Court in *Thompson v. Oklahoma* overturned a death sentence for a 15-year-old offender because it violated the Eighth Amendment prohibition against cruel and unusual punishment. The Court found that the community's "evolving standards of decency" were incommensurate with the execution of a juvenile. The Court considered four factors: the number of state statutes prohibiting the juvenile death penalty for 15-year-olds, jury sentencing statistics, the opinions of national and international organizations, and the Court's analysis of whether the juvenile death penalty accomplished the goals and purposes of the punishment.

A year later, the Court reexamined whether the death penalty should be available for 16- or 17-year-olds in *Stanford v. Kentucky* (1989). This time, the Court failed to find consensus in state statutes and held that the death penalty for these youths was not in violation of the Eighth Amendment. Surprisingly, the Court ignored all other measures of evolving community standards that were considered in *Thompson.*

Making matters even more confusing, the Court did an about-face in 2005, finding the juvenile death penalty unconstitutional in *Roper v. Simmons* and determining that the community's standards of decency had evolved to oppose executing juveniles of any age. Furthermore, relying on psychological research, the Court found that the juvenile death penalty did not satisfy the punishment goals of deterrence and retribution, due in part to juveniles' immaturity and their inability to make rational judgments that consider the outcomes of committing violent crimes.

Psychologists have contributed to these legal developments in two ways. First, they have conducted polls to measure community support for the juvenile death penalty. Second, they have conducted research testing the development of juveniles.

Public Opinion Research

The Supreme Court has sometimes referred to the results of public opinion polls measuring the "evolving standards" of the community. Polls have shown changing support over time. Although 28% of respondents supported the juvenile death penalty in 1936, only 19% supported the punishment in 1953, and only 11% were supportive in 1957. Surprisingly, a 1965 poll reported 21% support for juvenile executions, despite declining public support for the death penalty in general. Demonstrating even more variability, a 1988 poll showed 44% support and a 1989 poll showed 57% support for juveniles over 16. At the same time, another 1989 poll found 25% to 30% support for executing offenders as young as 14 years. More recently, a 2002 Gallup poll found 31% support for juvenile executions. Exhibiting regional differences, a 1991 poll in the southeastern United States found that 64% supported executing juveniles aged 16 or over and 35% supported executing those under 16. Still, the level of support (83%) for executing adults was much higher.

Support is not uniform, however, as Whites and conservatives are typically more supportive of the death penalty in general than their counterparts. Similarly, participants who are older, male, White, and conservative are more supportive of the juvenile death penalty.

Despite this variability among polls, the trend indicates a general disfavor among respondents especially when it comes to executing juveniles as compared with executing adults. The *Roper* ruling did not rely on polling results; nevertheless, findings from this research do agree with the Court's judgment that the juvenile death penalty now does offend the community's evolving standards of decency.

Research on Juvenile Development

A second line of psychological research argues against executing juveniles because their limited developmental judgment capacities mitigate their culpability. The American Psychological Association filed an amicus brief in the *Roper* case that referred to research demonstrating that juveniles are biologically, psychosocially, and cognitively less developed than adults. These differences suggest that the death penalty does not fulfill its purposes when the state invokes it against juveniles who commit homicide. It is not possible to deter juveniles from committing homicide if they do not engage in a rational cost-benefit analysis before engaging in violence.

As adolescents progress to adulthood, they develop capabilities, attention, information-processing skills, and memory, which makes them more reasoned decision makers. Some research suggests that older juveniles are similar to adults in their reasoning skills, at least when

tested in laboratory settings (e.g., participants imagine how they would react to hypothetical situations). However, critics argue that differences between adult and juvenile judgments are much more likely to emerge in real-world settings than in laboratories.

Some researchers concluded that juveniles' psychosocial development remains immature even in later adolescence. As a result, juveniles are more susceptible to peer influence, are ineffective in weighing the risks and rewards of their behavior, have difficulties in reasoning about the long-term consequences of behavior, and have a lower capacity for self-management (e.g., impulse control). These deficiencies affect their cost-benefit analysis, leading them to make immature decisions.

A growing body of neuropsychological research has confirmed that juveniles differ from adults in important ways. For instance, recent research has indicated that the areas of the brain that control reasoning (e.g., the prefrontal cortex) are the last to develop. As such, juveniles are less competent than adults, with less-developed capabilities for concentration, control of impulsivity, self-monitoring, and decision making. Because these areas of the brain are underdeveloped, juveniles rely more heavily on the amygdala, the area of the brain that processes emotions. Thus, juveniles are biologically different in ways that may decrease criminal culpability.

In sum, the age at which an offender is legally eligible for the death penalty is 18. At least for now, the legal debate surrounding the juvenile death penalty is settled, due in part to the work of psychologists studying public opinion and the development of cognitive, emotional, and neurological capacities.

Monica K. Miller and Richard L. Weiner

See also Death Penalty; Mental Illness and the Death Penalty; Mental Retardation and the Death Penalty; Racial Bias and the Death Penalty; Religion and the Death Penalty

Further Readings

Boots, D. P., Heide, K. M., & Cochran, J. K. (2004). Death penalty support for special offender populations of legally convicted murderers: Juveniles, the mentally retarded and the mentally incompetent. *Behavioral Sciences and the Law, 22,* 223–238.

Kalbeitzer, R., & Goldstein, N. E. S. (2006). Assessing the "evolving standards of decency": Perceptions of capital punishment for juveniles. *Behavioral Sciences and the Law, 24,* 157–178.

Roper v. Simmons, 543 U.S. 551 (2005).

Stanford v. Kentucky, 492 U.S. 361 (1989).

Steinberg, L, & Scott, E. S. (2003). Less guilty by reason of adolescence: Developmental immaturity, diminished responsibility, and the juvenile death penalty. *American Psychologist, 58,* 1–10.

Thompson v. Oklahoma, 487 U.S. 815 (1988).

Encyclopedia of PSYCHOLOGY & LAW

Volume 2

Brian L. Cutler - Editor
University of North Carolina at Charlotte

A SAGE Reference Publication
SAGE Publications
Los Angeles • London • New Delhi • Singapore

L

Legal Authoritarianism

In its broadest sense, legal authoritarianism refers to the constellation of beliefs held about the legal system that is relevant to juror decision making. Because jurors enter trials with preconceived notions about evidence, criminal conduct, and the criminal justice system in general, understanding these beliefs allows researchers to better understand how jurors process information and render decisions about the case. Furthermore, because one of the goals of the jury selection process and voir dire is to assess attitudes that individuals might hold that could affect their role as jurors, the study of juror attitudes is of great relevance to judges and trial attorneys, trial consultants, and researchers of jury decision making.

Early Measures of Attitudes Relevant to Juror Decision Making

Early attempts to measure attitudes relevant to juror decision making relied on measures generally not intended for those purposes. Some commonly used measures were internal or external locus of control, just-world beliefs, and authoritarianism. Of these constructs, authoritarianism was the most frequently used in conjunction with juror decision making and had the most success in predicting juror judgments. Individuals scoring high on measures of authoritarianism express stereotyped beliefs toward out-groups, support conventional norms and authority, and advocate harsh sanctions against deviates. These beliefs have obvious implications to how one might react to evidence presented at trial. And, not surprisingly, measures of authoritarianism have been shown to have a weak but positive relation to juror verdicts. A meta-analysis revealed the average correlation between authoritarianism and verdicts to be .11.

Measures of Legal Authoritarianism

As noted, measures of authoritarianism such as the California F Scale contain items removed from a legal context. Yet these same themes present in authoritarian attitudes (e.g., the tendency to support and trust institutionalized authority, the willingness to advocate harsh sanctions against deviates) are telling features about how one views the legal system. It was noted at the outset that, broadly, any measures of legal attitudes are frequently termed legal authoritarian measures. However, in a more narrow interpretation, because authoritarian beliefs are so central to how one views the criminal justice process, any measure of legal attitudes relevant to jury decision making must address these authoritarian themes to one extent or another. As a result, each of these existing measures of juror attitudes can be reasonably characterized as legal authoritarianism measures.

Although it was not conceived as a measure of attitudes relevant to jury decision making, Herbert L. Packer's identification of the due process and crime control model provides an early example of legal authoritarianism. Packer articulated these two perspectives on the criminal justice system in the influential 1968 text *The Limits of the Criminal Sanction.* These perspectives reflect a series of attitudes one holds surrounding the legal system that have important

consequences about how one views a criminal trial. According to Packer, individuals who hold strong crime control values regard the control and reduction of criminal conduct as the primary goal of the criminal justice system. To do so, one seeks efficiency in the criminal justice process to be maintained at all costs. They, therefore, tend to have greater confidence in law enforcement and other criminal justice actors to correctly and competently carry out their duties of apprehending and convicting criminals while acquitting the innocent. These individuals see the presumption of innocence and burden of proof as unwanted obstacles and encourage the power of institutionalized authority over the rights of the accused. Conversely, those holding due process values question the ability of the criminal justice system to properly carry out their duties in apprehending and trying offenders. They stress the rights of the accused, are fearful of innocent persons wrongfully convicted, and emphasize the importance of procedural safeguards in maintaining the integrity of the process, even at the expense of releasing persons who may be factually guilty. The crime control and due process models conceptually covary with legal authoritarianism. That is, those who place trust in the system and seek to apprehend and punish wrongdoers at the expense of their liberties demonstrate authoritarian values, whereas those who question unfettered police powers and seek to maintain procedural safeguards to protect the rights of the accused demonstrate antiauthoritarian values.

In the same year, Packer published his theory of the crime control and due process models, and Virginia Boehm published the Legal Attitudes Questionnaire (LAQ). The scale measures three constructs: authoritarianism, antiauthoritarianism, and equalitarianism. This 30-item scale was grouped into 10 sets of triads, each containing a statement reflecting each construct. Participants rank ordered agreement with the statements within each triad. Authoritarian items expressed unquestioned support for authority and limits on the rights of the accused (e.g., "Evidence illegally obtained should be admissible in court if such evidence is the only way of obtaining a conviction."). Antiauthoritarian items reflected beliefs that challenged authority and expressed the need for procedural safeguards to protect the accused (e.g., "Wiretapping by anyone and for any reason should be completely illegal."). Equalitarian statements reflected neither authoritarian nor antiauthoritarian values, but instead reflected beliefs that fell somewhere within these extremes (e.g., "Citizens need to be protected against excessive police power as well as against criminals.").

Researchers later developed the Revised Legal Attitudes Questionnaire (RLAQ) in an effort to improve the psychometric properties of the scale. Ranked agreement within the 10 triads was abandoned in favor of Likert scoring for all 30 items. This led to a sizable reduction in items scored incorrectly. It also revealed some limits to the construct validity of the scale. For the RLAQ, significant negative correlations emerged for the authoritarian and equalitarian subscales, whereas the antiauthoritarian subscale failed to correlate with the others. Moreover, although the authoritarian subscale significantly positively correlated with a traditional measure of authoritarianism—the Balanced F Scale—it was scores on the equalitarian subscale and not the antiauthoritarian subscale that negatively correlated with this measure of authoritarianism. This finding suggested that equalitarian items on the scale are better conceptualized as antiauthoritarian and vice versa.

In 1983, Saul Kassin and Larry Wrightsman published the Juror Bias Scale (JBS). The goal was to create a measure of "generalized pretrial bias." They noted that typical models of jury decision making assume that verdicts reflect two judgments—the likelihood that the defendant committed the crime charged, or probability of commission (PC), and a judgment of threshold necessary to convict, or reasonable doubt (RD). The authors surmised that jurors may differ along two theoretically independent dimensions (i.e., PC and RD). The scale contains 9 PC items (e.g., "Generally, the police make an arrest only when they are sure about who committed the crime.") and 8 RD items (e.g., "If a majority of the evidence—but not all of it—suggests that the defendant committed the crime, the jury should vote *not guilty*."). Here again, these same elements of authoritarian beliefs (e.g., trust in authority) as well as antiauthoritarian beliefs (e.g., need for safeguards to protect the rights of citizens) emerge.

Researchers, in developing the most recent measure of juror attitudes—the Pretrial Juror Attitudes Questionnaire (PJAQ)—used a dual approach to item generation. Here, items were derived from a sample of participants in addition to using items present in existing scales. The initial pool of items was reduced to a manageable size based on a separate sample's consensus that the items reflected attitudes that could bias a juror's judgment in the case, along with factor analytic methods. For the final 29-item scale, the separate constructs of cynicism and confidence reemerged, along with

additional constructs labeled social justice (e.g., "Rich individuals are almost never convicted of their crimes."), racial bias (e.g., "Minority suspects are likely to be guilty more often than not."), and innate criminality (e.g., "Once a criminal, always a criminal."). Therefore, we see that even when relying on empirical means to generate items, constructs emerge that reflect these authoritarian and antiauthoritarian beliefs.

Legal Authoritarianism Measures as Predictors of Individual Verdicts in Criminal Cases

There have been multiple studies assessing the predictive validity of legal authoritarianism measures. A meta-analysis revealed that legal authoritarianism measures demonstrate an average effect size of $r = .16$. However, this correlation is somewhat reduced by the inclusion of studies that have used rape trial scenarios. Measures of legal authoritarianism appear to be poor predictors of verdicts in rape trials, and although researchers have offered some explanations as to why this might be, it has yet to be investigated. Moreover, many of the studies on which the analysis was conducted used college students and/or written transcripts and trial summaries. However, a general pattern is that as the ecological validity (in terms of sample used as well as presentation medium) of the study increases, so too does the relation between authoritarianism and verdicts.

In a recent study comparing the predictive validity of the JBS, a shortened version of the Revised Legal Attitudes Questionnaire (RLAQ–23), and the PJAQ, researchers found that the JBS and RLAQ–23 combined were able to account for approximately 4% of the variance in guilt judgments. By comparison, the PJAQ by itself accounted for approximately 7% of the variance in guilt judgments. Consequently, when we speak of the value of these scales as a predictor of guilt judgments, the relation remains relatively modest. Moreover, this relation is further weakened as the evidence against the defendant becomes less equivocal. In other words, attitudes that one carries to trial can influence final judgments, but evidence still provides the bulk of the explanation about how we decide cases.

Of course, examining the beliefs jurors hold about issues relevant to the legal system and their final verdict in a case ignores myriad ways in which these beliefs might indirectly affect verdicts. That is, the attitudes jurors hold concerning trust in law enforcement, for example, can influence the weight they assign to evidence brought to trial from these sources (e.g., police searches, confessions), or their ability to recall certain facts, or the sources of evidence at a later time when deliberating over the case. Researchers are just beginning to grapple with these issues, but it highlights the potential for the study of pretrial attitudes in general, and specifically measures of legal authoritarianism, to aid our understanding of how jurors decide cases. Because it is well accepted that jurors are not immune to the biasing role that these attitudes likely play in their decisions, no model of juror decision making can be complete without accounting for these attitudes and the role they play in the decision-making process. While researchers are probably correct in warning that these measures of legal authoritarianism can only have limited applied impact, as judges tend to place strict limits on the use of questionnaires submitted to members of the venire, their greatest impact may likely lie in their potential for researchers to better understand the decision-making process of jurors.

Bryan Myers

See also Jury Selection; Scientific Jury Selection; Trial Consultant Training; Trial Consulting; Voir Dire

Further Readings

Kassin, S. M., & Wrightsman, L. S. (1983). The construction and validation of a juror bias scale. *Journal of Research in Personality, 17,* 423–442.

Kravitz, D. A., Cutler, B. L., & Brock, P. (1993). Reliability and validity of the original and revised Legal Attitudes Questionnaire. *Law and Human Behavior, 17,* 661–667.

Myers, B., & Lecci, L. (1998). Revising the factor structure of the Juror Bias Scale: A method for the empirical validation of theoretical constructs. *Law and Human Behavior, 22,* 239–256.

Narby, D. J., Cutler, B. L., & Moran, G. (1993). A meta-analysis of the association between authoritarianism and jurors' perceptions of defendant culpability. *Journal of Applied Psychology, 78,* 34–42.

Packer, H. L. (1968). *The limits of the criminal sanction.* Stanford, CA: Stanford University Press.

Legal Negotiation

Negotiation is extremely common in legal settings. In the criminal context, most cases are resolved through

the plea bargaining process rather than through trials. Similarly, many more civil disputes are resolved by private settlement than go to trial. Transactional lawyers spend much of their time negotiating deals and contracts. In practice, lawyers will negotiate with opposing parties and their counsel, with insurers, with regulators, and with their own clients. Psychologists have studied negotiation in a variety of contexts, including negotiation as it occurs in the legal system. Research indicates that negotiation outcomes may be influenced by such factors as cognitive heuristics and biases, social perceptions, emotions, social influence, and the legal background of the negotiators.

Basic negotiation theory holds that negotiation outcomes are a function of the negotiator's reservation price, or bottom line. That is, negotiators will identify a point at which they would prefer to walk away from the negotiation without an agreement rather than accept terms that fall below that point. Where negotiators set this reservation price along a continuum of possible agreements is affected by their expectations about the outcomes that would likely result in the absence of a negotiated agreement. So, for example, a civil plaintiff's reservation point (i.e., the lowest amount for which he or she would settle) is informed by his or her prediction about what would happen if the case was decided at trial. Similarly, a party negotiating a sales agreement on behalf of a buyer sets his or her reservation price (e.g., the highest price he or she would pay) in light of the availability and value of a possible agreement with an alternative contracting partner. Negotiators with more attractive predicted alternatives are likely to have higher reservation prices and to reach more favorable agreements. Negotiators have also been shown to be influenced by their aspirations, or goals, for the negotiation, with negotiators who set higher goals achieving more favorable agreements. At the same time, however, high reservation prices and aspirations have both been shown to lead to a higher likelihood of impasse (i.e., failure to reach a negotiated agreement) and to a decreased level of satisfaction with the same objective outcomes.

Within this general framework, however, it is clear that negotiators are influenced by a number of additional factors. Going beyond expected value theory, in which negotiation decisions are determined by a comparison of the expected value of forgoing a negotiated agreement with the expected value of the proposed agreement, psychological research demonstrates that negotiation decision making is also affected by negotiators' construal of and judgments about the other party or parties, the context, and themselves.

Heuristics and Biases

Legal negotiators, like other negotiators, can be influenced in their decision making by psychological heuristics or biases. For instance, legal negotiators on different sides of a dispute tend to make biased evaluations of the merits of the case such that their evaluations favor their side, overestimate their likelihood of prevailing at trial, and are more likely to believe that the fair outcome is one that favors their side. In part, this is because those who are exposed to only the information that is available to a particular side of a dispute tend to be optimistically overconfident—that is, to be more confident and less accurate in their predictions of the likelihood that they will prevail than those who have information from both sides. Similarly, when they seek out additional information, negotiators exhibit the confirmatory bias as they seek and evaluate data in ways that are consistent with their already existing views. In addition, however, even when they have access to the same objective facts, negotiators often interpret those facts and make judgments about them in ways that are consistent with their own (or their clients') interests—a manifestation of the self-serving (or egocentric) bias.

Negotiators may also be influenced by anchors. Anchoring and adjustment refer to a phenomenon by which available values provide a starting point (or "anchor") for a judgment; adjustments are then made away from the anchor, but these adjustments are often insufficient. In the legal context, anchors have been shown to influence settlement decision making in civil cases by anchoring negotiators' evaluation of the appropriate settlement amount. For example, the availability in memory of sizable verdicts that are reported in the media may anchor negotiators' perceptions of a case's potential settlement value. In addition, the first offer made in a settlement negotiation has been shown to influence the final negotiated agreement—the higher the opening offer, the higher the ultimate settlement. Similarly, research has found that disputants are more likely to agree to a particular final settlement amount when that final offer is preceded by a more extreme opening offer than they are when the offer is preceded by an opening offer that is only slightly different from the final offer. Because the initial offer anchors expectations about the appropriate settlement amount, the value of any concession is measured against those expectations.

In addition, experimental research has demonstrated that negotiators can be influenced by contrast and compromise effects as they generate and consider options

for negotiated outcomes. Contrast effects occur when the options in an initial set are evaluated differently relative to each other when an additional option is added that is similar, but inferior to one of the initial options, making that initial option appear relatively more attractive. For example, a disputant involved in a dispute over a piece of property might consider selling the property and dividing the proceeds with the other party or allowing the other party to keep the property in exchange for a particular sum of money. When a third option is introduced, for example, allowing the other party to keep the property in exchange for the same sum of money, but paid over time—an option that is similar but inferior to the option involving a lump sum payment, more people are inclined to choose the lump sum payment option and fewer are inclined to sell the property and divide the proceeds than in the absence of the additional option.

Compromise effects, on the other hand, occur when an extreme option is introduced into the set of options under consideration. The introduction of an extreme value alters the range of options that are in the middle of the choice set. Because negotiators are more likely to choose an option when it appears to be a moderate choice, this shift in range tends to increase the attractiveness of a choice that would have appeared extreme in the smaller set, but appears moderate in the presence of the additional, more extreme, option. For example, negotiators are more likely to enter into a land purchase contract when the property at issue is considered among a set of alternative properties that make it appear to be a compromise, or moderate, option. Thus, while it is useful for legal negotiators to actively generate creative options for agreement, it is also useful for them to attend to the ways in which additional options affect their evaluation of existing alternatives.

Finally, legal negotiators are also influenced by how the negotiation is framed. Prospect theory suggests that negotiators compare proposed outcomes with the status quo. When the negotiator's choices are perceived as gains, the negotiator is likely to behave in a manner that is risk averse—thus, civil plaintiffs in ordinary litigation may be more inclined to settle. In contrast, when the negotiator's choices are perceived as losses, the negotiator is likely to behave in a risk-seeking manner—thus, typical civil defendants may be more inclined to gamble on a trial.

Social Factors

Negotiations in legal settings are also influenced by a variety of social and interactional factors. For example, legal negotiation is influenced by the negotiators' perceptions of fairness. Negotiators are concerned both with the distributive fairness of a negotiated outcome and with the procedural and interactional fairness of the negotiation process itself. Importantly, negotiators resist agreeing to substantive outcomes that do not comport with their notions of substantive fairness. Similarly, fair interpersonal treatment has been shown to diminish self-serving bias, reduce the likelihood of impasse, and increase satisfaction with substantive outcomes.

Social factors can also influence the perceived fairness of a proposed settlement. For example, options that are otherwise perceived to be fair seem less so when proposed by the other side in the negotiation—a phenomenon known as reactive devaluation. Similarly, the negotiators on each side tend to value the concessions that they make (and thus are perceived as losses) more highly than they value those concessions that are made by the other side (and thus are perceived as gains). This "concession aversion" consequently influences perceptions of the relative fairness of reciprocal concessions and of proposals offered by the parties.

In some instances, legal negotiators may also be influenced by a need to restore or maintain a sense of equity between the parties or to achieve vindication. Thus, they may reject compromises that seem inequitable, even when accepting them would be economically rational. Negotiators may also seek out ways to achieve a sense of equity or the acknowledgment of a harm. Thus, for example, apologies have been shown to influence legal settlement decision making. Research has shown that when a wrongdoer apologizes (particularly if the apology accepts responsibility for having caused harm), the injured party may make more favorable attributions about the opposing party and the incident, be less likely to seek legal counsel for assistance in pursuing a claim, set lower aspirations, find lower settlement values to be fair, be less likely to desire punishment, and be more likely to accept an offer of settlement than when the wrongdoer does not apologize.

Influence

Scholars of legal negotiation have also drawn on the psychology of influence and persuasion to better inform their understanding of negotiation strategies. In particular, legal negotiators may adhere to principles of reciprocity when engaging in the back-and-forth concession making that characterizes most

negotiation. The norm of reciprocity holds that when one negotiator makes a concession to the other, the other is obliged to respond in kind. Thus, a legal negotiator may elicit a concession from the other side by offering a concession of his or her own. Moreover, a legal negotiator might make an extreme demand that is likely to be rejected, followed by a more moderate request—the moderation of the request may be perceived as a concession and, thus, may elicit a reciprocal concession. In psychology, this is known as the "rejection-then-retreat" strategy. Legal negotiators may also invoke authority, scarcity, social proof, or familiarity and liking as strategies of social influence in negotiation.

Emotion

Legal disputes can involve intense emotions, such as anger, and such emotions are known to play a central role in negotiation. Negotiators experiencing positive emotions tend to make more concessions and to be more likely to engage in problem-solving behavior. Conversely, negotiators experiencing negative emotion tend to be more likely to use hard-bargaining strategies and less likely to create joint gain.

One specific emotion that has been explored in the legal context is the role of regret in legal negotiation. Research has found that disputants may prefer to reach negotiated settlements in legal cases rather than go to trial, in part due to a desire to minimize the regret they anticipate experiencing following their decision. Disputants who choose to settle are not able to know what the outcome of their case would have been had it gone to trial and are, thus, able to avoid the regret that would attend the knowledge that a trial would have resulted in a better outcome. In contrast, disputants who choose to go to trial will ultimately be aware not only of the outcome of the trial but also of any settlement offers they had rejected. Therefore, it is possible that they will experience the regret of knowing that they could have obtained a better result through settlement—regret they would prefer to avoid.

Agents/Lawyers

One of the distinctive features of much legal negotiation is that the principal parties—the legal clients—are often represented by attorneys as agents. As agents, attorneys are likely to engage in settlement negotiations in ways that differ from those of their clients. For example, as nonparties, attorneys can be more detached from the emotions underlying the dispute. Similarly, attorneys are selected and trained to be highly analytical. Moreover, given their role as legal advisors, attorneys are likely to be more familiar with and attuned to the legal rules than are their clients. These differences give attorneys some advantages in handling legal disputes. For example, attorneys may be able to avoid the impasse that might result when the parties are too emotional to negotiate with each other. However, these differences also present attorneys with some challenges in representing clients in negotiation. For example, attorneys may need to pay special attention to clients' nonlegal psychological, emotional, and social interests to negotiate effectively on their behalf.

Jennifer K. Robbennolt

See also Alternative Dispute Resolution; Plea Bargaining; Procedural Justice

Further Readings

Birke, R., & Fox, C. R. (1999). Psychological principles in negotiating civil settlements. *Harvard Negotiation Law Review, 4,* 1.

Korobkin, R., & Guthrie, C. (1997). Psychology, economics, and settlement: A new look at the role of the lawyer. *Texas Law Review, 76,* 77–141.

Loewenstein, G., Issacharoff, S., Camerer, C., & Babcock, L. (1993). Self-serving assessments of fairness and pretrial bargaining. *Journal of Legal Studies, 22,* 135–159.

Ross, L., & Ward, A. (1995). Psychological barriers to dispute resolution. *Advances in Experimental Social Psychology, 27,* 255–304.

Schneider, A. K., & Honeyman, C. (Eds.). (2006). *The negotiator's fieldbook: The desk reference for the experienced.* Washington, DC: American Bar Association Section of Dispute Resolution.

Legal Socialization

Legal socialization is the process of developing attitudes toward rules, laws, and the legal system. Legal socialization research studies this process and also examines why individuals choose to obey or disobey the law. In fact, the first approaches to studies of attitudes toward the law appear in the legal socialization literature. Factors that affect how these attitudes develop include cognitive developmental variables, such as legal reasoning, and social learning variables,

such as salient features of the environment. Other factors that need to be considered are resiliency, psychosocial maturity, individual difference variables (e.g., belief in a just world, authoritarianism), culture, and attitudes. Contemporary work on legal socialization has focused on the effect of legal socialization on rule-violating behavior and compliance with the rules.

Socialization itself connects individuals to society, as socialization operates through family, schools, and other institutions. The study of socialization attempts to elucidate how individuals become engaged in culture and how culture and its affiliated institutions are preserved. Legal socialization is the development of standards, attitudes, and behaviors regarding the legal system. The legal socialization literature also underscores how legal contexts influence and are influenced by citizen behaviors.

Two Theoretical Approaches

Two approaches exist in the legal socialization literature. The individual-oriented cognitive developmental perspective argues for the importance of cognitive differences in legal socialization. The environment-based social learning perspective investigates environmental influences on legal socialization.

Cognitive Development Theory

The earliest work on legal socialization was that of June Tapp and Felice Levine. In the 1970s, they approached the understanding of legal socialization from a cognitive developmental framework based on the moral reasoning work of Lawrence Kohlberg. They argued that one's level of legal reasoning varied based on one's age, with cognitive structures supporting the maturation from Levels I through III: Level I, preconventional reasoning, focuses on obeying rules based on obedience to authority and fear of punishment from authorities. Level II, conventional reasoning, emphasizes law maintenance or obeying rules to conform to the norms of society. Finally, Level III, postconventional reasoning, focuses on law creating, or obeying rules based on independent judgments of fairness.

Social Learning Theory

Other researchers expanded the original cognitive developmental notion of legal socialization to include factors in the environment that affect social learning. This view suggests that it is through an individual's interaction with the environment that legal socialization occurs. With age, individuals are exposed to increasingly expansive legal contexts. In environmental contexts (neighborhood, school, etc.), reward and punishment are doled out both formally (based on written law) and informally (peers, family, school). When punishment is fair and even, legal legitimacy is strengthened; whereas when punishment is capricious or inequitable, it contributes to legal cynicism. Legitimacy is the degree to which people feel obligated to follow the laws or rules established by legal authorities. Legal cynicism measures whether people act in ways that are outside the law and social norms.

Legal socialization researchers also have varied in their conceptualizations of environment. For example, in a study of rule following on college campuses, Ellen Cohn and Susan White manipulated the rule-following environment by including a peer community wherein residents established rules and decided on enforcement and an external authority community wherein residents had no say over rules or enforcement and instead authorities had absolute power. In an international study of legal socialization, other researchers defined environment in terms of country, focusing on seven countries that varied in the extent of time they had been democratized: Russia, Bulgaria, Poland, Hungary, Spain, France, and the United States. Similarly, James Finckenauer also used country as the environment in his comparison of Russian versus American culture for teenagers.

Research

Current research has embodied both the individualistic cognitive development and the social learning viewpoints. This work has examined the developmental aspects of legal socialization; gender, environmental, and cultural differences in legal socialization; as well as the relation between legal reasoning and delinquency.

Developmental Differences

In Felice Levine's legal socialization research, elementary and high school students answered questions about legal reasoning, moral reasoning, legal attitudes, and legal behaviors. There was a significant relation between subjects' age and their level of legal and moral reasoning; students in high school had significantly higher moral reasoning scores than elementary students. In addition, legal and moral reasoning had a direct influence on attitudes about roles and

rights and mediated the effect of age but did not influence attitudes about compliance independent of age.

Gender Differences

The one piece of research that did find gender differences in predictions of rule-violating behavior was work that used a legitimacy measure of attitudes toward the criminal legal system. The participants in this study were high school students. They answered questions about attitudes toward the criminal legal system, belief in a just world, and authoritarianism. It was found that, for boys, negative attitudes toward the legal system were the sole significant predictor of delinquent behaviors. In contrast, for girls, negative attitudes toward the legal system mediated the negative relation between belief in a just world and delinquency and partially mediated the negative relation between authoritarianism and delinquency.

Environmental Differences

Some researchers have focused on the environment or the behavioral context. In one study, researchers manipulated the legal contexts within two different university dormitories. The external authority condition allowed no input or influence on rule enforcement, whereas in the peer community condition, dorm residents participated in the making of rules and ensuing disciplinary action. Results suggested that the individuals in the external authority condition violated fewer rules than individuals in the peer community condition. Over time, however, rule-violating behavior decreased in the peer community condition and increased in the external authority condition. Furthermore, legal reasoning increased in the peer community condition and decreased in the external authority condition.

Some researchers have found that jury deliberation has an effect on people who differ in the level of legal reasoning. In a study of a highly politicized and publicized case known as the Wounded Knee Trial, June Tapp and her associates investigated the hypothesis that the jury acts as a socializing agent. The researchers tested legal reasoning levels before and after participants served as jury members in the trial. Results showed that legal reasoning levels increased for the jury participants.

In another study, people who differed in their legal reasoning level deliberated about one of three legal cases that varied in the behavioral context of the relation between norms and rules. In one case of a physical assault, the norms concerning the behavior agreed with the rules; people did not approve of the behavior and agreed with the rule against the behavior. In another case, that of a beer-bottle-throwing game, the norm and the rule did not agree; people approved of the behavior and did not agree with the rule against it. Finally, in the last case of sexual harassment, people were divided. For some, the norm and the rule agreed; for others, the norm and the rule did not agree. The findings showed that the jury deliberations affected postconventional reasoners most with the physical assault case and preconventional reasoners most with the sexual harassment case. Conventional reasoners were not affected by the jury deliberation in any of the cases.

Cultural Differences

Researchers have studied legal socialization in a number of different countries. In one study, legal socialization was studied as a mediator of rule-violating behavior. In this study, Heath Grant examined legal reasoning as a form of resilience in Mexican youth and found that legal reasoning mediated the relation between risk factors (such as negative peer influence) and delinquency. In another study, juveniles in Russia were compared with juveniles in the United States to understand different legal contexts. Overall, there were no differences between Russian and American youth in legal reasoning.

Furthermore, differences in legal socialization have been measured in seven countries, three older democracies (the United States, France, and Spain) and four countries more recently democratized (Russia, Bulgaria, Poland, and Hungary). The countries did not differ in the level of legal reasoning. They did differ on other legal measures such as procedural and distributive justice, with procedural justice being more important in the older democracies and distributive justice more important in the newer democracies.

Legal Reasoning and Delinquency

A few studies have investigated the relation between legal reasoning and delinquency. In a comparison of

Russian and U.S. youth, delinquents reported lower levels of legal reasoning than nondelinquents. This finding was replicated in an American study of college students.

In a study of serious juvenile offenders, Alex Piquero and colleagues investigated the developmental course of two aspects of legal socialization: legitimacy and legal cynicism. They found that both factors remained relatively stable for more than 18 months. The researchers also found that older adolescents viewed the law as less legitimate than younger adolescents and that a greater number of prior arrests was associated with greater legal cynicism. Conversely, Tom Tyler and Jeffrey Fagan's cross-sectional research on children aged 10 to 16 years did find age differences, with legal cynicism increasing with age and legitimacy dissipating with age.

Measures of Legal Socialization

Researchers have measured legal socialization differently. Early researchers developed open-ended questions about legal reasoning that are coded into the three levels. More recently, investigators have developed a closed-ended version of the legal reasoning measure. In addition, some researchers have included measures of legitimacy and legal cynicism as measures of legal socialization or have asked about specific attitudes toward the legal system.

Ellen S. Cohn and Kathryn L. Modecki

See also Jury Deliberation; Juvenile Offenders; Juvenile Offenders, Risk Factors; Legal Authoritarianism; Public Opinion About the Courts

Further Readings

Cohn, E. S., & Modecki, K. L. (2007). Gender differences in predictors of delinquent behavior: The role of personality and attitudes. *Social Behavior and Personality: International Journal, 35,* 359–374.

Cohn, E. S., & White, S. O. (1990). *Legal socialization: A study of rules and norms.* New York: Springer-Verlag.

Cohn, E. S., & White, S. O. (1997). Legal socialization effects on democratization. *International Social Science Journal: Special Issue on Democratization, 152,* 151–171.

Fagan, J., & Tyler, T. (2005). Legal socialization of children and adolescents. *Social Justice Research, 18,* 217–242.

Piquero, A., Fagan, J., Mulvey, E. P., Steinberg, L., & Odgers, C. (2005). Developmental trajectories of legal socialization among serious adolescent offenders. *Journal of Criminal Law and Criminology, 96,* 267–298.

Leniency Bias

It is well established that if a verdict option is favored by a substantial (e.g., two-thirds) majority of jurors prior to deliberation, the jury is very likely to ultimately reach that verdict. A number of studies have suggested the following qualification to this simple rule—in criminal juries, pro-acquittal factions tend to be more influential than proconviction factions of comparable size. The net effect of this asymmetry is a tendency for juries to be more lenient than individual jurors, except for cases that produce a large majority of jurors for conviction. This tendency constitutes the *leniency bias.*

Evidence for the Leniency Bias

The initial and strongest evidence for this bias comes from a number of jury simulation studies. Robert MacCoun and Norbert Kerr meta-analytically combined the results of 13 such studies and reported that (a) on average, acquittal was about four times as likely as conviction for mock juries that began deliberation evenly split (e.g., 6 G vs. 6 NG); (b) an initial two-thirds majority favoring acquittal was more likely to ultimately prevail (94% of the time, on average) than a two-thirds majority favoring conviction (67% of the time); and (c) the stronger the evidence against a defendant, the weaker was this bias. On the other hand, a handful of surveys of ex-jurors from actual criminal jury trials (e.g., by Dennis Devine and his colleagues) have suggested either no such asymmetry or even the reverse effect (i.e., a harshness bias), but at present it remains unclear whether or not actual criminal juries do exhibit a leniency bias. This is because there are a number of potentially important methodological ambiguities clouding the comparisons of the mock versus actual juries. For example, the surveys of actual jurors all appear to have treated jurors who say that they are undecided at the first jury vote as advocates for acquittal, which is likely to overestimate the true size of the pro-acquittal faction in the jury. In summary, there is good evidence of a leniency bias in mock juries where

estimates of pro- and anticonviction faction sizes are based on direct assessment of mock jurors' predeliberation verdict preferences in relatively close cases. There is currently no strong evidence of such a bias (and some evidence to the contrary) where these estimates are based on ex-jurors' retrospective recollections of the number of proconviction votes at their actual jury's first ballot, in convenience samples of diverse cases.

Explaining the Leniency Bias

One explanation for the leniency bias is the existence of a prodefendant norm among jurors. Research on group decision making and polarization suggests that one effect of group deliberation is to increase commitment to shared norms. The more consistent evidence for a leniency bias among mock jurors, who are usually college students, than among actual jurors could be interpreted as reflecting different norms in the student and nonstudent populations. A direct comparison of the leniency bias for a student versus a nonstudent sample has shown that nonstudents exhibit a somewhat weaker leniency effect, but the difference was not statistically significant.

Another, related explanation is based on the common law's aversion to false conviction. Such values are reflected in several elements of the law, including the presumption of innocence, the prosecution's burden of proof, and particularly the reasonable-doubt standard of proof. The law prescribes that juries must give a criminal defendant the benefit of any reasonable doubt. This should give advocates of acquittal an advantage over advocates of conviction during jury deliberation. For example, jurors favoring acquittal need only raise a single reasonable doubt in the minds of proconviction jurors, whereas jurors arguing for conviction must refute all reasonable doubts in the minds of pro-acquittal jurors. This explanation predicts that there should be no leniency bias when jurors apply a standard of proof that is not slanted to favor the defendant, such as the "preponderance of evidence" standard used in civil trials; this prediction has been confirmed experimentally. A model presented by Norbert Kerr, Robert MacCoun, and Geoffrey Kramer generalizes the asymmetry effect, demonstrating how any shared local norm can create disproportionate influence for one side of an issue.

Implications of the Leniency Bias

The leniency bias has a number of interesting implications, both for the development of psychological theory and for legal application. Asymmetries in the power of opposing factions, such as the leniency bias, have been used to analyze the group decision-making process and thereby, to better understand exceptions to the "majority-wins" rule and to predict when and why groups differ from individuals in their susceptibility to a variety of judgmental biases. The most direct applied implication of the leniency bias is that, except for cases with very strong evidence against the defendant, deliberating juries should be more likely to acquit than individual triers of fact (e.g., a judge in a bench trial). Thus, the leniency bias provides an alternative explanation for a classic finding from the landmark product of the Chicago Jury Project, *The American Jury*—most verdict disagreements between juries and judges were instances in which the jury was more lenient (i.e., more likely to acquit) than the judge. Harry Kalven and Hans Zeisel attributed this to differences in what judges and jurors value or know (e.g., knowledge of prior convictions). But the leniency bias suggests that this effect may stem not from who makes the decision (judges vs. jurors) but from how the decision is made (i.e., individual vs. group decision making). This interpretation suggests that if panels of judges were the triers of fact, they would likewise tend to be overall more lenient than individual judges. The fact that, in *The American Jury,* there was no such asymmetry in the disagreements of judges and juries for *civil* cases (where a symmetric standard of proof is applied) further supports this interpretation.

Norbert L. Kerr and Robert J. MacCoun

See also Chicago Jury Project; Juries and Judges' Instructions; Jury Decisions Versus Judges' Decisions; Jury Deliberation

Further Readings

Devine, D. J., Olafson, K. M., Jarvis, L. L., Bott, J. P., Clayton, L. D., & Wolfe, J. (2004). Explaining jury verdicts: Is leniency bias for real? *Journal of Applied Social Psychology, 34*(10), 2069–2098.

Kerr, N. L., MacCoun, R., & Kramer, G. P. (1996). Bias in judgment: Comparing individuals and groups. *Psychological Review, 103,* 687–719.

MacCoun, R. J., & Kerr, N. L. (1988). Asymmetric influence in mock jury deliberation: Jurors' bias for leniency. *Journal of Personality and Social Psychology, 54,* 21–33.

Lineup Filler Selection

Lineup fillers prevent unreliable witnesses from guessing the identity of the police suspect and should allow for a fair recognition test for those witnesses who do remember the culprit. The primary strategies for selecting fillers for criminal identification lineups are presented in this entry. The suspect-matched and perpetrator-description-matched strategies are two methods of constructing lineups that have been compared by researchers. Additionally, care should be taken to ensure that the structure of the lineup is uniform across members. To assess the fairness of a lineup, several indices that measure lineup bias and lineup size have been developed.

The Function of Lineup Fillers

Lineup fillers, also known as *foils* (an innocent person in a police lineup), serve the major purpose of testing an eyewitness's recognition memory for a criminal perpetrator so as to establish evidence that the suspect is guilty of the crime. Fillers also serve to screen out unreliable witnesses: Witnesses who identify foils may have a weak memory for the perpetrator or may be guessing. With respect to the problem of guessing, the probability that a witness will select the suspect from a lineup based on chance alone equals $1/k$, where k equals the number of foils in the lineup. Having more options during the identification test decreases the probability that witnesses will identify the suspect by guessing alone. Additionally, presenting foils that resemble the suspect works toward preventing the witness from being able to deduce who the suspect is simply by eliminating improbable choices from the lineup.

Filler Selection Strategies

There are two primary filler selection strategies that have been investigated by researchers. First, foils may be selected for the lineup on the basis of their similarity to the physical appearance of the suspect, a procedure that is known as the *suspect-matched* strategy. Second, foils may be selected based on their resemblance to a physical description of the perpetrator given by the eyewitness, a procedure that is termed the *perpetrator-description-matched* strategy.

Two main concerns arise when foils are selected for the lineup on the basis of the suspect-matched strategy. First, if the suspect is not the culprit and is in fact innocent, then selecting the foils based on their match to the innocent suspect may result in a lineup in which the similarity of the foils to the perpetrator is low. This is a concern in cases in which the suspect is apprehended because he or she is physically similar to the description of the culprit given by an eyewitness. In such cases, the suspect may be the only one in the lineup that resembles the perpetrator. As a result, the innocent suspect might be frequently identified from lineups in which the foils are chosen on the basis of their match to the innocent suspect's appearance, a consequence that is known as the *backfire effect.* Another concern that arises when the foils are chosen for the lineup using the suspect-matched strategy is that if the suspect is in fact the culprit, then the foils could potentially be too similar to the suspect, and thereby decrease the odds that a witness who remembers the perpetrator can distinguish the guilty suspect from the foils.

In view of these concerns, the perpetrator-description-matched strategy has been proposed. In the event that an innocent suspect is in the lineup, the perpetrator-description-matched strategy is thought to ensure that the innocent suspect and the foils have the same probability of being chosen. The rationale is that if investigators select the foils and the suspect for the lineup using the same criteria (i.e., their match to the witness's description), then the foils should look no more like the perpetrator than does the innocent suspect. Additionally, for a witness who remembers the perpetrator, the perpetrator-description-matched strategy allows for *propitious heterogeneity*, a term that refers to having sufficient variability across lineup members to allow the witness to recognize a guilty suspect.

Some researchers studying lineup identification in the laboratory employ a hybrid of the suspect-matched and perpetrator-description-matched strategies. A pool of potential foils that fit the modal description of the target (i.e., the "perpetrator") is obtained. Participant raters then judge the similarity of each face in the pool to the target. The faces that are rated as being the most similar to the target are selected as fillers. An additional method on the horizon for the selection of fillers for lineups is the use of principal components analysis (PCA). PCA represents

the similarity of faces on multiple dimensions using Euclidean distances. Results derived from PCA have been shown to relate to lineup identification performance and to measures of lineup fairness.

Special Considerations in Selecting Fillers

In employing the perpetrator-description-matched strategy to select fillers, a number of issues may arise. One difficulty is that the witness may provide an inadequate number of details regarding the perpetrator's appearance for selecting fillers for the lineup. Selecting foils when there is little information regarding the culprit's appearance may result in a lineup in which the members are highly dissimilar in relation to one another and to the suspect. As a consequence, the perpetrator-description-matched strategy might in some cases increase the rate at which innocent suspects are identified. Additionally, the degree to which the lineup members are similar can affect the eyewitness's decision standard. If the foils in the lineup are relatively low in their similarity to the culprit, then witnesses may be less cautious in identifying a face compared to when there is a higher degree of similarity across lineup members. Finally, research comparing the suspect-matched and perpetrator-description-matched strategies has produced findings that are mixed, thereby leading some researchers to maintain that it is premature to recommend one strategy over the other at this time.

Nevertheless, additional procedural safeguards have been suggested for selecting fillers when using the perpetrator-description-matched strategy. For example, if the witness does not mention a characteristic, such as facial hair, the police might assume the perpetrator has the default value of the characteristic, and assume that the perpetrator was clean shaven. Though placing the clean-shaven suspect among foils with facial hair would not violate the witness's description, doing so would draw attention toward the suspect and perhaps bias the witness to choose the suspect only because the suspect's appearance is different from the others. Therefore, to avoid this possibility, if the suspect is clean shaven, then he should be placed among clean-shaven foils. Additionally, when the suspect does not fit the description given by the eyewitness on some level, it has been recommended that investigators select foils based on their match to the appearance of the suspect on the features in which the description of the culprit does not match the suspect. Along these same lines, if there are multiple witnesses involved in a case, a recommendation that has been made is to create a separate lineup for each eyewitness. In laboratory studies in which researchers feel that it is not feasible to create lineups for each participant, the foils can be selected based on their match to the typical or modal description given by research participants viewing the suspect.

Finally, care should be taken to ensure that the arrangement of the lineup is uniform. The photographs themselves should be similar and presented to witnesses in a standardized fashion. For example, if one photograph is slightly tilted away, or the focal length is greater, or the facial expression differs from the others, responses may be biased toward that photograph simply because it stands apart from the others in its presentation. Additionally, uniformity across members with respect to clothing should also be achieved. Moreover, if the eyewitness describes the perpetrator as wearing a particular type of clothing, the suspect should not be the only one wearing that type of clothing in the lineup.

Assessing Lineup Fairness

Researchers use the mock-witness procedure to determine lineup fairness, or the adequacy of lineup fillers. In the mock-witness procedure, participants who have not seen the perpetrator are given a description of the perpetrator along with a lineup. They are asked to pick the member of the lineup that most closely resembles the perpetrator's description. If the lineup is fair, then mock witnesses should not select the suspect at a rate significantly above chance.

Mock-witness choices can also be used to determine whether the fillers that have been selected for the lineup bias choices toward or away from the suspect. Bias measures include functional size and defendant bias. Mock-witness choices are also used to determine lineup size, which refers to the extent to which identification responses are distributed evenly across lineup members. Measures designed to examine lineup size include effective size, number of acceptable foils, and Tredoux's *E*.

Lineup bias and size can vary depending on how the members of the lineup are arranged. For instance, if the suspect is placed between two foils that are low in similarity relative to the suspect, the suspect may "pop out" and hence be chosen significantly more

often than when the suspect is placed between two other lineup members that have a greater resemblance to the suspect. This problem may arise even when the average pairwise similarity rating across the lineup members is high. Therefore, it is important that the foils are selected for the lineup using the same criteria. Another method for circumventing possible popout effects is for researchers to systematically rotate, or *counterbalance*, the position of the suspect in the lineup across participants.

Counterbalancing the position of the suspect in the lineup also controls for the possibility that the decision standard varies along with the number of faces that are viewed. This may be problematic especially in sequential lineups, in which the witness views each face one at a time. In particular, there is some evidence that the decision standard that witnesses use in making a positive identification may be lowered as they progress through the series of faces in a sequential lineup. As such, innocent suspects might have a higher probability of being chosen if they are positioned later in the sequence, as opposed to earlier.

Heather D. Flowe

See also Clothing Bias in Identification Procedures; Facial Composites; Identification Tests, Best Practices in; Lineup Size and Bias; Mug Shots; Popout Effect in Eyewitness Identification; Simultaneous and Sequential Lineup Presentation; Wrongful Conviction

Further Readings

Gonzalez, R., Davis, J., & Ellsworth, P. C. (1995). Who should stand next to the suspect? Problems in the assessment of lineup fairness. *Journal of Applied Psychology, 80*(4), 525–531.

McQuiston, D. E., & Malpass, R. S. (2002). Validity of the mockwitness paradigm: Testing the assumptions. *Law and Human Behavior, 26*(4), 439–453.

Tredoux, C. (2002). A direct measure of facial similarity and its relation to human similarity perceptions. *Journal of Experimental Psychology: Applied, 8*(3), 180–193.

Tunnicliff, J. L., & Clark, S. E. (2000). Selecting foils for identification lineups: Matching suspects or descriptions? *Law and Human Behavior, 24*(2), 231–258.

Wells, G. L., Rydell, S. M., & Seelau, E. P. (1993). The selection of distractors for eyewitness lineups. *Journal of Applied Psychology, 78*(5), 835–844.

Lineup Size and Bias

A lineup is constructed by placing a person suspected of committing a crime (the suspect) among a collection of innocent people (fillers). An eyewitness is asked to identify the offender from this collection, with a suitable admonition that the offender may not be present. A properly conducted lineup can provide evidence that the suspect is (or is not) the offender or that the eyewitness does not have a reliable memory of the offender's identity. For this to be the case the lineup must not be biased and it must be of sufficient effective size. A lineup is biased when a witness with a poor (or absent) memory is able to guess the identity of the suspect at a rate greater than chance expectation (one per lineup size). A lineup has a certain number of members, including the suspect, and this is called the *nominal size.* A lineup is unfair to the extent that it contains fillers who are not plausible choice alternatives to the suspect for a witness choosing randomly or a witness with a poor (or absent) memory. The suspect plus the number of persons who are alternative-choice alternatives is called the lineup's *effective size.*

Two basic rules govern the construction of eyewitness identification lineups. First, the suspect in the lineup should not "stand out" (be inappropriately distinct) from the other lineup members. Second, fillers should resemble the suspect in important attributes and should be appropriate-choice alternatives (i.e., witnesses who have a poor memory of the offender should not be able to reject them).

Lineup Fairness Evaluation

To determine whether the two basic rules have been adhered to, lineup evaluation research participants who have not seen the offender are asked to guess which lineup member is the suspect on the basis of a brief physical description (e.g., the description originally given by the witness to the police) or with no information at all about the appearance of the offender.

Lineup Bias

Bias is bidirectional—it can make the suspect more likely, or less likely, to be chosen by a witness who has no or very little specific memory of the offender. It is defined as a statistically reliable tendency for a

suspect to be chosen from a lineup at a rate different from that expected if the choice were made by chance alone (i.e., a random pick of a lineup member). The proportion of lineup evaluation research participants able to pick the suspect from the lineup is a measure of lineup bias.

Lineup Size

Nominal size is the number of persons presented in a lineup. Effective size, as noted earlier, is the number of persons in the lineup who are effective choice alternatives for a witness who has little information or memory about the actual offender or for a witness viewing a lineup in which the suspect is actually innocent (i.e., is not the offender). It is thought of as a reduction of the nominal size to a value that better represents the "true" number of plausible foils, or innocent persons in a police lineup (i.e., nominal size ≥ effective size). The index E, is a measure of the effective size of a lineup.

Role of Lineups in the Criminal Justice System

One purpose of having fillers in a lineup is to provide alternative choices for witnesses who feel that they must choose someone from the lineup but who may have little memory for the offender's actual appearance. When the witness feels compelled to make a choice, the presence of the fillers provides a safeguard against false identification by reducing the chance of false identification of an innocent suspect from 100% to 20% (for live lineups, which often have five members) or 16.67% (photo spreads, which often have six members).

Another purpose of having fillers in a lineup is to test the witness's memory for the perpetrator, although it must be said that the interpretation of this test is confounded. To see this, consider that a witness can make several choices when faced with a lineup. The witness can identify the suspect, identify a foil, say that the offender is not in the lineup, or say that he or she does not know whether the offender is in the lineup. If the witness identifies the suspect, we are likely to strengthen our belief that the suspect is the offender. If the witness identifies a foil, we are likely to either strengthen our belief that the witness has a poor memory or weaken our belief that the suspect is the offender. If the witness rejects the lineup, we may weaken our belief that the suspect is the offender, but if the witness does this with little confidence we will not know whether to weaken our belief that the suspect is the offender or to weaken our belief in the witness's memory. In all these cases, the inference(s) made are conditional on the fairness (size and bias) of the lineup. For example, a witness with no memory of the offender could choose the suspect from a biased or low-effective-size lineup with comparative ease.

Good and Bad Lineups

To fulfill their purpose, eyewitness identification lineups must not contain cues to the identity of the police suspect. For example, in one criminal case a (White) witness described the (Black) offender as possessing, among other attributes, "long hair in some kind of braids, a single row of braids that were coming loose." The lineup contained one person whose thin braids were visible, coming loose, behind his head. This person was the police suspect. It is not surprising that the witness identified him, as did 95% of lineup evaluation research participants. Since it remains ambiguous whether the basis for the identification was a genuine memory for the suspect from the criminal event or the fact that his photograph in the lineup contained a feature found in the witness's previous verbal description, it is not possible to reach a clear conclusion about whether or not the suspect is the offender.

There are two difficulties with this lineup. First, the suspect photograph stood out from the remaining photographs of the lineup because it was the only photograph that displayed thin braids that were coming loose, so that the lineup was biased against the suspect. Second, the fillers were chosen without regard to this highly distinctive feature. For this reason, the lineup had an effective size of only one, because without "braids, coming loose," none of the fillers in the lineup were a useful alternative-choice option for the suspect. The fillers might as well not have been present at all.

In another criminal case, a witness gave a description that included the phrase "small, squinted eyes." The photograph of the suspect used in the lineup showed him blinking. When the lineup was evaluated it was found that the suspect stood out dramatically in the lineup and that three of the fillers were hardly choice alternatives at all. The police had two alternative photographs of the suspect in which he had not blinked while being photographed. When one of these was substituted, the lineup was not biased against him. In addition, two other lineup members were

more likely to be identified by mock witnesses. The choice of photograph of the suspect, as well as the choice of filler photographs, is important when constructing a lineup.

Constructing Good Lineups

The general qualities of a good lineup are noted above: The suspect should not stand out, and the fillers should be effective choice alternatives to the suspect. Achieving this ideal requires careful attention to details.

- If the witness(s) has provided a description of the offender that has a reasonable amount of detail, a lineup can be formed using this description, provided that the description matches that of the suspect.
- If the witness's description of the offender is either impoverished or does not fit the suspect, then the lineup must be constructed to match the suspect's appearance.

Normally, the investigator would begin with the photo of the suspect that will appear in the lineup and, using whatever photographic archive available, find filler photographs that are sufficiently similar to the suspect for them to serve as effective choice alternatives. There are, however, some cautions to be observed.

First, if the suspect and investigator are of different racial groups, an investigator of the same racial group as the suspect should be asked to construct the lineup.

Second, the procedure of attempting to find five fillers who resemble the suspect can lead to a lineup in which the suspect stands out because he is the one person in the lineup who shares the most with each of its members: He becomes the prototype of the lineup and is more likely to be chosen by witnesses with little memory for the offender, witnesses who make a choice even when the offender is absent from the lineup. Alternate lineup construction procedures decenter the filler selection process in a number of ways. One procedure is to choose filler #1 to be an effective alternative to the suspect, and then to choose the others so that they are similar to both the suspect and filler #1. Another procedure is to choose filler #1 based on similarity to the suspect, filler #2 based on similarity to #1, and so on, until all 5 fillers have been chosen. Irrespective of the filler selection process, however, the same overall principles must be observed: The suspect should not stand out, and the fillers should be effective choice alternatives.

Evaluating Lineups

To evaluate whether a lineup is fair, we estimate its size and bias. This is done with a lineup evaluation task, as described above. Calculations over the total set of lineup evaluation participant decisions are used to determine bias (the proportion of participants choosing the suspect), and effective size (the extent to which participant choices are not equally distributed across lineup members). Thus, when the lineup has 6 members, and significantly more than 1 in 6 of the evaluation participants choose the suspect, the lineup is biased against the suspect. If significantly fewer than 1 in 6 choose the suspect, it is biased in favor of the suspect. A similar rationale is applied to lineup foils: To the extent that a foil is chosen by fewer than 1 in 6 evaluation participants, he or she is implausible as a foil. This determination can be made for each foil in the lineup, allowing one to arrive at a summary measure of the number of plausible foils. The degree to which this summary measure is less than the nominal size of the lineup represents the extent to which the safeguard against false identification afforded by the fillers has been diminished.

It is advisable to apply inferential statistics to each of these indices, especially when the number of participants is relatively small. One may test whether lineup bias is greater or less than that expected by chance (one per nominal size) and/or construct 95% confidence intervals around both bias and size indices.

All-Suspect and Multiple-Suspect Lineups

The police sometimes construct lineups in which all members are suspects. This practice entails several problems. In a single-suspect lineup, the choice of someone other than the suspect is diagnostic of a witness's unreliability because all other lineup members are known to be innocent. But in an all-suspect lineup, it is not possible for the witness to identify a person known to be innocent, because the investigator views all lineup members as potentially guilty. As a result, the safeguard against false identification is diminished. Thus, the identification of any lineup member at all becomes the suspect after the fact. For this reason, there is no way to evaluate the witness's memory

about the identified person, and there is no way to detect a witness who chooses completely at random, or on the basis of a poor or faulty memory. Lineups composed of multiple, but not all, suspects degrade the safeguard somewhat less.

Roy S. Malpass and Colin G. Tredoux

See also Expert Psychological Testimony on Eyewitness Identification; Identification Tests, Best Practices in; Lineup Filler Selection

Further Readings

Malpass, R. S. (1981). Effective size and defendant bias in eyewitness identification lineups. *Law and Human Behavior, 5,* 299–309.

Malpass, R. S., & Devine, P. G. (1983). Measuring the fairness of eyewitness identification lineups. In S. Lloyd-Bostock & B. Clifford (Eds.), *Evaluating Witness Evidence* (pp. 81–102). London: Wiley.

Malpass, R. S, Tredoux, C. G., & McQuiston-Surrett, D. E. (2007). Lineup construction and lineup fairness. In R. C. L. Lindsay, D. F. Ross, J. D. Read, & M. P. Toglia (Eds.), *The handbook of eyewitness psychology: Vol. II. Memory for people.* Hillsdale, NJ: Lawrence Erlbaum.

Tredoux, C. (1999). Statistical considerations when determining measures of lineup size and lineup bias. *Applied Cognitive Psychology, 13,* S9–S26.

Tredoux, C. G. (1998). Statistical inference on measures of lineup fairness. *Law and Human Behavior, 22,* 217–237.

Web Sites

Spreadsheets for use in evaluating lineup size and bias can be found at http://eyewitness.utep.edu/documents/bias-calc.xls and http://eyewitness.utep.edu/documents/TredouxE.xls.

Litigation Stress

Litigation stress is best understood as consisting of negative physical and psychological reactions to being involved in a legal action. Indeed, litigation itself is mentioned specifically as a stressor in the multiaxial *Diagnostic and Statistical Manual of Mental Disorders–Text Revised* (fourth edition), in Axis IV (Psychosocial and Environmental Problems). A variety of physical and emotional responses to litigation have been found. Litigation is an uncertain process and one with which most people are not familiar. It can affect one's identity, causing feelings of guilt and shame, and can lead to isolation from family and peers. The problem is particularly acute for health professionals, who face professional sanctions in addition to the other consequences of a lawsuit.

The earliest work on litigation stress was done by a physician, Sara Charles, who herself was the subject of a medical malpractice suit. In her work, she found that more than 95% of sued mental health professionals acknowledge some physical and/or emotional reaction.

Physical responses typically include the onset or exacerbation of a physical illness, such as myocardial infarction or peptic ulcer disease. Headaches, sleep disturbance, chest pain, and gastrointestinal symptoms may also be reported. An exacerbation of any preexisting physical health problems can be expected. Even cases of cardiac arrest in the first months after initiation of an investigation have been reported.

Emotional responses are more common and may range from anger to profound depression or even suicide. Cognitive disruptions such as problems with concentration and attention are common. Irrational thoughts associated with "catastrophizing" and "awfulizing" are common, along with rumination about potential disastrous outcome. Marital and family conflicts are very common consequences of litigation stress. Preexisting strains in these relationships are magnified. As one would expect, it is not uncommon for the use of alcohol, tobacco, and caffeine to increase during this time of stress. The risk for abuse of these substances increases, along with various prescription medications, especially pain medications, anti-anxiety drugs, and sleep medication.

Why do litigation and complaints cause such stress? First, the operations of the legal and complaints systems are unpredictable, particularly for those who do not work in the system or are not familiar with the rules, terminology, and processes. This unpredictability is a significant factor contributing to the practitioner's sense of a lack of control over the process they are facing. Second, this unpredictability is compounded by a lack of knowledge about the process in which they are engaged, and the fact that in many instances, others may make decisions that could significantly influence the outcome of their case. Third, a lawsuit is a direct assault on an individual's personal identity and engenders feelings of shame and guilt. Finally, it is often the case that a person who is

sued feels alone and isolated from his or her peers, family, and friends because of allegations of having done something inappropriate or wrong.

Among health care professionals, the threat of a malpractice lawsuit is particularly serious. For mental health professionals, being named in a malpractice suit can have particular professional consequences beyond what usually happens to other defendants. Since 1986, any entity making payments in settlement of a malpractice claim (unless the payment is made by the mental health professional on his or her own behalf) must report the provider and case details to the National Practitioner Data Bank (NPDB). Furthermore, credentialing bodies (e.g., hospitals, group practices, licensing authorities) are required by law to query the NPDB when considering the qualifications of a mental health professional applicant.

Surveys such as that done in 1979 by Mawardi in the *Journal of the American Medical Association* have found a high rate of concern over the threat of malpractice litigation among physicians; some respondents actually contemplated giving up the practice of medicine. These surveys have also indicated that over half of all physicians practice "defensive medicine" so as to avoid or minimize the risk of legal action. Defensive practices include limiting practice by not performing certain high-risk procedures, ordering medically unnecessary tests to document clinical judgments, and even turning away patients seen as potentially litigious. Williams, in a 1981 article in the *Journal of the Arkansas Medical Society*, termed physicians' fear of malpractice litigation "paranoia malpracticum." A similar term "litigaphobia" was later coined by Stan Brodsky.

Being sued for malpractice has indeed been shown to be an emotionally traumatic experience for physicians and for mental health professionals as well. The initial reaction to being named in a malpractice suit is often a high level of anxiety, accompanied by feelings of righteous indignation, anger, and vindictiveness. Self-esteem may also be affected. Such stressful effects may be heightened by a loss of social support similar to that often experienced in divorce, as well as the uncertainty engendered by the possible impact that the legal action may have on the professional's life and career.

In addition to the significant physical and psychological responses to malpractice litigation, mental health professionals are more likely to stop seeing patients who seem to have a greater risk of experiencing a bad outcome or of propensity to initiate a suit. These mental health professionals are more likely to consider early retirement and to discourage their own children from entering the medical profession. In a 1988 survey of psychologists, fear of litigation was an acknowledged reason for the use of sound risk-management techniques. After being sued, many mental health professionals begin to keep more meticulous records, order more tests and consultations, and stop performing procedures that may result in risk even when they are appropriate and performed competently.

Solomon M. Fulero

See also Personal Injury and Emotional Distress; Victim Participation in the Criminal Justice System

Further Readings

Breslin, F., Taylor, K., & Brodsky, S. (1986). Development of a litigaphobia scale: Measurement of excessive fear of litigation. *Psychological Reports, 58,* 547–550.

Charles, S. (2001). Coping with a medical malpractice suit. *Western Journal of Medicine, 174,* 55–58.

Charles, S., & Kennedy. E. (1985). *Defendant: A psychiatrist on trial for medical malpractice.* New York: Free Press.

Lewis, B. J. (2004). When the licensing board comes a "calling." *Bulletin of the Psychologists in Independent Practice, 24,* 2–4.

Mawardi, B. (1979). Satisfactions, dissatisfactions, and causes of stress in medical practice. *Journal of the American Medical Association*, *241*, 1483–1486.

Wilbert, J., & Fulero, S. (1988). Impact of malpractice litigation on professional psychology: Survey of practitioners. *Professional Psychology: Research and Practice, 19,* 379–382.

Williams, J. (1981). Paranoia malpracticum. *Journal of the Arkansas Medical Society, 78,* 265–269.

M

MacArthur Competence Assessment Tool for Clinical Research (MacCAT–CR)

The MacArthur Competence Assessment Tool for Clinical Research (MacCAT–CR) provides a semi-structured assessment format for evaluating abilities related to the decisional capacity of subjects in clinical research. Four component abilities of a decisional capacity standard are assessed: understanding, appreciation, reasoning, and choice. Administration of the instrument begins with the disclosure of selected information about a given research project, on the basis of which these abilities are measured. The MacCAT–CR, which takes 15 to 20 minutes to administer, has demonstrated good reliability and validity and has been used both to explore the relative abilities of different subject groups and to assess the capacities of particular research subjects prior to entry into studies.

Informed consent of research subjects is a nearly universal requirement of ethical codes, federal regulations, and common law. For subjects' consent to be valid, they must be competent (i.e., they must have adequate decisional capacity—the terms are used interchangeably in this entry) to offer consent. Because persons are generally presumed to be competent to make decisions of all sorts, barring evidence to the contrary, the question of whether subjects are competent does not arise for most research subjects; the casual interactions between subjects and researchers are sufficient to sustain the presumption of subjects' capacity. However, some subject groups may have an elevated probability of incapacity, making it desirable, particularly in higher-risk studies, to perform an explicit assessment of their capacity. The demonstrated variability in clinical judgments of competence has encouraged the development of competence assessment instruments for this purpose.

The MacCAT–CR grows out of the four-part conceptualization of decisional capacity that underlay the MacArthur Competence Assessment Study and that is based on existing case law; statutes; and bioethical, psychological, and medical literature. *Understanding* is the first of these four components of competence. Research subjects, at a minimum, must have the ability to understand the basic elements of disclosure required by the U.S. Federal Common Rule, including the purpose of the research project, the procedures involved, material risks, possible benefits, and alternatives to research participation. The second component, *Appreciation,* reflects the importance of subjects' abilities to apply the disclosed information to their own situations, including their recognition that the research project is aimed at generalizable knowledge, not at optimizing the treatment they receive, and that they are truly free to decline to participate without penalty. *Reasoning,* the third component, focuses on subjects' abilities to manipulate the information disclosed to them, comparing and weighing the consequences of the alternatives before them. The final component is *Choice,* the ability to select the desired option and to sustain a consistent decision.

Because the information that subjects must understand will differ across research projects, the MacCAT–CR provides a format for disclosure of study-specific information that is standardized for all

subjects in a given research study. Following disclosure of discrete informational elements, subjects' understanding is queried by asking them to paraphrase the disclosure about specific items. Appreciation questions can be modified, if necessary, according to the nature of a given project but reasoning and choice questions are fixed. There is no effort to provide the kind of comprehensive disclosure typically embodied in informed consent forms or to measure understanding and appreciation of, or reasoning about, all aspects of the study. Rather, the MacCAT–CR offers a virtual "biopsy" of subjects' abilities related to competence, on the assumption that the sampled data will be typical of their abilities in dealing with a complete disclosure.

Subjects' responses to the MacCAT–CR items are scored in a structured fashion, with scores aggregated on scales for each of the four abilities being assessed. However, composite scores across all four scales are not generated, because poor performance on any one of the relevant abilities may indicate significantly impaired capacity, rendering a composite score meaningless. Nor does the MacCAT–CR provide a fixed cutoff above which subjects are deemed competent to consent. The degree of capacity required for participation in a given study should reflect the characteristics of that study, including its complexity and risks. Moreover, the capacity demanded of subjects at risk for decisional impairment (e.g., persons with mental illnesses, developmental disabilities, dementia, and serious medical disorders) ought not to exceed the abilities demonstrated by the general population. Finally, decisions about capacity should take into account clinical data that may not be reflected in assessment scores. Although investigators or institutional review boards can set MacCAT–CR cutoffs for particular studies, the instrument is designed to be used as an aid to clinical judgment, with investigators retaining the discretion to determine whether subjects are capable of consenting.

Use of the MacCAT–CR for research on decisional capacity and to screen subjects for entry to research projects has demonstrated that the instrument can be scored reliably, and that it shows good construct and convergent validity. Studies have been performed to date with samples of persons with depression, schizophrenia and related psychotic disorders, Alzheimer's disease, mental retardation, and HIV infection and with prisoners, forensic patients, and parents of neonatal research subjects. Impairments in the abilities measured by the MacCAT–CR correlate strongly with cognitive impairments on neuropsychological tests and correlate more variably with psychotic symptoms. Thus, increasing levels of decisional abilities are found as one moves from subjects with Alzheimer's disease to those with schizophrenia, depression, and general medical illnesses. Further research is required to determine the impairments associated with varying levels of depression and with medical conditions in which the disorder itself or its treatment may affect mentation.

Screening of potential research subjects with the MacCAT–CR has demonstrated that subjects, especially those with mental illnesses, who score poorly on initial administration can often experience improved decisional capacities with remedial educational efforts. As might be expected, levels of understanding show the greatest response to additional education, with lesser impact seen on appreciation and reasoning. Nonetheless, these studies have suggested that many research subjects can learn the information required to give a competent consent if afforded extra assistance for doing so. Thus, screening for decisional capacity accompanied by remedial education may result in better informed subjects capable of giving consent on their own rather than in the exclusion of large numbers of subjects or in a resort to substituted consent.

Paul S. Appelbaum

See also Consent to Clinical Research; MacArthur Competence Assessment Tool for Treatment Decisions (MacCAT–T)

Further Readings

Appelbaum, P. S., & Grisso, T. (2001). *MacArthur Competence Assessment Tool for Clinical Research (MacCAT–CR).* Sarasota, FL: Professional Resource Press.

Grisso, T., & Appelbaum, P. S. (1998). *Assessing competence to consent to treatment: A guide for physicians and other health professionals*. New York: Oxford University Press.

MacArthur Competence Assessment Tool for Criminal Adjudication (MacCAT–CA)

Mental health professionals often conduct evaluations to assist courts in determining whether a criminal

defendant is competent to participate in the adjudicatory process. A variety of instruments have been developed to help structure these forensic assessments; this entry describes one of the more contemporary competence assessment instruments, the MacArthur Competence Assessment Tool–Criminal Adjudication (MacCAT–CA).

In the United States, people accused of crimes have certain rights with respect to the adjudicatory process that are guaranteed by the Constitution. In particular, they have the Fifth Amendment protection against self-incrimination and rights articulated in the Sixth Amendment, which include the assistance of legal counsel, the right to confront their accusers, and the right to trial by a jury of their peers.

To benefit from these rights, defendants must be mentally competent to assert them. In *Dusky v. United States* (1960), the U.S. Supreme Court articulated specific functional abilities that defendants must have to participate competently in the adjudicatory process: They must be able to assist counsel, and they must have both a rational and a factual understanding of the proceedings against them.

Most, if not all, jurisdictions recognize only mental impairment—often characterized as "mental disease or defect"—as a basis for incompetence to proceed to adjudication. When questions about a defendant's mental capacities arise, the courts almost invariably solicit the assistance of mental health professionals (primarily psychiatrists and psychologists) in resolving the issue. These forensic evaluators attempt to inform the court whether, and the extent to which, the defendant's functional abilities required by *Dusky* are compromised by psychiatric problems.

Historically, the primary tool available to forensic examiners for assessing competence was the unstructured or semistructured interview. Although interview approaches can provide valuable information, they are vulnerable to a variety of sources of potential bias. For example, interview-based results from evaluations of the same defendant may be inconsistent because different examiners (a) asked questions that varied in content and/or difficulty, (b) had different subjective criteria for judging the adequacy of a defendant's responses to various questions, or (c) used different reference groups or subjective algorithms for aggregating the information to formulate more focused conclusions about the defendant's capacities.

The MacCAT–CA was designed to enable forensic examiners to collect information relevant to a defendant's competence in a way that minimizes the influence of clinical subjectivity. The MacCAT–CA comprises three measures, each of which relates conceptually to one of the *Dusky* criteria. Each of these measures is described briefly below.

The Understanding measure includes 8 items that query issues such as the general roles and responsibility of the prosecuting attorney and defense attorney, the elements of a criminal offense, the responsibilities of a judge and those of a jury, the nature of criminal sentencing, and a defendant's rights at trial. Thus, it relates to the *Dusky* requirement that a defendant have a "factual understanding" of legal proceedings.

The Appreciation measure includes 6 items that query the respondent about expectations regarding his or her pending case. These items relate to issues such as expectations about disclosing information to, and receiving assistance from, the attorney; the likelihood of being convicted; the likely severity of punishment if convicted; and expectations that one will be treated fairly by the courts. The respondent is asked to state his or her expectations and then explain the reasons for these beliefs. Scoring of these items involves a judgment of the plausibility of the defendant's reasons for his or her beliefs—thus Appreciation relates to the *Dusky* requirement of a "rational understanding" of proceedings.

Finally, the Reasoning measure includes 8 items that require a defendant to exercise logical and reasoning skills in relation to legal information. Each of 5 items presents the respondent with two pieces of hypothetical information. These pieces of information are embedded in a hypothetical vignette (i.e., a man is arrested after getting into a fight at a bar) and the respondent is challenged to determine which piece of information has the greatest legal relevance for the hypothetical actor and to explain the basis for its greater legal relevance. Three other Reasoning items describe alternative dispositional choices for the hypothetical actor, proceeding to trial or accepting a plea agreement. The respondent's task is to articulate comparisons and contrasts (e.g., conduct a risks-and-benefits analysis) between these choices, thus demonstrating the capacity to reason about legal alternatives. This measure is conceptually related to the *Dusky* requirement of "capacity to assist counsel."

Three structural features of the MacCAT–CA limit the extent of interviewer subjectivity in the assessment. First, the administration is highly structured. The same 22 items are presented to each defendant, with

instructions for both initial presentation and follow-up queries/probes to minimize examiner-related differences in the presentation. Second, explicit instructions and criteria are written for scoring each item, which minimizes differences in examiners' judgment as to what is a correct or incorrect answer. Third, the total score for each measure (sum of item scores for Understanding, Reasoning, and Appreciation) is interpreted in light of norms based on a large, multistate sample of offenders recruited in jails and forensic psychiatric hospitals. Thus, statistical norms exist to guide clinical interpretation as to whether, and to what extent, a particular respondent manifests impairment in the functional legal abilities articulated in *Dusky.*

Research with adult offenders has demonstrated that the MacCAT–CA measures are reliable, with internal consistency estimates (Cronbach's alpha) of .85, .81, and .88 for Understanding, Reasoning, and Appreciation, respectively. Interscorer reliability of .90, .85, and .75 for Understanding, Reasoning, and Appreciation, respectively, were reported in the MacCAT–CA manual. Evidence for the validity of the instrument includes that each measure correlates in expected ways with measures of intellectual capacity (positively) and with measures of psychotic symptomatology (negatively). Furthermore, poorer scores are obtained on MacCAT–CA measures by defendants who have been adjudicated incompetent to stand trial than by comparison groups of jail inmates awaiting trial. Finally, MacCAT–CA scores help to discriminate competent from incompetent defendants after controlling for measures of other constructs including demographic features, criminal history, and psychopathology variables.

Although the MacCAT–CA offers some advantages in terms of structuring and standardizing certain competence-related inquiries, it was designed to supplement, rather than to replace, the clinical interview in assessing adjudicative competence. It does not assess directly all the factors that might affect a defendant's competence—for example, poor memory for events at or near the time of the alleged crime or incoherence of thoughts or speech that might make assisting counsel difficult. Furthermore, the clinician using the MacCAT–CA must still make judgments regarding symptoms of mental disorder and their contribution, if any, to poor performance on the MacCAT–CA. Thus, the MacCAT–CA is not a stand-alone measure of competence. It is best conceived as its name indicates—a "tool" to assist mental health professionals in their assessment of defendants' competence-related abilities.

Norman G. Poythress

See also Adjudicative Competence of Youth; Competency, Foundational and Decisional; Competency Assessment Instrument (CAI); Forensic Assessment

Further Readings

Dusky v. United States, 362 U.S. 402 (1960).

Otto, R. K., Poythress, N. G., Nicholson, R. A., Edens, J. F., Monahan, J., Bonnie, R. J., et al. (1998). Psychometric properties of the MacArthur Competence Assessment Tool–Criminal Adjudication (MacCAT–CA). *Psychological Assessment, 10,* 435–443.

Poythress, N. G., Bonnie, R. J., Monahan, J., Otto, R., & Hoge, S. K. (2002). *Adjudicative competence: The MacArthur studies.* New York: Kluwer/Plenum.

Stafford, K. P. (2002). Assessment of competence to stand trial. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 359–380). Hoboken, NJ: Wiley.

MacArthur Competence Assessment Tool for Treatment (MacCAT–T)

The MacArthur Competence Assessment Tool for Treatment (MacCAT–T) is an instrument designed to assess decision-making capacity. Designed as part of the MacArthur Competence Treatment Competence Study, a multiyear, multisite effort named for the well-known philanthropic foundation, the tool operationalizes established elements of competent decisions. The semistructured instrument, which can be completed within 20 to 30 minutes, guides clinicians through the discussion of a specific treatment decision and scores responses on four separate scales.

Structured disclosures assess patients' understanding, reasoning, appreciation, and choice, the four elements of decision making established in reviews of the established legal and ethical literature. For understanding, patients are tested on their comprehension of the nature of their illness, recommended treatment, alternatives, and risks and benefits. Reasoning evaluates patients' problem-solving ability when faced with a specific treatment choice. Appreciation assesses

acknowledgment of illness and the potential value of treatment, while choice determines whether patients make a selection consistent with their reasoning.

Intended for the comparison of patient groups, the MacCAT–T has been tested in a variety of populations, including patients diagnosed with schizophrenia, psychosis, dementia, and depression. It has shown strong interrater reliability and good agreement with the assessment of clinicians.

The MacCAT–T has been instrumental in demonstrating important correlations between symptoms, cognitive variables, and decision-making capacity. In a number of studies, it has underscored the relevance of specific variables such as thought disorganization and attention while demonstrating that patients with mental illness nonetheless overlap with control populations in many of their abilities.

Criticized for its reliance on a cognitive-based assessment of capacity, the instrument does in fact go beyond cognition in its assessment. The appreciation standard, for example, is more than a simple cognitive standard, including, as it does, the treatment's significance and relevance to the patient. Moreover, even emotional capacity relies on cognition to assess the meaningfulness of a situation. Indeed, in one direct comparison of capacity assessment tools, the MacCAT–T was clearly found to address the common construct underlying different competence standards.

One of a number of semistructured interviews to come out of the MacArthur studies, the MacCAT–T is now part of an entire generation of commonly used tools assessing specific decision-making capacities.

Philip J. Candilis

See also Capacity to Consent to Treatment; Capacity to Consent to Treatment Instrument (CCTI); Competency, Foundational and Decisional; MacArthur Competence Assessment Tool for Clinical Research (MacCAT–CR); MacArthur Competence Assessment Tool for Criminal Adjudication (MacCAT–CA)

Further Readings

Appelbaum, P. S., & Grisso, T. (1988). Assessing patients' capacities to consent to treatment. *New England Journal of Medicine, 319*(25), 1635–1638.

Grisso, T., Appelbaum, P. S., & Hill-Fotouhi, C. (1997). The MacCAT–T: A clinical tool to assess patients' capacities to make treatment decisions. *Psychiatric Services, 48*(11), 1415–1419.

Vollmann, J., Bauer, A., Danker-Hopfe, H., & Helchen, H. (2003). Competence of mentally ill patients: A comparative empirical study. *Psychological Medicine, 33*(8), 1463–1471.

MacArthur Violence Risk Assessment Study

Violence risk assessment is now widely assumed by policy makers and the public to be a core skill of the mental health professions and plays a pivotal role in mental health law throughout the world. *Dangerousness to others* is a principal standard for inpatient commitment, outpatient commitment, and commitment to a forensic hospital. The imposition of tort liability on mental health professionals who negligently fail to anticipate and avert a patient's violence to others has become commonplace. Despite the pervasiveness of violence risk assessment in mental health law, research continues to indicate that the unaided abilities of mental health professionals to perform this task are modest at best. Many have suggested that making available to clinicians statistical information on the relationships between various risk factors and subsequent violent behavior is the only way to reduce the disconnect between what the law demands and what clinicians are able to provide. The MacArthur Violence Risk Assessment Study was one attempt to generate the necessary empirical information to improve clinical practice in the area of violence risk assessment. The approach to risk assessment developed in this project appears to be highly accurate when compared with other approaches to assessing risk among people hospitalized in acute-care psychiatric facilities. But it is also much more computationally complex than other approaches. Therefore, software has been developed to ease the administration of the MacArthur procedures in clinical practice.

The MacArthur Study's General Research Strategy

The MacArthur Violence Risk Assessment Study had two core goals: to do the best "science" on violence risk assessment possible and to produce an actuarial violence risk assessment "tool" that clinicians in the world of managed mental health services could actually use.

From these initial intellectual commitments, the Study evolved in six stages over the decade it took to plan, execute, and analyze the research.

Identifying Gaps in Methodology

Almost all existing studies of violence risk assessment suffer from one or more methodological problems: They considered a constricted range of risk factors, often a few demographic variables or scores on a psychological test; they employed weak criterion measures of violence, usually relying solely on arrest; they studied a narrow segment of the patient population, typically males with a history of prior violence; and they were conducted at a single site. Based on this critical examination of existing work, the MacArthur researchers designed a piece of research that could, to the greatest extent possible, overcome the methodological obstacles that had been identified. They studied a large and diverse array of risk factors. They triangulated the outcome measurement of violence, adding patient self-report and the report of a collateral informant to data from official police and hospital records. They studied both men and women, regardless of whether they had a history of violence. And they conducted the study at several sites rather than at a single site.

Selecting Promising Risk Factors

Although the MacArthur researchers lacked any comprehensive theory of violence by people with mental disorder from which they could derive hypothesized risk factors, recent studies suggested that a number of variables might be potent risk factors for violence among people with a mental disorder. The researchers assessed personal factors (e.g., demographic and personality variables), historical factors (e.g., past violence and mental disorder), contextual factors (e.g., social support and social networks), and clinical factors (e.g., diagnosis and specific symptoms). They chose what they believed to be the best of the existing measures of these variables, and where no instrument was available to adequately measure a variable, they commissioned the development of the necessary measure.

Using Tree-Based Methods

The MacArthur researchers developed violence risk assessment models based on the "classification tree" method rather than the usual linear regression method. A classification tree approach reflects an interactive and contingent model of violence, one that allows many different combinations of risk factors to classify a person at a given level of risk. The particular questions to be asked in any assessment grounded in this approach depend on the answers given to prior questions. Factors that are relevant to the risk assessment of one person may not be relevant to the risk assessment of another person. This contrasts with a regression approach in which a common set of questions is asked of everyone being assessed, and every answer is weighted to produce a score that can be used for purposes of categorization.

Creating Different Cutoffs for High and Low Risk

Rather than relying on the standard single threshold for distinguishing among cases, the MacArthur researchers decided to employ two thresholds—one for identifying higher risk cases and one for identifying lower risk cases. They assumed that inevitably there will be cases that fall between these two thresholds, cases for which any actuarial prediction scheme is incapable of making an adequate assessment of high or low risk. The degree of risk presented by these intermediate cases cannot be statistically distinguished from the base rate of the sample as a whole (therefore, they referred to these cases as constituting an *average risk group*).

Repeating the Classification Tree

To increase the predictive accuracy of a classification tree, the MacArthur researchers reanalyzed the cases that had been designated as "average risk." That is, all people not classified into groups designated either as high risk or as low risk in the standard classification tree model were pooled together and reanalyzed. The logic here was that the people who were not classified in the first iteration of the analysis might be different in some significant ways from the people who were classified and that the full set of risk factors should be available to generate a new classification tree specifically for these people who were not already classified as high risk or as low risk. They referred to the resulting classification tree model as an *iterative* classification tree.

Combining Multiple Risk Estimates

Finally, the MacArthur researchers estimated several different risk assessment models in an attempt to obtain multiple risk assessments for each case. That is, they chose a number of different risk factors to be the lead variable on which a classification tree was constructed. In attempting to combine these multiple risk estimates, they began to conceive of each separate risk estimate as an indicator of the underlying construct of interest—violence risk. The basic idea was that patients who scored in the high-risk category on many classification trees were more likely to be violent than patients who scored in the high-risk category on fewer classification trees. (And analogously, patients who scored in the low-risk category on many classification trees were less likely to be violent than patients who scored in the low-risk category on fewer classification trees.)

Specific Research Methods in the MacArthur Study

More than 1,000 admissions were sampled from acute civil inpatient facilities in Pittsburgh, Pennsylvania, Kansas City, Missouri, and Worcester, Massachusetts. The MacArthur researchers selected English-speaking patients between the ages of 18 and 40, who were of White, Black, or Hispanic ethnicity, and who had a chart diagnosis of thought or affective disorder, substance abuse, or personality disorder. The median length of stay was 9 days. After giving informed consent to participate in the research, the patient was interviewed in the hospital by both a research interviewer and a research clinician to assess him or her on each of the risk factors.

Three sources of information were used in the MacArthur Study to ascertain the occurrence and details of a violent incident in the community. Interviews with patients, interviews with collateral individuals (i.e., persons named by the patient as someone who would know what was going on in his or her life), and official sources of information (arrest and hospital records) were all coded and compared. Patients and collaterals were interviewed twice over the first 20 weeks—approximately 4 to 5 months—from the date of hospital discharge.

Violence to others was defined to include acts of battery that resulted in physical injury, sexual assaults, assaultive acts that involved the use of a weapon, or threats made with a weapon in hand.

Results of the MacArthur Study

At least one violent act during the first 20 weeks after discharge from the hospital was committed by 18.7% of the patients in the MacArthur Study. Of the 134 risk factors measured in the hospital, approximately half had a statistically significant bivariate relationship with later violence in the community ($p < .05$). Some examples of specific risk factors that were—or were not—significantly related to violence are as follows:

Gender: Men were somewhat more likely than women to be violent, but the difference was not large. Violence by women was more likely than violence by men to be directed against family members and to occur at home and less likely to result in medical treatment or arrest.

Prior violence: All measures of prior violence—self-report, arrest records, and hospital records—were strongly related to future violence.

Childhood experiences: The seriousness and frequency of having been physically abused as a child predicted subsequent violent behavior, as did having a parent—particularly a father—who was a substance abuser or a criminal.

Diagnosis: A diagnosis of a major mental disorder—especially a diagnosis of schizophrenia—was associated with a *lower* rate of violence than a diagnosis of a personality or adjustment disorder. A co-occurring diagnosis of substance abuse was strongly predictive of violence.

Psychopathy: Psychopathy, as measured by a screening version of the Hare Psychopathy Checklist, was more strongly associated with violence than any other risk factor. The "antisocial behavior" component of psychopathy, rather than the "emotional detachment" component, accounted for most of this relationship.

Delusions: The presence of delusions—or the type of delusions or the content of delusions—was not associated with violence. A generally "suspicious" attitude toward others was related to later violence.

Hallucinations: Neither hallucinations in general nor "command" hallucinations per se elevated the risk of violence. If voices specifically commanded a violent act, however, the likelihood of violence was increased.

Violent thoughts: Thinking or daydreaming about harming others was associated with violence, particularly if the thoughts or daydreams were persistent.

Anger: The higher a patient scored on the Novaco Anger Scale in the hospital, the more likely he or she was to be violent later in the community.

These are only bivariate relationships between single risk factors measured in the hospital and violence during the first 20 weeks after discharge into the community, however. The more important question is how the risk factors performed when combined as described above. The MacArthur researchers ultimately combined the results of five prediction models generated by the iterative classification tree methodology. This combination of models produced results not only superior to those of any of its constituent models but also superior to many other actuarial violence risk assessment procedures reported in the literature. Using only those risk factors commonly available in hospital records or capable of being routinely assessed in clinical practice, the researchers were able to place all patients into one of five risk classes for which the prevalence of violence during the first 20 weeks following discharge into the community was 1%, 8%, 26%, 56%, and 76%.

Violence Risk Assessment Software

To operationalize the risk assessment procedures developed in the MacArthur Violence Risk Assessment Study, five tree-based prediction models need to be constructed, each involving the assessment of many risk factors. It would clearly be impossible for a clinician to commit the multiple models and their scoring to memory, since different risk factors are to be assessed for different patients, and using a paper-and-pencil protocol would be very unwieldy. Fortunately, however, the administration and scoring of multiple tree-based models lends itself to software. In clinical use, the risk assessment instrument developed in the MacArthur Study consists simply of a series of questions that flow one to the next on a computer screen—through the various iterations of each of the models as necessary—depending on the answer to each prior question. Under a grant from the National Institute of Mental Health, the MacArthur researchers developed such a "violence risk assessment software," the Classification of Violence Risk™.

John Monahan

See also Classification of Violence Risk (COVR); HCR–20 for Violence Risk Assessment; Violence Risk Appraisal Guide (VRAG); Violence Risk Assessment

Further Readings

Banks, S., Robbins, P., Silver, E., Vesselinov, R., Steadman, H., Monahan, J., et al. (2004). A multiple models approach to violence risk assessment among people with mental disorder. *Criminal Justice and Behavior, 31,* 324–340.

Monahan, J., & Steadman, H. (Eds.). (1994). *Violence and mental disorder: Developments in risk assessment.* Chicago: University of Chicago Press.

Monahan, J., Steadman, H., Silver, E., Appelbaum, P., Robbins, P., Mulvey, E., et al. (2001). *Rethinking risk assessment: The MacArthur study of mental disorder and violence.* New York: Oxford University Press.

Steadman, H., Mulvey, E., Monahan, J., Robbins, P., Appelbaum, P., Grisso, T., et al. (1998). Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. *Archives of General Psychiatry, 55,* 393–401.

Malingering

Forensic assessments must evaluate systematically the accuracy and forthrightness of individuals referred for evaluation of psycholegal issues. Among different response styles that should be considered, malingering is a cornerstone issue for forensic consultations. *Malingering* is defined by the *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition; *DSM-IV*) of the American Psychiatric Association as a deliberate fabrication or gross exaggeration of symptoms for an external goal. Feigned symptoms and associated features may be psychological, medical, or a combination of both. Forensic psychologists and psychiatrists should note that minor or even substantive exaggerations do not warrant the classification of malingering; only *grossly exaggerated* symptoms qualify for malingering. An example of gross exaggeration would be the deliberate misrepresentation of an occasional thought about one's demise (e.g., "I wish I was dead") as a current suicidal ideation that includes planning and possible preparation. Because court reports require precision, forensic psychologists may wish to operationalize "gross exaggeration." For such purposes, the Schedule of Affective Disorders and Schizophrenia (SADS) provides a criterion-based standard for rating the severity of reported symptoms. Many symptoms on the SADS are rated on six levels of severity: 1 = *absent,* 2 = *slight or subclinical,*

3 = *mild,* 4 = *moderate,* 5 = *severe,* and 6 = *extreme.* According to Richard Rogers, *gross exaggeration* should be defined as a minimum of three levels of amplification. To qualify as grossly exaggerated, (a) slight symptoms would need to be severe or extreme and (b) mild symptoms would need to be extreme.

Malingering is a *DSM-IV* classification and not a formal diagnosis. This distinction is critical to forensic evaluations. Malingering is categorized as a "V code," which signifies an undiagnosed condition that may be the focus of clinical attention. Note that the operative word is "may," suggesting that malingering is not always a focal point for clinical attention. More important, V codes do not provide inclusion criteria for clearly establishing a clinical condition. The screening indicators provided in *DSM-IV* are merely meant to raise suspicions of malingering. Misuse of these screening indicators as inclusion criteria is a very serious breach of professional practice with ethical implications. To underscore this crucial issue, forensic clinicians should draw no conclusions, however tentative, regarding the presence or absence of malingering on the basis of *DSM-IV* screening indicators.

A careful analysis of *DSM-IV* screening indicators suggests that they should not be used for any purpose, because of their inaccuracies and lack of discriminability. Based on available research, *DSM-IV* screening indicators are likely to lead to false positives approximately 80% of the time. Consider for the moment the perils of applying these indicators to criminal-forensic cases. Two of the four indicators (e.g., forensic context and antisocial personality) occur in a high proportion of cases, rendering them ineffective at distinguishing malingering from genuine disorders. The remaining two indicators (lack of cooperation and marked discrepancies) also lack discriminability.

Domains of Malingering

Malingering is almost never a pervasive response style. Instead, malingerers are typically selective about what types of symptoms are feigned and what specific goals can be achieved. Three general domains of malingering have been identified: mental disorders, cognitive abilities, and medical complaints. Each domain places specific demands of malingerers, who are attempting a successful performance (i.e., the avoidance of detection). In the next three paragraphs, each domain is explored.

Feigned Mental Disorders. Malingerers in this domain must create a plausible set of symptoms with a credible description of their onset and course. Importantly, they must decide how much insight to have regarding these symptoms and their effects on daily functioning. For truly sophisticated presentations, feigning must take into account negative symptoms (e.g., the absence of spontaneous speech) as well as positive symptoms (e.g., the presence of auditory hallucinations). If provided treatment, they must decide what changes, if any, occur with their symptoms and their insights into these symptoms.

Feigned Cognitive Impairment. Malingerers in this domain must exhibit "effortful failures." In other words, they must portray seemingly genuine effort while making plausible mistakes on neuropsychological and intelligence testing. While the immediate task of feigning appears comparatively easy (i.e., "try hard but get it wrong"), malingerers face an additional hurdle of feigning believable deficits in light of past documentation. In most instances, for example, the feigning of mental retardation poses a daunting challenge because academic records (e.g., school performance and aptitude tests) provide relevant data about intellectual abilities.

Feigned Medical Complaints. Malingerers in this domain can be categorized as feigning either nonspecific complaints or a specific diagnosis. Nonspecific complaints (e.g., headaches, fatigue, and pain) are relatively easy to generate and difficult to disprove, especially when described as intermittent or sporadic. However, malingerers must decide whether such complaints will be sufficient to meet their goals (e.g., unwarranted compensation in a personal injury case). Far more complex is the feigning of specific medical disorders that may involve the deliberate contamination of laboratory tests. Health care staff may be alerted to malingering by anomalies in test results. In addition, malingerers may evidence an unlikely level of sophistication in their knowledge of test findings that is uncharacteristic of genuine patients.

Different detection strategies are required for each domain. For example, assessment methods for identifying bogus hallucinations are likely to be ineffective with individuals claiming memory loss secondary to a traumatic injury. In this instance, persons with purported amnesia have no reasons to fabricate psychotic

symptoms. In the next section, detection strategies for feigned mental disorders and feigned cognitive impairment will be addressed. The third domain, feigned medical complaints, is beyond the scope of this contribution.

Detection Strategies

In the assessment of malingering, a crucial distinction must be made between common and discriminating characteristics. As part of the external motivation, many malingerers are involved in forensic evaluations. However, this is a common but not discriminating characteristic that is unhelpful in the evaluation of potential malingering. Naive practitioners have mistakenly assumed that the obverse is true: "If the majority of malingerers are involved in forensic referrals, then the majority of forensic referrals are malingerers." This logic is fundamentally flawed and can lead to tragic errors. To illustrate this logical fallacy, consider the proposition "Most murderers are men; therefore, most men are murderers." However, its persistence among naive practitioners may stem in part from their fundamental misunderstanding of the *DSM-IV* screening indicators.

Discriminating characteristics of malingering require that specific variables differentiate between genuine and feigned protocols. For example, individuals with genuine memory problems will conform to certain learning principles (e.g., recognition is easier than recall), whereas some malingerers will fail equally on recognition and recall tasks. Therefore, the violation of a learning principle is a discriminating characteristic and has the potential to be useful in the evaluation of feigned cognitive impairment. Discriminating characteristics form the bases for detection strategies.

What is a detection strategy for malingering? According to Richard Rogers, detection strategies represent a standardized method for differentiating between malingered and genuine conditions. Detection strategies must be conceptually based and empirically validated. For instance, the violation of a learning principle has a sound conceptual basis. For empirical validation, detection strategies should not only produce substantial effect sizes (i.e., large group differences) but also facilitate via utility estimates in the individual classification of malingered versus genuinely impaired cases.

Detection Strategies for Feigned Mental Disorders

Persons with malingering mental disorders are often unaware of characteristic patterns commonly found with bona fide patients. As a result, they often have *unlikely presentations,* characterized by atypical symptoms and symptom patterns, not usually found in genuine populations. In addition, malingerers often miscalculate the typical intensity of common symptoms and associated features. Therefore, detection strategies can also capitalize on *amplified presentations,* for which the symptoms may appear genuine, but the reported frequency and intensity is highly uncharacteristic of genuine populations. Outlined below are detection strategies based on unlikely and amplified presentations.

Unlikely Presentations

Rare Symptoms. Malingerers are unlikely to recognize which symptoms occur very infrequently among genuine patients. Reporting a large number of rare symptoms is strongly indicative of feigning.

Symptom Combinations. Malingerers are likely to recognize common psychological symptoms that are experienced by genuine patients. They are unlikely, however, to recognize that some psychological symptoms do not typically occur together. Reporting a large number of uncommon symptom combinations is indicative of feigning.

Improbable Symptoms. Improbable symptoms are extreme and fantastic in quality. These symptoms can be thought of as extreme variants of rare symptoms due to their preposterous and seemingly ridiculous content. Frequent report of improbable symptoms indicates feigning.

Unlikely Patterns of Psychopathology. This strategy relies on the idea that there are general patterns of psychopathology that are unlikely to be experienced by psychiatric patients. As the symptom combination strategy relies on unlikely patterns at a symptom level, the unlikely patterns of psychopathology strategy relies on more collective and complex patterns that are improbable in genuine populations. Owing to the complexity of this strategy, it has been primarily employed on multiscale inventories.

Amplified Presentations

Indiscriminate Symptom Endorsement. This strategy relies on the finding that malingerers will report a large array of psychological symptoms, larger than that of even the most impaired clinical patients. Endorsement of a very large number of symptoms may indicate feigning.

Symptom Severity. This strategy relies on the finding that malingerers will report a large number of symptoms as extreme or unbearable. This strategy should not be confused with indiscriminate symptom endorsement. Symptom severity relies on the amplified "depth" of symptoms as opposed to the atypical "breadth" assessed by indiscriminant symptom endorsement.

Obvious Symptoms. This strategy relies on the endorsement of very blatant symptoms of mental illness by malingerers. Obvious symptoms are different from rare symptoms due to the typicality of obvious symptom content. These symptoms are not defined by their rarity in clinical populations but by their obvious relationship with severe psychological disorders. Comparison between an individual's report of obvious versus more subtle symptoms has also been useful in the detection of feigning. Endorsement of a large number of obvious symptoms may be indicative of feigning.

Erroneous Stereotypes. The erroneous stereotype strategy relies on common misperceptions about psychological symptom experiences. These symptoms describe lay nonprofessional general perceptions about persons with mental disorders. Individuals who agree with many of these erroneous stereotypes are likely to be feigning.

Reported Versus Observed Symptoms. This strategy relies on the observation of individuals' clinical presentation and their report of psychological symptoms. Reporting of symptoms that are more impaired than what is observed may be an indication of feigning. The reported versus observed strategy is not a simple comparison of consistency. Only reports of symptoms that are "worse" than observed should be considered as possible feigning.

Many psychological measures possess scales designed to assess a patient's likelihood of feigning mental disorders. Currently, the Minnesota Multiphasic Personality Inventory–2 (MMPI–2) and Structured Interview of Reported Symptoms (SIRS) are the most widely used tests for the detection of feigned mental disorders. The MMPI–2 possesses an impressive research base demonstrating its support for the detection of feigning. The SIRS has been considered by many to be the gold standard psychological test for the detection of feigned mental disorders. Both measures contain multiple scales that employ a variety of different detection strategies. For both the MMPI–2 and the SIRS, research has demonstrated large to very large effect sizes that demonstrate marked differences between genuinely disordered and feigned groups. The basic distinction between the two measures involves individual classification via utility analysis. The MMPI–2 is generally ineffective at individual classifications because (a) cut scores range widely and (b) substantial overlaps on validity scales between genuine and feigned protocols reduce accuracy. In contrast, the SIRS has established effective cut scores that minimize false positives and overall errors. Thus, the SIRS provides accurate clinical data for individual classifications.

Detection Strategies for Feigned Cognitive Disorders

The assessment of feigned cognitive impairment has largely been limited to evaluations of memory impairment and general intellectual functioning. Detection strategies for feigned cognitive impairment have generally relied on *excessive impairment,* which is based on either unexpectedly poor performance on cognitive tasks or *unexpected patterns* that are characterized by unlikely endorsement patterns of items assessing cognitive abilities.

The following are detection strategies based on excessive impairment and unexpected patterns.

Excessive Impairment

Floor Effect. This strategy relies on the failure of malingerers to answer accurately very simple test items. Even the most cognitively impaired individuals are able to answer floor-effect items correctly. Individuals who fail to endorse floor-effect items are likely to be indicative of feigning.

Symptom Validity Testing. This strategy relies on the probability that a genuine person without any ability

would obtain a proportion of correct responses, based on chance alone, when presented with a multiple-choice format. Performance markedly below this chance level is strong evidence of purposeful failure (i.e., malingering). For this strategy to be effective, each alternative must have a similar likelihood of being chosen.

Forced Choice Testing. This strategy relies on the accurate establishment of normative data for cognitively impaired individuals. Individuals who perform far worse than the normative data on a multiple-choice test of cognitive abilities are suspected to be feigning. This strategy is vulnerable to errors because normative data do not take into account multiple cognitive conditions and complications by mental disorders and ineffective coping.

Unexpected Patterns

Magnitude of Error. This strategy relies on the identification of patterns of failure on cognitive tasks that are atypically incorrect. As the name denotes, it is the magnitude of incorrect endorsements, not simply the presence of an incorrect response, that indicates feigning based on this strategy. The magnitude of error specifically relies on a malingerer's tendency to report blatantly incorrect answers as opposed to "plausibly" incorrect answers.

Performance Curve. This strategy compares performance on easier tasks with performance on more difficult tasks. If individuals perform worse on easy tasks than on difficult tasks, feigning impairment can be suspected. This strategy can be very effective, especially with measures that represent (a) a wide range of item difficulty and (b) the absence of an obvious progression from simple to difficult items.

Violation of Learning Principles (VLP). This strategy relies on established learning principles to identify atypical performance of feigners that is incompatible with our knowledge of learning. When a person does not conform to the expected pattern of results based on a learning principle, he or she is suspected to be feigning cognitive deficits. As a good example, impaired individuals are consistently more successful at recognition than recall because the latter places a greater demand on memory abilities. When recall equals or even surpasses recognition, an important learning principle has been violated. This violation is indicative of feigned cognitive impairment.

Dozens of measures for feigned cognitive impairment have been developed in the past decade. Many measures are based on a single detection strategy (e.g., floor effect) and are vulnerable to coaching (e.g., put forth a good effort). Forensic practitioners should look for well-validated measures that have been tested with multiple groups representing different cognitive conditions. An example is the Test of Malingered Memory. In addition, practitioners may wish to include a measure that relies on symptom validity testing, such as the Portland Digit Recognition Test. Although such measures identify only a minority of malingerers, they are accurate in these classifications with very small false-positive rates.

Conclusion

Malingering is a superordinate issue in forensic evaluations. Conclusions about malingering are likely to trump all other diagnostic and forensic considerations. Because of its importance, forensic clinicians must take special care to ensure the accuracy of their determinations. Whenever feasible, these determinations should use multiple detection strategies and several validated malingering measures. Further corroboration should be sought via clinical interviews and collateral sources (e.g., informant interviews and mental health records). Finally, the classification of malingering does not truncate the assessment process. Many malingerers also have genuine disorders that may be relevant to the forensic referral.

Richard Rogers

See also Forensic Assessment; Minnesota Multiphasic Personality Inventory–2 (MMPI–2); Structured Interview of Reported Symptoms (SIRS)

Further Readings

Reynolds, C. R. (Ed.). (1998). *Detection of malingering during head injury litigation.* New York: Plenum.

Rogers, R. (Ed.). (1997). *Clinical assessment of malingering and deception* (2nd ed.). New York: Guilford Press.

Rogers, R. (Ed.). (in press). *Clinical assessment of malingering and deception* (3rd ed.). New York: Guilford Press.

Rogers, R., & Bender, S. D. (2003). Evaluation of malingering and deception. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 109–129). New York: Wiley.

Rogers, R., & Shuman, D. W. (2005). *Fundamentals of forensic practice: Mental health and criminal law.* New York: Springer.

Malingering Probability Scale

The Malingering Probability Scale (MPS) was developed in the mid-1990s as a self-report instrument to estimate the probability of malingering, taking account of base rates in underlying populations. The instrument was based on three premises: (1) that psychopathology expresses itself in clearly defined syndromes for which certain symptoms, though perhaps plausibly related, have very low likelihoods of occurrence; (2) that patients will vary in the type of symptoms they feign depending on the context; and (3) that the identification of probabilities of any given individual of malingering should be adjusted according to the base rate of malingering in the population from which he or she was drawn. The MPS was developed by Leigh Silverton, who also designed and conducted many studies; analyzed much of the data; and, in collaboration with Chris Gruber, wrote the MPS manual.

At the time the MPS was developed, there were no other instruments of malingering that provided sensitivity or specificity studies or gave probabilities of malingering predicated on estimates of base rates in the population from which the patient was drawn. The F scale of the Minnesota Multiphasic Personality Inventory (MMPI), which was most widely used, did not distinguish a true-focused response set or random responding. In constructing the MPS, Silverton also tried to address a different type of feigned psychopathology than had been traditionally covered. Past instruments in wide usage had focused on bizarre and psychotic symptoms. Psychotic symptoms tend to be feigned in criminal contexts in which punishment for mentally competent persons judged responsible for their crimes is more aversive than incarceration in a mental hospital. The focus of the MPS is broader, comprising both psychotic symptoms and nonpsychotic symptoms of the type that might be feigned in civil contexts.

Civil litigants should be more apt to feign trauma-related symptoms such as those associated with posttraumatic stress disorder, depression, and dissociation. In civil cases, where money damages are the remedy for a psychological injury, an experienced attorney understands that certain disorders are most likely to stem from trauma and thus yield the highest rewards. Whether through honest questioning by a personal injury attorney attempting to explore damages, through outright coaching, or by self-study of diagnostic material, a litigant may obtain an impression, if not a textbook definition, of the trauma-related syndrome that he or she should emulate to maximize rewards. In such a case, a patient may avoid endorsing bizarre delusional or hallucinatory symptoms represented by the F scale of MMPI–2 or the M test but may endorse posttraumatic stress-like symptoms.

The pseudoclinical items of the MPS cover symptoms related to trauma as well as those related to psychotic phenomena as might be feigned in a criminal context. The symptoms might appear, to the sophisticated faker, to reflect depression, dissociation, posttraumatic disorder, and schizophrenia. Silverton wrote items that seemed, based on the literature and her clinical experience, to reflect genuine psychopathology and those that would appear to reflect genuine psychopathology but did not. One such pair of items for the depression scale is as follows: "I am rarely awakened by sad dreams" F (pseudoitem) and "I sleep well" F (actual item). Depressed people tend to have trouble sleeping and may have sad dreams but are rarely awakened by them. Items such as these were derived rationally and then validated to arrive at a 139-item instrument to detect malingering.

A standardization sample of 1,016 adults, aged 17 and above, was selected from four regions of the United States and tested between 1995 and 1996. The sample was large, contemporary, and nationally representative. Although the sample matched the 1994 U.S. census data adequately in ethnic distribution, the actual number of ethnic minority participants was small, a fact that suggests caution in interpreting results from minorities. Reading level was measured at third to fourth grade, which should be adequate for most populations.

There are reasonably good levels of reliability, using measures of internal consistency, test-retest reliability, and temporal stability and using samples of individuals from the general population in which the malingering base rate is relatively high (prison and

civil forensically referred samples) and individuals referred for clinical but nonforensic evaluations. The reliability compares favorably with the MMPI clinical scales, which were in the .70 to .90 range.

Validation studies were performed in a number of contexts. Paradigms were employed to detect dissimulation (for college students and prison inmates) and guided dissimulation in which the subjects were given the *Diagnostic and Statistical Manual of Mental Disorders* of the American Psychiatric Association criteria for the disorders. Scores were also obtained from samples of inpatients and referred forensic and clinical outpatients. These procedures yielded Malingering (MAL), the scale used to detect malingering.

Test interpretation starts with the Inconsistency (INC) scale. A high INC score indicates that the subject was so inconsistent that the test should not be interpreted. This could be due to a poor reading level or conscious resistance to test taking. If the INC elevation is less than a *T*-score of 70, it is possible to interpret the MAL scale. In the discussion of MAL or the malingering scale of the MPS in the manual, the authors tried to convey the notion that the conclusion that a person is malingering is a probability statement. The probability relates directly to the base rate of the underlying construct and would be expected to vary from sample to sample. For instance, if a person obtains a MAL *T*-score of 73 where the base rate of malingering is assumed to be 50%, 20%, or 10%, the concluded probability of malingering is 72%, 38%, or 22%, respectively. An assessor interpreting the test report should, therefore, be able to explain his or her assumptions about base rates in the population he or she tests.

One great advantage of the instrument is also one of its greatest disadvantages: The scoring of the individual items has been protected. The item scoring has not been printed in any publication and has been further protected by providing the test in computer-scored form only. (The Western Psychological Services does, however, make available the individual items and their scoring to qualified persons who apply.) An advantage of this feature is that it is impossible for a prospective subject to study for and, therefore, foil the exam. A disadvantage of this feature is that the test cannot be easily and quickly scored by clinicians and researchers. This may discourage research on this instrument, a particularly important problem for validating the experimental clinical scales.

One advance of this instrument is that it broadened the realm of feigned psychopathology covered in malingering instruments, particularly to include those symptoms related to trauma to capture the more sophisticated feigner. But perhaps the best advance in the construction and presentation of this instrument is the conceptualization of malingering as a probability statement, which depends on the assumptions the diagnostician makes about the base rates of malingering in his or her clinical sample. These are assumptions that are all too often ignored by the forensic clinician, are rarely questioned by even the skilled cross-examiner, and yet are critical to the trier of fact where mental state is at issue.

Leigh Silverton

See also Forensic Assessment; Malingering

Further Readings

Fulero, S. (2002). Review of the malingering probability scale. In B. S. Plake & J. C. Impara (Eds.), *The fourteenth mental measurements yearbook.* Lincoln, NE: Buros Institute of Mental Measurements.

Silverton, L., & Gruber, C. (1998). *Malingering Probability Scale (MPS) manual.* Los Angeles: Western Psychological Services.

Mandated Community Treatment

Treating people with a mental disorder without their consent always has been the defining human rights issue in mental health law. For centuries, unwanted treatment took place in a closed institution—a mental hospital. What has changed is that in recent years the locus of involuntary treatment has shifted from the closed institution to the open community. Much of the strident policy debate on outpatient commitment—a civil court order requiring a person to adhere to mental health treatment in the community—treats it as if it were simply an extension of inpatient commitment, viewing it within the same conceptual and legal framework historically used to analyze commitment to a mental hospital. Increasingly, however, it is becoming apparent that concepts developed within a closed institutional context do not translate well to the much more open-textured context of the community. It was for a good reason that mental hospitals have been described as "total institutions"—a single source supplied an individual's lodging, delivered benefits, maintained order, and provided treatment. In the community, however,

one source supplies an individual's lodging (a housing agency), another delivers benefits (a welfare agency), a third maintains order (the criminal justice system), and a fourth provides treatment (the mental health system). Outpatient commitment is better seen as only one of a growing array of legal tools from the social welfare and judicial systems now being used as "leverage" to ensure treatment adherence in the community.

Leverage From the Social Welfare System

People with serious mental disorders may qualify under current law to receive certain social welfare benefits. Two benefits to which some people are entitled under current laws are disability benefits and subsidized housing.

Money as Leverage

Recipients of federal benefits typically receive checks made in their own names. The Social Security Act, however, provides for the appointment of a "representative payee" to receive the checks if it is determined to be in the beneficiary's best interests to do so. Some patients who have a representative payee (or a more informal "money manager") believe that there is a quid pro quo relationship between their adherence to treatment and their receipt of funds.

Housing as Leverage

Recent surveys have found that there is not a single city or county in the United States in which a person with a mental disorder living solely on disability benefits can afford the fair market rent for an efficiency apartment. To avoid widespread homelessness, the government provides a number of housing options in the community for people with a mental disorder. No one questions that landlords can impose generally applicable requirements—such as not disturbing neighbors—on their tenants. However, landlords sometimes impose the additional requirement on a tenant with mental disorder that he or she be actively engaged in treatment.

Leverage From the Judicial System

People with severe mental disorders are sometimes required to comply with treatment as ordered by judges or by other officials acting in the shadow of judicial authority (e.g., probation officers). Even without a formal judicial order, patients may agree to adhere to treatment in the hope of avoiding an unfavorable resolution of their case, such as being sentenced to jail or being committed to a hospital.

Jail as Leverage

Making the acceptance of mental health treatment in the community a condition of sentencing a defendant to probation rather than to jail has long been an accepted judicial practice. In addition, a new type of criminal court—called, appropriately, a "mental health court"—has been developed that makes even more explicit the link between criminal sanctions and treatment in the community. Adapted from the drug court model, a mental health court offers the defendant intensely supervised treatment in the community as an alternative to jail.

Hospitalization as Leverage

Outpatient commitment, as described above, refers to a court order directing a person with a serious mental disorder to comply with a prescribed plan of treatment in the community, under pain of being hospitalized for failure to do so if the person meets the statutory criteria. Outpatient commitment, in this view, is properly seen as only one of several forms of "leverage" used to ensure treatment adherence and not as the sum and substance of "involuntary treatment" in the community.

Psychiatric Advance Directives

One way to establish a person's preferences regarding future treatment, should the person become unable to make or to communicate those preferences in the future, is for the person to "mandate" the preferred treatment himself or herself. Usually, advance directives pertain to medical care at the end of life. But a federal law has given impetus to mental health advocates to promote the creation of advance directives for psychiatric treatment. These directives allow competent persons to declare their preferences for mental health treatment, or to appoint a surrogate decision maker, in advance of a crisis during which they may lose capacity to make reliable health care decisions themselves.

John Monahan

See also Civil Commitment; Conditional Release Programs; Patient's Rights; Psychiatric Advance Directives

Further Readings

Bonnie, R., & Monahan, J. (2005). From coercion to contract: Reframing the debate on mandated community treatment for people with mental disorders. *Law and Human Behavior, 29,* 487–505.

Monahan, J., Bonnie, R., Appelbaum, P., Hyde, P., Steadman, H., & Swartz, M. (2001). Mandated community treatment: Beyond outpatient commitment. *Psychiatric Services, 52,* 1198–1205.

Monahan, J., Redlich, A., Swanson, J., Robbins, P., Appelbaum, P., Petrila, J., et al. (2005). Use of leverage to improve adherence to psychiatric treatment in the community. *Psychiatric Services, 56,* 37–44.

Monahan, J., Swartz, M., & Bonnie, R. (2003). Mandated treatment in the community for people with mental disorders. *Health Affairs, 22,* 28–38.

Massachusetts Youth Screening Instrument–Version 2 (MAYSI–2)

The Massachusetts Youth Screening Instrument–Version 2 (MAYSI–2) is a brief, self-report screening tool designed to identify youths with special mental health needs in the juvenile justice system. It is not a diagnostic tool. Instead, it identifies emergent risks of youths in need of a comprehensive psychological assessment. The developers of the MAYSI–2 designed it for administration by nonclinicians and normed it for use with youths aged 12 to 17 years on entry into one of three different settings in the juvenile justice system—intake probation, pretrial detention, and postsentencing correctional facilities. It is one of the only true mental health "screening" tools (as opposed to assessment tools) developed for juvenile justice settings. As such, the MAYSI–2 is important for juvenile justice administrators who have an obligation to manage the serious mental health needs of youths in their care by, among other procedures, implementing mental health screening. At the time of writing this entry, the MAYSI–2 was being used statewide by juvenile justice agencies in more than 35 states.

Description and Administration

The MAYSI–2 is a 52-item, "yes/no" screening tool on which youths report the presence or absence of symptoms or behaviors related to several areas of emotional, behavioral, and psychological disturbances experienced "within the past few months." The test can be completed in 10 to 15 minutes and is generally administered by frontline, nonclinical staff via a voice computer program (MAYSIWARE) or a paper-and-pencil test, both of which are available in English and Spanish. The MAYSI–2 is self-administered (youths read the questions and circle their answers) unless youths have reading difficulties and the voice computer program is not an option. In these cases, staff should read questions to the youths and allow them to circle their own answers. The pencil-and-paper and voice computer modes of administration appear to yield comparable MAYSI–2 scores.

The 52 items produce scores on six clinical scales—Alcohol/Drug Use (ADU), Angry/Irritable (AI), Depressed/Anxious (DA), Somatic Complaints (SC), Suicide Ideation (SI), and Thought Disturbance (TD; for boys only)—and one nonclinical scale—Traumatic Experiences (TE), which screens for reported exposure to potentially traumatic events. Scale scores are generated from simple sums of the items, which range from 5 to 9 items depending on the scale. The TD scale is for boys only because factor analyses could not derive a coherent TD scale for girls, and the item content of the TE scale differs for boys and girls.

Each of the six clinical scales has a "Caution" cutoff to signal a "clinically significant" elevation and a "Warning" cutoff, which was based on the scores separating the upper 10% of youths in the development sample. The constellation of Caution and Warning cutoffs, which should signal a response for a particular youth (i.e., decision-making rules), was not prescribed by the MAYSI–2 developers. Instead, these decisions are left to the discretion of the juvenile justice site based on their resources and needs to respond to youths in their care.

Development and Factor Structure

The MAYSI–2 was created by Thomas Grisso and Richard Barnum, who selected a pool of items related to mental disorders, emotional disturbances, and behavioral problems common to adolescents. The final 52 items were generated from pilot testing on a small sample of youths. The developers identified the seven MAYSI–2 scales from factor analyses performed on data from 1,279 juvenile-justice-involved youths in Massachusetts. They derived Caution cutoff

scores based on the optimal balance between sensitivity and specificity in identifying youths in this sample with clinical elevations on the Millon Adolescent Clinical Inventory and the Youth Self-Report. Researchers cross-validated the MAYSI–2 factor structure and indices of internal consistency using a sample of more than 4,000 juveniles from California. Recent studies reported almost identical factor structures using confirmatory factor analytic techniques.

Reliability and Validity

MAYSI–2 scales have acceptable internal consistency, with Cronbach's alpha coefficients ranging from .61 (TD scale) to .86 (ADU scale). Alpha coefficients are comparable between genders and racial groups (with a few exceptions) and have been replicated across studies. Test-retest reliability estimates (intraclass correlation coefficients), based on comparisons of MAYSI–2 scores soon after admission to a detention facility to scores 5 to 8 days, later range from .53 (SC scale) to .89 (AI scale).

The national norm study for the MAYSI–2 found that girls were 1.5 to 2.3 times as likely as boys to score above the Caution on every scale except the ADU scale. This finding was consistent across more than 200 juvenile justice settings from around the United States regardless of youths' age, race, or legal status. Also consistent was that Whites had higher odds of meeting Caution on the SI, SC, and ADU scales than Blacks or Hispanics.

Concurrent validity studies show that MAYSI–2 scales correlate with other adolescent mental health scales in the expected direction. However, most MAYSI–2 scales do not map directly onto diagnostic scales of other measures. This is likely because MAYSI–2 scales are primarily heterotypic and measure symptoms that would span multiple diagnoses (e.g., anger). Predictive validity studies indicate that MAYSI–2 scores predict several institutional outcomes such as institutional violence, lengthier sentences, staff interventions, and service provision. Pre-post studies indicate that adoption of the MAYSI–2 in detention facilities can significantly decrease violent incidents, suicide attempts, and other areas of maladjustment.

Future Research

Some issues could benefit from further research. First, it is unknown how long MAYSI–2 scores can be considered valid. MAYSI–2 scores were not intended to have long-term stability given the items measure acute symptoms, which are expected to fluctuate. Second, it is unclear how the timing of MAYSI–2 administration may affect scores. Evidence suggests that youths receiving it within the first few hours of admission have lower scores than those taking it a day or two later. Finally, the developers should report on the psychometric properties of the Spanish-language version as data become available.

Gina M. Vincent

See also Juvenile Offenders; Mental Health Needs of Juvenile Offenders

Further Readings

Grisso, T., & Barnum, R. (2006). *Massachusetts Youth Screening Instrument–-Version 2: User's manual and technical report.* Sarasota, FL: Professional Resource Press.

Grisso, T., Barnum, R., Fletcher, K. E., Cauffman, E., & Peuschold, D. (2001). Massachusetts Youth Screening Instrument for mental health needs of juvenile justice youths. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(5), 541–548.

Grisso, T., & Quinlan, J. C. (2005). Massachusetts Youth Screening Instrument—Version 2. In T. Grisso, G. Vincent, & D. Seagrave (Eds.), *Mental health screening and assessment in juvenile justice* (pp. 99–111). New York: Guilford Press.

Master's Programs in Psychology and Law

The field of psychology and law (i.e., forensic psychology) has witnessed tremendous growth in the past 40 years in both academic and professional realms. While many of the early clinicians engaged in forensic practice did not receive specialized training prior to assuming their role within a forensic setting, graduate training in forensic psychology, or psychology and law, has attempted to address this need. The number of programs offering graduate-level forensic psychology training has exponentially increased in the past 30 years, such that future generations of forensic practitioners will have received specialized course work and practical/research experiences that will only

augment their effectiveness in conducting sound research, promoting relevant policy, and delivering competent clinical forensic services.

Although scholars have expressed a need for a more comprehensive look at specialized graduate training in forensic psychology since the 1970s, it was not until the Villanova conference in 1995 that models of training were evaluated. The invited conference participants provided recommendations for psychology and law training through proposed models but offered no core curriculum. As such, graduate programs have been given enormous latitude to offer a sequence of courses and practical/research experiences that jointly meet their training goals and the needs of their students.

Much has been written on graduate-level training in forensic psychology, with scant emphasis on master's level training. Yet a substantial number of students are graduating with master's degrees in forensic psychology. Currently, there are more than seven programs in the United States and Canada that offer a terminal master's degree in psychology and law.

Relevant Components for Training

Although, by definition, master's level graduate training does not offer the same breadth or depth of experience as one would receive in a doctoral-level psychology and law program or a joint degree (Ph.D./J.D. or Psy.D./J.D.) program, aspects of such training remain critical to the development of a competent master's level graduate. Broadly, master's level training should include education in law and the legal aspects (e.g., statutes, case law, and legal theory) affecting professional forensic psychology practice, knowledge of the relevant literature and ways of assessing the legal questions posed to clinicians/researchers, familiarity with broad and specialty area ethics and guidelines, and field placements in forensic settings. As the population of the United States is changing and becoming increasingly diverse, it is imperative that psycholegal researchers, scholars, and clinicians become competent to address the multiple and varied needs of a diverse forensic community.

The curriculum for master's level training in forensic psychology will vary depending on the program's orientation, with greater emphasis on research, clinical skills, or public policy to fulfill the requirements for completion of the degree. At minimum, forensic psychology curricula should include one or two law courses, including one in mental health law. Students should receive coursework that will provide them with the technical knowledge and practical skills to facilitate their clinical work in the forensic psychology field, such as clinical interviewing and psychotherapy and psychopathology and diagnosis. In addition, students should receive sufficient grounding in research design and methodology and statistical analysis. For more clinically focused programs, curriculum may include coursework in the historical basis of assessment and measurement of different variables in forensic settings and a sequence of traditional and/or specialized assessment courses. To prepare students for a wide range of possible careers, coursework may include specialty topics, such as understanding and treatment of offenders (male/female, sexual, juvenile), trauma and crisis intervention, substance abuse, and group therapy. As mentioned above, each course should reflect the diversity inherent in the United States, such that sociocultural issues should be infused within the curriculum as well as offered as a distinct course.

Because many people considering entry into forensic psychology through a master's degree program may have been influenced by media portrayal of the field, it is critical that students gain some exposure to the reality of the work through field placement/practicum experiences. Such experiences could include practical training within the criminal justice system (jails, prisons, forensic hospitals), within the law enforcement system (police departments, investigative departments, probation/parole, etc.), within the legal system (e.g., court clinics, district attorney's office, litigation consulting firms), and within the mental health system (offender and/or victim treatment programs, community mental health, etc.). Programs may wish to consider providing coursework that serves as an adjunct to the field placement experience, such that students would be able to obtain additional support and supervision as well as receive an added didactic component.

In addition to coursework and practical training, program designers may also want to consider a capstone requirement, such as a competency exam and/or completion of a thesis. The competency exam requirement is designed to provide a comprehensive learning experience in helping students consolidate their academic, clinical, and research training in a meaningful, coherent manner. Similarly, a thesis provides students with an opportunity to pursue an area of research

interest in more depth than would otherwise be available through regular coursework; the research may allow students to directly impact the systems and clients with which they interface through their field placements and potentially build on this area of research throughout their career.

Students pursue master's level training for a variety of reasons. Professionals working within law enforcement, legal, or mental health systems may attend master's programs in an effort to enhance their training and/or opportunities for promotion. Undergraduate students may want to explore a specialized field of study, such as law and psychology, without having to commit to the time required to complete a doctoral degree. Similarly, undergraduate students may postpone an eventual goal of obtaining a specialized doctoral degree by first gaining clinical and/or research experience through a master's level program. Finally, because many states allow master's level clinicians to practice independently, many graduates of these programs will have lengthy careers in the forensic field.

Considerations for Students Pursuing a Master's Degree

The decision to attend a master's program in forensic psychology is a major commitment that warrants much research. Current master's programs in this field vary greatly in program orientation, curriculum, opportunities for practical experience, faculty interests and experience, as well as student requirements. Each of these is an aspect prospective graduate students may find helpful to consider. Students need to choose a path that best fits their individual needs, encompassing their current interests as well as their future plans.

One of the fundamental questions prospective graduate students in forensic psychology should consider when faced with the often daunting task of choosing a master's program is how the program's orientation matches their own. For example, while some students may seek a clinically oriented program, others may find their interests rooted in research. Therefore, the student should thoroughly review each program's orientation. Such a consideration will prevent students from embarking on graduate study at programs with an orientation different from their own.

Exploration of requirements for graduation may also prove useful for students. Although the majority of master's programs in this field are clinically based, those students interested in research may find themselves given the opportunity to pursue this interest in a clinically based program in lieu of competency exams to fulfill a graduation requirement. Therefore, one should not discount a program solely based on orientation but, rather, should explore each option within an individual program.

Additional consideration should be given to how a student's educational and professional goals align with those of each program. Whereas some programs aim to prepare students for their respective state's professional licensing exams or a career in the public sector, others focus on preparation for doctoral programs. Thus, it is important for prospective students to inquire and consider the educational and professional paths of previous graduates, as well as consider their own intentions. Furthermore, a student may find it helpful to explore the experience and formal education requirements for occupations in their areas of interest.

The educational framework and organization of each program should be closely examined by applicants. Prospective students should critically evaluate the curriculum of each program to ensure a solid foundation is provided and their specific interests addressed. Introductory courses aimed at the integration and applicability of psychology within the legal system should be a standard at each program, which should include criminal and civil aspects. At the same time, students should consider whether they have the flexibility to take electives or seminars in which their specific interests are addressed. After careful consideration of these elements, students can then begin selecting programs that offer a solid but broad curriculum and at the same time allow exploration of specific areas of interest through electives and seminars.

Although most clinical programs address professional ethics, a comprehensive curriculum in forensic psychology will not only address general ethical issues but also attend to and integrate the Forensic Specialty Guidelines set forth by the American Psychological Association. The issues addressed include exclusions in confidentiality when treating convicted offenders, conflicts of interest in child custody cases, and licensing requirements. These guidelines are vital in adhering to standards pertinent to forensic psychology and in offering the best services possible.

Students and professionals in forensic psychology programs are often faced with a variety of clients from backgrounds with which they are not familiar. Forensic clients vary greatly in race, ethnicity, sexual orientation,

age, gender, socioeconomic status, education level, as well as religious affiliations and beliefs. Therefore, a multicultural or diversity component within the master's program will prepare students for serving a wide range of clients. A comprehensive program will also stress a multicultural component in the available internship or field placement options, which will provide students with familiarity of a wide range of cultures through hands-on experience.

In addition to formal coursework, perhaps one of the most important considerations for prospective graduate students in forensic psychology should be the opportunities for practical application of learned materials in the form of field placements or internships. When considering each program, applicants may be well served by exploring the opportunities associated with attendance at each program. For those students with specific careers in mind, a placement at a related site may be the cornerstone of their graduate school experience. Such a placement may serve either to further their commitment to an intended career path or dissuade them from such a career. In addition, field placements and internships often open the door to new, previously unconsidered avenues, as well as assist in developing beneficial professional relationships.

Although it should not be the only factor considered, prospective students may find it beneficial to research the core faculty at each program. Research interests, professional affiliations, publications, alma maters, professional reputation, and length of time at the program of interest may be helpful when considering faculty members with whom a prospective student may want to work. In addition, inquiring as to whether or not faculty members are willing to collaborate with graduate students on current research and publications also warrant consideration. Faculty areas of interest may be of particular value for those students with a bent for research. In this case, it is particularly important not only that the program provide research opportunities but also that the faculty share similar interests and are able to assist in student research endeavors.

Program structure, specifically regarding time requirements, also warrants consideration. Although most programs require full-time attendance in a 2-year program, there are exceptions. Prospective students with families and those planning on maintaining full-time employment while pursuing graduate education may find their choice of programs limited owing to time constraints. On the other hand, there are several master's programs in forensic psychology that are composed of part-time students, but these programs may require a prospective student to relocate if in a different state. Therefore, to critically evaluate each program, and choose that which best suits their needs, availability, and current commitments, such students should inquire as to whether part-time attendance is possible, as well as the expected schedules, average amount of independent work, and number of field placement or internship hours required per week.

Lavita Nadkarni and Krystal Hedge

See also Doctoral Programs in Psychology and Law

Further Readings

Arrigo, B. A. (2001). Reviewing graduate training models in forensic psychology: Implications for practice. *Journal of Forensic Psychology Practice, 1,* 9–31.

Bersoff, D. N., Goodman-Delahunty, J., Grisso, J. T., Poythress, N. G., & Roesch, R. (1997). Training in law and psychology: Models from the Villanova conference. *American Psychologist, 52,* 1301–1310.

Media Violence and Behavior

In contemporary society, a wide variety of violent content is reaching children through a variety of media including television, movies, and video games. Often, exposure to violence occurs with little adult or parental supervision. Several content analyses have examined the amount and content of violence on television. These analyses have shown that as of the late 1990s nearly two-thirds of the programs on television contained some amount of violence. There are no comparable figures for movies or video games because there is no central source or collection of programming; however, a variety of content analyses investigations examining the most popular video games, for example, appear to point to the same findings—violence is prevalent in these formats.

Research on the effects of exposure to violence in the media has included examinations of the effects of violence in films, television, video games, and music videos on aggressive behavior, thoughts, attitudes, and emotions following exposure. The research has consistently revealed a substantial, statistically significant association between exposure to violence in the media

and violent behavior measured in the laboratory, in the field, and across substantial time spans. A set of well-articulated theories explain why aggression generally increases after exposure to violence in the media. Additional research on viewer characteristics has refined notions of who is most likely to be influenced by media violence and under what circumstances they are likely to be affected. More recent research has focused on the effects of interactive media such as video games. This research demonstrates effects that are equivalent for this form of media to older media use.

Effects of Television and Movie Violence on Aggressive Behavior

Most research on media violence and viewer aggression has focused on viewers who are passively exposed to movies and television portrayals. A relatively large number of laboratory experiments in which subjects are randomly assigned to view film or television violence and compared with control groups have been conducted over the past 50 years. Several types of aggression toward others have been assessed in these studies, including verbal and physical aggression. These experiments have consistently found that young people who watched violent scenes subsequently displayed more aggressive thoughts, emotions, and behaviors than those who did not. Usually, these laboratory studies measure the immediate impact of violence exposure on aggression. Results from these studies have shown that, for example, children who watched television violence were more likely to be rated as high on physical assault (hurting other children, wrestling, as well as other types of aggression) by observers who did not know which type of film the children had seen. Field experiments in which boys at a summer camp had been assigned to view violent or nonviolent films and then observed revealed that boys who had been assigned to the violent film conditions engaged in significantly more physical assaults on fellow campers. This effect was particularly pronounced for boys who were individually higher on trait aggression. Other research has demonstrated that combining violent stimuli with other arousing activities or portrayals can enhance the aggression effect following exposure. For example, college students who have been provoked by others or who have seen sexually arousing films that portray sex and violence exhibit pronounced increases in retaliatory behavior as indexed by their willingness to deliver what they believe are electric shocks to other subjects.

Randomized laboratory experiments have also demonstrated desensitization effects, whereby children subjects exposed for prolonged periods to media violence were slower to call an adult to intervene when they saw two younger children fighting. Adults exhibit similar desensitization effects including acceptance of physical aggression toward females and hostile behavior after prolonged exposure to violent movies compared with adults in control conditions.

Meta-analyses that have computed the overall effect sizes for randomized experiments have generally concluded that the size of the effect for the media violence aggressive behavior effect is moderate to large ranging from $r = .3$ to $r = .4$ for aggression; effect sizes for criminal violence are smaller.

Survey research in which cross sections of elementary school children and adolescents have been surveyed regarding their exposure to violence in the media and measured on various indexes of general aggression have yielded results similar to those in laboratory and field experiments. These surveys show that children and adolescents who report violence viewing also exhibit higher levels of aggressive behavior. Longitudinal studies designed to study the effects of television violence on behavior over time and thus are able to measure exposure to violence in television before aggressive behavior is assessed provide evidence of a media violence aggression causal link over time. Studies that have measured assault or physical fights resulting in injury have found that exposure to violence in television at age 14 significantly predicted assault and fighting at later ages including at 22 and 30 years.

Less well-known are the effects of exposure to news violence, such as news of executions or assassinations, on violent behavior. Likewise, a few experimental studies of music videos and behavior have been conducted, but the research is rather sparse. Several studies of music videos have shown that adolescents assigned to view violent rap music videos increased endorsement of violent behavior.

Studies that have examined the introduction of television into communities that have not had it have also been undertaken. This work has tended to reinforce findings from laboratory experiments and surveys. One study, for example, found an increase in children's level of aggression in a Canadian community after the

introduction of television. However, caution must be taken in the interpretation of these studies, which often measures total television viewing and not the amount of violent programming to which children have been exposed.

Violent Video Games and Aggression

Randomized experiments involving violent video games have also been conducted. Children spend much time with these games and the process of playing them involves repetition and deep involvement. These characteristics should theoretically increase the influence of violent video games on aggressive behavior. Laboratory studies have demonstrated that college students who played violent video games were more likely to deliver high-intensity punishments than those who played a nonviolent video game. There are fewer cross-sectional surveys of video game use and aggressive behavior and little information that would allow for strong longitudinal conclusions to be drawn. Meta-analyses of violent video game effects have revealed that for studies that have the soundest methodological designs, the effect size for exposure to violent video games on aggressive behavior, aggressive attitudes, and decreases in prosocial or helping behavior is comparable with that for televised and movie violence.

Theoretical Mechanisms

Researchers in psychology, communications, and sociology have developed theoretical models that account well for the relationship between media violence and aggression. These theories are best described as social cognitive in nature and focus on how people learn, think, and behave in their social world—a world that contains interactions with humans such as parents and peers and a virtual world created by the media. Psychologists have generally distinguished between theoretical mechanisms that create short-term effects and those responsible for longer-term outcomes. Short-term effects are thought to be due to cognitive priming, temporary imitation, arousal, and excitation.

Priming explanations rely on the concept of an associative neural network in which ideas are activated (primed) by stimuli in the social environment. Exposure to violent scenes may activate related thoughts, feelings, and scripts involving aggression. These aggressive thoughts, once activated, become an interpretational filter so that ambiguous events are more likely to be interpreted as aggressive and thus stimulate aggressive behavioral tendencies.

Arousal explanations focus on the fact that violent media are arousing and exciting for children and adolescents. The residual excitement left from media violence viewing may serve to fuel dominant response tendencies after exposure to violence. Placed in a situation whereby an aggressive response is possible, the aroused individual may be more likely to be aggressive. Video games may be especially likely to provoke this form of arousal and the nature of video game playing, involving repeated and long-term use, may facilitate aggressive responding.

Both short-term and long-term effects are also thought to be the result of observational learning. Learning aggression from media portrayals of violence is facilitated by several factors. Violent models performing behavior that is similar to or attractive to the viewer are likely to increase aggression in viewers. Aggressive behavior following exposure to media violence is also more likely when there is high viewer identification with the model, the context in which the violence is presented is realistic, and the violent behavior portrayed in the media is followed by rewarding rather than punishing consequences. For the effect to become a long-term outcome, the social environment must reinforce the behaviors learned in the media. Furthermore, learning need not be limited to the specifics of the violent media portrayals. General scripts for behavior and social interaction that later guide perceptions and attitude formation may be learned from violent media.

Priming effects are usually thought of as short-term effects, but social cognitive research has shown that such effects can have lasting influences. Frequently primed aggressive thoughts and emotions may become chronically accessible in a media-violence-saturated environment. The impact of this chronic accessibility of violent thoughts and scripts for action may be that neutral social interactions are interpreted in an aggression-biased way.

Long-term exposure to violence in the media may also result in an emotional desensitization effect that appears to operate much like the habituation that occurs through therapeutic processes such as systematic desensitization—a procedure successful in treating phobias. Exposure to violence in the media appears to reduce the anxiety or fear associated with violence and causes viewers to be less physiologically aroused by violence later presented in real-life situations. The

relationship between desensitization to violence and aggressive behavior is unknown.

Viewer Characteristics

Not all media presentations of violence have the same effect. Several stable individual differences have been identified by researchers who moderate the impact of violent media on aggressive behavior. Viewer age appears to make a difference, at least under some circumstances, but the relationship between age and effects of media violence is not resolved at this time. Gender of viewer also appears to interact with exposure to violence in the media in complicated ways. Initial research found greater effects for boys than for girls; however, more recent research did not confirm this difference. It is more likely that males and females display differing aggression patterns in general, with boys exhibiting greater tendencies toward direct physical aggression and girls displaying tendencies toward indirect forms of aggression. Early exposure to violence in the media may increase indirect aggression tendencies in females (telling lies, taking other people's things out of anger) but not in males. Aggressiveness of the viewer also appears to interact with media exposure. Children who are especially aggressive may be both likely to seek out violent media and later, when exposed to it, more likely to learn aggressive scripts or be cognitively stimulated by violent depictions. Viewer intelligence appears not to be related to media violence effects. However, children with certain perceptual tendencies such as greater identification with violent actors and the perception that the media violence is realistic appear to display aggressive tendencies well after media exposure.

Media Characteristics

Some media portrayals carry more risk than others for increasing aggressive behavior in viewers. There is evidence that viewers are influenced by aggressive characters who appear to be similar to themselves. Other research has demonstrated that violent perpetrators who are charismatic or generally attractive are more likely to be imitated. The consequences portrayed for the violent behavior in the media may also be important for predicting imitation effects. Findings from experiments that manipulated whether violence was justified increased the likelihood that angered subjects would later exhibit increased aggression. Media violence perpetrators who are rewarded are also more likely to be imitated. On the other hand, showing negative consequences for violent behavior portrayed in the media appears to reduce later aggression. Media portrayals that are especially bloody or gory while increasing desensitization to violence in viewers do not necessarily appear to reduce violence as a result of the portrayal of negative consequences to the victim.

Demographic Variables and Media Violence

Children from families of lower socioeconomic status (SES) watch more television and thus are exposed to more media violence than others. There is not much evidence that low SES itself is causally related to increases in aggressive behavior following media exposure. Parental involvement may be important in moderating the effects of media violence. Children of parents who discuss the appropriateness of aggressive behavior following exposure to violence in the media show fewer aggressive tendencies. However, parental tendencies such as aggressiveness and coldness, other parental personality variables, and parental television viewing habits appear to be unrelated to children's aggressive tendencies following exposure to violence in the media.

Policy Implications

The effects of media violence on aggressive behavior are sufficiently robust for media violence to have been considered a significant public health problem. Because of the large number of children and youths exposed to media violence, the overall effect of the media on behavior may be quite significant. A correlation of .2 between viewing media violence and aggressive behavior may translate into millions of additional aggressive acts, many of them lethal, across the nation. Furthermore, there are few other variables in the violence prediction area that account for substantially more variability. The size of the media violence effect is equal to or even larger than many public health effects we as a society deem large, such as the effects of condom use on HIV transmission or the effects of passive smoking on lung cancer. Public health policy has taken two directions: the development of antiviolence interventions and the creation of media industry policies that are designed either to warn parents about violent media content or permit parents to limit violence viewing.

Few studies have been conducted on effective media violence intervention techniques. Interventions that appear to be the most promising are those that stress children and adolescents engaging in active antiviolence message construction and being able to observe themselves and others in social situations that advocate antiviolence problem solving. Strategies that emphasize parent–child coviewing of television and movies may also be effective in reducing media violence/aggression effects.

An extensive ratings system that includes warnings about both violence and sex has been developed by the television industry in response to political pressure partly generated by the large and consistent body of data developed by researchers. The introduction of the "V-chip," a device in every new television now sold in the United States, permits parents to bypass programs whose ratings indicate violent content. However, overwhelmingly, most parents in most households report not using the device.

Legal Implications

Despite overwhelming scientific evidence of a link between media violence and aggressive behavior, criminal and civil legal actions against the producers of violent content have been extremely limited by the "incitement" standard articulated in *Brandenburg v. Ohio* (1969). In this case, the U.S. Supreme Court stated that the government has a right to regulate any expression that is "directed to inciting or producing imminent lawless action and is likely to incite or produce such action" (p. 1829). Thus, for violent media content to pass the incitement test, it would need to be shown that viewing the depiction (e.g., via television, movies, or playing violent video games) is likely to lead to imminent lawless action. Furthermore, the Supreme Court said in *Brandenburg* that the expression falling into this category must be specifically intended to bring about the lawlessness.

The most prominent legal case involving the idea that media violence incites violence involved Florida resident Ronny Zamora, whose lawyer unsuccessfully argued in 1977 that "television intoxication" led him to murder an elderly neighbor at the age of 15. Mr. Zamora's lawyer tried to portray him as a youngster driven criminally insane by years of watching violent television.

Since the tragedy at Columbine in 1999, there has been a great deal of interest among state legislatures in regulating the access minors have to violent video games. Illinois, Washington, and Michigan have passed limits on what types of games minors can rent or buy. This legislative interest is partly the result of a belief that social scientists have convincingly demonstrated that exposure of minors to such games produces effects such as increased aggressive attitudes and emotions and aggressive behavior. Although still in the early stages of litigation, nearly all federal courts have blocked or struck down these state and local laws that would ban the sale of violent video games to minors, and no court has upheld such statutes. The courts have also questioned whether there is evidence that violent video games cause aggressive behavior and thus need to be regulated by the government.

Daniel Linz

See also Obscenity; Pornography, Effects of Exposure to

Further Readings

Anderson, C. A., Berkowitz, L., Donnerstein, E., Huesmann, L. R., Johnson, J. D., Linz, D., et al. (2003). The influence of media violence on youth. *Psychological Science in the Public Interest, 4*(3), 81–110.

Anderson, C. A., & Bushman, B. J. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science, 12,* 353–359.

Bandura, A. (1994). Social cognitive theory of mass communication. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 61–90). Hillsdale, NJ: Lawrence Erlbaum.

Berkowitz, L. (1984). Some effects of thoughts on anti- and prosocial influences of media events: A cognitive-neoassociation analysis. *Psychological Bulletin, 95,* 410–427.

Brandenburg v. Ohio, 395 U.S. 444 (1969).

Huesmann, L. R., Lagerspetz, K., & Eron, L. D. (1984). Intervening variables in the TV violence-aggression relation: Evidence from two countries. *Developmental Psychology, 20,* 746–775.

Megan's Laws

See Sex Offender Community Notification (Megan's Laws)

Mens Rea and Actus Reus

To obtain a criminal conviction, the prosecution must establish the presence of two elements at the time of the crime—namely, *actus reus* ("guilty act") and *mens rea* ("guilty mind"). A failure to show the presence of these elements will lead to an unconditional acquittal of the charged crime. Because both must be proven with evidence beyond a reasonable doubt by the prosecution at trial, the argument that there was no actus reus or mens rea is not a defense per se. They are unlike various affirmative defenses, such as the insanity defense or self-defense, which are viewed as excuses or justifications for otherwise disfavored conduct.

Actus Reus

Actus reus is the conduct requirement for a crime. The actus reus requirement excludes from criminal liability mere thoughts, a person's condition or status (e.g., being an alcoholic as opposed to criminal behavior committed while intoxicated), and involuntary acts. Voluntary acts that satisfy this requirement include positive conduct, omissions of required or reasonably expected conduct, and possessions of criminally proscribed objects. The definition of a voluntary act is construed broadly to include any exercise of will; for example, an individual acting under threats or pressure is still considered to be acting voluntarily (although this may constitute an affirmative defense of duress).

Acts that might be considered involuntary can be divided into two categories: involuntary conduct and impaired consciousness. The first category includes physically coerced movements (e.g., someone pushes an individual into a third individual, causing harm to the third individual), reflex movements (e.g., the reaction of a person suddenly stung by a swarm of bees), muscular contractions caused by disease, and unconscious acts. Medical conditions that may cause involuntary conduct include strokes, epilepsy, and narcolepsy. These behaviors are all characterized by a break in the mind–body connection that leaves the person's actions undirected by a conscious mental process. Behaviors that fall within this category are more widely accepted as lacking the actus reus component than those in the second category.

The second category, impaired consciousness, includes behaviors where there has been a sufficient diminishment of the link between mind and body so that the person is not consciously aware of the actions being taken but can engage in goal-directed conduct based on prior learned responses. Behavior during such periods may be referred to as "automatic" and the individual may be described as an "automaton." Temporary brain damage from a concussion and sleep disorders such as night terrors are two common examples of impaired consciousness. Speculation has centered on whether symptoms resulting from hypoglycemia should be included within this category.

Evidence of a mental disorder is almost never permitted in conjunction with an assertion that the defendant lacked actus reus. Instead, this evidence can be used to support an insanity defense in those states that allow volitional arguments (e.g., the defendant's behavior was the result of an irresistible impulse that resulted from a mental disorder). Under the insanity defense, if the individual's inability to conform his or her behavior with the law is the result of a mental disorder, the defendant can be acquitted and subsequently committed for treatment, a result that cannot be imposed on those acquitted due to a lack of actus reus.

Mens Rea

Mens rea, or guilty mind, is the requirement that a defendant possess a particular state of mind at the time the crime is committed. The mens rea requirement for a crime is usually represented in the relevant criminal statute by one of the following terms: *intent, purpose, knowledge, recklessness,* or *negligence.* Most criminal statutes impose only a general or objective mens rea requirement, where the inquiry focuses on whether a reasonable person would have known that the act would cause harm. To be convicted of a so-called general-intent crime, the defendant must have known that he or she was acting but not that any particular criminal consequences would result from his or her act; this is usually captured by the rubrics of "recklessness" or "negligence." To meet this requirement, the prosecution does not have to explore the mental state of the defendant. Other crimes require a showing of specific or subjective mens rea, in which the prosecution must establish that the defendant did actually know or intend that a particular harm would result from his or her act. Because this can be difficult to prove, specific or subjective mens rea is usually reserved for more serious crimes with more severe punishments.

Evidence of a mental disorder is rarely allowed in cases involving general or objective mens rea, because

an individual's mental state is irrelevant to this inquiry. In contrast, some states permit the introduction of evidence of mental disorder whenever it is logically relevant to rebut the specific or subjective mens rea requirement (i.e., the state of mind associated with a specific-intent crime). If this argument (sometimes called *diminished capacity*) is successful, the usual result is that the defendant will only face conviction of a lesser included offense that merely requires a showing of general or objective intent. Prosecutors who charge a defendant with a specific-intent crime will frequently also charge the defendant with a general-intent crime as a means to enable them to impose some criminal sanction on the defendant should they be unable to convince the judge or jury that the requisite specific intent was present at the time of the crime. The use of evidence of a mental disorder discounting the presence of specific intent differs from the use of evidence of mental disorder for an insanity defense in that the former can result in an unconditional acquittal that does not lead to the civil commitment and treatment typically associated with the latter. This result is the same as that which results from a lack of actus reus because, as noted above, both mens rea and actus reus are elements of the crime that must be proven beyond a reasonable doubt, and if they cannot be proven the defendant will be exonerated of the charged crime. The insanity defense, in contrast, can excuse a defendant from punishment but does not exonerate him or her.

Courts and legislatures have often restricted the use of expert testimony concerning mental disorders. For example, some jurisdictions do not permit testimony regarding any evidence of a mental disorder except when it is being used to support an insanity defense. This position was upheld in *Clark v. Arizona* (2006), in which the Supreme Court ruled that Arizona's decision to restrict evidence of a mental disorder to insanity claims only, thus not admitting such evidence when it could be used to address mens rea, does not violate due process. Nevertheless, even in those states where expert testimony relating to mens rea cannot be admitted in court, the information about a defendant's mental state could still be used in plea negotiations and at sentencing.

Kamela K. Nelan and
Thomas L. Hafemeister

See also Automatism; Criminal Responsibility, Defenses and Standards; Expert Psychological Testimony, Admissibility Standards; Insanity Defense, Juries and

Further Readings

Clark v. Arizona, 126 S. Ct. 2709 (2006).
Morse, S. J. (2003). Diminished rationality, diminished responsibility. *Ohio State Journal of Criminal Law, 1,* 289–308.
Symposium. (1994). Act and crime. *University of Pennsylvania Law Review, 142,* 1443–1890.

Mental Health Courts

Mental health courts are specialty criminal courts with a separate docket to deal with mentally ill persons, who are disproportionately arrested and incarcerated. Established by local court and criminal justice officials who recognized that traditional prosecution and punishment were not effective deterrents with this population, these courts divert mentally ill defendants into community treatment with services to reduce repeat offending, jail and prison crowding, court workload, and criminal justice costs. To participate, defendants must voluntarily agree to follow a treatment regimen and to be monitored. Proceedings are nonadversarial with participants—including judges, defense and prosecuting attorneys, criminal justice officers, mental health practitioners, and other service providers—functioning as a team to provide direction, encouragement, rewards, and sanctions to defendants.

Origins of Mental Health Courts

In the 1960s, shortly after state mental hospitals began abandoning their role of providing long-term placement for persons with mental illness, criminalization accompanying this change was reported—large numbers of deinstitutionalized persons were being arrested and jailed. This process has continued to the point that some metropolitan jails house more persons with mental illness than any state mental hospital on any given day.

Most charges against persons with mental illness are not serious, being predominantly nuisance and survival offenses and offenses deriving from misuse of alcohol and illegal drugs. Although only a small proportion of their offenses are propelled by psychiatric symptoms, mental illness indirectly affects offending because it generates disadvantages in the ability to function and cope with difficult situations, which lead to offending. Mental health treatment and services can improve functioning and coping to

counteract those disadvantages, but mentally ill offenders typically have never been in treatment, do not stay in treatment, or do not adhere to a treatment regimen. Lack of appropriate mental health care and social supports for these offenders has led to their revolving through jails, hospitals, and the streets.

Because arrest and incarceration were not stopping repeat offenses among this population, various jurisdictions have developed new programs to divert them from the criminal justice system into treatment. Following the drug court model, more than 100 jurisdictions since the late 1990s have established mental health courts to address the root problem (mental illness and its disadvantages) with treatment, support services, and court monitoring.

Court Structure

Mental health courts follow the drug court model in structure, having (a) a separate docket; (b) one or two dedicated judges who preside at all hearings; (c) dedicated prosecution and defense attorneys; (d) a nonadversarial team approach involving consensus decisions by criminal justice and mental health professionals; (e) voluntary participation of defendants; and (f) dismissed charges or avoidance of incarceration, depending on whether the defendant enters pre- or postadjudication, after successful completion of the mandated treatment plan.

Some mental health courts limit eligibility to misdemeanors, some to felonies, and some take both levels of offenses. Some take only nonviolent cases; but others are willing to take violent cases, depending on the circumstances and approval of the victims. Some take only defendants with severe mental illness, with or without comorbid substance abuse, while others also accept those with less serious disorders. Referrals come most often from court officers or defense attorneys who become aware of defendants' mental disorders in the course of usual criminal processing, although some courts have systematic screening after arrest. Acceptance of defendants into mental health court requires approval by the mental health court team with heavy reliance on mental health practitioners for clinical screening and on the prosecutor for public safety screening. Acceptance also requires defendants' voluntary consent to participate in the court and willingness to comply with their individual treatment plans and to be monitored by the court with regularly scheduled court appearances, varying in duration and frequency among jurisdictions. Explanation to defendants of court operation is given by their assigned attorneys and commonly repeated by the mental health liaison during screening and by the judge in open court, each time obtaining reaffirmation of defendants' consent.

The Mental Health Court Team

In most jurisdictions, the mental health court team, consisting of the dedicated judge; designated prosecutor and defense attorneys; mental health liaison; and providers involved directly in defendants' care, such as mental health care managers and clinicians, social workers, substance abuse counselors, and probation officers, meets to review cases on the docket prior to every court session. They discuss each defendant's progress, cooperation with treatment, behavioral changes, and any needed modifications in treatment or services, then decide what the judge should say to the defendant in open court to ensure compliance, such as give encouragement and praise, offer a reward, issue a reprimand or warning, or apply sanctions. Team members anticipate failure in this population and offer multiple second chances. They stand ready to help defendants try again but employ a variety of sanctions, such as increased frequency of court appearances or reporting, curfews, and even overnights in jail, to enforce compliance and maximize motivation to change.

Mental health team clinicians take primary responsibility for designing treatment plans, which may include medication, group and individual therapy, anger management, substance abuse counseling, Alcoholics Anonymous, Narcotics Anonymous, social services such as housing and employment assistance, and vocational training; but all members of the mental health court team work in unity to provide structure, supervision, and encouragement for each defendant.

Hearings

In open court as each case is called, the prosecution or defense briefly summarizes a defendant's interim report; however, it is the judge speaking to each defendant directly about required treatment cooperation and behavioral change who is the central player. The judge attempts to engage the defendant in solving practical problems that may impede compliance and changes, encouraging an exchange by asking direct questions about their well-being and progress toward treatment and personal goals. Following the mental health court team's recommendations, the judge uses praise, encouragement, stern lecture, warnings, or

punishment, depending on compliance, while delivering the message of defendant's accountability in the agreement to participate. Unlike in the traditional criminal court, the judge makes a special effort to ensure noncompliant defendants understand the reasons for and their responsibility in receiving sanctions.

At the end of a successful required treatment/monitoring period, the defendant graduates from mental health court, at which point charges are dismissed, probation ended, or sentence dropped. In cases of repeated noncompliance, a mental health court may return the defendant to traditional criminal court for processing in preadjudication cases or for sentencing in postadjudication cases or to jail/prison for serving a prior sentence.

Evaluation

Descriptive articles on mental health courts tend to praise their diversion success. Proposing the mechanisms of change to be structure, monitoring, support, and encouragement, as well as individualized mental health treatment and services, they warn that inadequate community treatment and services limit a court's impact. Empirical studies report positive results: Defendants obtain more treatment and offend less while participating in the courts than in a comparable prior period; and, compared with mentally ill defendants in traditional criminal courts, they receive more treatment and are no more likely to re-offend. Evidence of reducing criminal recidivism more than traditional criminal courts is unclear. Little research exists about long-term effects and other effects such as functioning and quality of life.

Virginia Aldigé Hiday

See also Civil Commitment; Conditional Release Programs; Drug Courts; Institutionalization and Deinstitutionalization; Mandated Community Treatment; Outpatient Commitment, Involuntary; Police Interaction With Mentally Ill Individuals; Procedural Justice; Substance Abuse Treatment; Therapeutic Jurisprudence

Further Readings

Broner, N., Mayrl, D. W., & Landsberg, G. (2005). Outcomes of mandated and nonmandated New York City jail diversion for offenders with alcohol, drug, and mental disorders. *The Prison Journal, 85,* 18–49.

Cristy, A., Poythress, N. G., Boothroyd, R. A., Petrila, J., & Mehra, S. (2005). Evaluating the efficiency and community safety goals of the Broward County Mental Health Court. *Behavioral Sciences and the Law, 23,* 1–17.

Moore, M. E., & Hiday, V. A. (2006). Mental health court outcomes: A comparison of re-arrest and re-arrest severity between mental health court and traditional court participants. *Law and Human Behavior, 30,* 659–674.

Winick, B. J., & Stefan, S. (Eds). (2005). Mental health courts [Special issue]. *Psychology, Public Policy and Law, 11*(4), 507–619.

Mental Health Law

This entry traces the origins of mental health law, discussing its transition from a medical model to a legal model and considering recent trends. It examines several of the major topics in the field, including civil and criminal commitment, patients' rights, and criminal justice issues. It then discusses how therapeutic jurisprudence, an emerging paradigm, has begun to transform the field.

Mental health law was first conceived as a separate field of law in the late 1960s and early 1970s. Before then, laws certainly existed on various topics later subsumed within mental health law. These included the law governing civil commitment, guardianship, the legal insanity defense, and incompetency to stand trial, among others. The common law had clarified some of the legal issues raised by mental illness, and there had been some statutory developments, but it was not until the U.S. Supreme Court began to constitutionalize the issues that these disparate strands of legal doctrine began to be thought of as a separate area of law. The civil rights struggle of the 1950s and 1960s produced a new breed of lawyers who championed the rights of disadvantaged populations—racial minorities, criminal defendants, prisoners, and those with mental illness as well. The Supreme Court expanded constitutional rights in the criminal justice system, in the prison, and ultimately in the mental hospital. The Court overcame its traditional reluctance to intervene in state processes and brought the Constitution to state institutions that previously had been beyond judicial scrutiny.

Transition From a Medical Model to a Legal Model

The Court's expansion of the rights of criminal defendants and prisoners led civil liberties lawyers to argue

that those involuntarily institutionalized because of mental illness should enjoy no fewer rights. Before this, the courts had taken essentially a hands-off approach to the plight of mental patients. Indeed, the law can be seen as having applied a medical model to civil commitment and other issues involving people with mental illness. These issues were seen as medical in nature and beyond the ken of the courts.

After the 1960s, this medical model was replaced by a constitutionally based legal model that focused on expanding and protecting patients' rights. Modern mental health law has been transformed by this legal model. For many, this was a welcome change indeed. The medical model granted excessive deference to physicians, which produced arbitrary and sometimes unnecessary deprivations of liberty. Mental hospitals at this time often were little more than human warehouses in which treatment was scant or nonexistent.

The legal model of mental health law ushered in significant reforms. The court severely restricted the standards for civil and criminal commitment, expanded procedural due process hearing rights, and recognized new constitutional rights for patients involved in various aspects of the mental health and criminal justice systems.

Limits on Civil and Criminal Commitment

In a 1972 case, the Court found unconstitutional the indefinite commitment of a mentally retarded criminal defendant who was incompetent to stand trial. The Court held that, at a minimum, due process requires that the nature and duration of an individual's confinement to a mental hospital must bear a reasonable relation to the purposes of such commitment. When it is clear that a criminal defendant committed on the basis of his incompetence to stand trial will not regain competence in the foreseeable future, his continued commitment on this basis would be impermissible. The Court also found that the defendant was denied equal protection because he was subjected to a more lenient commitment standard and to a more stringent standard of release than civil patients. Soon thereafter, the Court extended these rights to those committed following an adjudication of not guilty by reason of insanity and then to patients subjected to civil commitment. Courts soon used substantive due process to limit the standards that would justify commitment—and procedural due process to require greater hearing rights—including the right to counsel and the requirement that the state bear the burden of proof by clear and convincing evidence.

Rights Following Commitment

Because mental hospitals were chronically understaffed and underfunded, mental health lawyers challenged these institutions as denying patients a constitutional right to treatment. Some lower courts recognized such a right to treatment and specified detailed standards and conditions that hospitals must comply with. The Supreme Court, however, avoided deciding the issue, instead recognizing that a patient committed for many years without treatment was deprived of his constitutional right to liberty. The Court subsequently held that an individual committed to a mental retardation facility has a constitutional right to safe conditions of confinement, freedom from unreasonable physical restraint, and minimally adequate habilitation.

The Right to Refuse Treatment

A frequently litigated issue has been the asserted right of mental patients and prisoners to refuse medication and other forms of intrusive mental health treatment. In 1990, the Supreme Court upheld the involuntary administration of antipsychotic medication to a mentally ill prisoner who is dangerous to other inmates and staff. The Court recognized that the prisoner had a significant liberty interest in refusing forced medication but recognized that the prison's interest in its administration outweighed this liberty interest. The right to refuse intrusive treatment was given wider scope in contexts not involving the prison. In cases involving pretrial detainees rather than sentenced prisoners, the Court applied a more stringent standard, requiring that unwanted medication must be justified as medically appropriate and the least restrictive alternative way of achieving a compelling governmental interest, such as the protection of other inmates or staff and the need to restore a criminal defendant to competence for trial.

Constitutional Limits in the Criminal Process

The Supreme Court has determined that a criminal defendant may not waive counsel, plead guilty, or be tried, while incompetent due process requires determination of the competence question and places

limits on the nature and duration of incompetency commitment. In addition, the Eighth Amendment ban on cruel and unusual punishment was held to preclude the execution of a capital defendant who becomes incompetent by reason of mental illness or one suffering from mental retardation.

The availability of the insanity defense and how it should be defined is largely a matter of state law. Most jurisdictions recognize the defense but limit it to cognitive impairment that prevents the defendant from understanding the wrongfulness of his or her conduct. Defendants acquitted by reason of insanity typically are committed to mental hospitals as long as they continue to be mentally ill and dangerous. In the special context of sex offender civil commitment, the Court has recognized that pedophilia can justify a special sexually violent predator commitment scheme, as long as it significantly impairs the individual's ability to control his conduct.

Other Mental Health Law Issues

These constitutional developments drove much of mental health law, requiring statutory changes to reflect constitutional limits on how people with mental illness could be dealt with in both the civil mental health system and the criminal justice process. Mental health law, of course, deals with other issues that had been subject to statutory and common law developments. These include the regulation of mental health professionals and clinical practice; clinical expert witness testimony; clinical malpractice; informed consent for treatment; confidentiality and patient privacy and access to records; guardianship, housing, and zoning issues; discrimination in employment and in governmental benefits; and education of the mentally handicapped.

Benefits and Limits of the Legal Model

The legal model of mental health law that supplanted the previous medical model brought needed reforms and curtailed many abuses to which those with mental illness had been subjected in the mental hospital, the criminal justice process, and the community. Although a significant improvement over the medical model, the legal model of mental health law itself produced problems. It removed power from clinicians who may have abused it but entrusted it to judges and lawyers who often fail to understand the clinical needs of the patient. By placing primary emphasis on legal rights, the legal model may sometimes have neglected therapeutic needs. Ironically, despite its focus on those with mental illness and the clinical professionals who deal with them, the field of mental health law was not as interdisciplinary in its orientation and scholarship as one might suppose. The legal model, with its origins in and emphasis on constitutional rights, thus seemed in need of a new direction. This became particularly evident as the Supreme Court became more conservative and less inclined to extend constitutional rights further.

The Emerging Therapeutic Jurisprudence Paradigm

As a result, a new model of mental health law has been emerging in the past 20 years, supplanting the legal model with a new therapeutic orientation that focuses not only on legal rights but also on the well-being of those with mental illness. Therapeutic jurisprudence is an explicitly interdisciplinary approach to legal scholarship and law reform that emphasizes law's impact on psychiatric and psychological well-being. This approach brings insights from psychology and the mental health disciplines into the formulation and application of law in an effort to reduce unintended antitherapeutic effects and maximize law's therapeutic potential.

The therapeutic jurisprudence paradigm suggests that the law itself can be seen to function as a therapeutic agent. Legal rules, legal practices, and the way various legal actors (such as judges, lawyers, expert witnesses, and therapists) play their roles all are social forces that often produce therapeutic or antitherapeutic consequences. The therapeutic jurisprudence orientation focuses attention on these consequences and seeks creatively to reshape law and legal practices so as to increase mental health consistent with legal rights and values. The therapeutic jurisprudence approach also identifies issues for empirical exploration, generating research on the mental health system that can significantly enhance our understanding of how law functions in this area and how it can be recast to better achieve its therapeutic aims.

Therapeutic jurisprudence is thus an approach to mental health law that goes beyond the legal model that prevailed since the 1960s and that seeks to apply legal rights and legal roles in ways that are more consonant with the therapeutic needs of those suffering from mental illness. It brings interdisciplinary insights to the field and seeks to more effectively balance legal

and therapeutic considerations. Unlike the medical model of mental health law that prevailed in an earlier time, it does not privilege therapeutic values over others. Instead, it seeks to determine whether law's antitherapeutic effects can be reduced and its potential to bring about mental health can be enhanced without subordinating due process and other justice values.

Therapeutic jurisprudence scholarship and law reform have had an important impact on mental health law, particularly in the areas of civil commitment, outpatient commitment, the right to refuse treatment, incompetency to stand trial and be executed, the legal insanity defense, the psychotherapist-patient privilege and its exceptions, guardianship, hearing rights, discrimination, the avoidance of stigmatization, and sex offender law. It has functioned to reinforce patient rights by identifying the therapeutic value of their recognition and to pioneer new rights, such as the right of people with mental illness to engage in future planning through the use of advance directive instruments. It has enlarged the dialogue and debate within mental health law, making it more interdisciplinary, and refocusing its attention on achieving therapeutic ends as well as protecting legal rights. In short, it has put mental health back into mental health law.

Moreover, it has expanded the field of mental health law, addressing issues in other areas of law that have a significant impact on the mental health of those affected. It has spread across the legal landscape, emerging as a mental health approach to law generally. It thus has had a transformative effect not only on the core areas of mental health law but also on related fields such as health law, juvenile law, family law, correctional law, discrimination law, tort law, and others.

It also has had an important impact on reconceptualizing the role of judges and the courts. Modern courts often deal with a variety of psychosocial problems involving individuals in need of treatment and rehabilitation. Thus, problems of substance abuse, domestic violence, child abuse and neglect, juvenile delinquency, and family disintegration increasingly have come to the attention of the courts. The approach of therapeutic jurisprudence has helped to pioneer new judicial models for dealing with these issues, including specialized treatment or problem-solving courts such as drug treatment court, domestic violence court, mental health court, and unified family court. These new judicial models, inspired by and applying principles of therapeutic jurisprudence, represent an expansion of traditional mental health law to additional contexts in which the law seeks to improve the mental health and psychological functioning of the individual and the society.

Bruce J. Winick

See also Civil Commitment; Competency to Stand Trial; Forcible Medication; Guardianship; Outpatient Commitment, Involuntary; Patient's Rights; Psychiatric Advance Directives; Sex Offender Civil Commitment; Therapeutic Jurisprudence

Further Readings

Perlin, M. L. (2003). *Mental disability law: Civil and criminal.* Albany, NY: LexisNexis.

Wexler, D. B., & Winick, B. J. (1991). *Essays in therapeutic jurisprudence.* Durham, NC: Carolina Academic Press.

Winick, B. J. (1997). *Therapeutic jurisprudence applied: Essays on mental health law.* Durham, NC: Carolina Academic Press.

Winick, B. J. (1997). *The right to refuse mental health treatment.* Washington, DC: American Psychological Association.

Winick, B. J. (2005). *Civil commitment: A therapeutic jurisprudence model.* Durham, NC: Carolina Academic Press.

Mental Health Needs of Juvenile Offenders

Recently, researchers and juvenile justice administrators have recognized that rates of mental health disorders are remarkably high among adolescent offenders. This finding carries significant implications for policy and practice. Youth justice facilities are mandated to provide necessary mental health treatment to detained adolescent offenders with mental health needs. Furthermore, mental disorders may interfere with youths' capacities to stand trial and/or culpability. This entry discusses some recent advances that have been made in our understanding of mental health issues among juvenile offenders and points out key gaps in knowledge.

Rates and Types of Mental Disorders Among Juvenile Offenders

The mental health of adolescent offenders has been identified as one of the single most important issues

currently faced by the youth justice system. Reported rates of mental disorders among youths vary depending on how mental disorders are measured and at what point in the system youths are assessed. However, it is apparent that rates of mental disorders among juvenile offenders are much higher than those of general community samples of youths.

Recent studies have indicated that approximately 60% to 70% of youths in juvenile detention facilities meet the criteria for at least one mental disorder. The types of disorders found in adolescent offenders are diverse. Not surprisingly, many adolescent offenders meet the criteria for conduct disorder, a disorder that is characterized by illegal and antisocial behaviors, such as violence and stealing. However, even after conduct disorder is excluded from definitions of mental disorder, estimated rates of mental disorders remain extremely high among adolescent offenders; as many as 60% of detained male youths and 70% of detained female youths meet the criteria for a disorder other than conduct disorder.

Besides conduct disorder, a number of other mental disorders are very common among adolescent offenders, including major depression, which includes symptoms such as depressed or irritable mood; posttraumatic stress disorder, which is characterized by symptoms such as flashbacks and avoidance of experiences that are reminiscent of the earlier trauma; attention deficit/hyperactivity disorder, which includes symptoms such as difficulties attending to information, hyperactivity, and impulsivity; and substance use disorders, which involve inappropriate use and overuse of substances such as alcohol and drugs in a manner that has detrimental effects on a youth's functioning. Many detained youths meet the criteria for multiple disorders.

The rates and types of mental disorders exhibited by mentally ill youths differ depending on the demographic characteristics of the youth. Female offenders experience some disorders, such as posttraumatic stress disorder and major depression, at considerably higher rates than male offenders. In addition, preliminary research has reported that many types of mental disorders are more common among detained non-Hispanic White youths than among detained Black or Hispanic youths. However, it may be that the tools that are used to detect mental disorders are less accurate when used with minority populations. For instance, individuals from ethnic minority groups may be less likely to reveal mental disorders.

Future research on mental disorders in detained youths could benefit from international perspectives. Most existing research has focused on mental disorders among detained American youths, although there is some preliminary evidence that young offenders in other countries, including Canada and the United Kingdom, may also have high rates of mental illnesses. International research could help us develop a better understanding of variations in rates of mental disorders within different youth justice systems, as well as the different types of efforts that countries have taken to respond to these mental health issues.

In addition, Thomas Grisso, the leading expert in this field, has offered a number of useful concepts to guide research on the mental health of juvenile offenders from the perspective of developmental psychopathology. A key point of this perspective is that mental disorders must be understood within a developmental context. Some characteristics that are often interpreted as symptoms of a mental disorder (e.g., impulsivity, egocentricity) could possibly reflect normal adolescent development. Thus, if we are to understand mental disorders among detained youths, it is necessary to also understand adolescent development. Also, as noted by a developmental psychopathology perspective, psychopathology may take multiple paths and lead to multiple outcomes. This principle emphasizes the importance of examining various possible outcomes of mental disorders on adolescent offenders' functioning within the youth justice system and the community, as well as reassessing psychopathology at different points, as symptoms may change and fluctuate.

Implications for Service Delivery

Grisso has noted three primary reasons to be concerned about mental disorders among juvenile offenders. First, the youth justice system has a legal responsibility to provide mental health services to youths who are in their custody. Just as youth detention and correctional centers must provide medical services to youths with conditions such as diabetes or heart disease, so too must they provide mental health services to mentally ill adolescents who are in need of treatment.

Second, the youth justice system has due process obligations to youths with mental disorders. Specifically, jurisdictions have increasingly required that juvenile defendants be competent to stand trial (also called competent to proceed to adjudication or fit to

stand trial). Mental disorders may lead to impairments in competence-related legal capacities for some youths. For instance, a youth with a thought disorder may have a paranoid delusion that her or his attorney is conspiring against her or him and thus refuse to tell her or his attorney critical information regarding her or his case, or a youth with a depressive disorder may be unmotivated to adequately defend herself or himself due to feelings of worthlessness. In some jurisdictions, youths with mental disorders may also raise the insanity defense and can be found "not guilty by reason of insanity" (not guilty by reason of mental disorder) if mental disorders interfered with their ability to understand that their illegal behavior was wrong and/or rendered them unable to control their behavior.

Finally, the justice system has a responsibility to protect the public to the extent possible. While mental disorders are not the primary cause of most youth violence, there is some preliminary evidence that violent behaviors perpetrated by youths with mental disorders may sometimes relate to mental health issues, such as attention deficit/hyperactivity disorder, substance use disorders, and possibly even some internalizing types of disorders. To the extent that mental health issues contribute to youth violence, the youth justice system has a responsibility to treat and manage psychopathology so as to help prevent violence.

Assessment of Mental Health Issues in Juvenile Offenders

In 2003, an expert panel including Gail Wasserman and colleagues developed a consensus statement with best practice recommendations for assessing mental health issues among adolescent offenders. The panel recommended that the assessment process involve multiple steps. The first step is to screen all adolescent offenders who are admitted to detention and custody centers using an evidence-based tool. Ideally, this screening should occur within 24 hours of the youth being admitted to the facility and should focus on issues such as short-term risk of harm to self and others, active substance abuse, current medications, and mental health history.

If a youth is identified as having mental health needs through this screening process, a more comprehensive assessment may be necessary. This comprehensive mental health assessment should cover a broad range of mental health issues, including Axis I disorders and suicidality, and ideally should be conducted prior to the determination of disposition so as to guide dispositions and service delivery. Those youths who are identified as having significant mental health needs should continue to be reassessed periodically throughout their detention, as youths' mental health needs may change considerably over the course of detention. Also, to help facilitate youths' transition back to the community, Wasserman and colleagues recommend that secure facilities assess all youths who are preparing to return to their communities.

A number of jurisdictions have recently made significant efforts to implement a mental health screening process for detained youths. These efforts have been advanced by the development of the Massachusetts Youth Screening Instrument–Version 2 (MAYSI–2) by Thomas Grisso and Richard Barnum. The MAYSI–2 is a brief self-report mental health screening tool that has received empirical support. In 2006, this tool was routinely administered in more than 35 states. A number of other tools may also be useful in assessing adolescent offenders' mental health needs, including more comprehensive instruments, such as the Diagnostic Interview Schedule for Children–IV (Voice Version).

Despite the progress in the screening process for adolescent offenders, there are a number of issues that still need to be addressed. Most jurisdictions do not routinely reassess youths who are being reintegrated into the community to ensure that service continues. In addition, many youth justice staff who screen adolescent offenders are frontline staff, who do not necessarily have adequate training in this area.

Treating and Managing the Mental Health Needs of Juvenile Offenders

Due to the high cost of providing treatment services for offenders, the primary focus of research and interventions in the juvenile justice system has traditionally been on reducing recidivism rather than improving mental health outcomes. Research regarding treatment that is specifically aimed at addressing the mental health needs of juvenile offenders is scarce. However, it is clear that juvenile offenders do not receive adequate treatment services for their mental disorders, particularly in the case of minority youths. Less than a quarter of offenders with mental disorders in the juvenile justice system receive the services they need.

Recognizing that the juvenile justice system may not be the optimal setting for youths with mental

health needs, some jurisdictions strive to divert mentally ill youths from the youth justice system. At various stages after arrest, youths may be referred out to community-based agencies for counseling or intervention services. Though the focus of diversion programs has also tended to be on reducing recidivism, some recent research has examined the impact of diversion programs as well as other types of programs on mental health outcomes.

Treatment programs using a "wraparound" approach, which focuses on strong interagency collaboration to address youths' individualized treatment needs, have shown reduced emotional problems and mental health symptoms in referred youths, in addition to improved social and school functioning, and reduced rearrest rates. Some preliminary research has also reported that postrelease treatment services contributed to improved outcomes. Finally, researchers have found that multisystematic treatment, a leading treatment for high-risk youths, is associated with reduced psychiatric symptomatology as well as decreased recidivism.

As another alternative to the juvenile justice system, some jurisdictions have developed specialized mental health courts and drug courts. While there is preliminary evidence that juvenile drug courts are sometimes associated with reduced substance abuse among adolescent offenders, there is an absence of research on juvenile mental health courts. Like many of the treatment options for juvenile offenders, mental health courts and drug courts are downward extensions of adult treatment strategies. It is important for these treatment strategies to be empirically investigated for youths as juvenile offenders may experience unique barriers to treatment not faced by adults.

Furthermore, approaches that have been found to be effective with youths in community mental health settings may not easily generalize to youths in juvenile justice settings. For instance, adolescent offenders have high rates of cognitive deficits, which may interfere with their ability to engage in complex cognitive processes that are central to some therapeutic modalities. Also, the youth justice system is not an ideal treatment environment. Interventions administered within the youth justice system are often ordered by the court, and youths who receive interventions may experience considerable stigma. As such, adolescent offenders may be resistant to comply with interventions.

Though research is finally moving from evaluating criminal outcomes to mental health outcomes, there is still a dearth of evidence supporting mental health treatment services for juvenile offenders. Given the significant mental health needs of adolescent offenders, it is critical that future research continue to investigate effective strategies to manage and treat mentally ill adolescent offenders.

Jodi L. Viljoen and Sarah Mordell

See also Adjudicative Competence of Youth; Juvenile Offenders; Massachusetts Youth Screening Instrument–Version 2 (MAYSI–2)

Further Readings

Grisso, T. (2004). *Double jeopardy: Adolescent offenders with mental disorders.* Chicago: University of Chicago Press.

Grisso, T., Vincent, G. M., & Seagrave, D. (Eds.). (2005). *Mental health screening and assessment in juvenile justice.* New York: Guilford Press.

Teplin, L. A., Abram, K. M., McClelland, G. M., Dulcan, M. K., & Mericle, A. A. (2002). Psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry, 59,* 1133–1143.

Teplin, L. A., Abram, K. M., McClelland, G. M., Washburn, J. J., & Pikus, A. K. (2005). Detecting mental disorder in juvenile detainees: Who receives services. *American Journal of Public Health, 95,* 1773–1780.

Wasserman, G. A., Jensen, P. S., Ko, S. J., Cocozza, J., Trupin, E., Angold, A., et al. (2003). Mental health assessments in juvenile justice: Report on the consensus conference. *Journal of Child and Adolescent Psychiatry, 42,* 751–761.

Mental Illness and the Death Penalty

Executing mentally ill prisoners has been a controversial topic for decades. The U.S. Supreme Court has found that such executions are unconstitutional. Although public opinion is somewhat mixed and understudied, national societies such as the American Psychological Association oppose executing the mentally ill. The legal system asks mental health professionals to determine a prisoner's competency for execution. Incompetent prisoners can be medicated so that they can become competent and thus be executed. Many professionals find this practice unethical.

In 1986, the U.S. Supreme Court in *Ford v. Wainwright* determined that it was unconstitutional to execute a prisoner who became mentally incompetent after his conviction. Such an execution was said to "offend humanity" and violate the country's "evolving standards of decency." Thus, the execution was a violation of the Eighth Amendment's prohibition of cruel and unusual punishment. The "evolving standards" guideline, set forth by *Trop v. Dulles* (1958), is generally measured by factors including the public's opinion and existing state legislation. For instance, the Court considered it relevant that, at the time of the *Ford* ruling, no state permitted the execution of the mentally ill. The Court then detailed the common law and historical evidence indicating that executing the mentally ill has long been rejected in American society. Finally, the Court determined that executing the mentally ill serves no state interest and is not a deterrent to crime. As such, it is cruel and unusual punishment. More recent Supreme Court rulings require that defense attorneys investigate and present evidence that would explain the defendant's conduct (e.g., if his or her crime was related to mental illness) or lead the jury to reject a death penalty. Thus, the Supreme Court has taken several measures to protect mentally ill defendants.

Social science researchers and mental health professionals have two main roles associated with the execution of the mentally ill. First, social science researchers have conducted research and public opinion polls concerning the execution of mentally ill prisoners. Second, mental health professionals conduct evaluations to determine a prisoner's competency for execution.

Social Science Research

Public opinion polls have been used to measure the community's evolving standards of decency. Community support for execution of the mentally ill has not been well studied. Generally, support for the execution of the mentally ill is lower than the level of support for the death penalty in general. For instance, a survey published in 2003 revealed that 13% of respondents favored executing the mentally ill. However, a 2004 study revealed that 57% of respondents favored executing prisoners who had become ill while in prison. This discrepancy may be due to the timing of the illness: The first study could be interpreted to measure support for executing prisoners who were ill at the time of the crime, while the second clearly indicated support for executing prisoners who became ill after the crime. This latter finding seemingly contrasts the notion that executing the mentally ill violates the community's standards of decency.

Research has also indicated that jurors do not properly consider mental illness when determining whether or not a defendant deserves the death penalty. Although many sentencing statutes list mental illness as a mitigator (i.e., a factor that suggests that the defendant is not deserving of death), research shows that evidence of mental illness instead often leads jurors to sentence the defendant to death. Furthermore, jurors who support the death penalty are more likely than opponents to find a mentally ill defendant guilty and are less likely to believe that the crime was caused by mental illness. Thus, jurors (and the public as a whole) express some disfavor toward mentally ill defendants.

The Role of Mental Health Professionals

The legal system relies on mental health professionals to evaluate defendants for a variety of reasons, including making determinations concerning a prisoner's suitability for execution. The Supreme Court in *Ford* was not specific about the criteria that should be used in this determination. *Incompetency* is a legal term that does not directly translate into psychiatric diagnoses. Legal incompetency is often interpreted to mean that the prisoner suffers from severe mental illness and does not understand the nature of the punishment or why he should suffer it. In general, mental illnesses that affect competency are schizophrenia, bipolar disorders, and delusional disorders. Mental illness, as defined for competency purposes, does not generally refer to personality disorders.

The execution of mentally ill prisoners presents mental health professionals with ethical dilemmas. *Ford v. Wainwright* prohibits the execution of mentally ill prisoners; however, it is allowable to medicate prisoners so that they become mentally competent. Many mental health professionals and mental health associations do not promote treating mentally ill prisoners so that they may be put to death.

In sum, it is currently unconstitutional to execute mentally ill prisoners, although it is generally acceptable to medicate them so that they become competent to be executed. The Supreme Court has found that the public's standards of decency forbid such an execution, though some public opinion research contradicts

this finding. Despite the finality of the Supreme Court ruling, controversy and ethical dilemmas remain.

Monica K. Miller, Jared Chamberlain, and Jose H. Vargas

See also Death Penalty; Juveniles and the Death Penalty; Mental Retardation and the Death Penalty; Racial Bias and the Death Penalty; Religion and the Death Penalty

Further Readings

Boots, D. P., Cochran, J. K., & Heide, K. M. (2003). Capital punishment preferences for special offender populations. *Journal of Criminal Justice, 31,* 553–565.

Boots, D. P., Heide, K. M., & Cochran, J. K. (2004). Death penalty support for special offender populations of legally convicted murderers: Juvenile, the mentally retarded and the mentally incompetent. *Behavioral Sciences and the Law, 22,* 223–238.

Ford v. Wainwright, 477 U.S. 399 (1986).

Slobogin, C. (2000). Mental illness and the death penalty [Electronic version]. *California Criminal Law Review, 2,* Article No. 3.

Trop v. Dulles, 356 U.S. 86 (1958).

Mental Retardation and the Death Penalty

The execution of mentally retarded prisoners has been a controversial topic for decades. The U.S. Supreme Court has found, in *Atkins v. Virginia* (2002), that such executions are unconstitutional; this decision was partially based on the community's evolving standards of decency. The legal system requires mental health professionals to determine whether a prisoner is mentally retarded, which is a difficult and controversial task.

In 1989, the Supreme Court in *Penry v. Lynaugh* had determined that the mentally retarded, as a class, should not be protected from receiving the death penalty. Instead, defendants' mental status should be considered on a case-by-case basis, with individual factors determining whether each defendant is eligible for the death penalty. The Court found that individuals with mental retardation vary greatly in their capacity and culpability; thus, a blanket exclusion was not appropriate. After the *Penry* decision, many states enacted new statutes or adapted their existing death penalty statutes to exempt the mentally retarded.

In 2002, the Supreme Court reversed itself in *Atkins v. Virginia.* The Court determined that the execution of mentally retarded prisoners was a violation of the Eighth Amendment's prohibition of cruel and unusual punishment. They relied heavily on evidence that the majority of states' statutes forbid the execution of the mentally retarded. Even those states that still permitted such executions had not carried out an execution of a mentally retarded prisoner in the preceding years.

In addition, the *Atkins* court found it significant that the execution of the mentally retarded was opposed by professional organizations, including the American Psychological Association and the American Association on Mental Retardation (AAMR). The AAMR's amicus brief presented the results of 27 opinion polls; results of these polls varied but revealed that 56% to 84% of respondents indicated disfavor with the executions of the mentally retarded. No poll found more than 32% support for execution, no matter how the question was worded. This accumulation of data indicated that the execution of mentally retarded prisoners violated the community's "evolving standards of decency" as set forth in *Trop v. Dulles* (1958).

Since the *Atkins* decision, state courts have struggled with defining mental retardation and determining what burden of proof (e.g., clear and convincing evidence) is needed to prove that a defendant is mentally retarded. Courts have also disagreed on whether the burden of proving mental retardation should fall on the defendant or the state.

Psychologists and researchers have two main roles associated with the execution of the mentally retarded. First, social science researchers have conducted public opinion polls concerning the execution of mentally retarded prisoners. Second, mental health professionals regularly conduct evaluations to determine a defendant's level of mental retardation.

Public Opinion Research

The *Atkins* court found that public opinion opposed executing the mentally retarded. Psychologists confirmed this conclusion both before and after the punishment was determined to be unconstitutional. In the years after the *Penry* decision many polls were conducted, with most finding that the level of support for

executing the mentally retarded was in the 20% to 30% range. More recently, surveys published in 2003 and 2004 found that the rates of support for execution of the mentally retarded were 12.5% and 29%, respectively. In general, these polls confirm the Court's finding that such executions violate the community's "evolving standards."

The Role of Mental Health Professionals

The *Atkins* court determined that the mentally retarded suffer from cognitive, behavioral, and volitional impairments that affect their impulse control. As a result, the death penalty is less likely to be a deterrent. Furthermore, mentally retarded individuals are less culpable and thus do not deserve harsh treatment. The Court relied on clinical definitions of mental retardation when identifying three criteria that determine the existence of mental retardation: subaverage IQ, poor adaptive skills, and onset of symptoms before the age of 18.

The legal system requires mental health professionals to conduct evaluations to determine a defendant's level of impairment and mental retardation. This is not an easy task, as mental retardation is difficult to identify. Mental health professionals generally measure IQ, processing ability, decision-making ability, impulse control, and adaptive functioning. Critics question whether such tests should be used to make life-or-death decisions because of their inherent limitations. For instance, a defendant's score on an IQ test is considered a major factor in determining whether he is mentally retarded. However, "intelligence" is a subjective, multifaceted construct without a standard test. Instead, an examiner constructs a unique test for each defendant. Thus, two examiners would likely create two different tests that could produce two different scores. IQ tests have been criticized for many reasons, including their lack of test-retest reliability. Because mental retardation is such an elusive construct, some trials become battles of the experts to determine whether or not a person is mentally retarded.

To complicate things further, there is no uniform legal definition for mental retardation. Each state can determine its own standard, which can be a subjective endeavor. For example, states differ on the IQ score that indicates mental retardation. Some critics note that, because of varying standards, a defendant who fits the criteria for mental retardation in one state would not do so in another state.

In sum, the Supreme Court has found that the public's standards of decency forbid the execution of mentally retarded prisoners, an assertion supported by a great deal of research. Despite the Supreme Court ruling, the assessment of the mentally retarded comes with controversy.

Monica K. Miller, Alayna Jehle, and H. Lyssette Chavez

See also Death Penalty; Juveniles and the Death Penalty; Mental Illness and the Death Penalty; Racial Bias and the Death Penalty; Religion and the Death Penalty

Further Readings

Atkins v. Virginia, 122 S.Ct. 2242 (2002).

Boots, D. P., Cochran, J. K., & Heide, K. M. (2003). Capital punishment preferences for special offender populations. *Journal of Criminal Justice, 31,* 553–565.

Boots, D. P., Heide, K. M., & Cochran, J. K. (2004). Death penalty support for special offender populations of legally convicted murderers: Juvenile, the mentally retarded and the mentally incompetent. *Behavioral Sciences and the Law, 22,* 223–238.

Caplan, P. J. (2004). Bias and subjectivity in diagnosing mental retardation in death penalty cases. In P. J. Caplan & L. Cosgrove (Eds.), *Bias in psychiatric diagnosis* (pp. 55–59). Lanham, MD: Jason Aronson.

Penry v. Lynaugh, 109 S.Ct. 2934 (1989).

Trop v. Dulles, 356 U.S. 86 (1958).

Mild Traumatic Brain Injury, Assessment of

An uncomplicated mild traumatic brain injury (mTBI) is traumatic brain injury in which there is a brief loss of consciousness, brief posttraumatic amnesia, or an alteration of mental status (e.g., feeling dazed) without evidence of neurological damage. Physical, cognitive, and psychological symptoms are common in the days and weeks immediately following the injury, but these resolve naturally within a few months in the vast majority of patients. A relatively small number of patients show continued symptoms, which can be due to a range of other issues besides the mTBI. Psychological evaluation of these patients should

include an assessment of cognitive and emotional functioning, as well as effort or motivation. Because these patients are commonly seen in forensic evaluations, where malingering is more likely, specific cognitive tests of effort should be administered. Symptom exaggeration or suboptimal performance can also be assessed on measures of emotional functioning.

Nature, Symptoms, and Outcomes From mTBI

Mild traumatic brain injury is a trauma to the brain that results in a brief loss of consciousness; a loss of memory for events immediately before or after the event, but not greater than 24 hours; or an alteration in mental status (e.g., feeling dazed, disoriented, or confused). When evaluated immediately postinjury, mTBIs are characterized by a high Glasgow Coma Scale score (between 13 and 15), which is a measure of the ability to follow eye-opening, motor-response, and verbal-response commands. When these injury characteristics are present, and there is no evidence of neurological damage, such as hemorrhage or contusion on neuroimaging (e.g., CT or MRI scan) of the brain, the mTBI is considered to be uncomplicated. A mild complicated TBI has not only a similarly short loss of consciousness and posttraumatic amnesia but also evidence of brain damage on neuroimaging (e.g., skull fracture), thus making it a more severe injury. Uncomplicated mTBIs can be contrasted with moderate or severe TBIs in which loss of consciousness and posttraumatic amnesia are significantly longer, typically measured in days or weeks, and are often accompanied by neuroimaging evidence of brain damage.

Common causes of mTBIs include the head being struck by an object, the head striking an object, or the brain undergoing an acceleration/deceleration movement, or whiplash, without direct external trauma to the head. The latter injury is common in motor vehicle accidents. The term *mTBI* is synonymous with *concussion,* with the latter term often used to describe the injury in athletics. These can be graded on their level of severity and are most common in contact sports such as football and hockey. Of the different levels of brain injury severity, mTBIs are by far the most common, accounting for more than 75% of all TBIs.

Common symptoms in the initial days and weeks post-mTBI can include a range of physical, cognitive, and psychological changes. Common physical symptoms include headache, nausea, vomiting, dizziness, blurred vision, and sleep disturbance; common cognitive deficits include attention and memory deficits. Psychologically, symptoms such as anxiety, irritability, or depression may be present. Depending on severity, these symptoms can interfere with an individual's ability to function effectively. These acute symptoms are due to temporary dysfunction of the brain, such as metabolic changes, diminished cerebral blood flow, and impaired neurotransmission secondary to the injury. Although most neurons recover, a small number of neurons may degenerate and die. Nevertheless, the brain tends to recover quite quickly and naturally in an uncomplicated mTBI and there is typically significant improvement in symptoms within the first few days postinjury. Moreover, research has demonstrated that the vast majority of individuals are essentially symptom free and return to baseline levels of functioning within a few days to weeks, and sometimes a few months, after their injury. Recovery in athletes tends to be even more rapid, as these individuals are often highly motivated to recover and return to play. Nevertheless, a small number of individuals, fewer than approximately 5%, have prolonged and, at times, disabling symptoms postinjury that present a more complex clinical picture. Historically, various terms have been used to describe these patients, but today they are typically diagnosed with postconcussion syndrome. Not surprisingly, these individuals tend to seek continued psychological and medical treatment and may seek legal redress for their injury.

There is controversy about individuals with poor outcomes after uncomplicated mTBI and the cause of their persisting symptoms. While some have argued that these symptoms may be due to undetected and persisting brain abnormalities, most clinicians and researchers argue that other factors besides mTBI must be considered. For instance, many of these patients are in litigation and thus have external incentives to complain of persisting symptoms, even years after injury. Research has also demonstrated that those individuals who have had previous psychological or neurological problems or other life stressors tend to recover more poorly. Older age does not appear to be a risk factor for poor outcome after a single mTBI, although this is controversial, and the impact of repeated mTBIs and age (i.e., NFL players or boxers) may increase the chances of developing dementia in later life. Clearly, ongoing psychological or substance abuse postinjury, medical or pain complications from other injuries sustained in the accident (e.g., orthopedic), or additional

mTBIs (more likely in an athlete) can prolong and complicate recovery. It should be noted that recovery is slower after more severe TBIs, including complicated mTBIs, and some individuals may suffer persisting symptoms that impair social and occupational functioning. What is expected, however, is that the vast majority of individuals who suffer mTBI will completely recover and have no persistent difficulties attributable to the injury.

Psychological Evaluation of mTBI

For an individual who has sustained an mTBI, the purpose of a psychological evaluation varies. Some evaluations may be within days or a few weeks after an accident, in the context of seeking assistance with management of cognitive and behavioral symptoms, whereas others may be years later in the context of a personal injury lawsuit seeking recompense for the injury. In these latter cases, it is unlikely that any observed deficits would be due to the direct effects of the mTBI, and other causes for these should be explored. In athletics, a series of brief evaluations, with cognitive testing typically done via computerized assessment, may be performed to assist in return-to-play decisions.

The clinical evaluation of the individual who has suffered an mTBI typically includes the following: review of available psychological and/or medical records, clinical interview with the patient, neuropsychological or cognitive testing, and psychological testing. Each of these is briefly described below. When reviewing medical records, psychologists seek to obtain as much information as possible about the nature and extent of the injury, such as how the individual behaved immediately after injury, whether there is any documented loss of consciousness, and whether there is any posttraumatic amnesia. In addition, it is useful to know if the individual suffered other injuries in the accident, such as orthopedic injuries, which might affect outcome. If possible, medical records predating the injury can be obtained to determine if the individual had preexisting medical or psychological problems, such as learning disabilities or perhaps a seizure disorder that might affect recovery. The clinical interview with the patient should focus on the nature and extent of the injury, as well as the symptoms, including cognitive, behavioral, and psychological, that the patient is currently experiencing. How such symptoms are interfering with the patient's daily life is important. In addition to such injury information, the clinical interview should address the following: medical and psychiatric history, prescribed medications, neurological history such as previous TBIs or learning disabilities, substance abuse, current stressors in addition to the injury, occupation and social functioning, and litigation status. In such an interview, it is important to attempt to rule out alternative causes for the symptoms the person is experiencing. For instance, complaints for difficulty concentrating post-mTBI may not be due to the injury per se but to a preexisting anxiety disorder.

Because of the symptoms described above, evaluation of the mTBI patient typically includes both neuropsychological and psychological testing. Neuropsychological testing should include use of well-normed and psychometrically sound tests with established reliability and validity. A battery of tests should evaluate, at minimum, intelligence (e.g., Wechsler Adult Intelligence Test–III), learning and memory (e.g., California Verbal Learning Test–II), attention (e.g., Conners' Continuous Performance Test), visuospatial processing (e.g., Judgment of Line Orientation), and executive functioning (e.g., Wisconsin Card Sorting Test). Other cognitive domains may need to be assessed, including academic (e.g., Wide Range Achievement Test) and sensory-motor functioning (e.g., Finger Tapping Test), depending on the nature of the referral and patient complaints.

In addition to evaluating specific areas of cognitive functioning, it is important to evaluate the patient's effort or motivation, which may be suspect, particularly in a forensic setting where there may be motive for performing poorly (e.g., getting a larger monetary settlement in a personal injury case or evading responsibility in a criminal trial). If this is not done, impaired cognitive performances may erroneously be attributed to the mTBI and not to a patient's poor effort. When patients exert poor effort consciously for external reward, this is termed *malingering.* Psychologists have recently developed multiple cognitive tests to detect malingering or poor effort that are efficient and accurate. For instance, one commonly used test requires patients to learn multiple word pairs (which appears difficult) and then to recognize each of the words on separate trials when a distractor word is presented. Because the word pairs are so obvious (e.g., grass-green), this test is actually quiet easy, and individuals with serious neurological disorder or mental retardation perform well on it. A poor performance in an individual with mTBI is suspicious for poor effort, and performance on other cognitive testing is thus of

questionable validity. In addition to other tests designed to detect poor effort only, it can be detected on cognitive tests for which built-in validity detectors have been developed. Poor effort or malingering is also suspect when a patient does not cooperate with testing, performs inconsistently across similar tests (e.g., verbal memory), endorses symptoms inconsistent with the alleged injury, and presents during the interview in a manner inconsistent with testing (e.g., demonstrates good recall when queried about recent personal events, but poor performance on memory testing).

In addition to cognitive testing, psychological testing is also recommended in mTBI to evaluate the nature and severity of psychological involvement. Commonly used tests include the Minnesota Multiphasic Personality Inventory–2 and the Personality Assessment Inventory. These lengthy self-report tests evaluate a range of clinical complaints, such as mood, personality, and behavioral disturbance, as well as patient response variables. These latter variables evaluate whether a patient responded honestly and consistently to the items or whether he overreported symptoms (i.e., presented himself negatively) or underreported symptoms (i.e., presented himself positively). Within the forensic evaluation, overreporting symptoms are much more common in mTBI, as patients seek to emphasize experienced symptoms. It is thus important that whatever measure of personality is used, it includes a measure of patient response style. Unfortunately, the existing measures of postconcussive symptoms, which might be ideal for evaluation of an mTBI patient, typically do not include such measures.

George J. Demakis

See also Malingering; Minnesota Multiphasic Personality Inventory–2 (MMPI–2); Minnesota Multiphasic Personality Inventory–2 (MMPI–2) Validity Scales

Further Readings

Binder, L. M., Rohling, M. R., & Larrabee, G. J. (1997). A review of mild head trauma. Part 1: Meta-analytic review of neuropsychological studies. *Journal of Clinical and Experimental Neuropsychology, 19,* 421–431.

Iverson, G. L. (2005). Outcome from mild traumatic brain injury. *Current Opinion in Psychiatry, 18,* 301–317.

Putnam, S. H., Millis, S. R., & Adams, K. M. (1996). Mild traumatic brain injury: Beyond cognitive assessment. In I. Grant & K. M. Adams (Eds.), *Neuropsychological assessment of neuropsychiatric disorders* (pp. 529–551). New York: Oxford University Press.

Ruff, R. M., & Richardson, A. M. (1999). Mild traumatic brain injury. In J. J. Sweet (Ed.), *Forensic neuropsychology: Fundamentals and practice* (pp. 313–338). Lisse, The Netherlands: Swets & Zeitlinger.

Miller Forensic Assessment of Symptoms Test (M–FAST)

The Miller Forensic Assessment of Symptoms Test (M–FAST) is a screening measure for the detection of feigned, or malingered, mental illness. The M–FAST may be used in psychological evaluations of an adult who might be attempting to fake a psychiatric disorder. Because of the reported prevalence of malingering and difficulty of accurate detection through clinical judgment, many researchers and clinicians have suggested routine formal assessment of malingering in most evaluations. Although there are other, more lengthy, assessment measures for malingering detection, the M–FAST was developed to provide the evaluator with a brief screening tool.

Psychologists are often asked to provide an evaluation of criminal defendants to determine if they are competent to stand trial (CST) or to evaluate defendants pleading not guilty by reason of insanity (NGRI). Although most individuals who are found not CST or NGRI do have a severe mental illness, a percentage will attempt to fake mental illness for trial postponement or to be sent to a hospital rather than prison. There are other evaluations, such as disability assessments or psychological evaluations with correctional inmates, where malingering is routinely assessed. In these types of evaluations, malingering is often formally assessed with an instrument developed specifically to detect the faking of mental illness. The M–FAST is often used in these evaluations to screen the individual being evaluated for malingering. If malingering is suggested by the M–FAST results, further evaluation of feigning is carried out.

Description and Structure

The M–FAST is a 25-item structured interview that can be administered in approximately 5 to 10 minutes. The measure may be more viable than other instruments in several situations because of its interview format (e.g., reading level of the test taker is irrelevant) and its brief

administration time. The M–FAST items were developed to represent the following response styles/strategies that have been validated for identifying malingered psychiatric symptoms: Reported versus Observed Symptoms, Extreme Symptoms, Rare Combinations, Unusual Hallucinations, Unusual Symptom Course, Negative Image, and Suggestibility. The M–FAST includes items that represent these detection strategies along with items that reflect actual symptoms of mental illness.

Since the M–FAST items were developed to operationally measure several strategies for malingering detection, the factor structure has been examined. Two principal component analyses were performed on the nonclinical and clinical M–FAST development samples. Examination of the scree plots suggested one primary "malingering" factor in both samples accounting for 55% (nonclinical) and 49% (clinical) of the variance. The factor structure of the M–FAST has been tested independently from the development samples by exploratory and confirmatory factor analysis. Similar to the initial factor findings, the latest analyses indicate that the M–FAST is found best to represent a single, dominant factor.

Reliability

The M–FAST was developed at a forensic hospital with patients who were either found NGRI or incompetent to stand trial. The initial reliability (or consistency) of the M–FAST was assessed in several ways. The test-retest reliability, given an average of 2 weeks apart, and the internal consistency of M–FAST items were both reported to be high at .92. A third analysis assessed interrater reliability by comparing scores of different M–FAST interview raters. An interclass correlation coefficient, using two-way random effects model with consistency reported, was calculated and found to be high at 99.6. Several independent studies since the development of the M–FAST have indicated that the M–FAST is highly reliability; M–FAST internal consistency ranging from .90 to .92, scale (or strategy) internal consistency ranging from .53 to .82, and interrater reliability found to be 1.0.

Validity

The primary goal for M–FAST validation was to demonstrate criterion, convergent, and discriminant validity of the instrument. The diagnostic efficacy of the M–FAST for identifying malingered mental illness was also examined. Initial validation of the measure was demonstrated by significant, positive relationships found between the M–FAST and other validated instruments and scales designed to assess for response style and/or malingered mental illness. These initial studies included forensic patients who were incompetent to stand trial or NGRI and a group of civil outpatients being evaluated for mental illness disability status. In all the samples the M–FAST effectively discriminated between bona fide psychiatric patients and those who were found to be faking mental illness for secondary gain.

Since its development, the M–FAST has been examined for validity and diagnostic efficacy with several different samples including civil psychiatric inpatients, imprisoned offenders being assessed for psychiatric services, and additional samples of forensic inpatients being assessed for CST. In all these samples, the M–FAST was found to be valid and to effectively differentiate those individuals who were malingering from those who were bona fide psychiatric patients. The use of the M–FAST to detect diagnostic-specific malingering has also been examined. In these studies, the M–FAST has been found to be an effective screen when an individual is attempting to malinger the specific disorders of posttraumatic stress disorder, schizophrenia, major depressive disorder, and bipolar disorder.

Holly A. Miller

See also Competency to Stand Trial; Forensic Assessment; Malingering

Further Readings

Guy, L. S., & Miller, H. A. (2004). Screening for malingered psychopathology in a correctional setting: Utility of the Miller–Forensic of Symptoms Test (M–FAST). *Criminal Justice and Behavior, 31*(6), 695–716.

Jackson, R. L., Rogers, R., & Sewell, K. W. (2005). Forensic applications of the Miller Forensic Assessment of Symptoms Test (M–FAST): Screening for feigned disorders in competency to stand trial evaluations. *Law and Human Behavior, 29*(2), 199–210.

Miller, H. A. (2001). *The Miller Forensic of Symptoms Test (M–FAST) professional manual.* Odessa, FL: Psychological Assessment Resources.

Miller, H. A. (2005). The Miller Forensic Assessment of Symptoms Test (M–FAST): Test generalizability and utility across race, literacy, and clinical opinion. *Criminal Justice and Behavior, 32*(6), 591–611.

Millon Clinical Multiaxial Inventory–III (MCMI–III)

The Millon Clinical Multiaxial Inventory–III (MCMI–III) is a 175-item self-report inventory designed to assess personality characteristic and psychopathology. It has 4 validity scales, 11 clinical personality pattern scales, and 3 severe clinical syndrome scales. Although not originally validated in forensic populations, and in spite of limited research with forensic subjects, it is increasingly being used in forensic practice. Extensive changes were made in the development of the MCMI–III, limiting the applicability of the research results from prior MCMI versions.

Detection of malingering, denial, and random responding and diagnostic accuracy are critical issues that are relevant to the forensic applicability of the MCMI–III. A number of issues have implications for use of the MCMI–III in forensic assessment, including poor detection of malingering and denial, interpretation of potentially random protocols, and a significant controversy regarding diagnostic accuracy. The existence of all these issues is likely to result in vigorous challenges to expert testimony based on the MCMI–III because the instrument does not meet the criteria established in *Daubert v. Merrell Dow Pharmaceuticals* (1993), which require an evaluation of the error rate of assessment methods on which experts rely.

Malingering, Denial, Random Responding, and the MCMI–III

More research is needed before firm conclusions can be drawn regarding the ability of the MCMI–III to detect malingering and denial. The extant research suggests only moderate accuracy, and there are no studies that use known groups designs with forensic populations. Mike Schoenberg and colleagues in 2003 compared students simulating psychiatric disorder with psychiatric patients and found a sensitivity of 58.5% and 51.9% for a Scale Z and Scale X, respectively. Positive predictive power was 55.6% and 66.3% for X and Z, respectively. They concluded that "the MCMI–III modifier indices were of minimal clinical utility in distinguishing college student malingerers from bona fide psychiatric patients." Somewhat better results, with higher accuracy in detecting malingering, were reported by Scott Daubert and April Metzler, who compared two groups of psychiatric patients, one instructed to malinger and one instructed to respond honestly. In a separate study by Schoenberg and colleagues, an attempt was made to develop a discriminant equation to detect malingering. They found some improvement in detecting malingering. However, research with other instruments by Richard Rogers's group and Kucharski and colleagues has shown that the accuracy of discriminant equations developed via simulation designs decreases to near-chance levels when applied to actual forensic populations. The results of a study by Richard Charter and Michael Lopez demonstrated that more than 50% of those responding randomly, using the VI > 1 criterion recommended in the MCMI–III manual, would be viewed as interpretable protocols. Failing to exclude random protocols potentially confounds the research on malingering and diagnostic accuracy and in clinical practice is likely to inappropriately characterize random responders as pathological.

Diagnostic Accuracy of the MCMI–III

Probably the most difficult issue confronting the MCMI–III is the current controversy regarding diagnostic accuracy. Two validity studies conducted by the test author in 1994 and 1997 and reanalyses of the data from these studies make up the findings on diagnostic accuracy. A reanalysis of the 1994 database, by Richard Rogers and colleagues, demonstrated that the convergent validities of the personality scales was "disconcertingly low ranging from .07 to .31" and that the "discriminant correlations were *higher* than the convergent validities." These findings are consistent with other studies conducted by Paul Retzlaff. Frank Dyer and Joseph McCann argued that the Rogers and colleagues study was flawed due to selection of poor criterion measures and use of data from the 1994 validation study, where there were obvious deficiencies in the diagnostic criterion. The 1997 validation study attempted to address this limitation by including a *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition; *DSM-IV*) of the American Psychiatric Association criterion guide for diagnosis. Louis Hsu reanalyzed both the 1994 and 1997 data and found marked improvement in the diagnostic accuracy for the 1997 data. However, serious methodological flaws including criterion contamination, confirmatory bias, and availability heuristics led him to conclude that the results potentially overpredict the

diagnostic accuracy of the MCMI–III. Noteworthy in the discussion of the diagnostic accuracy is the lack of any information regarding the accuracy of the Thought Disorder scale, a scale particularly relevant to criminal forensic practice.

Applicability and Admissibility of the MCMI–III

The research to date suggests that the MCMI–III has significant limitations for forensic practice in terms of its ability to detect malingering and denial. Use of the recommended VI > 1 criterion is likely to result in inappropriate inclusion of random protocols in past research studies and clinical interpretation of protocols of questionable validity. The diagnostic accuracy controversy remains an issue owing to methodological flaws in the validation studies. The diagnostic accuracy of the MCMI–III in the identification of Axis I disorders is particularly underresearched. These are important issues that must be considered in selecting an assessment instrument not only from the perspective of the best measure for the forensic task but also for the effect it will have on court proceedings, including *Daubert* challenges to admissibility. One would be wise to heed Robert Craig's advice that a thorough knowledge of the research supporting the test's applicability and limitations will best serve the interests of the client. In this regard, the paucity of studies involving forensic populations; poor detection of malingering, denial, and random responding; and the diagnostic accuracy controversy are important issues to be aware of. Experts are in agreement that the use of the computer-generated report for the MCMI–III is inappropriate because the sensitivity for detecting pathology was artificially increased, resulting in overpathologizing of the respondent. All these issues need to be resolved before the MCMI–III can be considered a useful measure in forensic practice.

L. Thomas Kucharski and Joseph Toomey

See also Forensic Assessment; Malingering

Further Readings

Craig, R. J. (1999). Testimony based on the Millon Clinical Multiaxial Inventory: Review, commentary, and guidelines. *Journal of Personality Assessment, 73,* 290–304.

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993).

Dyer, F. J., & McCann, J. T. (2000). The Millon Clinical Inventories, research criteria of their forensic application, and the Daubert criteria. *Law and Human Behavior, 24,* 487–497.

Rogers, R., Salekin, R. T., & Sewell, K. W. (1999). Validation of the Millon Clinical Muliaxial Inventory for Axis II disorders: Does it meet the Daubert standard. *Law and Human Behavior, 23,* 425–443.

Minnesota Multiphasic Personality Inventory–2 (MMPI–2)

The original Minnesota Multiphasic Personality Inventory (MMPI) and its successor have been recognized as the most widely used and researched objective clinical personality inventories. Using 567 true-false items, the MMPI–2 assesses a diverse range of personality characteristics; symptoms of psychopathology; and patterns of behavior, attitudes, and concerns. First published in 1942 and revised in 1989, the instrument yields a wealth of clinical data and is used across multiple clinical and medical settings, for employment screening and selection, and in a variety of forensic situations.

The test includes multiple validity indices, assessing test-taking attitudes and approach; 10 basic, numbered clinical scales (1 = *Hypochondriasis,* 2 = *Depression,* 3 = *Hysteria,* 4 = *Psychopathic Deviate,* 5 = *Masculinity-Femininity,* 6 = *Paranoia,* 7 = *Psychasthenia,* 8 = *Schizophrenia,* 9 = *Hypomania,* 0 = *Social Introversion,* with all but scales 5 and 0 considered core clinical scales) and their subscales; as well as more than five dozen content scales (e.g., Antisocial Practices, Anxiety), content component scales (e.g., Negative Treatment Indicators: Low Motivation), personality psychopathology trait scales (e.g., Aggressiveness, Negative Emotionality/Neuroticism), and supplementary scales (e.g., Addiction Potential, Overcontrolled-Hostility).

Raw scores on these scales are transformed to norm-based *T*-scores (mean = 50, standard deviation = 10) to enhance the interpretability of results. Scales with a *T*-score of 65 or greater are considered clinically significant. In addition to interpretive

material linked with individual scale and subscale scores, considerable research has identified and supported descriptions associated with particular patterns of elevations, known as code types, reflecting the 1 to 3 most elevated clinical scales and their combinations. As Roger Greene emphasizes, these descriptions are probabilistic statements based on modal patterns and, as such, do not necessarily describe individuals obtaining a specific code. Nevertheless, they provide potentially useful information about problem areas, personality types and correlates, and treatment implications.

History and Development

The MMPI is an empirically derived test. Through a multistep process, Starke Hathaway and J. C. McKinley developed the original MMPI by selecting items for inclusion that discriminated a criterion group (i.e., those with a given clinical diagnosis) and comparison groups (i.e., nonpatient normative groups and those with other diagnoses). After decades of use, the need for restandardization became clear. As James Butcher and colleagues, Greene, and others have described, several factors underscored the need to revise the MMPI, including the need for current norms, a larger and more nationally representative normative sample that appropriately included ethnic and racial minorities, and updated item content. Those involved in the restandardization took steps to maintain continuity between the MMPI and its revision so that the extant research would not be made obsolete. As Gary Groth-Marnat notes, although some differences have been detected, research has largely supported comparability in findings for the two versions; the MMPI–2 seems to describe the same types of characteristics and behaviors as the MMPI.

Psychometric Properties

In light of the complex issues involving the MMPI–2's reliability (many relating to the initial version's construction), the reader is referred to the readings below for discussions of the test's development and psychometrics. A substantial body of research has supported the conclusion that, with some exceptions, its scales evidence moderate levels of internal consistency and stability over time. Thousands of studies have attested to the test's validity and the meanings of scale and code type descriptions, as well as the incremental validity obtained when using the MMPI–2 in an assessment.

Recent Refinements

In an attempt to address issues related to item overlap across the clinical scales and conceptual heterogeneity (i.e., multidimensionality) within them, Auke Tellegen and colleagues published the *Restructured Clinical* (*RC*) *Scales* in 2003. First, they developed a Demoralization scale, thought to represent much of the common "affective" variance shared across the core clinical scales. Subsequent steps were designed to yield scales assessing distinct constructs and resulted in the following: Somatic Complaints, Low Positive Emotions, Cynicism, Antisocial Behavior, Ideas of Persecution, Dysfunctional Negative Emotions, Aberrant Experiences, and Hypomanic Activation. Tellegen and colleagues reported that the RC scales have comparable or greater internal consistencies than the clinical scales, improved discriminant validity, and equivalent or improved convergent validity. They concluded that the RC scales predicted variables linked conceptually to the scales' core constructs at least as well as and, in some cases, better than the original clinical scales. Leonard Simms and colleagues further documented the increased measurement efficiency of the RC scales, reporting that they were less intercorrelated, related more clearly to measures of personality and psychopathology, and had greater incremental utility than the clinical scales.

Assets and Limitations

Groth-Marnat cogently summarizes the MMPI–2's limitations as well as its assets. As he details, issues related to scale construction (i.e., item overlap; high intercorrelations among scales; clinical scale content reflecting multidimensional variables that, in some cases, lack clear definition) are frequently highlighted shortcomings that impact psychometrics and raise interpretive challenges. Numerous authors have also pointed out that the clinical scale names are misleading or confusing because they reflect traditional diagnostic categories (e.g., Schizophrenia) or outdated terms (e.g., Hysteria), and their content does not translate directly to current disorder classification systems. In that vein, he points out that although the test was initially intended as a means of differential diagnoses, it does not provide diagnoses, and research has not

supported its utility as a direct diagnostic tool; rather, it contributes information to assist diagnostic formulations and allows for enhanced understanding of symptoms. Other limitations include the test's length and the fact that although multiple demographic variables (e.g., age, ethnicity, education) may impact interpretation, the onus is on the test user to take such factors into account. Finally, research suggests that moderate scale elevations must be interpreted with caution.

Despite these limitations, numerous advantages lend credence to the MMPI–2's wide use. Indeed, Groth-Marnat deems its popularity and familiarity assets. In fact, the test has been translated into more than 50 languages and has multiple studies supporting its use in other cultures. The MMPI–2's extensive research base, detailing the validity of profile descriptors and scale correlates, contributes to this popularity and has been labeled by Groth-Marnat and others as the test's strongest asset. Furthermore, the test's multiple validity indices aid the detection of response sets or attempts to over- or underreport psychological difficulties. Consequently, in addition to its standard clinical use, the MMPI–2 can play a role in "gatekeeping" assessments, such as required psychiatric evaluations, employment screenings, or court proceedings.

The MMPI–2 offers substantive value for professionals. Administration is straightforward and may be done via pencil and paper or computer software, and computer scoring and interpretation options are also available. If stamina or time is a concern, the MMPI–2 offers the option of a shorter version that still allows for interpretation of clinical scales and code types. With its revision and restandardization, the introduction of new scales and indices, and the development of the RC scales, the test also continues to evolve to meet practical needs.

Ryan P. Kilmer and George J. Demakis

See also Minnesota Multiphasic Personality Inventory–2 (MMPI–2) Validity Scales

Further Readings

Butcher, J. N., Graham, J. R., Ben-Porath, Y. S., Tellegen, A., Dahlstrom, W. G., & Kaemmer, B. (2001). *MMPI–2 (Minnesota Multiphasic Personality Inventory–2): Manual for administration, scoring, and interpretation* (Rev. ed.). Minneapolis: University of Minnesota Press.

Greene, R. L. (2000). *The MMPI–2: An interpretive manual* (2nd ed.). Boston: Allyn & Bacon.

Pope, K. S., Butcher, J. N., & Seelen, J. (2006). *The MMPI, MMPI–2 & MMPI–A in court: A practical guide for expert witnesses and attorneys* (3rd ed.). Washington, DC: American Psychological Association.

Tellegen, A., Ben-Porath, Y. S., Mcnulty, J. L., Arbisi, P. A., Graham, J. R., & Kaemmer, B. (2003). *The MMPI–2 Restructured Clinical (RC) scales: Development, validation, and interpretation.* Minneapolis: University of Minnesota Press.

Minnesota Multiphasic Personality Inventory–2 (MMPI–2) Validity Scales

A strength of the Minnesota Multiphasic Personality Inventory–2 (MMPI–2) is its multiple indicators regarding an examinee's approach to the test. Ideally, examinees answer all questions, respond consistently, and do not distort test findings by overreporting or underreporting experienced psychopathology. However, some individuals may approach the test in a manner that deviates from this optimal scenario, and MMPI–2 profiles can be interpreted with confidence only when these issues have been addressed. Overall, the MMPI–2's measures of test-taking approach and validity may qualify clinical findings or lend credence to interpretations yielded by the test in multiple situations, particularly in forensic situations such as criminal proceedings as well as in gatekeeping evaluations (e.g., child custody assessments), in which examinees may have motivation to modify their clinical presentation. The most commonly used validity measures include the L (Lie), K (Correction), and F (Infrequency) scales.

A first step in assessing response validity involves evaluating the Cannot Say scale, which indicates the number of unanswered items or items answered both true and false. A high number of such items renders a profile invalid and may suggest that the examinee perceived the items as irrelevant, was uncooperative, was defensive or indecisive, or could not understand the items. Second, to assess response consistency, the Variable Response Inconsistency (VRIN) and True Response Inconsistency (TRIN) scales are evaluated. VRIN measures the degree to which the examinee responded consistently to items similar in content,

with logically inconsistent responses of particular note. Though some inconsistent responding is not unusual, high levels suggest that the examinee may have responded randomly or had reading comprehension difficulties or had been confused, careless, uncooperative, or overtly psychotic. TRIN offers additional information about response sets or styles that may affect the profile, measuring the degree to which the examinee responded inconsistently by endorsing items similar in content, but phrased as opposites, as both true or as both false. High scores indicate a tendency to yea-say (i.e., endorse many items as true), and low scores indicate a tendency to nay-say (i.e., endorse many items as false).

Third, the extent to which the examinee accurately self-described symptoms and did not over- or underreport psychopathology is evaluated. Underreporting is more common in personnel, presurgical, or child custody evaluations, whereas overreporting is more common in personal injury or criminal evaluations. Several scales provide information about possible overreporting or symptom exaggeration. The F (Infrequency) scale includes items selected to detect unusual or atypical responses. Reflecting bizarre sensations, strange thoughts, and peculiar experiences, they were answered in the deviant direction by no more than 10% of an early subsample of the normative sample. There are several possible interpretations for elevations on this scale including malingering, random responding, or expressing a "cry for help." Though different in content relative to F, the F*b* (Infrequency-Back) scale is similar in purpose and format, consisting of items at the end of the test, so that response style can be evaluated throughout the entire administration. The F(*p*) (Infrequency-Psychopathology) scale consists of items that no more than 20% of two samples of psychiatric inpatients, as well as a normative sample, was endorsed in a deviant direction; it was developed to detect malingering in settings with high base rates of serious psychopathology. The FBS (Fake Bad Scale) consists of items infrequently endorsed by personal injury litigants that tap somatic rather than psychiatric symptoms. High elevations of these scales invalidate an MMPI–2 profile and may indicate confusion or reading problems, random responding, severe psychopathology, symptom exaggeration, or malingering. In all, if an overreporting scale is elevated, it is likely the examinee responded in a manner that exaggerated impressions of experienced psychopathology.

The two primary scales designed to detect underreporting of psychopathology are the L (Lie) and K (Correction) scales. The L scale includes items selected to identify examinees who are trying to avoid answering items honestly so as to create an overly positive impression. Because many L scale items are obvious, elevations indicate that the examinee is engaging in a psychologically unsophisticated and naive attempt to portray himself or herself as possessing high moral value, without even minor personal flaws or shortcomings that most individuals would endorse on a self-report test. Poor insight and denial of problems are likely in these individuals. K scale items were selected to assist in identifying individuals who displayed significant psychopathology yet had profiles within the normal range. Because such defensive responding masks experienced symptoms, several clinical scales (e.g., Schizophrenia) are corrected for K scale scores. K scale elevations may indicate that an examinee was being defensive, has poor insight, and may be seeking to maintain a façade of adequacy and control without admitting to problems or weaknesses. As compared with L, the K scale assesses more sophisticated and subtle defensive responding. In addition to the L and K scales, the Wiggins' Social Desirability Scale, with items assessing self-confidence, social skills, and effective decision making, evaluates the degree to which examinees present themselves in a positive and socially desirable fashion. A similar scale, the Superlative scale, evaluates the degree to which individuals present themselves in a superlative or highly virtuous fashion, while denying problems. As with L and K, elevations on these scales may represent defensiveness, impression management, or poor insight or awareness into one's behavior. Overall, if an underreporting scale is elevated, it is likely the examinee approached other items in a manner that attempted to present the most favorable self-image and deny psychological difficulties.

In addition to specific measures of over- and underreporting, test users can examine various configurations and interrelations of the L, F, and K scales. An example of this is the F-K Index, also known as the Gough Dissimulation Index, for which the raw score on the K (Correction) scale is subtracted from the raw F (Infrequency) scale. Specific interpretive cut scores points are available but, generally, high scores (i.e., a significantly higher F than K) indicate overreporting of psychopathology, low scores (i.e., a significantly higher K than F) indicate underreporting of

psychopathology, and intermediate scores indicate accurate item endorsement.

George J. Demakis and Ryan P. Kilmer

See also Malingering; Minnesota Multiphasic Personality Inventory–2 (MMPI–2)

Further Readings

Butcher, J. N., Graham, J. R., Ben-Porath, Y. S., Tellegen, A., Dahlstrom, W. G., & Kaemmer, B. (2001). *MMPI–2 (Minnesota Multiphasic Personality Inventory–2): Manual for administration, scoring, and interpretation* (Rev. ed.). Minneapolis: University of Minnesota Press.

Graham, J. R. (2005). *MMPI–2: Assessing personality and psychopathology* (4th ed.). New York: Oxford University Press.

Greene, R. L. (2000). *The MMPI–2: An interpretive manual* (2nd ed.). Boston: Allyn & Bacon.

Minnesota Sex Offender Screening Tool–Revised (MnSOST–R)

The Minnesota Sex Offender Screening Tool–Revised (MnSOST–R) is a 16-item, "actuarial" risk assessment tool initially developed for the Minnesota Department of Corrections (MDOC) to provide empirically based estimates of risk for sexual recidivism for incarcerated male sex offenders. Indices of reliability have ranged from .76 to .86 across four studies and have generally been .80 or greater. The MnSOST–R has been successfully validated in Minnesota; North Dakota; and Ontario, Canada; however, it failed to predict significantly better than chance in an Arizona study.

Description and Development

The MnSOST–R was developed in response to a 1991 MDOC report calling for a more formal and uniform process to identify predatory and violent sex offenders. An actuarial approach was used in an attempt to bring greater accuracy and utility to sex offender risk assessments, enabling the MDOC to more effectively use limited resources.

The development sample for the MnSOST–R included 256 incarcerated sex offenders in Minnesota who were released primarily in 1988 or 1990. This sample excluded only those offenders whose offenses consisted *exclusively* of "fondling" offenses against family members that did *not* involve vaginal or anal penetration of a child aged 13 or younger or the rape of an older family member. Research on an earlier version of the instrument indicated that this group was substantially different from other sex offenders and generally presented fewer concerns regarding release decisions (e.g., level of supervision, level of community notification, and potential referral for civil commitment).

Sex offenders were sampled from each relevant Minnesota correctional facility, and the offenders were 32–42 years, on average, with a range from 17 to 70 years. Sixty-six percent of the sample was White, 24% was Black, 5% was Hispanic, 4% was Native American, and 2% were from other ethnic groups. There was some oversampling of sexual recidivists in the development sample to provide more stability in any observed relationships between sexual recidivism and potential predictor variables.

Potential predictors were drawn from research on an earlier version of the tool and from an updated review of the literature. Only variables based on information routinely available in correctional records were considered as predictors to ensure that the resulting tool could be scored for the majority of sex offenders based on a file review. Sexual recidivism, the criterion variable, was defined as a formal charge for a new sex offense within 6 years of release from prison.

Empirically based item selection and scoring procedures identified 16 items as the optimal predictors of sexual recidivism, including 12 historical/static items and 4 institutional/dynamic variables. The 12 historical variables included the number of convictions for sex offenses, length of sex offending history, commission of a sex offense while under court supervision, commission of a sex offense in a public place, use or threat of force in any sex offense, perpetration of multiple sex acts in a single event contact, offending against victims from multiple age groups, offending against a 13- to 15-year-old victim with more than a 5-year age difference between the offender and the victim, victimization of a stranger, persistent pattern of adolescent antisocial behavior, recent pattern of substantial substance abuse, and recent employment history. The four institutional variables included discipline history, chemical dependency treatment recommendations and outcomes, sex offender treatment recommendations and outcomes, and age of the offender at the time of release.

Total MnSOST–R scores were significantly predictive of sexual recidivism in the development sample, as reflected by an area under the receiver operator characteristics (ROC) curve of .77 (95% confidence interval [CI] of .71 to .83). Total MnSOST–R scores were equally predictive of sexual recidivism in the development sample for rapists (ROC = .79) and molesters (ROC = .75) and for minorities (ROC = .75) and nonminorities (ROC = .77).

Reliability

Reliability studies have yielded positive results across a variety of settings with varying degrees of training. A Minnesota study involving a minimal 2-hour training session for 10 participants, who then scored the same 11 cases by the end of the day, produced intraclass correlation coefficients (ICCs) of .80 for relative agreement and .76 for absolute agreement. A Florida study involving an optimal 1.5-day training session for 27 participants, who then scored the same 10 cases over the next 3 months, yielded ICCs of .87 for relative agreement and .86 for absolute agreement. Two Canadian studies produced interrater reliability coefficients of .80 and .83.

Validity

The MnSOST–R was validated in Minnesota with an exhaustive sample of 220 sex offenders released from prison in 1992 who met the same inclusion criteria used in the development study. This sample was very similar demographically to the development sample, and sexual recidivism was defined in the same way. Total MnSOST–R scores were significantly predictive of sexual recidivism in this sample (ROC=.73, 95% CI of .65 to .82).

Two validation studies were conducted in North Dakota. The first sample included 182 incarcerated sex offenders with an average time at risk of 8 years, and the second sample included 271 probated sex offenders with an average time at risk of 10 years. No sex offenders were excluded in either of these samples. The MnSOST–R significantly predicted sexual recidivism in the incarceration sample (ROC = .76, 95% CI of .66 to .85) and in the probation sample (ROC = .75, 95% CI of .63 to .88).

Howard Barbaree, Calvin Langton, and their associates conducted a validation study of the MnSOST–R with two Canadian samples. Because the second, bigger sample largely subsumed the first sample, the results of the second study are summarized here. That sample of 354 sex offenders who were at risk for an average of 5.9 years yielded a significant ROC = .70 for the MnSOST–R (95% CI of .62 to .77).

Darci Bartosh and her colleagues conducted a validation of several risk assessment tools, including the MnSOST–R, with a sample of 186 sex offenders in the state of Arizona who were at risk for approximately 5 years. The resulting ROC = .58 missed the threshold for statistical significance in this study, though it was only slightly lower than the ROC values for the other instruments assessed.

The North Dakota, Canadian, and Arizona studies also assessed the Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR) and the STATIC–99, and none of these studies identified significant differences between the tools. In fact, the scores were clustered fairly tightly within each of these studies. The respective ROC values for the MnSOST–R, STATIC–99, and RRASOR were, respectively, .76, .75, and .73 in the North Dakota prison study; .75, .78, and .77 in the North Dakota probation study; .70, .64, and .68 in the Canadian study; and .58, .64, and .63 in the Arizona study.

Douglas L. Epperson

See also Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Risk Assessment Approaches; Sex Offender Risk Appraisal Guide (SORAG); Sexual Violence Risk–20 (SVR–20); STATIC–99 and STATIC–2002 Instruments

Further Readings

Epperson, D. L., Kaul, J. D., Goldman, R., Huot, S. M., Hesselton, D., & Alexander, W. (2005). Minnesota Sex Offender Screening Tool–Revised Scoring Guidelines. Retrieved January 2, 2007, from http://www.psychology.iastate.edu/faculty/epperson/MnSOST-RManual12-22-2005.pdf

Epperson, D. L., Kaul, J. D., Huot, S. M., Goldman, R., & Alexander, W. (2003). Minnesota Sex Offender Screening Tool–Revised (MnSOST–R) Technical Paper: Development, validation, and recommended risk level cut scores. Retrieved January 2, 2007, from http://www.psychology.iastate.edu/faculty/epperson/TechUpdatePaper12-03.pdf

M'Naghten Standard

The M'Naghten Standard is a legal test to guide juries and courts in their determination of whether a defendant should be found not guilty by reason of insanity. Although defendants were acquitted for crimes they committed while they were legally insane for centuries before the M'Naghten Standard was established, no uniform legal test was adopted by the courts until the middle of the 19th century following the case of Daniel M'Naghten (*Regina v. M'Naghten,* 1843).

Daniel M'Naghten was acquitted for killing the private secretary of the Prime Minister of England, Sir Robert Peel. Mr. M'Naghten had a mental illness that was most likely a form of paranoid schizophrenia. His mental illness was characterized by the belief that he was the victim of an international conspiracy. He believed that if he killed the prime minister, it would lead to the second coming of Christ and the salvation of humanity. Rather than shooting the prime minister, though, he mistakenly shot his private secretary, Edward Drummond, who died a few days later. After he shot Mr. Drummond, he attempted to fire a second shot, but he was apprehended and arrested.

Daniel M'Naghten's father was able to secure a well-financed defense led by a leading barrister of the day. The central issue in M'Naghten's case was the proper standard for establishing a legal defense of insanity. M'Naghten was apparently only "partly insane," and purportedly suffered from delusions concerning politics. Apart from his specific paranoid beliefs, he was able to make plans and was able to live in the society. At the trial, his barristers argued that he should be found not guilty by reason of insanity. The jury acquitted Daniel M'Naghten because of his insanity. M'Naghten was committed to Bethlem and, later, Broadmoor Mental Institution, where he died approximately at the age 50 on May 3, 1865, some 20 years following his trial.

As soon as the verdict in the *M'Naghten* case was announced, the public became alarmed that insane people could kill without fear of punishment. In addition to the concern the public showed, Queen Victoria (who herself had been the target of would-be assassins on several occasions) and members of the House of Lords also made their disapproval of the verdict known.

Just over 2 months after the decision in *M'Naghten* was made public, 15 common law judges in Great Britain were summoned to the House of Lords to help determine the proper standard for criminal responsibility of the criminally insane. Fourteen of the judges agreed that essentially the same standard employed in *M'Naghten* was the correct legal standard. The opinion delivered included the language pertaining to the legal test of insanity, known as the M'Naghten Standard:

> A person is presumed sane unless it can be clearly proven that, at the time of the committing of the act, the party accused was labouring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing; or, if he did know it, that he did not know he was doing what was wrong. The mode of putting the latter part of the question to the jury . . . had generally been, *whether the accused at the time of doing the act knew the difference between right and wrong.* (*Regina v. M'Naghten,* 1843, 10 Cl. & Fin. At 203, 8 Eng. Rep. at 720)

> A person labouring under a "partial delusion only, and [who] is not in other respects insane . . . must be considered in the same situation, as to responsibility, as if the facts, in respect to which the delusion exists, were real." (*Regina v. M'Naghten,* 1843, 10 Cl. & Fin. At 203, 8 Eng. Rep. at 723)

There are three significant substantive elements of the M'Naghten Standard. First, the decision maker must determine that the defendant was suffering from "a defect of reason, from disease of the mind." Today, these words are interpreted to mean that the defendant is suffering from a mental disorder. Next, the decision maker must decide whether the evidence shows that the defendant did not "know" the "nature and quality of the act he was doing." Thus, the defendant must not have *understood* exactly what he or she did. Finally, the M'Naghten Standard also requires an inquiry to determine whether the defendant knew "what he was doing was wrong." Therefore, the defendant who understands his or her act, yet does not have the capability of knowing that the act was wrong, may also be acquitted under the M'Naghten test. Because the final two elements require a subjective exploration of the defendant's thinking, the M'Naghten test is referred to as a "cognitive" test of insanity. It is also known as the "Right/Wrong Test" since it focuses on an enquiry of the defendant's capacity, at the time of the offense, to be able to know right from wrong.

Almost immediately, the M'Naghten Standard was employed in cases throughout England, the United States, Canada, Australia, and other common law countries. The substantive requirements of the M'Naghten rule are still being used by numerous jurisdictions around the world, including 26 of the United States. Despite its widespread acceptance, the M'Naghten Standard has been strongly criticized, and it has long been abandoned in England, the country in which it originated so long ago. A number of competing tests for legal insanity have been adopted and some jurisdictions have abandoned the defense of insanity.

James R. P. Ogloff

See also Guilty but Mentally Ill Verdict; Insanity Defense Reform Act (IDRA)

Further Readings

Moran, R. (1981). *Knowing right from wrong: The insanity defense of Daniel McNaughton.* New York: Macmillan.

Moran, R. (1985). *The modern foundation for the insanity defense of Daniel McNaughton.* New York: Macmillan.

Regina v. M'Naghten, 10 Cl. and F. 200, 8 Eng. Rep. at 718 (1843).

Mood Disorders

Mood disorders are among the most common mental disorders in the Western world. Formerly called *affective disorders,* these disorders involve a predominant disturbance in mood. In each case, the mood disturbance leads to other problems, which frequently include physical symptoms (such as fatigue), behavioral symptoms (such as social withdrawal), and cognitive symptoms (such as self-critical thoughts). The various mood disorders differ based on the type and duration of symptoms. Severe mood disorders develop from a combination of biological, stressful experiences and personality types or interpersonal factors. Treatment options usually include a combination of medication and psychotherapy.

The various mood disorders can be distinguished based on the nature of the mood disturbance, the severity of symptoms, and their duration. The depressive disorders (sometimes known as unipolar disorders) are primarily characterized by a sad mood or a profound loss of enjoyment in most activities. In younger persons, the mood may be irritable rather than despondent. The depressed mood is often experienced as sadness, tearfulness, discouragement, and feeling "down in the dumps." In some cases, the person may complain of feeling emotionless. The loss of enjoyment or loss of pleasure, called *anhedonia,* is virtually always present to some extent in the depressive disorders; it is often experienced as a loss of interest in one's hobbies and usual activities. A reduction in sex drive is another common experience.

Other common symptoms of depressive disorders include sleep problems, low energy, and changes in appetite. Common sleep problems include insomnia in the form of nighttime waking and difficulty returning to sleep or early morning waking. Because of low energy and fatigue, the smallest tasks may seem overwhelming. Changes in appetite may be so profound as to cause extreme unintended changes in weight, usually weight loss, over a short period of time. During periods of depressed mood, cognitions frequently involve a sense of worthlessness and excessive guilt. Trivial events may be misinterpreted as proof of one's inadequacy, consistent with the negative mood. Decision making and concentration are compromised. Thoughts about death and suicide are common.

The disturbance in bipolar disorders involves periods of depressed mood and separate periods in which the mood is abnormally elevated. The signs of a manic mood include feelings of euphoria, a "high," or an abnormally cheerful mood. The mood may rapidly turn to irritability if others are perceived as interfering with the individual's plans. Inflated self-esteem occurs invariably; it may range from boastful self-confidence to grandiose delusions, such as having the firm belief that one has supernatural powers.

Many symptoms of the manic phases of bipolar disorders are opposite to those experienced in the depressive disorders. In a manic phase, the individual may demonstrate an uninhibited enthusiasm for pleasurable activities, which could include irresponsible spending sprees and indiscriminate sexual pursuits. The need for sleep is markedly reduced and surplus energy abounds. In a manic phase of bipolar disorder, a person may speak in an incessant, rapid, and loud manner. Thoughts may flow at such a rapid pace that the person may seem unable to keep up with them, a phenomenon known as *flight of ideas.* Excess energy, combined with unbridled enthusiasm and a euphoric mood, often lead unknowing observers to conclude

that the individual is under the influence of a stimulant drug, such as cocaine. Indeed, many of the symptoms of bipolar disorder seem excessive and uncontained.

Types of Mood Disorders

The most prevalent depressive disorder, known as *major depressive disorder*, corresponds loosely to the popular concept of a *clinical depression.* At the very minimum, major depressive disorder involves experiencing one episode of deep depression characterized by a sad mood or loss of enjoyment in life. Other common symptoms include sleep problems, fatigue, feelings of worthlessness, and suicidal thoughts. The depressive episode will typically last for months, during which the person experiences these problems most of the time. The symptoms usually remit 6 to 12 months after the onset. There is, however, a significant chance of future depressive episodes. A significant number of people who have recovered from major depressive disorder will have recurrent episodes although these can occur years apart. Major depressive disorder is usually first experienced in late adolescent or early adulthood. Nearly 17% of the U.S. population is likely to experience major depressive disorder, and the rates are twice as high for women as for men.

Major depressive disorder can take many varied forms. The variant with psychotic features involves an unusually severe form of depression accompanied by auditory hallucinations (such as hearing accusing or insulting voices), delusional beliefs, and overwhelming feelings of guilt. The melancholic form, which is more common in older adults, is characterized by early morning waking, weight loss, and anhedonia. The seasonal pattern describes a cyclical form of depression that recurs every fall or winter and involves weight gain and excessive sleep. The seasonal mood disturbance typically lifts in the spring.

Dysthymic disorder is a mild but long-lasting depressive disorder. Whereas the duration of major depressive disorder is measured in months, dysthymic disorder is evident over several years (the minimum is 2 years). Low self-esteem, loss of pleasure, social avoidance, and poor concentration are typical symptoms. The onset of dysthymic disorder is gradual and occurs at an early age.

The types of bipolar disorders are mostly distinguished on the basis of the manic symptoms. The most well-known is Bipolar Disorder Type 1, which was formerly called *manic depression.* It involves multiple recurrent episodes of depression and mania. The manic episodes, which are shorter, usually either precede or follow a severe depressive spell. Mood may temporarily return to normal between episodes. Bipolar Disorder Type 1 is less prevalent than major depressive disorder, affecting fewer than 2% of the population; the gender ratio is equal. Bipolar Disorder Type 2 is similar with the exception that it does not involve full-blown manic symptoms. The mild manic episodes, or *hypomania,* evidence bursts of energy, elevated or irritable mood, and poor judgment, but without the extremes of a full-blown manic episode. Cyclothymic disorder, the mildest bipolar disorder, involves chronic and fluctuating mood changes. The severity and duration of these mild mood changes are less than those witnessed in major depressive disorder or Bipolar Disorder Type 1, yet they are serious enough to cause disruptions in important areas of life and to cause significant unhappiness. To an outsider, the person with cyclothymic disorder may come across as abnormally moody.

Suicide

Suicide is the conscious and deliberate taking of one's own life. Worldwide, it is one of the top 10 leading causes of death. More than 31,000 individuals die by suicide in the United States annually, and an additional 600,000 people attempt suicide each year. The fatality figures are probably underestimates because some suicidal deaths are mistaken for accidents and surviving family members are often reluctant to label the deaths as intentional because of stigma or guilt.

The rates of suicide vary significantly according to age, gender, occupation, life situation, and health. Many young adults, as many as 1 in 10, have seriously contemplated suicide. However, the highest rates of completed suicides occur in older adults above the age of 65. Women are more likely than men to attempt suicide, but men are more likely to die of suicide because they tend to use more lethal methods. Whereas suicidal women often rely on overdosing or cutting their wrists, men tend to use firearms or hanging. People in the midst of relationship problems, such as separation or divorce, have higher suicide rates, as do people with terminal illnesses. As many as 15% of persons with mood disorders will commit suicide, and the risk is particularly high during or following an episode of severe depression.

Suicide rates also vary across ethnic and racial groups in the United States. For example, Native Americans have the highest rates of suicide, while White men have the second highest rates. The risk is relatively lower for Black women. Creative or successful scientists, artists, and professionals have a higher-than-average lifetime suicide risk.

Suicide is best understood as a desperate act designed to end seemingly inescapable emotional, physical, or interpersonal suffering. Some suicidal gestures are also intended to convey to others the depth of one's despair, as a "cry for help." Most persons who have suicidal thoughts experience some ambivalence; this is often reflected in the chosen method and in prior communications of intentions. The majority of people who commit suicide have previously communicated their suicidal intent with others, often in explicit terms. However, highly distressed persons who are determined to die will use highly lethal methods and are unlikely to have shared their intentions with others. Using a very deadly method without sharing the plan with others nearly guarantees that it will be successful.

Suicide notes can be useful for understanding the motives and desperation that drive suicidal gestures. Approximately one-third of individuals who commit suicide do leave behind a note, usually for the benefit of surviving relatives and friends. Many notes are brief and to the point, and they betray profound distress. Suicide notes may be designed to explain the act or relieve surviving relatives' feelings of guilt.

Causes of Mood Disorders

Biological Factors

It has long been known that severe mood disorders run in families, which suggests that heredity plays a role in their development. The rates of mood disorders are nearly three times higher than average among the blood relatives of persons with depressive disorders. Studies of twins, of which one has a mood disorder, show a higher rate of mood disorders among identical twins than among fraternal twins. Heredity plays a greater role in the causation of bipolar disorders. Twin studies reveal that approximately two-thirds of identical twins who have bipolar disorder have a co-twin who shares a mood disorder. In fact, the best predictor of a person's risk of developing a Bipolar Disorder is having a family history. Biological factors, however, play a smaller role in the onset of minor mood disorders.

A growing body of research reveals that severe mood disorders are related to abnormalities in the brain areas that regulate emotions and basic biological needs, such as hunger and sleep. Problems with the brain's internal biological clock are related to inefficiencies in the brain's chemistry. There is evidence that the brain's own chemical signals, known as *neurotransmitters,* are not functioning properly in persons with severe depression. It is believed that imbalances in the brain's chemical signals, combined with disruptions in the sequencing of the brain's biological clock, may account for most of the common symptoms of mood disorders. Specifically, the disruptions in the internal clock could lead to problems with sleep, energy, and loss of enjoyment. Some people may be especially vulnerable to these problems, either because of their family history or because of other nongenetic risk factors.

Life Experiences

The link between stressful life experiences and depression is well established. Several specific stressful events seem to be especially troubling for persons who are prone to mood disorders. Major losses, such as the death of a loved one or financial losses, often precede significant depression. Losses that are ego threatening (such as a divorce or job termination) are usually difficult for persons who are at risk for mood disorders, especially if they feel personally responsible for the event. In other words, being fired from a job for poor performance will be more threatening than losing a job to downsizing. Chronic and ongoing stressors also increase the risk of becoming depressed, in contrast to an abrupt and isolated source of stress.

Personality and Interpersonal Factors

Certain personality traits, such as *negative affectivity,* may help predict a person's risk of developing a depressive disorder in the face of stressful life events. Negative affectivity is a personality type that is prone to negative emotions, including worry, anxiety, and sadness. Because of this proneness to negative emotions, the individual is ill equipped to deal with major losses or threats to the ego. From another perspective, it is suggested that some people are prone to depression because of distorted beliefs about themselves, the world, and the future. Rigid and distorted beliefs

become activated by stressful experiences, causing the person to blow events out of proportion and feel personally responsible for failure and disappointment. According to this viewpoint, negative and self-critical thoughts are directly related to the onset of depression following a stressful life event.

Additionally, a number of interpersonal problems are linked with the risk for depressive disorders. Individuals who are socially isolated and those who lack the social skills for maintaining rewarding relationships are at high risk for depression. Once depressed, pessimism and negative thinking may further isolate the individual from other people who are trying to avoid the negativity, setting up a self-perpetuating cycle. The importance of interpersonal factors in the causation of depressive disorders is further highlighted by the strong association between marital distress and depression. Separation and divorce are common antecedents of depression, as is ongoing marital conflict. The direction of cause, however, is not always obvious—relationship problems could cause depression or the reverse could occur. Alternatively, a separate factor, such as negative affectivity, could be responsible for both depression and relationship problems.

Treatment

The two major approaches to treatment of the mood disorders include medication and therapy. For bipolar disorders, medication is the first line of treatment. It usually consists of a mood stabilizer, which reduces the frequency and intensity of manic episodes, often in combination with an antidepressant. Approximately 75% of individuals with a bipolar disorder who comply with medication will experience some improvement. The amount of improvement, however, is variable, ranging from mild to dramatic. Supportive therapy and family therapy may be helpful supplements for patients with severe bipolar disorder. The unpleasant side effects of mood stabilizers, such as drowsiness, upset stomach, and impaired coordination, along with the stigma of taking medication for a mental disorder, cause problems with medication compliance in many cases of bipolar disorder.

The depressive disorders are often treated with a combination of antidepressant medication and psychotherapy. Approximately two-thirds of patients will benefit from antidepressant medications such as Prozac (fluoxetine is the generic name), although it may take several weeks before any improvement is noticed. The newer antidepressant medications produce relatively few side effects; however, it is not uncommon to experience a decline in sex drive and feelings of restlessness.

Cognitive therapy for depression is one of the best documented treatments. Several large-scale studies show that its effectiveness rivals medication in the long term. Additionally, unlike medication, cognitive therapy can reduce a person's risk for future depressive episodes. As a brief and structured form of treatment, cognitive therapy is designed to help the patient identify and modify distorted thinking. Marital and family therapy may be useful for severe mood disorders that are related to conflict at home.

Richard D. McAnulty and Jocelyn M. Brineman

See also Mental Health Law; Psychotic Disorders

Further Readings

Butcher, J. N., Mineka, S., & Hooley, J. M. (2007). *Abnormal psychology* (13th ed.). Boston: Allyn & Bacon.

Comer, R. J. (2007). *Abnormal psychology* (6th ed.). New York: Worth.

Klein, D. F. (2005). *Understanding depression: A complete guide to its diagnosis and treatment.* New York: Oxford University Press.

Reamer, F. G. (2003). *Criminal lessons: Case studies and commentary on crime and justice.* New York: Columbia University Press.

Schneidman, E. S. (2001). *Comprehending suicide: Landmarks in 20th century suicidology.* Washington, DC: American Psychological Association.

Schneidman, E. S. (2004). *Autopsy of a suicidal mind.* New York: Oxford University Press.

Moral Disengagement and Execution

People ordinarily refrain from behaving in ways that violate their core moral standards because such conduct will bring self-censure. In some institutional role functions, however, such as military combat and state executions, the taking of human life presents a grave moral predicament. Intentional infliction of death and destruction can, therefore, exact a heavy emotional toll and leave a troubled and haunted life for those who have to do it. The challenge is to explain how

individuals who are caring and compassionate in other aspects of their lives can perform roles that require them to take a human life.

In the course of socialization, people adopt standards of right and wrong that serve as guides and deterrents for conduct. They do things that give them satisfaction and a sense of self-worth and refrain from behaving in ways that violate their moral standards because such conduct will bring self-condemnation. However, moral standards do not function as fixed internal regulators of conduct. Moral self-sanctions do not come into play unless they are activated, and there are a variety of psychosocial mechanisms by which such sanctions can be selectively disengaged from lethal conduct. This enables individuals to carry out lethal functions without the restraint and personal costs of self-censure. This entry examines the critical role of selective moral disengagement in state executions.

Mechanisms of Moral Disengagement

Figure 1 presents the eight psychological mechanisms by which moral self-sanctions are suspended and the four sites in the moral control process where this can occur. At the behavioral locus, worthy ends are used to vindicate lethal means. This is achieved by moral and utilitarian justifications. They include biblical imperatives that murder must be avenged and the necessity to execute murderers to maintain societal order, deter others from homicidal crimes, and to spare societies the costs of life imprisonment. Euphemistic language sanitizes the taking of human life as simply a legal penalty and clothes executions in pallid legalese. Advantageous comparison renders executions merciful by contrasting them with the heinous homicides committed by the condemned inmates.

At the agency locus, one's role in the lethal activity is obscured or minimized by displacement and diffusion of responsibility. The path to death of a condemned inmate involves fragmentation of the execution process across jurisdictional systems and subfunctions of the lethal procedure so that no one feels that he or she is the actual agent of the death penalty. At the outcome locus, the experience suffered during the execution is minimized or disputed. At the inmate locus, the condemned are dehumanized, bestialized, and blamed for bringing the execution on themselves by their heinous crimes.

Among the various mechanisms of moral disengagement, moral justification is especially influential because it serves a dual function. Investing lethal means with moral and humanitarian purposes both enlists moral engagement in the service of the enterprise and disengages self-censure for those who have to implement the deathly means. The mechanisms usually work in concert. Moreover, they operate at the social systems level as well as at the individual level.

Moral disengagement is enlisted at each of the three levels in the application of the death penalty—at the

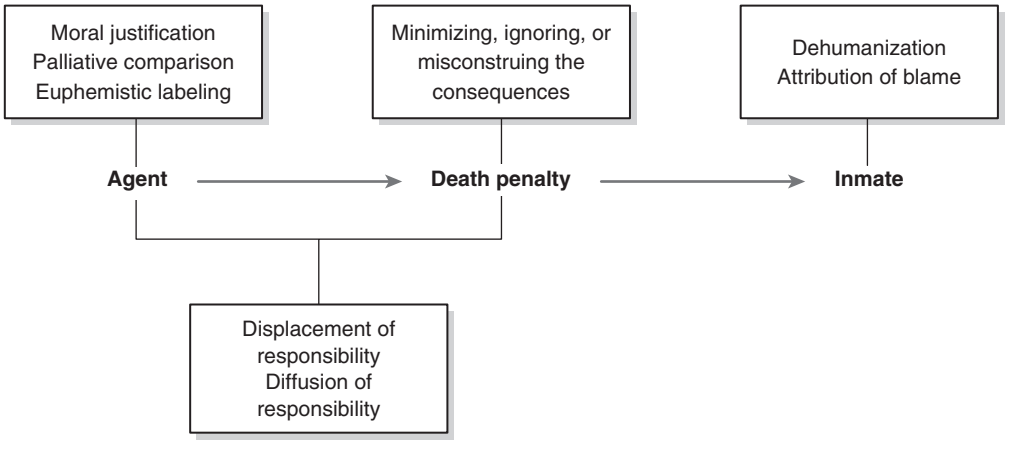

Figure 1 Mechanisms Through Which Moral Self-Sanctions Are Selectively Disengaged From Detrimental Conduct at Different Points in the Self-Control Process

Source: Osofsky, Bandura, and Zimbardo (2005). Reprinted with kind permission of Springer Science and Business Media.

societal, judicial, and execution levels. At the societal level, moral disengagement eases the public's qualms about the use of executions for capital offenses. The higher the moral disengagement, the stronger the public support for the death penalty. Moral concerns are mitigated when state executions are viewed in the abstract under the sanitized label of "capital punishment."

Jurors and Capital Sentencing

Those who favor the death penalty are far removed from its implementation in the execution chamber. It is a graver moral predicament for jurors who make decisions that sentence a person to death. Craig Haney identified the unique conditions built into the sentencing process that enable jurors to sentence a person to death. These conditions reflect the various modes of moral disengagement. Because of the widespread public support for state executions, most jury members are already favorably disposed to the death penalty through repeated societal justifications. Politicians trade on it. Individuals who unalterably oppose the death penalty are eliminated when the jury is impaneled. Attorneys battle over the personalization and dehumanization of defendants. As previously noted, displacement and diffusion of responsibility for the execution also figure prominently in the sentencing process. Jurors view their decisions as compelled by the sentencing instructions rather than as a personal decision. This displacement of responsibility is aided by prosecutors who often present them with misleading and forced choices on capital sentencing.

Jurors not only minimize their personal responsibility for their collective decision but play down its consequences as well. They contend that appellate judges will ultimately decide the question. They also believe that even if the death sentence is upheld, the execution is unlikely to happen. "They don't put you to death. You sit on death row and get old." The weakening of moral engagement by the distal role in the execution process is captured by journalist Sara Rimer in the remarks of a retiring warden: "If jurors had to draw straws to see who was going to pull the switch or start the lethal injection, there wouldn't be as many executions."

Executioners and Moral Disengagement

The gravest moral predicament is faced by executioners who have to kill a human up close and by their own hand. If they did not suspend moral self-sanctions for the intentional taking of a human life, they would have difficulty doing it and would be burdened by a troublesome legacy were they to do so. In a 2005 study, Michael Osofsky, Albert Bandura, and Philip Zimbardo examined, in three penitentiaries, the pattern of moral disengagement in three subgroups of prison personnel depending on the type and degree of their involvement in the execution process. Prison guards who had no involvement in the execution process and were thus spared a grave moral predicament exhibited little moral disengagement. Members of the support team, who provide solace to the families of the victim and the inmate, disavowed moral disengagement. Members of the execution team, who perform key roles in the execution itself, enlisted all the modes of moral disengagement. They adopted biblical, economic, and societal security justifications for the death penalty, ascribed subhuman qualities to condemned inmates, and disavowed a sense of personal agency in the taking of life. In the course of providing ameliorative aid, the support personnel hear the families of the victims recount the brutal ways in which their loved ones were murdered. As a consequence, members of the support team change from moral engagers to moral disengagers with increasing participation in executions.

The study also showed that the members of the execution team see themselves as doing society's work as in any other job in an institutional service facility. Their focus is on performing the subfunctions proficiently. To negate moral self-sanctions, executioners seek solace in the dignity of the process and in the view that condemned killers have a degraded aspect to their nature and executing them will protect the public. The executioners described the desensitization through routinization as follows: "No matter what it is, it gets easier over time. The job just gets easier." The routinization is fostered by a sense of duty and professionalism in carrying out the executions. However, some were distressed by the fact that they no longer were perturbed by their deadly activity: "The hardest thing for me is that the first one really affected me and the next two to three didn't. It affected me that it didn't affect me."

Executions are achieved through the collective effort of many people, each efficiently performing a small part. Responsibility for the executions is displaced to societal policies, the dictate of the law, and jurors' decisions. As one of the guards put it, his job is simply to carry out the order of the state. "It's not up

to me to say yea or nay. That's for the judges and juries. I'm not a part of the deal-making process. I'm here to do the job."

The study indicated that the institutional arrangement diffuses the agentic subfunctions across a variety of individuals, each performing only a small bit in the division of labor. The strap-down is accomplished by highly fractionated, diffused responsibility. Each member straps a particular part of the body: left leg, right leg, left arm and torso, right arm and torso, head. They approach their task with a strong sense of technical responsibility: "We each have a small role on the team. We carry out a job for the state." Fragmentation structurally builds a low sense of personal responsibility into the death penalty system. The moral disengagement power of diffusion of responsibility through task fractionalization is reflected in the remarks of a guard in San Quentin who strapped down the offenders' legs to the death chair in 126 executions: "I never pulled the trigger," he said. "I wasn't the executioner."

The executioners relied on a variety of strategies to manage the emotional aspects of a work life that requires them to put a person to death. Construing executions as serving high moral and societal purposes spared them a heavy emotional toll. "I wouldn't do it at all if it didn't feel right. I'd stop if I felt it were against my morals and the Bible." Societal legal sanctions had similar effects: "According to the law this was justified. I never felt pain or sorrow." Depersonalization of the relationship with condemned inmates was another ameliorative strategy: "It makes it really stressful getting to know the inmates. By not knowing them, you can do your job. Getting to know them makes it tough." Inmates' expressed attitudes of cruelty also made it easier to execute them: "Some of the inmates talk about killing people like eating a bag of potato chips. That makes it easier."

Selective control of one's own consciousness is still another emotion-regulation strategy for lessening perturbing ruminations. Members of the execution team adopted a firm compartmentalization of their work life and home life: "My life is like a switch. I turn it on when I get here and turn it off when I leave. I won't let myself take my job home."

As shown by Samuel Gross and Phoebe Ellsworth, the American public is experiencing a conflicting view regarding state executions. People voice substantial support for the death penalty while doubting its deterrent value and acknowledging that the judicial system is often administered unfairly and cannot fully protect innocent defendants from being put to death. Erosion of public support leaves executioners with the ghastly task of executing individuals stripped of moral justifications for it. "Having the whole country concerned about the death penalty creates more stress for us than the actual execution."

Albert Bandura

See also Death Penalty; Death Qualification of Juries; Juries and Judges' Instructions; Jury Selection; Jury Understanding of Judges' Instructions in Capital Cases

Further Readings

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review, 3,* 193–209.

Gross, S. R., & Ellsworth, P. C. (2003). Second thoughts: Americans' views on the death penalty at the turn of the century. In S. P. Garvey (Ed.), *Beyond repair? America's death penalty* (pp. 7–57). Durham, NC: Duke University Press.

Haney, C. (1997). Violence and the capital jury: Mechanisms of moral disengagement and the impulse to condemn to death. *Stanford Law Review, 49,* 1447–1486.

Haney, C. (2005). *Death by design.* Oxford, UK: Oxford University Press.

Osofsky, M. J., Bandura, A., & Zimbardo, P. G. (2005). The role of moral disengagement in the execution process. *Law and Human Behavior, 29*(4), 371–393.

Osofsky, M. J., & Osofsky, H. J. (2002). The psychological experience of security officers who work with executions. *Psychiatry, 65,* 358–370.

Motions to Suppress Eyewitness Identification

Serving as an important safeguard against wrongful convictions, motions to suppress help keep evidence that was gathered improperly or unfairly from consideration at trial. Psychological research has examined the validity of several assumptions underlying the effectiveness of motions to suppress lineup identifications. These studies have examined judges' and attorneys' knowledge about eyewitness memory in general and lineup procedures in particular. Research using an experimental paradigm raises some questions on the effectiveness of the motions to suppress lineup identification safeguard. Moreover, judges are applying the criteria outlined by *Manson v. Brathwaite* (1977),

which indicates that the suggestive aspects of the identification procedure should be weighed against the likelihood that the identification is accurate. The two prongs that constitute the *Manson* test are not independent of each other because suggestive lineup procedures can readily infect the criteria that judges must consider when evaluating the probability that the identification is accurate. Moreover, the identification accuracy criteria that are to be considered have little to do with eyewitness memory or lineup identification accuracy. In summary, there are several reasons to question the effectiveness of motions to suppress lineup identifications as a safeguard against wrongful convictions.

A motion to suppress is a request to the court to exclude evidence on the grounds that it was obtained unfairly or illegally. These motions are typically filed by criminal defense lawyers in an attempt to keep the evidence in question from consideration at a hearing or at trial. A motion to suppress must be accompanied by supporting arguments or facts that speak of the reliability of the evidence or violations of due process under the Fourteenth Amendment. For example, a lawyer may file a motion to suppress evidence that the police obtained during a search and seizure that was conducted without a warrant or without consent. Lawyers may also file a motion to suppress hearsay testimony, confession evidence, or information gleaned during the course of an interrogation. Finally, lawyers may file motions to suppress eyewitness testimony that stems from a police lineup on the grounds that the lineup identification procedure was conducted unfairly.

There is psychological research that bears on issues surrounding motions to suppress lineup identification evidence. A defense lawyer who believes that a witness erred in the lineup identification because the lineup procedure was conducted unfairly or in a biased manner may (and probably should) file a motion to suppress this evidence from relevant hearings and from trial. Such motions are designed to safeguard against wrongful convictions that are the product of mistaken eyewitness identifications produced by suggestive lineup procedures.

Judges' Sensitivity to Suggestive Lineup Procedures

Psychological research has raised some serious questions about the effectiveness of motions to suppress lineup identifications by challenging the validity of assumptions that form the backbone of this safeguard. One assumption underlying the effectiveness of motions to suppress the lineup identification as a safeguard is that judges are sensitive to unfair lineups and that their rulings on motions to suppress lineup identifications are a function of their evaluations of lineup suggestiveness and fairness. In an effort to determine what judges know about eyewitness memory and the factors that affect lineup identification accuracy, a few surveys of judges in the United States have shown that judges are aware of some factors that affect eyewitness memory and lineup identification accuracy but not others.

Judges' knowledge about eyewitness testimony probably plays an important role in their motion rulings. Richard Wise and Martin Safer surveyed 160 judges and found that familiarity with eyewitness memory issues was related to their tendency to permit the use of legal safeguards such as jury instructions on memory issues and expert testimony. The Wise and Safer research did not examine the link between education and motions to suppress, however.

Taking an experimental approach, Stinson and colleagues presented Florida criminal judges with a description of a simulated crime and eyewitness's description of the perpetrator as well as a photo lineup that varied in terms of the suggestiveness of the lineup instructions, lineup composition (i.e., the extent to which the photos in the lineup matched the eyewitness's description of the perpetrator), and lineup presentation (sequential or simultaneous). Judges recognized the unfairness of suggestive lineup composition and instructions, and they ruled on the simulated motion accordingly. Interestingly, some judges indicated that they very rarely see these types of motions. Neither the reason for this finding nor the extent to which results generalize to other areas is clear. Until fairly recently, the only record of a lineup procedure was a photograph of the array or the lineup members, so defense lawyers would not be able to evaluate the fairness of the lineup procedure nor obtain much evidence to support a motion to suppress. Additionally, some judges indicated that their general practice was to deny these types of motion; their justification typically revolved around the notion that jurors ought to evaluate and weigh the lineup identification evidence and that judges should not be gatekeepers of this type of evidence.

Defense Lawyers' Sensitivity to Suggestive Lineup Procedures

Another assumption impinging on the motion to suppress safeguard is that lawyers are sensitive to

suggestive lineup procedures and file motions to suppress lineup evidence in these situations. Several survey studies have reported that lawyers recognize some biased lineup procedures such as lineup composition and instructions but not others (e.g., lineup presentation). One experiment tested the effects of biased lineup procedures on defense attorneys' reactions to the lineup. These data showed that lawyers were sensitive to some unfair lineup procedures. Compared with lawyers who saw a fair lineup procedure, those who saw lineups that were unfair with respect to the composition were more likely to express their intention to file a motion to suppress the lineup identification evidence and predict that a judge would grant such a motion.

Having direct implications for the motion to suppress safeguard, defense lawyers reported that they rarely attend their clients' lineups. Most lineups are pre-indictment photo arrays during which there is no right to counsel (*Kirby v. Illinois,* 1972; *United States v. Ash,* 1973). Thus, it is difficult for defense lawyers to observe and record biased lineup procedures and to substantiate a motion to suppress the lineup identification. In 1999, the U.S. Department of Justice produced guidelines for law enforcement that included a recommendation that lineup identification procedures be documented. In theory, proper recording of lineup procedures ought to contribute toward the effectiveness of the motions to suppress safeguard.

Why the *Manson* Test Compromises Motions to Suppress

There are also U.S. Supreme Court decisions and case law that speak of the effectiveness of motions to suppress lineup identification evidence. In *Simmons v. United States* (1968), the Supreme Court ruled that judges should not suppress lineup identification evidence solely because it was gathered in a suggestive manner. Instead, the Court ruled that judges should determine whether the eyewitness identification was likely to be accurate by considering the circumstances surrounding the identification. In subsequent decisions, the Supreme Court further eroded the suggestiveness test by outlining criteria that judges should consider when making their motion decision (*Neil v. Biggers,* 1972). In the *Biggers* decision, the Supreme Court proposed that judges consider five factors when determining the reliability of an eyewitness identification: opportunity for the eyewitness to view the perpetrator, the eyewitness's degree of attention during the crime, the eyewitness's confidence in the lineup identification, the accuracy of the eyewitness's description of the perpetrator, and the length of time between the crime and the identification procedure. Psychological research has demonstrated that these five criteria are not particularly predictive of lineup identification accuracy. Finally, in *Manson v. Brathwaite* (1977), the Supreme Court advised judges to weigh any suggestive elements in the identification procedure against the five criteria outlined in *Biggers.*

Timothy O'Toole and Giovanna Shay have chronicled how protections against due process violations have eroded since the *Manson* decision and how this decision has compromised the motion to suppress safeguards. Bringing psychology to bear on this issue, Gary Wells demonstrated the fundamental flaw with the *Manson* decision. Suggestive lineup procedures can distort several of the self-report criteria spelled out by *Biggers,* virtually guaranteeing that an identification produced by suggestive lineup procedures would not be suppressed. In other words, the *Manson* decision makes it unlikely that judges would grant a motion to suppress the identification because they are likely to find at least one of the five redeeming *Biggers* criteria.

One Connecticut case, *State v. Thompson* (2004), delineates clearly the flawed analysis in *Manson.* The Thompson case involves a shooting that seriously wounded the victim, Wesley Gray. Two firefighters at a nearby fire station heard the gun shots, went outside, and saw a man carrying a shotgun. One of the firefighters indicated that he caught a "quick glance" at the man's face before he returned to the fire station, where he continued to observe the man for a few moments. Subsequently, the firefighter went back outside where he saw the individual climbing a fence. The firefighter retrieved the shotgun, handed it to the police, and provided a description. Shortly thereafter, a police officer drove the firefighter witness to a dead-end alley, the location where other officers had apprehended the suspect. The police officer told the witness that the police had apprehended the person who was "probably the shooter," shined the headlights from the police car at the defendant, and asked the firefighter to make an identification. The firefighter indicated that he was "absolutely certain" that suspect was the shooter. The defendant, Jerry Thompson, filed a motion to suppress the identification on the grounds that it was highly suggestive and unnecessary, but the court denied the motion because the "totality of the circumstances" indicated that the identification was sufficiently reliable for the jury to consider. The court relied on three

of the *Biggers* criteria for making its decision: the witness was confident, he had a good look at the suspect, and the identification took place shortly after the incident. The defendant was convicted of assault and possession of a firearm; he appealed on several grounds, including that the trial judge erred in denying the motion to suppress, but the appellate court affirmed the trial court's decision. Neither the trial nor appellate courts recognized that the suggestive identification procedure, perhaps in concert with other factors, can easily distort eyewitnesses' estimates of their opportunity to view the perpetrator, their confidence in their identification, and their estimate of their "degree of attention" at the time of encoding.

In addition to the obvious calls for eliminating any suggestive aspects of lineup identification procedures and adopting best practices for identification tests, Gary Wells recommends a series of alternatives that would remedy the problems created by *Manson.* One of these proposed remedies is to shift the burden of proof in situations where the lineup procedure was suggestive so that the prosecutor would have to demonstrate why the identification should be allowed. This is a simple and reasonable solution to this problem. Should this recommendation be implemented in the future, the decision-making process of judges considering a motion to suppress the lineup identification would change.

Veronica Stinson

See also Confidence in Identifications; Confidence in Identifications, Malleability; Exposure Time and Eyewitness Memory; Eyewitness Descriptions, Accuracy of; Eyewitness Memory; Identification Tests, Best Practices in; Instructions to the Witness; *Neil v. Biggers* Criteria for Evaluating Eyewitness Identification; Presence of Counsel Safeguard and Eyewitness Identification; Showups; Wrongful Conviction

Further Readings

Kirby v. Illinois, 406 U.S. 682 (1972).
Manson v. Brathwaite, 432 U.S. 98 (1977).
Neil v. Biggers, 409 U.S. 188 (1972).
O'Toole, T. P., & Shay, G. (2006). *Manson v. Brathwaite* revisited: Towards a new rule of decision for due process challenges to eyewitness identification procedures. *Valparaiso University Law Review, 41,* 109–148.
Simmons v. United States, 390 U.S. 377, 385 (1968).
State v. Thompson, 81 Conn. App. 264 (2004).
Stinson, V., Devenport, J. L., Cutler, B. L., & Kravitz, D. A. (1997). How effective is the motion-to-suppress safeguard? Judges' perceptions of the suggestiveness and fairness of biased lineup procedures. *Journal of Applied Psychology, 82,* 211–220.
United States v. Ash, 413 U.S. 300 (1973).
Wells, G. L. (2007). What is wrong with the *Manson v. Braithwaite* test of eyewitness identification accuracy? Retrieved February 22, 2007, from http://www.psychology.iastate.edu/FACULTY/gwells/Mansonproblem.pdf
Wise, R. A., & Safer, M. A. (2004). What US judges know and believe about eyewitness testimony. *Applied Cognitive Psychology, 18,* 427–443.

Mug Shots

In cases where a criminal's identity is unknown to an eyewitness and investigators have not yet pinpointed a suspect, witnesses may be asked to search through a large number of photographs for a picture of the criminal. This process is known as a mug shot search because the photographs typically come from a database of photographs of arrested people (either computerized or from a file drawer system). Researchers have examined whether viewing hundreds of photographs in search for a criminal may have detrimental effects on a witness's memory of the criminal or later identification accuracy. Specifically, researchers have focused on three potential effects: interference, unconscious transference, and commitment. Regardless of the effect, one caveat with this body of research to date is that it has not yet been tested with real-world witnesses in real criminal cases.

Interference

Interference, in mug shot research, is when postcrime information, in the form of viewing many new faces, weakens or interferes with the witness's memory of the actual criminal. Interference is most commonly tested in research laboratories by exposing two groups of participants to a mock crime, asking one group to look through mug shot photographs and then asking both groups of witnesses to make an identification of the criminal from a six-person lineup. Researchers also manipulate whether or not the mock criminal's photograph is present in the lineup to test whether or not witnesses who viewed the mug shots are more likely to choose an innocent person when the actual target is not present. Although it is reasonable to assume that the process of viewing hundreds of faces in search for a

criminal may influence a witness's ability to later make a correct identification of the criminal, research results to do not support this assumption. Research has shown that viewing mug shots has virtually no effect on later identification accuracy from lineups.

Unconscious Transference

Unconscious transference from viewing mug shots refers to the event in which an innocent lineup member, who is also the only lineup member previously viewed by the witness in a prior mug shot task, seems more familiar than do the other lineup members because he was viewed in the mug shots. The concern is that this sense of familiarity on the part of the witness may lead to an increased rate of selection of the (only) lineup member who was seen previously in a mug shot task. The phenomenon of unconscious transference has likely plagued most adults at one time or another as evidenced in the common question, "Where do I know that face?" For witnesses who view mug shots, followed by a lineup that contains one person seen in those mug shots and five photographs never seen before, they are faced with a similar question. The correct answer is for witnesses to say, "I saw that face in the mug shot task," and the erroneous conclusion is that the face is familiar because it is the face of the criminal.

Support for unconscious transference from mug shots is mixed, with only a few published studies finding support for the effect. Researchers have manipulated variables such as the number of mug shots viewed (from 10 to more than 600) and the delay from viewing the mug shots to the lineup task (immediately to several weeks later) but have been unable to find a consistent predictor of the unconscious transference effect.

Commitment

Commitment refers to the event when a witness selects a (innocent) person from a mug shot task and then selects the same (incorrect) person from a later lineup procedure. Research on the commitment effect is consistent in that it is relatively easy to produce and that it has the largest negative impact on lineup identification accuracy when considered with the other two effects described above. In one research example, almost two-thirds of witnesses who selected an innocent person from a mug shot task went on to later identify that same innocent person from a lineup. A comparison group of participants who did not see mug shots picked the innocent person at a rate of only 20%.

Procedural Matters

As with any identification procedure, there are numerous ways that investigators could conduct the mug shot task that may have differential effects on the outcome. Some procedural variations that have been examined include whether the photographs are sorted by gender, age, race, and type of crime before viewing; the ideal number of mug shots to view; and whether a computerized sorting system yields more accurate identification results than do standard mug shot methods.

In sum, mug shot research has not supported the intuitive concerns that interference and unconscious transference effects generate. Commitment to a photograph, however, does seem to be a strong predictor of identification errors from mug shot searching. Regardless of the area of research described above, an increase in real-world data obtained from field studies will be highly beneficial and informative for future mug shot research.

Jennifer E. Dysart

See also Eyewitness Descriptions, Accuracy of; Eyewitness Memory; Identification Tests, Best Practices in; Unconscious Transference

Further Readings

Deffenbacher, K. A., Bornstein, B. H., & Penrod, S. D. (2006). Mugshot exposure effects: Retroactive interference, mugshot commitment, source confusion, and unconscious transference. *Law and Human Behavior, 30,* 287–307.

Dysart, J. E., Lindsay, R. C. L., Hammond, R., & Dupuis, P. R. (2001). Mug shot exposure prior to lineup identification: Interference, transference, and commitment effects. *Journal of Applied Psychology, 86,* 1280–1284.

Gorenstein, G. W., & Ellsworth, P. C. (1980). Effect of choosing an incorrect photograph on a later identification by an eyewitness. *Journal of Applied Psychology, 65,* 616–622.

McAllister, H. A., Stewart, H. A., & Loveland, J. (2003). Effects of mug book size and computerized pruning on the usefulness of dynamic mug book procedures. *Psychology, Crime & Law, 9,* 265–277.

Multiple Personality Disorder

See Dissociative Identity Disorder

N

Neil v. Biggers Criteria for Evaluating Eyewitness Identification

In its 1972 ruling in *Neil v. Biggers,* the U.S. Supreme Court outlined five criteria that should be used in evaluating the accuracy of eyewitness identifications: the witness's certainty, his or her quality of view, the amount of attention paid to the culprit, the agreement between the witness's description and the suspect, and the amount of time between the crime and the identification attempt. For many reasons, these criteria are suboptimal. Some of them directly contradict empirical research, and others can actually be misleading under certain circumstances. Preferable methods for evaluating accuracy include assessing the suggestiveness of the identification procedure, including the instructions given to the witness; examining the structure of the lineup or photo spread; and checking whether the person administering the photo spread knew who the suspect was.

The U.S. Supreme Court's decision in *Neil v. Biggers* (1972) was the first time that the Court had made explicit recommendations about evaluations of eyewitnesses in criminal cases. These criteria, known to eyewitness researchers as the *Biggers* criteria, are

> the opportunity of the witness to view the criminal at the time of the crime, the witness' degree of attention, the accuracy of the witness' prior description of the criminal, the level of certainty demonstrated by the witness at the confrontation, and the length of time between the crime and the confrontation.

Although the *Biggers* criteria are intuitively appealing, psycholegal researchers generally disapprove of them for several reasons. First, reports on the extent to which these criteria are met, especially confidence, are not reliably related to identification accuracy. Second, most of the reports are subjective, provided by the very person whose memory is in dispute when an identification is challenged. Finally, they attempt to postdict accuracy, a goal that has had limited success throughout the empirical study of eyewitnesses. The background of the criminal case that prompted the criteria and the empirical data related to each criterion are presented below.

In the crime for which Biggers was convicted, the victim was taken from her home and raped along the railroad tracks a short distance away. The attack lasted between 15 and 30 minutes. Several times after the assault, the victim was shown photos in both lineups, where multiple photos are shown at a time, and showups, where only one photo is presented. She did not identify anyone from these photos. Seven months after the assault, Biggers was identified in a police station showup. The showup was conducted because the police claimed that they were unable to locate appropriate fillers for a lineup. After the police escorted the victim past the defendant, she asked them to have him say, "Shut up, or I'll kill you," a phrase used by her assailant. She then identified Biggers and indicated that she had "no doubt" about the accuracy of her identification.

The critical issue decided by the Supreme Court was whether the showup was "unnecessarily suggestive" and therefore violated due process. In previous cases, the Court argued that it was possible for identification procedures to be so unnecessarily

suggestive as to render the identification unreliable and therefore a violation of due process. However, such a determination must be considered "on the totality of the circumstances." For example, in *Stovall v. Denno* (1967), the identification procedure did not violate due process because the victim's critical medical condition justified the hospital room showup and the victim subsequently identified the defendant at trial. In another case, the totality of the circumstances analysis indicated that due process was violated because the witness was not able to definitively identify the defendant during either a suggestive lineup or a showup. In that case, it was only after the third exposure to the defendant that the witness produced a confident identification.

Using the criteria described above, the Court (with five justices in the majority) concluded that the showup procedure was not unnecessarily suggestive. First, the victim had ample opportunity to view her attacker, both "under adequate artificial light . . . and under a full moon outdoors." Second, the witness was "no casual observer," suggesting that she had paid close attention to the culprit's face during the assault. Third, her description was "more than ordinarily thorough," including mention of the assailant's height, age, skin tone, and voice. Fourth, she displayed a high level of certainty in her identification, saying "I don't think I could ever forget [that face]." Finally, although 7 months had passed between the crime and the identification of Biggers, the Court reasoned that because the victim never made any other identifications, in spite of many opportunities to do so, "her record for reliability was thus a good one, as she had previously resisted whatever suggestiveness inheres in a showup." Therefore, according to the totality of the circumstances analysis, reports on the criteria were acceptable, suggesting that the witness's identification was accurate in spite of the suggestive procedure used to obtain it. The recommendations articulated in *Biggers* were upheld in *Manson v. Brathwaite* (1977); the Court has not revisited recommendations for evaluating eyewitnesses since 1977.

At the time these recommendations were issued, the field of psychology and law was in a nascent stage; the flagship journal of the field, *Law and Human Behavior,* had not yet been established. Therefore, the justices relied on intuition rather than empirical evidence when designing a set of criteria. Although the criteria are intuitively appealing, several significant problems exist.

Certainty, View, and Attention: Subjective Criteria

Three of the five *Biggers* criteria—certainty, view, and attention—are subjective reports produced by the eyewitness, the very person whose accuracy is at issue in a criminal trial. The most problematic of these is undeniably witnesses' certainty. Perceivers naturally assume that a confident witness is an accurate one. This belief is well-founded under certain circumstances. When witnessing conditions vary widely, there is a strong relationship between confidence and accuracy: Witnesses who had a poor view are less confident than witnesses who had a good view. However, the integrity of the relationship between confidence and accuracy is easily compromised. For example, information suggesting that a co-witness identified the same person inflates certainty, as does identifying the person believed to be the culprit by the photo-spread administrator. The details of the Court's certainty recommendation suggest that there may have been some awareness that confidence is malleable. The critical confidence report, from the Court's perspective, was certainty "at the time of the confrontation," not confidence at the time of the in-court identification. It is possible that the Court's specification derived from an awareness that subsequent reports were vulnerable to influence by external variables.

Unfortunately, the Court's stipulation that certainty at the time of the identification is the relevant report does not ensure that this reported certainty provides useful information about accuracy. Indeed, simple manipulations can dramatically distort witnesses' memories of how certain they were at the time of their identification. A recent meta-analysis summarized the results of 20 experimental tests with more than 2,400 participants. Witnesses who were told that their identification was correct (i.e., "Good, you identified the suspect") reported recalling greater certainty in their identification than did witnesses who were told nothing about the accuracy of their identification. This inflation is especially troubling because in the original experiments, witnesses made identifications from target-absent photo spreads, meaning that their inflated confidence accompanied an incorrect identification. More troubling, this simple manipulation also distorted reports on the two other subjective criteria. Eyewitnesses who heard that their identification was correct reported better views and paying more attention compared with witnesses who heard nothing

about their accuracy. In conclusion, three of the five reports are distorted by simple, legal comments from investigators.

Description and Time: Objective Reports

Description and time are primarily objective reports—evaluations of these criteria do not rely on witnesses' own reports. Evaluators can examine for themselves the degree of match between a witness's description and the appearance of the defendant. Similarly, there is a record of the date of the crime and the date the suspect was positively identified. Psychological literature generally supports the time criterion: Accuracy diminishes as the time between the witnessed event and the identification attempt increases. However, the literature on the description criterion is mixed. One study concluded that there is no connection between an eyewitness's description and identification accuracy. Other studies suggest that witnesses are more likely to identify suspects if the witnesses have given a detailed description. Still other studies complicate the relationship even further by suggesting that the mere process of providing a verbal description of a perpetrator harms identification accuracy (i.e., verbal overshadowing). An empirically validated interviewing style, known as the cognitive interview, increases the quality of witnesses' descriptions but, as predicted by verbal overshadowing, decreases identification accuracy. Fortunately, identification accuracy rates are preserved if a delay exists between the verbal description and the identification attempt. Even though description and time are primarily objective, they are not immune to influence by external variables such as interviewing style.

System Variables Versus Estimator Variables

Most of the *Biggers* criteria are *estimator variables*—that is, variables that are not under the control of the justice system. For example, the justice system has no control over what kind of view the eyewitness had of the culprit. Similarly, the justice system has no control over how much or what kind of attention the witness paid to the culprit. In contrast, the time criterion falls into the *system variable* category—that is, variables that the justice system can control. For example, investigating officers can decide whether to show photos to a witness immediately after a crime is reported or wait until a suspect is located for a live lineup. The ability to make these decisions means that time is a system variable rather than an estimator variable.

The two remaining variables, confidence and description, straddle both categories. In some ways, they are estimator variables because the justice system cannot ensure that crime characteristics lead to high confidence or good descriptions (e.g., by ensuring that the culprit is in view for a long time and has no disguise). However, both criteria have system variable elements. Confidence can be easily manipulated by external factors having nothing to do with identification accuracy. Myriad variables, such as postidentification feedback, co-witness information, and repeated questioning, affect eyewitnesses' confidence. The quality of a witness's description is also influenced by external variables such as the style of interviewing. The cognitive interview increases both the amount and the quality of information gathered from eyewitnesses.

The *Biggers* Criteria Attempt to Postdict Accuracy

The final problem with the *Biggers* criteria is that they attempt to postdict accuracy—that is, to determine from eyewitnesses' own reports whether an identification that had already occurred was accurate or inaccurate. Empirical research reveals limited success in postdicting accuracy. This will be especially difficult when the variables intended to postdict accuracy are so vulnerable to distortion. A preferable strategy is to minimize the likelihood of inaccurate identifications at the time of the confrontation. One clear example of such a change is to require investigators to warn eyewitnesses that the culprit might or might not be present in the set of photos. Another is to obtain a report of the witness's confidence immediately after the identification is made, allowing defense attorneys to challenge inflated confidence reports at trial.

The continuing publicity surrounding DNA exonerations of individuals wrongfully identified should impress on the Court the need to revisit the *Biggers* criteria. Should the Court undertake such a challenge, some preference for system variable changes would likely be articulated by many psycholegal researchers. In the meantime, defense attorneys and expert witnesses alike should continue to challenge the utility of these criteria, especially confidence, in contributing to meaningful evaluations of eyewitness identification accuracy. At best, the criteria outlined by the Court

provide limited information about accuracy. At worst, the criteria provide misleading information, suggesting that triers of fact rely on variables that have tenuous relationships with accuracy.

Amy Bradfield Douglass

See also Confidence in Identifications, Malleability; Estimator and System Variables in Eyewitness Identification; Expert Psychological Testimony on Eyewitness Identification; Eyewitness Memory; Juries and Eyewitnesses; Showups; U.S. Supreme Court; Wrongful Conviction

Further Readings

Bradfield, A. L., & Wells, G. L. (2000). The perceived validity of eyewitness identification testimony: A test of the five *Biggers* criteria. *Law and Human Behavior, 24*(5), 581–594.

Douglass, A. B., & Steblay, N. (2006). Memory distortion in eyewitnesses: A meta-analysis of the post-identification feedback effect. *Applied Cognitive Psychology, 20,* 859–869.

Manson v. Brathwaite, 432 U.S. 114 (1977).

Neil v. Biggers, 409 U.S. 188 (1972).

Stovall v. Denno, 388 U.S. 293 (1967).

Wells, G. L. (1978). Applied eyewitness-testimony research: System variables and estimator variables. *Journal of Personality and Social Psychology, 36*(12), 1546–1557.

Wells, G. L., & Murray, D. M. (1983). What can psychology say about the *Neil v. Biggers* criteria for judging eyewitness accuracy? *Journal of Applied Psychology, 68*(3), 347–362.

Novaco Anger Scale

The Novaco Anger Scale (NAS) is a self-report questionnaire with Cognitive, Arousal, and Behavioral subscales that constitute a 48-item NAS Total score. It has a separate 12-item Anger Regulation subscale. This questionnaire is designed to index a person's disposition for anger, which is a risk factor for violence and a dynamic variable amenable to treatment. The NAS was developed in conjunction with the violence risk project of the MacArthur Foundation Research Network on Mental Health and Law. It was later revised, along with its companion scale, the 25-item Provocation Inventory (PI), in conjunction with its publication by Western Psychological Services (WPS). The NAS subscales pertain to anger disposition domains, as linked to an environmental context. The PI assesses self-reported anger intensity in response to provoking situations. Both instruments were developed and validated for use with mentally disordered and normal populations.

Description and Development

The NAS was first constructed in 1990 as a two-part instrument, which entailed the PI as "NAS Part B." In its formal publication in 2003, the NAS and PI were designated as separate instruments, and the Anger Regulation subscale was added. In the 2003 revision, a subset of four "attentional focus" items within the NAS Cognitive subscale was replaced by a subset of 4 items concerning "justification." Some item-wording changes were also made across the instrument.

Scale norms, reliability, and validity were first established for clinical populations in studies with 300 male and female patients, both civil commitment and forensic, at three California State hospitals; 119 male forensic patients in Scotland; 129 male intellectual disability forensic patients in England; and 143 Vietnam combat veterans with posttraumatic stress disorder (PTSD). The WPS standardization sample of 1,546 participants was age stratified (9–84 years) and was obtained from various nonclinical settings across the United States; also added were 171 male offenders in various correctional settings.

Scale Components

NAS Cognitive

The arousal of anger is cognitively mediated, being a function of perception and information processing. A schematic network of memories and meanings centrally influence the experience of anger and its expression. The NAS Cognitive subscale is composed of items operationalizing justification, rumination, hostile attitude, and suspicion.

NAS Arousal

Anger arousal is marked by physiological activation in the cardiovascular, endocrine, and limbic

systems and by tension in the skeletal musculature. Transfer of arousal or excitation residues from a prior provocation can intensify anger to a new one. The NAS Arousal subscale items operationalize intensity, duration, somatic tension, and irritability.

NAS Behavioral

Implicit in the cognitive labeling of anger is an inclination to act in an antagonistic or confrontative manner. The NAS Behavioral subscale items operationalize impulsive reaction, verbal aggression, physical confrontation, and indirect expression. The NAS Behavioral score is the principal NAS index expected to be associated with violence.

NAS Total

This is a summary anger disposition index, created by adding the Cognitive, Arousal, and Behavioral subscales. It does not include the NAS Anger Regulation subscale.

NAS Anger Regulation

A central characteristic of problematic anger is loss of regulatory control, which of course hinges on the environmental context in which the anger has been activated. This subscale is composed of cognitive, arousal, and behavior items. It is an overall index of the person's report of his or her ability to regulate anger-engendering thoughts and thinking styles, effect self-calming, and engage in constructive behavior when faced with provocation.

Inconsistent Responding Index (INC)

As a validity check, the NAS contains an index of response inconsistency, computed from a subset of 8 item pairs that have high correlations in the WPS standardization sample. Details are given in the NAS-PI manual.

Reliability

In its initial version, the NAS Total had an internal reliability (alpha) of .95 and a 2-week test-retest reliability of .84 in studies with psychiatric patients in the California State hospitals. An independent study with male offenders in Canada found NAS Total alpha equal to .95 and test-retest reliability to be .89 for a 4-week interval. In the MacArthur Violence Risk Project involving 1,101 civil commitment psychiatric patients, who were given the NAS while in hospital, the alpha for NAS Total was .94. For the WPS standardization sample, it was .94. In other studies, the NAS Total alpha was .97 for Vietnam combat veterans, .95 for forensic patients in Scotland, .92 for developmental disabled forensic patients in England, .94 for violent prisoners in Sweden, and .90 to .93 for undergraduates in California, Australia, and Sweden.

Validity

The initial NAS-PI was validated in the MacArthur Violence Risk Project, directed by John Monahan and conducted in three U.S. metropolitan areas. The NAS was a significant predictor of postdischarge violence at 10-week and 1-year follow-ups. It was also significantly related to patients' imagined violence while in hospital. In the scale development studies with California patients, it correlated .42 and .47 with Spielberger State Anger, prospectively at 1 and 2 months, respectively. It has robust correlations with the Spielberger Trait Anger measure in concurrent testing in studies with psychiatric patients in California, Scotland, England, Canada, and Sweden and with Vietnam veterans in Hawaii. Independent studies have found it to be related to violence by psychiatric patients before hospital admission, during hospitalization, and in the community after hospital discharge. Among combat veterans, it is strongly related to PTSD symptoms and PTSD diagnosis. Its adaptation to developmental disabilities patients has been demonstrated to have high reliability and validity and to be predictive of assaultive behavior in hospital.

Future Directions

The NAS-PI manual elaborates on the theoretical background and history of instrument development, the principles for its use and interpretation, validity issues, and the psychometric properties ascertained from a number of research investigations. One intended use of the NAS is for evaluation of the treatment received. An important extension in this domain would be for case formulation. Given that anger is now

recognized as a dynamic variable associated with violent behavior and that anger treatment efficacy has been demonstrated, the NAS would seem to have value for case formulation as the cognitive, arousal, and behavioral domains lend themselves to identification of the psychological deficits associated with anger dysregulation.

Raymond W. Novaco

See also Forensic Assessment; MacArthur Violence Risk Assessment Study; Risk Assessment Approaches; Violence Risk Assessment

Further Readings

Novaco, R. W. (1994). Anger as a risk factor for violence among the mentally disordered. In J. Monahan & H. J. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment.* Chicago: University of Chicago Press.

Novaco, R. W. (2003). *The Novaco Anger Scale and Provocation Inventory (NAS-PI) Manual.* Los Angeles: Western Psychological Services.

Novaco, R. W., & Taylor, J. L. (2004). Assessment of anger and aggression in male offenders with developmental disabilities. *Psychological Assessment, 16,* 42–50.

O

Obscenity

Obscenity is a unique legal phenomenon for three reasons. First, the defendant does not have to know the exact content of the material at issue; he or she only has to know the general nature of the material in order to be convicted. Second, the defendant almost necessarily has to employ social scientists to conduct a study indicating that the material does not offend the community's standards. Third, because the crime of obscenity depends on the community's sentiment, the defendant does not know if he or she has committed a crime until the verdict is returned. Thus, someone can own obscene material and not know that the material is illegal until a jury decides whether it offends community standards. Psychological research is used to measure community standards.

The legal definition and method of determining obscenity were established in *Miller v. California* (1973). Obscenity depends primarily on three factors. A material is obscene if an average person applying community standards would find that it (a) appeals to a prurient interest (i.e., an unhealthy, morbid, or degrading interest in sex), (b) depicts sexual conduct specifically defined by the state as patently offensive, and (c) lacks any artistic, literary, political, or scientific value.

In *Smith v. United States* (1977), the court clarified that "prurient interest" and "patently offensive" were to be determined by an average person applying contemporary community standards. Additionally, in *Pinkus v. United States* (1978), the court found that children are not part of the community included in the community standards criteria. However, these definitions failed to address what constitutes a community.

States have much flexibility in determining what behaviors are considered patently offensive sexual material. The *Miller* ruling and state court rulings have provided some examples. For instance, the Illinois state court in *Ward v. Illinois* (1977) named bestiality and sadomasochism as examples of patently offensive sexual conduct. Currently, seven states do not have obscenity laws. Of those that do, most states include the *Miller* definition as well as provide examples of patently offensive materials. Other than these definitions, stores selling such material and individuals have no explicit guidance on whether a material is obscene or not. Because the definition of obscenity is determined by community sentiment, it is difficult to know whether a material is obscene until a jury makes that determination. Researchers can conduct studies and testify about the community's standards.

Community Standards and Expert Testimony

Following *Miller* (1973), courts began to address whether parties had either the right or the requirement to produce scientific data. *Kaplan v. California* (1973) determined that defendants have the right to introduce expert testimony on the issue of community standards. In *Commonwealth v. Trainor* (1978), the judge stated that public opinion polls are uniquely suited to inform community standards debates. *People v. Nelson* (1980) generally held that experts are needed because otherwise jurors would rely on their own standards instead of the community's standards as the law

requires. However, *Hamling v. United States* (1974) found that expert testimony was not needed if the jury could view the material themselves. More important, the court determined that the defendant does not have the right to produce a poll. Generally, the current trend is to allow polls as long as they are well conducted and not biased.

Psychological research has investigated various aspects of community standards. Research has determined that community standards may vary over time; they may be restrictive at one time while lenient at another. Additionally, research has discovered that urban communities often have less conservative views of obscenity than less populated areas.

Males, younger individuals, and Whites are less likely to consider a material obscene than their counterparts. Furthermore, research has determined that viewing obscene materials does not change an individual's opinion of whether it is obscene or not, but it may make individuals less likely to consider that the material appeals to a prurient interest in sex.

Finally, individuals' perceptions of obscenity do not match their perceptions of the community's standards of obscenity. That is, individuals indicate that their personal views are more lenient than those of the community, even though they are part of the community. This may be problematic in court if individuals believe that their views do not match their community's view; they may determine that a material is obscene by community standards when they personally do not believe it is. Jury members are supposed to overlook their own standards and apply community standards in these cases. Yet if they do not have information about community standards, they may be inclined to believe that the community is much more restrictive than it truly is. As such, expert testimony from researchers who have polled the community can provide jurors with insight into what the community truly believes to be obscene.

Obscenity and the Internet

The most current challenge to the obscenity laws concerns sexual material posted on the Internet, which did not exist when the obscenity definition was established in 1973. Jurisdictional issues become problematic when obscenity cases involve the Internet. Although the material may not be viewed as obscene in the community of the individual who placed it on the Web site, it may be obscene in other communities where it is viewed. Courts have determined that the individual responsible for the obscene material will not be held to the standards of the town where he or she posted the Web site (*Voyeur Dorm, L.C. v. City of Tampa,* 2001). Instead, he will be held to the standards of the community where the material is delivered (*Miller v. California*, 1973). This decision was furthered by *Ashcroft v. ACLU* (2002), which established that Internet material can be judged by the standard of the community that is most likely to be offended by it. As these examples demonstrate, obscenity laws pose difficulties for both lawmakers and psychologists.

Alicia Summers and Monica K. Miller

See also Expert Psychological Testimony; Public Opinion About Crime

Further Readings

Ashcroft v. ACLU, 535 U.S. 564 (2002).
Commonwealth v. Trainor, 374 Mass. 796, 801–802 (1978).
Hamling v. United States, 418 U.S. 87 (1974).
Kaplan v. California, 413 U.S. 115 (1973).
Miller v. California, 93 S. Ct. 2607 (1973).
People v. Nelson, 88 Ill. App.3d 196 (1980).
Pinkus v. United States, 436 U.S. 293 (1978).
Reese, D. A., & Kyle, D. A. (2002). Obscenity and pornography. *Journal of Gender and the Law, 4*(1), 137–168.
Scott, J. E. (1991). What is obscene? Social science and the contemporary community standard test of obscenity. *International Journal of Law and Psychiatry, 14*(1–2), 29–45.
Smith v. United States, 431 U.S. 291 (1977).
Voyeur Dorm, L.C. v. City of Tampa, 265 F.3d 1232 (11th Cir. 2001).
Ward v. Illinois, 431 U.S. 767 (1977).

Optimality Hypothesis in Eyewitness Identification

As originally proposed by Kenneth Deffenbacher, the optimality hypothesis states that the likelihood of obtaining statistically reliable positive correlations of witness confidence and accuracy varies directly with the degree of optimality of information-processing conditions present for the witness at stimulus encoding,

during memory storage (retention interval), and at memory test. The more nearly ideal the processing conditions are for witnesses, the more they should be able to track accurately the adequacy of their memory performance in overtly expressed confidence ratings. The context in which the optimality hypothesis was proposed is discussed next.

By the end of the first decade of the modern resurgence of interest in conducting research concerned with the psychology of testimony, several dozen studies had accumulated wherein both witness accuracy and confidence in their identification decisions was measured. The commonsense intuition of laypersons, jurists, and researchers alike was that witness confidence should accurately track witness accuracy. In addition, signal detection theory, perhaps the most widely accepted theory of human judgment, made the same prediction. That is, the expectation was that when the accuracy of an identification decision made by each of a number of witnesses was correlated with a measure of their confidence in their decisions, the correlation coefficient expressing the predictability of accuracy from expressed confidence should be positive and relatively strong. The problem was that the empirical findings in this regard were decidedly mixed. Approximately half these initial studies reported positive correlation coefficients, ranging from +.20 to +.95, and the other half reported either correlation coefficients not statistically different from 0 or reversed (negative) correlations of witness accuracy and certainty.

At least on the surface, there would appear to be equal arguments both for and against the prior expectation that witness confidence should track witness accuracy with reasonable fidelity. In an effort to resolve this apparent contradiction of expectation and to account for the very large range of obtained correlation coefficients, a close examination of the studies in question revealed that there was substantial statistical support for the optimality hypothesis. Studies were first classified as having provided either high optimal or low optimal information processing conditions for witnesses. High optimal studies were defined as those wherein overall accuracy was at least 70% and that possessed at least three of the following information-processing conditions: warning of an impending memory test, stress levels low enough to permit adequate monitoring of the environment, ample opportunity to observe the target person, a brief retention interval, high familiarity with the target, similar condition of the target at encoding and memory test, low similarity of the target to foils (an innocent person in a police lineup) at test, unbiased memory test instructions, and additional consistent information presented during the retention interval. Then, both the number of significant positive accuracy-confidence correlation coefficients and the number of not significant or reversed accuracy-confidence correlations were determined for each category of study, those possessing of high and those possessing low optimal processing conditions. Fully 77% of studies had either high optimal processing conditions and a significant positive accuracy-confidence correlation or low optimal conditions and a not significant or reversed correlation coefficient. This proportion of cases is significantly greater than the proportion (.23) of cases wherein high optimal conditions resulted in not significant or reversed correlation coefficients or low optimal conditions produced significant positive correlations. Further analysis showed that this strong support for the optimality hypothesis was not related to whether the information-processing conditions in a study were of greater or lesser forensic relevance.

Since the proposal of the optimality hypothesis, publication of substantially greater numbers of investigations in which accuracy-confidence correlations were computed has occurred, and at least two meta-analyses (assessments of the average effect size, for the accuracy-confidence correlation in this case) have been conducted. As a result, two conclusions may be drawn. First, the average effect size has been estimated to be in the range of +.25 to +.35. That is, only 6% to 12% of the variation in accuracy judgments can be explained by variations in witness confidence. This result can be contrasted with the finding in one study that variations in juror perceptions of witness confidence accounted for as much as 50% of the variance in juror judgments as to witness accuracy. Second, additional empirical support for the optimality hypothesis has been obtained. In one published meta-analysis, clear evidence was found of longer target exposures being associated with a higher accuracy-confidence correlation (+.31) than shorter target face exposures (+.19). Other separate empirical investigations have found moderately strong positive correlations between target face distinctiveness and the size of the accuracy-confidence correlation. Still other studies have obtained markedly higher accuracy-confidence correlations in no-disguise conditions versus disguise conditions and in conditions with lower stress than in conditions with higher witness stress.

Finally, a theoretical analysis has been conducted in which the optimality hypothesis has been derived within the framework provided by signal detection theory. This analysis has resulted in the prediction of the average size of the accuracy-confidence correlation at six different levels of accuracy ranging from zero to very high levels. An example illustrates the utility of this analysis. Within the range of accuracy levels typically obtained in field experiments, a midrange predicted value of the accuracy-confidence correlation coefficient would be +.256, quite close to the estimated population value of +.252 obtained in a published meta-analysis.

Kenneth Allan Deffenbacher

See also Confidence in Identifications; Confidence in Identifications, Malleability; Expert Psychological Testimony on Eyewitness Identification

Further Readings

Bothwell, R. K., Deffenbacher, K. A., & Brigham, J. C. (1987). Correlation of eyewitness accuracy and confidence: Optimality hypothesis revisited. *Journal of Applied Psychology, 72,* 691–695.

Deffenbacher, K. A. (1980). Eyewitness accuracy and confidence: Can we infer anything about their relationship? *Law and Human Behavior, 4,* 243–260.

Deffenbacher, K. A. (1996). Updating the scientific validity of three key estimator variables in eyewitness testimony. In D. Herrmann, C. McEvoy, C. Herzog, P. Hertel, & M. K. Johnson (Eds.), *Basic and applied memory research: Vol. 1. Theory in context* (pp. 421–438). Mahwah, NJ: Lawrence Erlbaum.

Outpatient Commitment, Involuntary

Involuntary outpatient civil commitment is a form of civil commitment in which a court orders an individual to receive treatment and related services in a community setting. Nearly all states in the United States permit outpatient civil commitment, though the manner in which it occurs varies among the states. It is also used in other countries. Whether outpatient commitment should be used has been a source of much debate since the 1970s. While it continues to be controversial, the courts that have considered it have upheld its legality. Research to date suggests that it may be effective in some circumstances for some patients when combined with long-term treatment, though the reasons for its effectiveness are not known at this time.

Outpatient Civil Commitment Defined

Civil commitment is a form of compulsory treatment. Every state has a civil commitment statute that permits the involuntary hospitalization of an individual if certain conditions (generally a mental illness with behavioral consequences, most typically dangerousness to self or others) are found to exist. Many states have broadened the application of involuntary civil commitment statutes to permit individuals to be committed to treatment in outpatient settings.

Because outpatient civil commitment, like inpatient civil commitment, involves some deprivation of individual liberty, state statutes must specify the criteria that will be applied before someone can be ordered into outpatient care. There are three general types of outpatient commitment. The first is a form of "conditional release" used in some circumstances when an individual is going to be discharged from inpatient psychiatric care. The individual must agree on discharge to comply with one or more conditions, including the receipt of treatment in the community. A second type of outpatient commitment statute (most common among the states) uses the same criteria for both inpatient and outpatient commitment but permits a judge to order outpatient treatment as an alternative to inpatient treatment if the judge finds that the person meets the criteria for civil commitment. In the third type of outpatient commitment statute, there are separate statutory provisions for outpatient commitment, and the criteria differ from those used for inpatient commitment.

Criteria for Outpatient Commitment

While most states use the same criteria for inpatient and outpatient commitment, since the mid-1990s there has been more emphasis on the creation of discrete and separate criteria for outpatient commitment. These statutes, best exemplified by those found in New York and North Carolina, use many or all of the following criteria in defining those individuals who may be involuntarily ordered into outpatient treatment:

- The person is 18 years of age or older.
- He or she suffers from a mental illness.
- The individual is unlikely to survive safely in the community without supervision.
- He or she has a history of lack of adherence to treatment for mental illness.
- As a result, within a defined period in the past (usually 36 or 48 months), he or she has been hospitalized or jailed or has engaged in dangerous conduct (including threats).
- The individual refuses treatment or lacks the capacity to accept treatment voluntarily.
- In light of the person's history and condition, the person requires treatment to prevent a relapse or deterioration that could result in harm to the person or others.

A primary difference between criteria such as these and more typical involuntary commitment criteria is that these criteria are preventive in nature, permitting intervention in anticipation of the person's relapse or deterioration. In contrast, most civil commitment statutes permit intervention only after the occurrence of specified behavior, typically defined as being dangerous to either self or others, or an inability to meet basic needs.

These "pure" outpatient commitment statutes also typically require a finding by the judge that treatment will be available to the person if the court orders it. The statute may specify the types of treatment that may be ordered as part of an outpatient treatment order. For example, the New York law (which uses the phrase "assisted outpatient treatment" rather than involuntary outpatient civil commitment) states that ordered treatment

> shall include case management services or assertive community treatment services to provide care coordinate, and may also include any of the following categories of services: medication; periodic blood tests or urinalysis to determine compliance with prescribed medications; individual or group therapy; day or partial day programming activities; educational and vocational training or activities; alcohol or substance abuse treatment and counseling and periodic tests for the presence of alcohol or substance abuse; supervision of living arrangements; and any other services . . . prescribed to treat the person's mental illness and to assist the person in living and functioning in the community, or to attempt to prevent a relapse or deterioration that may reasonably be predicted to result in suicide or the need for hospitalization. (N.Y. Mental Hygiene Law § 9.60(a)(1))

The specific definition of services that must and may be included as part of an outpatient treatment order also differs from a typical involuntary commitment statute, which does not provide such specificity.

Consequence of Noncompliance With an Outpatient Treatment Order

If the person fails to comply with the treatment order, state law typically permits one of two responses. The person may be brought back to court, and the court may impose new conditions, emphasize the importance of complying with the existing conditions, or hold the person in contempt of court—something that rarely, if ever, happens. Second, the person may be ordered to an inpatient setting for assessment to determine whether the person now meets the criteria for inpatient commitment. If so, the person may be hospitalized under the state's involuntary commitment provisions.

One of the primary reasons for the enactment of outpatient civil commitment provisions is the argument that individuals with mental illnesses who quit taking prescribed medication are the group of people most at risk for deterioration and ultimately behavior that endangers them or others. Outpatient commitment laws typically permit a judge to order the person to take medication as part of the commitment order. However, before a person may be forced to take medication, state laws usually require another court hearing to determine if the person lacks the capacity to make decisions regarding medication. If the person is found to have the capacity (i.e., the legal competency) to make decisions about medication, then the person is usually permitted to continue to refuse medication despite the fact that he or she is under an outpatient treatment order.

The Legality of Outpatient Commitment Statutes

Some have criticized outpatient commitment statutes on legal grounds, arguing that they represent an unwarranted and legally suspect extension of the state's authority to force people to accept treatment against their will. However, courts have uniformly upheld the constitutionality of outpatient commitment statutes and in doing so have provided judicial endorsement of

the state's authority to act preventively in certain circumstances. For example, in upholding the constitutionality of New York's outpatient commitment statute, the New York Court of Appeals observed that the statute forwarded the state's interest in "warding off the longer periods of hospitalization that, as the Legislature has found, tend to accompany relapse or deterioration" (*In the Matter of K.L.*, 2004, p. 487).

Issues in Implementing Outpatient Commitment

The implementation of outpatient commitment statutes varies by state. A number of implementation issues have been reported. First, it appears that regardless of the type of statutory provision a state has, outpatient commitment orders are used most frequently at the point of discharge, as a way of attempting to ensure treatment compliance as the person enters the community. Second, there are a number of practical barriers that sometimes reduce the use of outpatient commitment. These include difficulties in transporting the individual, limits on treatment capacity, and lack of adequate social supports such as housing. Third, perceived difficulties in enforcing outpatient commitment orders may reduce its use in some situations.

The Impact of Outpatient Commitment Statutes

There have been two generations of research into the effectiveness of outpatient commitment statutes. The first generation of research generally relied on anecdotal evidence from a particular state or jurisdiction, and while this research often suggested that outpatient commitment was effective, there were significant methodological problems that called the reliability and generalizability of the findings into question.

The second generation of research has been more methodologically rigorous and has examined the impact of pure outpatient commitment statutes, principally in New York and North Carolina. The most comprehensive studies have been conducted in North Carolina. The North Carolina studies relied on random assignment of involuntarily hospitalized individuals meeting the state's criteria for outpatient commitment to either be released from treatment or undergo outpatient commitment. Patients in the latter group could receive a renewable 180-day treatment extension after the original 90 days of treatment. While outcomes between the two groups did not differ significantly on most measures, patients in the latter group who received comparatively more intensive outpatient commitment over a longer time had fewer hospital admissions, had fewer days in hospital, were less likely to be violent or victimized, and were more likely to comply with outpatient treatment. However, a comparably designed study in New York did not find similar outcomes.

While it is not clear from the extant research precisely how outpatient commitment might result in better outcomes for some individuals, the North Carolina studies in particular suggest that outpatient commitment orders must be accompanied by treatment over time to be effective.

John Petrila

See also Civil Commitment; Patient's Rights

Further Readings

In the Matter of K.L., 806 N.E.2d 480 (N.Y. 2004).

Monahan, J., Swartz, M. S., & Bonnie, R. (2003). Mandated treatment in the community for people with mental disorders. *Health Affairs, 22,* 28–38.

Ridgely, S., Borum, R., & Petrila, J. (2002). *The effectiveness of outpatient commitment.* Santa Monica, CA: RAND Institute.

Swartz, M. S., Swanson, J. W., Hiday, V.A., Wagner, H. R., Burns, B. J., & Borum, R. (2001). A randomized controlled trial of outpatient commitment in North Carolina. *Psychiatric Services, 52,* 325–329.

Swartz, M. S., Swanson, J. W., Kim, M., & Petrila, J. (2006). Use of outpatient commitment or related civil court treatment orders in five U.S. communities. *Psychiatric Services, 57,* 343–349.

P

Parens Patriae Doctrine

Parens patriae translates from the Latin as "father of the people" and is the legal principle that allows the state to intercede on behalf of juveniles, those who are mentally ill, and others who are unable to protect themselves. The parens patriae doctrine was first enunciated in English common law and referred to the king as exercising protective functions in his role as "father of the country." The parens patriae doctrine should not be confused with the in loco parentis doctrine, which is more temporary in nature and not limited to governmental entities. It should also be noted that in the United States parens patriae power is a state government's exercise of power and not one that can be exercised by the federal government. The doctrine was conceived as a benevolent intercession by the government and addressed the obligations of the government to protect individuals. However, because this doctrine allows the usurpation of the rights of natural parents and legal guardians, as well as individuals deemed incapacitated, it has generated controversy on several fronts with regard to the limits of those powers.

Civil Commitment

Civil commitment proceedings, in which the mentally ill are held in a restrictive setting for treatment, appear to have been the earliest exercise of parens patriae power. Until the 1960s, there were few restrictions on the states' exercise of paternalistic benevolence in dealing with the mentally ill. At that time, however, questions arose with regard to the truncation of civil liberties that occurred with incarceration for mental illness and whether or not the state was necessarily acting in a citizen's best interests. Challenges to civil commitment proceedings revolved around the state's reliance on the medical model in determining when a mentally ill individual met criteria for incarceration and whether commitment was, in fact, in an individual's best interests given the conditions and lack of treatment in mental institutions. Issues were also raised as to whether commitment proceedings unreasonably deprived citizens of due process, particularly in situations where the deprivation of rights for the mentally ill was greater than for individuals who were dealt with through the criminal system. Reforms in civil commitment proceedings have considerably narrowed the state's ability to intercede on behalf of the mentally ill and have replaced the assumption of benevolence with the recognition that the state can only deprive individuals of liberty through due process of law. While the state's parens patriae power allows the state to make decisions regarding mental health treatment, the extent of intrusion is limited to "reasonable and necessary treatment."

Juvenile Law

The evolution of juvenile courts is also intimately connected with the parens patriae concept and is another arena in which challenges have generally resulted in a more careful definition of when the state may intercede and how. Originally, the parens patriae doctrine gave the state power to intervene whenever this was

viewed as being in the best interests of the child. However, in 1966, in *Kent v. United States*, there was a recognition that juveniles had the same rights as adults with regard to due process, and the entire juvenile justice system came under scrutiny. In many ways, challenges to the state's ability to intercede in juvenile matters paralleled the challenges raised with regard to incarceration of the mentally ill: the lack of due process, the lack of consistency in defining which juvenile behaviors required intervention, and the absence of clear indicators that the state's intercession resulted in appropriate rehabilitative efforts. Ultimately, it became clear that juveniles, as with the mentally ill, were receiving worse treatment under the parens patriae doctrine than would be afforded to them as adults in criminal settings. Reforms resulted in the state having less discretion than had previously been afforded under parens patriae as formal procedures were subsequently implemented in juvenile hearings.

Child Abuse and Neglect

Another arena in which the doctrine of parens patriae is fundamental has been in the state's intercession on behalf of abused and neglected children. This is an area fraught with conflict between the care and protection of children, on the one hand, and constitutional freedoms related to family privacy and parental liberty, on the other. This conflict is particularly evident in cases involving religious tenets of the parents clashing with recommended medical treatment for their children. In general, courts have concluded that religious freedom does not allow parents to risk impaired health or death for their children. In these cases, the state has relied on the parens patriae doctrine to justify intervention on behalf of the children. As with the previously described arenas in which parens patriae is a fundamental legal concept, the concept has been exercised with considerable latitude historically and then limited by reforms more recently. Difficulties in operationally defining abuse and neglect, as well as the state's inability to prove that its interventions result in a superior outcome for children, have complicated the delicate balance between protecting children and respecting family privacy. This issue has been particularly relevant with regard to the removal of children from the family for placement in the foster care system given the documented flaws in that system. Other areas that have been raised under parens patriae with regard to child abuse and neglect issues have revolved around child labor and school attendance, with clearer justification for the state's interest in intervening.

Parens patriae has been an important doctrine in delineating a protective role by the government toward vulnerable members of society. Although a setting forth of state's obligations toward citizens who are incapable of protecting their own interests is an important aspect of governmental functioning, this doctrine also has the potential to justify incursions into fundamental liberties. In each arena in which this doctrine has been prominent, historically there has been a trend toward limiting the broad powers of the state to intervene in favor of achieving an appropriate balance between the exercise of the state's obligations to its vulnerable citizens and the retention of fundamental freedoms.

Marsha Anne Hedrick

See also Child Maltreatment; Civil Commitment; Juvenile Offenders; Mental Health Law

Further Readings

Kent v. United States, 383 U.S. 541 (1966).

Koocher, G. P., & Keith-Spiegel, P. C. (1990). *Children, ethics, and the law.* Lincoln: University of Nebraska Press.

Melton, G. B., Petrila, J., Poythress, N. G., & Slobogin, C. (1987). *Psychological evaluations for the courts.* New York: Guilford Press.

Parent-Child Relationship Inventory (PCRI)

The Parent-Child Relationship Inventory (PCRI) is a 78-item self-report instrument designed to measure mothers' and fathers' perceptions of their relationship with an individual child and their attitudes about being parents. Responses are made on a 4-point Likert scale, with high scores indicating parenting behaviors that could advantageously contribute to this relationship and low scores suggesting difficulties. Five scales assess interpersonal dimensions of the individual parent-child dyad. These include Satisfaction with Parenting (SAT), Involvement (INV), Communication (COM), Limit Setting (LIM), and Autonomy (AUT).

The Parental Support (SUP) and Role Orientation (ROL) scales measure parental characteristics that may influence interactions with a child. Each of these scales yields a separate score. Evaluation of the validity of parents' responses is facilitated by the inclusion of a Social Desirability scale (SOC) and 10 correlated items for examining the consistency of their responses in the inventory.

Description and Development

The PCRI was developed, for individual or group administration, to evaluate the quality of parent-child relationships in both applied and research settings. Construction of the scales combined experts' ratings, empirical tests, and subjective critiques by parents and professionals to identify items for inclusion in the measure. The final version of the PCRI was based on standardization data collected from a predominately White sample of 668 mothers and 471 fathers whose children were between the ages of 3 and 15. In most cases, responses were collected from both parents in a family regarding their dyadic relationship with the same child. These normative data were used to develop separate tables for the interpretation of mothers' and fathers' responses that potentially reflect gender differences in parenting. Raw scores can be transformed to percentiles and *T* scores.

Reliability

In the test manual, Anthony Gerard reports alphas (Cronbach's alpha coefficient) for the seven scales ranging from .71 (SUP) to .87 (LIM). Test-retest reliability after 1 week ranges from .68 (COM) to .93 (LIM) and after 5 months from .44 (AUT) to .71 (SUP and ROL).

Validity

Content validity of the PCRI is substantiated by how well the scale items represent parents' attitudes and values based on parenting theory, comparison with the extant literature, and experts' ratings of the items. An iterative process resulted in statistical evidence that the PCRI's scales, and the items included therein, characterize well-established domains of the parent-child relationship. During measure development, construct validity was examined by the assessment of internal consistency and item-scale correlations. Intercorrelations between the scales are attributed to an expected correspondence between particular domains. For example, parents who report that they participate in activities with their children are more likely to respond that they have open and effective communications with their children as well. However, concerns have been raised regarding overlapping constructs that contribute to redundancy among the scales.

Evidence of predictive and criterion-related validity is presented in the PCRI manual. Responses from couples involved in divorce litigation and custody mediation revealed that these parents were more likely to report difficulties in their relationship with their children than did the normative sample. Likewise, adolescent mothers who reported lower satisfaction with their parenting role were more likely to discipline by means of scolding and physical punishment.

Recently, cross-informant convergence was reported for mothers' and fathers' independent self-appraisals of family unity with their own responses on the PCRI. However, only the mothers' self-assessments of family discord corresponded systematically with the PCRI. A similar pattern was found between adolescents' and mothers' appraisals of family unity and discord. The lack of correspondence between mothers' and fathers' responses, as well as between those of fathers and adolescents, is consistent with the literature regarding differences in the relationships mothers and fathers have with their children. Hence, the PCRI may not accomplish convergent validity for both mothers and fathers.

Future Research

Emerging research has corroborated the internal consistency, stability, and validity of the PCRI. Additional research would enhance the measure's external validity. First, families from diverse backgrounds followed longitudinally would contribute to norms for age-related changes in the parent-child relationship as children mature. These data could also contribute to the examination of whether the lower internal consistency reported for the AUT scale is related to a child's age and parental adjustments in nurturing age-appropriate independence. Additionally, norms are not available for differing ethnic or cultural groups. Certain parenting behaviors (i.e., autonomy, discipline, communication) may vary between cultural groups in correspondence to family hierarchies and expectations placed on family members. Given the diversity within

the United States, alternative family configurations—and an extension of the international use of the PCRI—and representative norms are especially needed for clinical and legal arenas.

Second, research that extends cross-informant convergence is needed to describe the bidirectionality of parent-child relationships and the unique parenting roles of mothers and fathers. The contributing influence includes factors such as the following: (a) Who fulfills the primary caretaking role? (b) What is the frequency of time together? (e) Is there ease of communication? (d) Is there mutual knowledge of each other? (f) Do personal as well as cultural or societal expectations influence parent-child relationships in gender-based ways? What needs to be determined is whether mothers' and fathers' self-reports of their dyadic relationships with their children can have convergent validity.

Jacqueline K. Coffman

See also Child Custody Evaluations; Children's Testimony; Divorce and Child Custody; Forensic Assessment; Guardianship; Parenting Satisfaction Scale (PSS); Uniform Child Custody Evaluation System (UCCES)

Further Readings

Coffman, J. K., Guerin, D. W., & Gottfried, A. W. (2006). Reliability and validity of the Parent-Child Relationship Inventory (PCRI): Evidence from a longitudinal cross-informant investigation. *Psychological Assessment, 18,* 209–214.

Gerard, A. B. (1994). *Parent-Child Relationship Inventory (PCRI): Manual.* Los Angeles: Western Psychological Services.

Gottfried, A. W., Bathurst, K., & Gottfried, A. E. (2003). What judicial officers and attorneys should know about psychological testing in child custody matters. *Family Law News: Official Publication of the State Bar of California Family Law Section, 26,* 9–16.

Parenting Satisfaction Scale (PSS)

Child rearing has always been one of life's major challenges and potential sources of self-fulfillment. In today's world, divorce and unwed parenthood often alter parenting time and commitment for both parents, and attractive occupational options or excessive job requirements may affect motivation, time, or energy available for parenting. Connections between parental attitudes and child-rearing behaviors have previously been documented, but standardized instruments to measure parenting satisfaction are not available. The Parenting Satisfaction Scale (PSS) was constructed to meet this need for reliable assessment of an important family variable at a time of a major family change. Scores derived from this 45-item scale enable mental health and judicial personnel to define, compare, and communicate levels of parent satisfaction in three domains: satisfaction with spouse or other parent's child-rearing performance, satisfaction with the responding parent's relationship with the child, and satisfaction with the responding parent's own parenting performance.

Scale Development

Initially, scale items were generated from an open-ended questionnaire administered to a heterogeneous sample of approximately 100 adults ranging in age from 21 to 54 years. A total of 259 items were generated from this procedure. Thirty-five members from the original group then reviewed the items for clarity and critical relevance to the parenting role, and a panel of three experts from the field of child and family development assessed the items' face validity. A pool of 211 items remained after these refining procedures.

A volunteer pilot sample of 78 mothers and 52 fathers was then selected from local community groups. This sample ranged in age from 21 to 71 years, and 91% were Caucasian. Educational levels ranged from less than high school to postdoctoral study, and the ages of children in their families ranged from 6 weeks to 38 years.

The PSS responses from the pilot sample were analyzed using principal components factor analysis and equimax rotation, yielding five factors with the 10 highest-loading items used to construct each scale. These pilot phase factors were examined for criterion validity, using four related scales: the Dyadic Adjustment Scale developed by Spanier; two Marital and Life Satisfaction Scales developed by Lee; and the Life Satisfaction Index developed by Neugarten, Havighurst, and Tobin. The PSS total score related significantly to each of the criterion scales, with correlations ranging from .46 to .56. The internal consistency of this pilot version was examined with Cronbach's alpha, and reliabilities ranged from .76 to .93 for the five individual scales and the total score.

Standardization

Time 1

The final phase of PSS development involved national standardization and validity analyses. In a nationwide "impact of divorce" study by the National Association of School Psychologists, 144 psychologists from 38 states were selected in a stratified random sample based on regional population density. The psychologists randomly selected 699 children from the first, third, and fifth grades to represent samples of divorced-family and intact-family children. From the total sample of 699 families, 341 married and 303 divorced parents completed the scale by the project deadline date. The sample was composed primarily of mothers (89%), Caucasians (88%), and public school parents (97%). The sample was evenly balanced by child's gender, grade in school, and school demographic area.

Factor analyses of these data yielded three factors with eigenvalues greater than one. Separate analyses were done for divorced and intact families, and the factors were found to be equivalent, with congruence coefficients at .93 or greater. The first factor was labeled Satisfaction with Spouse/Ex-Spouse Parenting Performance, the second factor was labeled Satisfaction with Parent-Child Relationship, and the third factor was labeled Satisfaction with Parenting Performance. Internal reliabilities for the three factors were $r = .96$, $r = .86$, and $r = .82$, respectively. These three factors of 15 items each made up the final scale.

Time 2

Two years later, data were gathered on a follow-up subsample of 137 subjects. Chi-square analyses on demographic variables verified that this sample was representative of the original study group. Internal reliabilities for follow-up sample PSS scores were calculated and found again to be high (r is equal to .95, .89, and .82 for the three scales, respectively). Test-retest reliability was moderate across this 2-year span (r is equal to .81, .59, and .64, respectively, for the three factors).

Validity

The extensive battery of instruments used in the nationwide study and the assessment of subjects at two points in time enabled an unusual number of validity comparisons. At Time 1, PSS scales showed consistently significant relationships with children's social and academic performance; family health ratings; children's ratings of parent-child relationships; and parental marital, vocational, and life satisfaction scores. Time 1 PSS scores also significantly predicted a number of important child and parental variables 2 years later. For example, with regard to PSS 1 (Satisfaction with Spouse/Ex-Spouse Support), teachers rated the children of satisfied parents as less withdrawn, happier, working hard, having fewer behavior problems, and receiving higher grades in several school subjects. Time 2 children's health status and teacher ratings of social competence were predicted across the 2-year time interval by all three PSS scales.

Comparing families of high and low parenting satisfaction yielded additional validity information. Using only subjects falling into the top or bottom one third of the PSS distribution at Time 1, consistently significant differences in criterion scores favoring the highly satisfied parents were noted. PSS total scores differed significantly on seven of the eight selected criteria, including total teacher ratings of classroom behavior for two rating scales, academic achievement test scores, parents' ratings of children's behavior problems, parents' life and marital satisfaction scale scores, and children's interview responses about the quality of their relationships with their parents.

In other studies, the PSS demonstrated additional substantial evidence of validity. For example, a study of stress in the lives of college-educated women used PSS 2 and PSS 3 to assess satisfaction with the parent-child relationship and parenting performance. For the 630 women respondents, these PSS scales were strongly related to a broad array of other life measures, including total support from friends, relatives, and the community; marital satisfaction; life satisfaction; and physical health. Two additional studies conducted in urban schools with high-risk special education populations and one done in a child guidance center with behavioral problem children showed strong positive relationships between child adjustment variables and PSS scores.

PSS assessment of 1,710 Chinese parents was done as part of a cross-cultural study conducted in the People's Republic of China. Correlations with child variables were consistently in the expected direction. Better PSS scores related to better academic and social adjustment of children. This cross-cultural validity demonstration further strengthened confidence in the PSS instrument, illustrating that

the item content and the three scales have broad applicability.

The PSS has been refined and validated through large-scale studies on both national and international populations. This standardized instrument can be useful in a variety of situations where individual emotional health is assessed or when parenting or coparenting relationships are the subject of study. For example, court personnel may find it useful when examining the quality of parent-child interactions prior to custody determination or following parenting education interventions. School psychologists may find PSS information useful in understanding the etiology of children's school problems.

John Louis Guidubaldi

See also Divorce and Child Custody; Parent-Child Relationship Inventory (PCRI); Parenting Stress Index (PSI)

Further Readings

Guidubaldi, J., & Cleminshaw, H. K. (1994). *Manual for the Parenting Satisfaction Scale.* San Antonio, TX: Psychological Corporation.

Guidubaldi, J., & Cleminshaw, H. K. (1985). The development of the Cleminshaw-Guidubaldi Parent Satisfaction Scale. *Journal of Clinical Child Psychology, 14,* 293–298.

Guidubaldi, J., Perry, J., & Cleminshaw, H. K. (1984). The legacy of parental divorce. In B. B. Lahey & A. E. Kazdin (Eds.), *Advances in clinical child psychology* (Vol. 7, pp. 109–147). New York: Plenum Press.

Parenting Stress Index (PSI)

The Parenting Stress Index (PSI), developed by Richard Abidin in 1976, is a screening and diagnostic assessment tool commonly used to measure the magnitude of stress in the parent-child system. Abidin describes several potential uses of the PSI including screening for the early identification of parenting and family characteristics that fail to produce normal development and functioning in children, identifying children with behavioral and emotional problems, and screening for parents who are at risk for dysfunctional parenting. Abidin has also suggested that the PSI would be useful as a measure of intervention effectiveness and in clinical research. In recent years, the PSI has been used frequently in research investigating child maltreatment and its sequelae.

Description and Development

The development of the PSI has been influenced by changes in theoretical models specifying the determinants of dysfunctional parenting. Early formulations of the model emphasized "stress" as the central construct leading to dysfunctional parenting. By 1982, a more complex model had emerged. Research revealed that stress and dysfunctional parenting were not related in linear fashion. Instead, child characteristics, parent characteristics, family contact, and life stressors all appeared to contribute to the functioning of the parent-child system. The parenting stress construct had become more complex and multifaceted.

In recent years, research has revealed that stress in the parenting system, especially within the first 3 years of life, is critical to the child's emotional/behavioral development and the parent-child relationship. Moreover, parenting stressors are additive and include objective events such as the death of a family member, as well as more subjective experiences of parental social isolation and concerns about a child's potential to achieve developmental milestones.

In 1995, the PSI was revised to improve scoring ease and to introduce a short form of the measure. The standard PSI is a 120-item self-report inventory with an optional 19-item Life Stress Scale. There are six Child Domain subscales (Distractibility/Hyperactivity, Adaptability, Reinforces Parent, Demandingness, Mood, and Acceptability) and seven Parent Domain subscales (Competence, Isolation, Attachment, Health, Role Restriction, Depression, and Spouse). Subscale scores are combined to generate the Parent Domain, Child Domain, and Total Stress factors. Parents of children as young as 1 month and as old as 12 years may complete the measure.

Administration and Scoring

The PSI can be administered and scored by individuals without professional training, but interpretation of the measure should involve an individual with graduate-level training in tests and measurement. Most parents complete the questionnaire in about 20 minutes, though no time limit is given. Respondents are asked to read the instructions on the first page of the item booklet and then respond to each item by circling SA (strongly agree), A (agree), NS (not sure), D (disagree), or SD (strongly disagree) on the answer sheet. The respondent's answers are recorded on the scoring sheet via carbon transfer (if the EZ score form is

used). The PSI includes a validity scale (Defensive Responding), which should be calculated first. Individuals with a Defensive Responding score of 24 or less are likely to be underreporting stress, and caution should be exercised when interpreting such test protocols. Subscale scores are calculated by summing each of the responses that correspond with the subscale. The subscale scores and the Life Stress scale score (if used) are then transferred from the score sheet to the profile form. The Child Domain subscale and the Parent Domain factor scores are calculated by summing the appropriate subscales within each domain. To obtain the Total Stress score, users sum the Child Domain score and the Parent Domain score. Percentile scores corresponding to each of the subscale raw scores are provided on the profile page. Percentile scores are derived from the frequency distribution of the normative sample. Subscale scores may be interpreted individually; however, scores are best considered in relation to each other. The Total Stress score can be used to gauge whether professional intervention might be warranted. Total Stress raw scores greater than 260 suggest a need for referral to an appropriate professional for consultation.

Standardization

Normative data were collected from 2,633 mothers of children ranging from 1 month to 12 years. Normative data were also collected from 200 fathers with children ranging in age from 6 months to 6 years. The PSI's reading difficulty level is estimated at the fifth grade.

Reliability and Validity

Internal consistency (reliability) has been estimated at .70 to .83 for the subscales comprising the Child Domain and .70 to .84 for the Parent Domain subscales. Broad domain and Total Stress reliability coefficients are greater than .90. Test-retest reliability coefficients (ranging from 3 weeks to 1 year after initial administration) were relatively stable across four studies: .55 to .82 for the Child Domain, .69 to .91 for the Parent Domain, and .65 to .96 for Total Stress.

Several studies support the construct and predictive validity of the PSI. The PSI has been used to identify specific stressors for mothers of children with developmental delays, behavioral disorders, and chronic illness. Validation studies have been conducted in Chinese, Italian, Portuguese, Latin American Hispanic, and French Canadian populations. Collectively, these studies suggested that the PSI's psychometric characteristics are stable and robust across cultural and socioeconomic boundaries.

Parenting Stress Index–Short Form (PSI–SF)

The Parenting Stress Index–Short Form (PSI–SF) was derived from the PSI using factor-analytic procedures at the request of clinicians and researchers who wanted a valid measure of stress in the parent-child system that could be administered in less than 10 minutes. At 36 items, this parent self-report inventory allows rapid screening of parenting stress that derives from parenting a difficult child, problems in the parent-child relationship, and stress that derives from personal factors directly related to parenting. Total Stress and Defensive Responding indicators are also obtained.

Research to date has suggested that the PSI–SF performs similarly to the full-length PSI. The PSI manual reports correlations of .87 to .94 between the major PSI and PSI–SF domains noted above.

Jennifer L. Gagné and David Reitman

See also Divorce and Child Custody; Parent-Child Relationship Inventory (PCRI); Parenting Satisfaction Scale (PSS)

Further Readings

Abidin, R. R. (1992). The determinants of parenting behavior. *Journal of Clinical Psychology, 21,* 407–412.

Abidin, R. R. (1995). *Parenting stress index* (3rd ed.). Odessa, FL: Psychological Assessment Resources.

Reitman, D., Currier, R. O., & Stickle, T. R. (2002). A critical evaluation of the Parenting Stress Index–Short Form (PSI–SF) in a Head Start program. *Journal of Clinical Child and Adolescent Psychology, 31*(3), 384–392.

Parole Decisions

Parole decisions have important implications. For prisoners, such decisions mean early release or define the conditions of release. For the public, prisoner reentry raises concerns about safety and community integration. Despite waning enthusiasm for rehabilitation in some countries, by using advances in risk

assessment and by partnering with correctional agencies, parole is ideally situated to contribute to offender rehabilitation while also addressing ongoing concerns by the public and politicians regarding the costs of corrections and risk to public safety.

Notwithstanding changes in legislation over the past three decades, parole remains an integral part of the criminal justice system. At both international and domestic levels, parole continues to be relied on to ensure the timely and safe transition of offenders from the confines of incarceration to community supervision. In this manner, it acts as a tollbooth for offenders as they pass from prison back to the community. Parole decision makers, informed by law and policy and on a case-by-case basis, determine the amount of toll required. Despite variations across countries and jurisdictions, their decision is typically informed by guidelines regarding eligibility, some element of desert or judgment that the prisoner has served sufficient time according to the seriousness of his or her crime(s), and a judgment that community safety would not be jeopardized by the offender's release.

Definition

Variability in the use of the term *parole* has been an obstacle in conducting a review of parole research and practice. In this entry, parole refers to discretionary or conditional release. The former reflects release prior to the expiration of the sentence, whereas the latter reflects the designation of conditions that must be met by the offender when he or she is granted mandatory parole. Typically, if the conditions are not met, the offender may be returned for a further period of incarceration. Some jurisdictions impose guidelines regarding limits to eligibility for parole release following breaches in the community on an earlier release.

Context

Despite the waning interest in parole due to a gradual shift in public policy toward a focus on punitive solutions to crime, a 2001 review of U.S. paroling jurisdictions conducted by the Association of Paroling Authorities International indicates that parole boards with legislative discretionary release authority have survived in approximately two thirds (34) of state and federal correctional jurisdictions. Similarly, in Canada, all provinces and the federal correctional system have parole boards, although the federal board has jurisdiction for some provincial offenders. Indeed, Canada has served as a model for numerous countries in terms of parole policy and training (e.g., Australia, Bermuda, Great Britain, Hong Kong, New Zealand, and Russia).

Several examples will serve to highlight the scope of parole and its potential impact on corrections and communities. In 2003, the U.S. Parole Commission made 10,771 decisions regarding release or revocation. In the fiscal year 2004 to 2005, the Pennsylvania Board of Probation and Parole conducted 9,588 hearings regarding parole violations and 19,624 panels/interviews for parole. In 2005, the Massachusetts Parole Board conducted approximately 10,000 face-to-face hearings and rendered decisions on approximately 20,000 cases. It is difficult to determine the exact number of parole decisions made annually, but a reasonable extrapolation from these data suggests that 400,000 would not be inflated. Moreover, since offenders are released on both parole and expiration of sentence, it is not surprising that close to 600,000 offenders are released and return to communities across the United States each year.

In Canada, the numbers are smaller but equally compelling. In 2005, the National Parole Board made an estimated 22,295 decisions. Also, this board made more than 16,711 contacts with victims regarding release decisions and reviewed 22,900 pardon requests. Although these data do not control for population rates, parole decisions clearly affect the lives of a significant number of offenders, their families, and the community at large.

In the United States, from 1980 to 2003, the proportion of discretionary parole releases from state prisons markedly diminished from about 55% to about 22%. During the same time period, mandatory parole releases (conditions imposed) increased from about 18% to about 36%, whereas expiration of sentence releases only modestly increased from 14% to 19%. These changes are partly due to statutory changes eliminating parole release and partly due to increased reluctance on the part of boards of parole to release offenders prior to expiration of sentence. This trend in parole decision making situates potential contributions of parole decision research and can perhaps best be understood through the lens of public policy, particularly in North America.

Prior to 1970, the belief was that the criminal justice system should be used to rehabilitate offenders; this was reflected in indeterminate sentencing and discretionary release practices. However, doubts

regarding evidence of effective rehabilitation programs emerged, paralleling an increase in interest in retribution as a means of addressing criminal justice concerns. This just-deserts model focused on determinancy and consistency in sentencing, clearly at odds with the earlier discretionary model. This justice model also advocated using incarceration sparingly. In the 1980s and 1990s, however, theories of deterrence came to the fore and with them an appetite for harsher punishments. This quickly led to increased incarceration rates and, subsequently, increased costs of prisons. Public policy in this era generally disputed evidence regarding interventions to reduce re-offending and ignored parole as a viable strategy to address increased prison populations. Only since the late 1990s has an abundance of evidence regarding risk assessment and correctional programming been accumulated and more widely disseminated to criminal justice officials, suggesting that a new model for parole might be profitably integrated into the criminal justice system. Nonetheless, these data are still often hotly debated on ideological grounds. Encouragingly, in 2005, the U.S. Congress introduced legislation to allocate $300 million over 4 years in an effort to more successfully transition prisoners to the community. These reentry initiatives highlight how parole might be well situated to complement existing sentencing and correctional strategies, thereby enhancing public safety through attention to evidence-based practice.

Importantly, government publications describing parole policy, parole board member training, and contemporary roles of parole abound. Surprisingly, few of these publications overtly address the issue of parole decision making as a process, although the training handbook referenced above illustrates several different methods employed. Moreover, with the notable exception of the flurry of research on standardized risk assessment instruments in the 1970s and 1980s, academia has generally ignored parole decision making as a research topic. Considering parole research in terms of content (risk assessment, decision frameworks), process (decision strategies), and outcome (recidivism, effective correctional programs) highlights areas warranting further systematic investigation.

Content

Initially, in the mid-1970s, given the reliance on clinical opinion, researchers sought to improve accuracy through the development of statistical instruments that distinguished between successful releases and parole failures. Many parole boards continue to use such instruments to distinguish risk levels among prisoners, and risk is routinely considered in parole decision trees and matrices. Such instruments have consistently been found to be more predictive of outcome than subjective professional judgments. Moreover, they assist in diminishing the frequency with which offenders who are poor parole risks are inappropriately released, increasing the speed with which offenders who are good parole risks are released, and diminishing unnecessary incarceration expenditures. For mandated parole, assessment of risk appears to be used to inform the type and number of conditions imposed by the board.

Risk assessment tools, however, expressly eliminate from consideration any factors unique to the offender or to his or her context. As such, it is important that they not be used without consideration of additional information. Indeed, empirical research demonstrates that estimates of risk derived from statistical tools are not the only factors considered by decision makers in reaching release decisions. For example, offenders' criminal and institutional history and previous release recommendations have been found to affect parole decisions. Interestingly, the use of interviews appears not to improve accuracy in predicting parole success.

In Canada, a framework to guide parole decision makers in integrating statistical and additional information has been developed. Using a statistical risk assessment instrument as its anchor, the framework outlines specific additional areas for consideration (criminal history, risk management, disinhibitors, case-specific factors, institutional adjustment, offender change, and release plan). Preliminary results demonstrate that the use of this framework leads to reductions in decision errors and high rates of predictive accuracy regarding parole outcome. Moreover, feedback suggests that the framework assists in the provision of a decision rationale and is useful in the training of new parole board members.

Process

Parole release obviously involves making judgments; hence, discretion is required. Research, however, is required to demonstrate that parole decisions are consistent and discriminating—that is, board members would arrive at similar decisions for the same case, and

they would distinguish between cases representing good and poor parole risks. Importantly, this distinction should also lead to demonstrations of parole decisions' validity through follow-up research. To date, two structured approaches for parole decision making have been described in the literature. The first is a matrix or grid method, as seen in Maryland, which integrates severity of crime (arson, manslaughter, murder, rape, robbery crimes vs. assault, burglary crimes) and risk (scored information on prior criminal history, age at time of current offense, time crime free, prior escapes or parole violations, substance use) in establishing a range of time to be served corresponding to each cell of a matrix. The second is a sequential or decision tree method, as seen in Pennsylvania. Through the assignment of a rating for type of offense, risk/need assessment, institutional programming, and institutional behavior, a cumulative score helps determine whether the offender is likely or unlikely to be a good parole risk. The sequential method typically incorporates more factors into the process than the matrix. Both approaches are intended to provide structure to parole decision making, but empirical evidence describing and validating the mechanisms underlying these methods is almost absent. Nonetheless, transparency of the decision process should yield less capricious parole decisions.

Outcome

Ultimately, parole boards are held accountable for parole violations, yet this is an imprecise dependent measure of parole decision making. Dynamic risk prediction suggests that proximal factors are important in risk assessment and its management. Hence, if a decision is made to parole a prisoner and 6 months later, owing to deterioration while in the community (e.g., reinvolvement with drugs, loss of job, loss of stable accommodation), the parolee is returned to prison, does this mean that the original decision to grant parole was flawed? In part, it would seem desirable to have a standard of practice that defines a quality decision model against which decisions can be compared. Congruence with this standard of practice may be a more suitable criterion for evaluating parole decision making than outcome. Encouragingly, from a reentry perspective, discretionary parole release appears to be more successful than mandatory release. The latter study controlled for offense type, prior record, age, ethnicity, education, and gender, finding that those released from prison via discretionary parole were more than twice as likely as those on a mandatory release to successfully complete their parole period.

Given the numbers of parole decisions made, as well as the consequences of inaccurate decisions, parole would appear to be an area for optimism. Indeed, parole can serve as an important motivation for prisoners to engage in programs and adhere to supervision conditions. Most important, even modest reductions in decision errors will yield significant gains—individual, social, and financial.

Ralph C. Serin and Renée Gobeil

See also Bail-Setting Decisions; Community Corrections; Conditional Release Programs; Homicide, Psychology of; Probation Decisions; Psychopathy; Risk Assessment Approaches; Sex Offender Treatment; Violence Risk Assessment

Further Readings

Burke, P. (2003). *A handbook for new parole board members.* Retrieved from http://www.apaintl.org

Burke, P., & Tonry, M. (2006). *Successful transition and reentry for safer communities: A call to action for parole.* Silver Spring, MD: Center for Effective Public Policy.

Serin, R. C., & Gobeil, R. (n.d.). *Situating parole decision making research in an era of pessimism.* Manuscript submitted for publication.

Patient's Rights

Patients who are subjected to involuntary hospitalization in a psychiatric facility or who accept voluntary admission retain certain rights within the institution. Patients hospitalized because of mental illness do not shed their rights at the hospital door. Although they may not leave the hospital, they retain their rights to the fullest extent consistent with their status as mental patients. The Constitution protects the right of patients to communicate with others outside the hospital, to consult with counsel, to petition the courts, to practice their religion, to have reasonably safe conditions of confinement, to be free of unreasonable seclusion and restraint, to receive adequate treatment, to refuse certain treatments, and to receive a hearing if any of these rights are sought to be curtailed or if their

commitment is extended. Modern civil commitment statutes also guarantee these rights as a matter of state law and afford additional rights to patients, including the right to convert their status from involuntary to voluntary admission, to the confidentiality of their clinical records, and to have access to their records.

Right to Treatment

Many state mental hospitals suffer from chronic underfunding that may undermine their ability to deliver effective care and treatment, the very function for which they exist. Although psychotropic medication has become the treatment of choice for the major mental illnesses, other forms of treatment are needed to prepare patients for discharge and the resumption of life within the community with a high level of functioning. These include psychotherapy and other verbal approaches, behavioral therapy, occupational therapy, and social skills training. Psychotropic drugs should be used in conjunction with these other forms of treatment, not as an exclusive therapeutic intervention. Inadequate staffing and funding at many mental institutions, however, sometimes prevents this from occurring.

Can patients assert a right to more treatment than the hospital is delivering? Such a right to treatment is inherent in the fairness principles embodied in notions of due process and is supported by the often vaguely worded statutory right to treatment that state law typically protects. Due process requires a reasonable relationship between the nature and duration of commitment and its purposes. The purposes of commitment are to protect the best interests of patients who are incompetent to make hospitalization and treatment decisions for themselves or to protect the community from the patient's potential dangerousness. Although confinement alone might seem to satisfy this latter purpose, when those with mental illness who are predicted to be dangerous are confined in a mental hospital rather than a prison or a preventive detention facility, the rationale for hospitalization would seem to be the promise of treatment for mental illness designed to reduce the risk of dangerousness. Otherwise, the deprivations and stigma associated with hospitalization would be unnecessary and hence arbitrary, in violation of due process. If treatment can reduce the patient's dangerousness, it may reduce or eliminate the need for further hospitalization, thereby making hospitalization without the provision of such treatment an unnecessary and arbitrary deprivation of liberty. When commitment is justified on parens patriae grounds, the asserted justification is that hospitalization will provide treatment that is necessary to ameliorate the patient's condition that he or she would not choose for himself or herself as a result of his or her incompetency. If the hospital fails to provide adequate treatment tailored to the patient's needs, it would constitute an arbitrary deprivation of liberty in violation of due process.

Several lower federal courts have recognized that patients involuntarily committed have a legally enforceable right to adequate treatment grounded in due process and that hospitals may be mandated to provide needed treatment and services. The U.S. Supreme Court, however, has not gone this far. The Court has recognized that when hospitals fail to provide adequate treatment, it results in an unjustified infringement on liberty for patients who can survive safely in the community. In a case involving an institution for those with mental retardation, the Court recognized that residents have a due process right to minimally adequate facilities, reasonable habilitation and training, and freedom from undue restraint.

Whatever the basis of their hospitalization, depriving patients of the treatment needed to restore them to a degree of functioning that will allow return to community life consistent with their safety and that of the public would render hospitalization an unjustified deprivation of liberty. It also could exacerbate their mental illness in ways that require lengthier hospitalization than otherwise would be needed. Without the provision of needed treatment that could ameliorate suffering and restore functioning, detention in a hospital, with all its deprivations and stigmatization, would seem unnecessary, purposeless, and arbitrary. The massive curtailment of liberty that psychiatric hospitalization imposes can only be justified if such hospitalization is beneficial, and not harmful, to the mental health of those subjected to it. Hospitalization without adequate treatment, therefore, violates the essentials of due process.

Right to Refuse Treatment

Although treatment is an essential purpose of hospitalization, certain treatments delivered in the hospital, notably psychotropic medication and electroconvulsive therapy (ECT), are intrusive and impose direct effects and side effects that many patients find highly unpleasant and debilitating. Can patients refuse these

interventions? Courts and legislatures have accorded patients a qualified right to do so, imposing limitations on the involuntary administration of these treatments.

Psychotropic medication and ECT intrude powerfully and directly into mental processes, bodily integrity, and individual autonomy and, therefore, should be justified only on a showing of compelling necessity. To be imposed involuntarily, they must be medically appropriate and the least intrusive means of accomplishing one or more compelling governmental interests. This standard would be satisfied if treatment were necessary to protect other patients or hospital staff from the patient's dangerousness, but only if less intrusive alternatives, such as seclusion and restraint, would not achieve this purpose. When the state's parens patriae power to protect those whose mental illness renders them incompetent to protect themselves serves as the justification for their hospitalization, this standard also may be satisfied. Many patients with severe mental illness, however, are competent to make treatment decisions. Unless they have been determined to be incompetent to do so, they should participate in treatment decisions and their informed consent should be required. When patients seek to refuse unwanted treatment within the hospital, procedural due process will require a hearing to determine whether the justifications for imposing treatment involuntarily are satisfied.

Communication and Visitation Rights

State statutes typically protect a patient's right to communicate with others. These statutes effectuate the patient's First Amendment right to communicate with those outside the institution. The institution may place reasonable time, place, and manner restrictions on communication and visitation, but it should not be unduly restricted. Patients should enjoy a broad right to freely communicate with and receive visitation from counsel, judges, the press, and friends and relatives.

Free and open communication between patients and the outside world serves as important First Amendment interests, including the deterrence and exposure of institutional abuse. Moreover, free expression has considerable therapeutic value. By continuing the patient's ties to family and friends, it also will facilitate the patient's reentry into the community and the successful resumption of community life.

Right to Be Free of Unreasonable Seclusion and Restraint

Physical restraint and seclusion are standard measures used by hospitals to protect the patient and other patients and staff within the institution from a patient who is dangerous to self or others. Psychotropic medication also sometimes is used for this purpose. All these constitute an additional deprivation of liberty protected by the due process clause, and as a result, they may not be used arbitrarily and must be justified. They should be limited to emergency situations when other measures have failed to prevent serious and imminent harm. Moreover, as clinical tools, these techniques must be medically appropriate for the patient and should not be used as punishment, for the convenience of staff, or to ease hospital administration.

State civil commitment statutes typically contain protections against unreasonable or arbitrary use of these techniques, and regulations of the U.S. Department of Health and Human Services, applicable to all state and local facilities that accept federal funding, limit their use to emergency situations needed to ensure the patient's physical safety when less restrictive interventions have been determined to be ineffective. Because all these techniques involve serious intrusions on liberty, the least restrictive alternative principle of constitutional adjudication applies. Under this principle, all feasible alternatives to these intrusive techniques should first be attempted. Hospital staff should receive training in these alternative methods of containing the risk of violence and should be required to document in the patient's record the various approaches attempted. When other approaches have not succeeded and violence appears imminent, then seclusion, restraint, or medication may be considered, but the patient should be given the opportunity to choose the alternative he or she finds less intrusive and more acceptable. A good way to obtain patient preferences in this regard is through the use of advance directive instruments.

Because these techniques infringe on liberty, they also trigger procedural due process requirements. When time permits, patients should be given notice and at least an informal hearing concerning the need for these measures. When an emergency requires immediate action, however, alternative administrative safeguards should be used in lieu of a hearing, including detailed entries in the patient's chart, authorization by medical staff, and administrative review by a

physician or hospital administrator. Standing orders for these techniques are inappropriate; they should be applied only on an as-needed basis when less restrictive alternative possibilities have proven unsuccessful. The treating physician should be consulted as soon as practicable if such an order is issued by another staff member; the physician should review the medical necessity of such an approach within 1 hour of its imposition; and the duration of the use of these approaches should be sharply limited. Department of Health and Human Services regulations impose these and additional restrictions on the use of seclusion and restraint.

Therapeutic Jurisprudence Perspectives on a Patient's Rights

Recognition that patients have various rights within the institution, including, for example, the right to refuse treatment, gives the patient a choice of whether to exercise the right in question or to refrain from doing so. A patient possessing the right to refuse treatment may decline to exercise it and instead to accept treatment. If so, this choice in favor of treatment has psychological value. It constitutes goal setting and engages positive expectancies that can become self-fulfilling prophecies that set in motion psychological forces that help to bring about goal achievement. Choice provides a measure of intrinsic rather than extrinsic motivation, an important ingredient in goal achievement. Coerced treatment, in contrast, can encourage resentment, anger, and oppositional behavior. According patients the right to refuse treatment thus can have important therapeutic value.

Therapeutic jurisprudence considerations also support the protection of other rights of patients within the institution. The protection of such rights constitutes an important measure of respect for patients' dignity and personhood. When these basic rights are not respected, patients will feel demoralized and dehumanized and will likely experience a diminished sense of self-efficacy. Recognizing that patients within the institution continue to have rights that they can exercise allows patients to retain an important measure of self-determination and to exercise a degree of autonomous decision making that itself is healthy and can help facilitate their recovery. Denying patients these rights or failing to take their rights seriously can have the effect of depriving them of these opportunities for self-determination, impair their functioning, diminish motivation, and produce feelings of depression and in some cases a form of institutional dependency.

Bruce J. Winick

See also Civil Commitment; Forcible Medication; Mental Health Law; Therapeutic Jurisprudence

Further Readings

Perlin, M. L. (1998). *Mental disability law: Civil and criminal.* Albany, NY: LexisNexis.

Winick, B. J. (1997). *The right to refuse mental health treatment.* Washington, DC: American Psychological Association.

Winick, B. J. (2005). *Civil commitment: A therapeutic jurisprudence model.* Durham, NC: Carolina Academic Press.

Pedophilia

Pedophilia, a sexual preference for prepubescent children, appears early in life, is stable over time, and directs the person's sexuality with regard to thoughts, fantasies, urges, arousal, and behavior. Pedophilia can be diagnosed on the basis of self-report, sexual history, and (among men) penile responses. These indicators of pedophilia predict sexual recidivism among male sex offenders. There is accumulating evidence that pedophilia is a neurodevelopmental disorder. Different treatment approaches for pedophilia have been evaluated but with only mixed success.

Definition

Pedophilia is defined as a sexual preference for prepubescent children, reflected in the person's sexual thoughts, fantasies, urges, arousal, and behavior. There are three key features in this definition: (1) the sexual interest is persistent, so individuals who have occasionally fantasized about sex with a prepubescent child or who have engaged in sexual contact with a child are not necessarily pedophiles; (2) the persons of interest are prepubescent and thus show few or no signs of secondary sexual development; and (3) the person would sexually choose children even when adult partners are available. Individuals who seek sexual contacts with

sexually mature minors are unlikely to be pedophiles, though they may be engaging in illegal behavior given a jurisdiction's legally defined age of sexual consent.

Pedophilia is probably the best-understood paraphilia, given society's concerns about preventing children from becoming victims of sexual offenses. Pedophilia is an important motivation for sexual offending against children, but the two concepts are not synonymous: Some pedophiles have no known history of sexual contacts with children, and perhaps half the sex offenders against children are pedophiles.

Most of what we know about pedophilia is based on research on adult males and samples recruited in clinical or correctional settings. We know little about female pedophiles, though some women meet the diagnostic criteria, and we know relatively little about pedophiles who are not involved in clinical services or who have not been criminally charged for sexual offenses involving children. Pedophiles are much more likely to be male; otherwise, pedophiles are a heterogeneous group with regard to characteristics such as education level, occupation, and socioeconomic status. The prevalence of pedophilia in the general population is not known because epidemiological surveys of sexuality have not included the pertinent questions about the frequency and intensity of sexual thoughts, fantasies, urges, arousal, or behavior regarding prepubescent children.

Assessment and Diagnosis

Pedophilia can be diagnosed on the basis of self-report, sexual history, and penile responses. Self-report is the simplest and most direct source of information, but it is limited by individuals being reluctant to admit to pedophilia. Among sex offenders, pedophilia is positively associated with having boy victims, multiple child victims, younger child victims, or unrelated child victims and the possession of child pornography and is negatively associated with the number of adult sexual partners. One of the most consistent assessment research findings is that pedophilic men (such as sex offenders with many unrelated child victims) can be distinguished from other men in their penile responses when presented with sexual stimuli depicting children or adults during phallometric testing.

Phallometric testing involves the recording of changes in penile circumference or volume as men are presented with audiotaped or visual stimuli. Penile responses are more specific to sexual arousal than other psychophysiological parameters such as skin conductance, heart rate, and pupil dilation. For pedophilia, the measure of interest is how much a man responds to stimuli depicting children compared with stimuli depicting adults. Because the overall penile responsivity can vary for many reasons, including the man's age and health and the amount of time since he last ejaculated, an index of relative response is more informative than absolute responses. For example, interpreting the responses of an individual who exhibits a 10-mm increase in penile circumference in response to pictures of children is possible only when we know whether he exhibits a 5-or a 20-mm increase, for example, in response to pictures of adults. The first set of responses is from someone who is more sexually aroused by children than by adults, indicating a sexual preference for children; the second pattern of responses is from someone who is more sexually aroused by adults than by children, indicating a sexual preference for adults.

Using cutoff values that produce high specificity among nonpedophilic men (e.g., community volunteers, offenders who have committed only nonsexual crimes), the sensitivity of phallometric testing among men who deny pedophilia is approximately 60% using optimal procedures and stimuli. The sensitivity is approximately 90% among men who admit pedophilia. Specificity refers to the proportion of nonpedophilic men identified as such by the phallometric test, while sensitivity refers to the proportion of sex offenders against children who are identified as pedophilic. Phallometrically assessed sexual arousal by children is one of the strongest single predictors of sexual recidivism in quantitative reviews of sex offender follow-up research.

Studies have also shown that pedophiles and sex offenders with child victims can be distinguished from other men in the unobtrusively recorded amount of time they look at pictures of children relative to pictures of adults. No studies have yet demonstrated, however, that viewing-time measures predict sexual recidivism.

There are challenges in making the diagnosis of pedophilia. The *Diagnostic and Statistical Manual* (fourth edition, text revision; *DSM-IV-TR*) diagnostic criteria have not been rigorously evaluated for interrater or test-retest reliability, and different assessment methods may identify overlapping but nonidentical groups of men as pedophiles. In addition, many phallometric

laboratories do not use validated procedures and stimulus sets. Diagnosis is more likely to be reliable and more valid when assessment procedures are standardized. For example, sexual history variables that are associated with pedophilia can be combined to create a short, easy-to-score scale that organizes diagnostic decisions on the basis of these variables (Screening Scale for Pedophilic Interests).

Development

Pedophilia can be described as a sexual preference that is phenomenologically similar to heterosexual or homosexual orientation, in that it emerges prior to or during puberty; is stable over time; and directs the person's sexuality in terms of his thoughts, fantasies, urges, arousal, and behavior. Retrospective studies indicate that some adult sex offenders admit to pedophilia when they were adolescents, and the average age of onset of paraphilic behavior among adolescent sex offenders is around 11 or 12 years. Some pedophiles have reported being aware of their sexual interest in children from a very early age, just as other individuals report being aware of their opposite-sex or same-sex attractions early in life.

Risk Assessment

All other things being equal, pedophilic sex offenders are more likely to sexually re-offend than nonpedophilic sex offenders. There is an interaction between pedophilia and antisocial tendencies; offenders who score higher on measures of both factors are much more likely to sexually re-offend than others. Reflecting the importance of pedophilia in the prediction of sex offender recidivism, many of the actuarial risk scales developed for adult sex offenders include variables that pertain to pedophilia (e.g., phallometrically assessed sexual arousal by children, having boy victims). Examples of these scales include the Sex Offender Risk Appraisal Guide, STATIC–99, and Rapid Risk Assessment for Sexual Offense Recidivism.

A recent study found that child pornography offenders with no known history of sexual contacts with children are significantly more likely than men who have sexually offended against children to be identified as pedophilic on the basis of their phallometric responses. This suggests that pedophilia may not be a sufficient factor to explain the *onset* of sexual offending against children. Antisocial tendencies are also expected to play an important role, but research on the onset (vs. maintenance) of sexual offending is only just beginning.

Etiology

There is accumulating evidence that pedophilia is a neurodevelopmental disorder. Recent studies have shown that pedophilic men score lower on measures of intelligence and other cognitive abilities than nonpedophilic men. In addition, pedophilic men are significantly more likely to have incurred head injuries before age 13 and differ by having less white-matter volume in two tracts that are thought to connect areas of the brain involved in the identification of visual stimuli as sexually relevant.

Other research has confirmed the common belief that many sex offenders against children have themselves been victims of sexual abuse as children. Meta-analytic reviews have found that adolescent sex offenders have almost five times the odds of having been sexually abused than other adolescent offenders, while adult sex offenders have almost three times the odds of having such a history. These significant differences are obtained whether the analysis is restricted to studies based on self-report or studies based on other sources of information. Moreover, sex offenders with child victims are more likely to have been sexually abused than offenders with peer or adult victims; adult sex offenders who report having been sexually abused are more likely to admit being sexually aroused by children; and adolescent sex offenders who were sexually abused showed relatively greater sexual arousal by children, when assessed phallometrically, than those who were not abused.

The mechanisms underlying this association between childhood sexual abuse and sexual offending against children are not known. Possibilities include imitation of the perpetrator's behavior, disruption of emotional and sexual development, and familial transmission of predisposition(s) for sexual offending (because many incidents of child sexual abuse are committed by relatives). The large majority of sexually abused children do not go on to offend, so there must be individual differences in vulnerability. The most obvious candidate for a vulnerability factor is being male, because most sex offenders against children are male, yet the majority of child victims of sexual abuse are female. Other writers have suggested that other vulnerabilities include

poor parent-child attachment, social skills deficits, and emotional regulation problems.

Comorbidity

Pedophilia co-occurs with other paraphilias, such that the prevalence of paraphilias is higher in a sample of pedophiles than in the general population. Two studies suggest that approximately one in six pedophiles has engaged in exhibitionistic behavior, and approximately one in five pedophiles has engaged in voyeuristic behavior. Comorbidity of paraphilias has implications for risk assessment and intervention because evidence of any paraphilic behavior is significantly related to sexual recidivism, and treatment may need to target multiple paraphilias. This comorbidity also has implications for etiological theories because it suggests that the factors influencing the development of one paraphilia may also influence the development of other paraphilias. One implication of the neurodevelopmental research mentioned earlier is that the nature, location, and timing of perturbations (e.g., maternal malnutrition, illness, exposure to toxins) might determine which paraphilias emerge.

Treatment

The most common approaches to the treatment of pedophilia involve arousal conditioning, pharmacological sex drive reduction, or cognitive-behavioral treatments designed to teach pedophilic sex offenders how to identify risky situations and other situational triggers that they can avoid or cope with in order to avoid sexual contacts with children. The evidence regarding these approaches is not strong, however. Many clinicians and investigators assume that pedophilia is a sexual disorder that can be managed but not changed.

There is evidence that aversive conditioning is effective in reducing sexual arousal by children, but it is unclear how long such changes can be maintained once the conditioning sessions have stopped. It is likely that booster sessions are required to maintain any treatment gains. The changes in sexual arousal by children are unlikely to represent a change in pedophilia; instead, participants learn to voluntarily control their sexual arousal in the laboratory. The hope is that this voluntary control can generalize outside the laboratory.

Several randomized clinical trials suggest that some medications can reduce sex drive and subsequently reduce the frequency or intensity of sexual thoughts, fantasies, urges, arousal, and behavior. Surgical castration can also reduce sex drive. Treatment attrition and compliance are serious issues in the drug treatment of pedophilic sex offenders, however, and castration is controversial; it has not been demonstrated that reduced sex drive leads to reductions in recidivism.

There is much debate as well about the efficacy of cognitive-behavioral treatments for pedophilic sex offenders. A recent meta-analysis of sex offender treatment-outcome studies suggested that such treatments are indeed effective, because there was a significant difference between sex offenders in treatment versus those in comparison conditions; however, the methodologically strongest study, California's Sex Offender Treatment and Evaluation Project (SOTEP), found no significant difference between sex offenders randomly assigned to treatment or to a control condition. There was a nonsignificant trend for those who victimized children to be more likely to re-offend after treatment (22% of treated offenders and 17% of controls). In light of these discouraging results, innovative treatment approaches and rigorous evaluations are needed if we are to make advances in the treatment of pedophilia.

Michael C. Seto

See also Child Sexual Abuse; Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Sex Offender Assessment; Sex Offender Civil Commitment; Sex Offender Community Notification (Megan's Laws); Sex Offender Recidivism; Sex Offender Risk Appraisal Guide (SORAG); Sex Offender Treatment; Sex Offender Typologies; STATIC–99 and STATIC–2002 Instruments

Further Readings

Blanchard, R., Klassen, P., Dickey, R., Kuban, M. E., & Blak, T. (2001). Sensitivity and specificity of the phallometric test for pedophilia in nonadmitting sex offenders. *Psychological Assessment, 13,* 118–126.

Cantor, J. M., Blanchard, R., Robichaud, L. K., & Christensen, B. K. (2005). Quantitative reanalysis of aggregate data on IQ in sexual offenders. *Psychological Bulletin, 131,* 555–568.

Rice, M. E., Quinsey, V. L., & Harris, G. T. (1991). Sexual recidivism among child molesters released from a maximum security psychiatric institution. *Journal of Consulting and Clinical Psychology, 59,* 381–386.

Seto, M. C. (2004). Pedophilia and sexual offenses involving children. *Annual Review of Sex Research, 15,* 321–361.

Seto, M. C. (in press). *Pedophilia and sexual offending against children: Theory, assessment, and intervention.* Washington, DC: American Psychological Association.

Personal Injury and Emotional Distress

Personal injury and emotional distress claims are civil court matters in which psychologists may become involved in several ways. A claim of psychological injury or emotional distress resulting from the intentional or reckless actions of another sets in motion the collection of data to buttress or refute the claim. Treatment providers, whose interventions occur in a helping context, may offer an opinion to the court about the nature, causation, and consequences of the psychological injury. A more objective, investigatory, and wide-ranging investigation offers greater utility to the fact finder, however, and this is the primary contribution of the forensic psychologist in court. This examination may be accomplished at the request of the plaintiff's or the defendant's counsel, and it is characterized by multiple sources and methods of data collection, reliance on reliable and valid measures and techniques, and respect for the limits of psychological expertise in determining matters of interest to the law.

Context

Personal injury claims (also known as tort claims) are made in civil court when one party, usually an individual (the *plaintiff*), seeks compensation from another party, an individual, a corporation, or an agency (the *defendant*), for an injury allegedly suffered because of the negligent act of the defendant. This process of tort litigation exists to make whole again those who are damaged by the willful action of another. This allows society to protect its members from exploitation by others' intentional actions or their failure to take reasonable steps to avoid doing harm. The legal system is called on to first determine whether the defendant had a duty of some sort to the plaintiff. Second, the legal system must determine whether the duty was breached—that is, whether the defendant failed to fulfill its responsibility to the plaintiff. Third, the court must determine whether the plaintiff was harmed by the breach of responsibility. Fourth, the court must determine whether that harm suffered by the plaintiff was reasonably foreseeable—that is, whether the defendant knew, or should have known, that by its negligent action the plaintiff was likely to suffer damage.

Different categories of personal injury or tort litigation include claims against providers of professional services (malpractice cases); claims against employers for discriminatory hiring processes, negligent treatment, workplace harassment, or physical injury on the job (including workers' compensation cases); and claims against manufacturers or suppliers of products (product liability cases). Claims may be made directly by an injured individual or on behalf of an injured dependant, including a child or an adult who lacks competency to manage personal affairs. Suits may be brought on behalf of groups or classes of people, such as all people who received certain services from a provider or all people who purchased a defective product; these are referred to as class action suits. If the class of plaintiffs prevails, the awards are split, after payment of attorneys' fees, among the plaintiffs.

Psychologists' Role

Psychologists may become involved in personal injury claims at any of several points. The most common application in forensic psychology is when the plaintiff claims mental health injury beyond that which would normally be expected to occur under the alleged circumstances. The plaintiff generally offers expert testimony to support that claim. The treating mental health professional's testimony may be offered, by affidavit or in person, to support the claim that the plaintiff has suffered psychological injury. On notice of this offer, the defendant may seek to have its own expert examine the plaintiff, which is often referred to as an independent medical examination (IME). Whether or not the plaintiff intends to offer expert testimony to buttress a claim of mental anguish or other psychological injury, the claim itself is often sufficient to trigger a compelled mental health examination.

The forensic psychologist retained by the plaintiff or the defense conducts a comprehensive examination of the plaintiff to determine whether there is clinical evidence of psychological injury and what data exist to support or refute the claim that that injury was caused by the alleged wrong. This examination, when

sought by the defense, may be resisted on the ground that it will further traumatize the plaintiff or that it is unnecessary because the defendant can probe the same areas of inquiry through cross-examination of the plaintiff's treating experts. However, there are often limitations to the information that can be derived from treatment professionals, and forensic examination may make a significant contribution to the fact finder's deliberation.

The treating professional may accept the plaintiff's reports with less scrutiny, may not seek verification or refutation of reported functioning, and may fail to explore other potential contributors. In contrast, the forensic examiner may develop opinions based on wide-ranging, investigative examination employing multiple data sources and assessment methods. This reliable testimony is useful to the court in establishing causation. Finally, forensic examiners are mindful of the need to stop short when they lack the data to make assertions; clinical practitioners may not fully grasp the implications of offering opinions on matters of causation.

Focus of Examination

To determine whether the plaintiff suffered psychological injury, the forensic psychologist explores the plaintiff's functioning across three periods of time—before, during, and immediately following the alleged event—and then considers how the plaintiff may be expected to function in the future. Of particular interest to the court is whether there will be a need for ongoing mental health treatment and, if so, the type and frequency or duration of that treatment. Other factors or events in the life of the plaintiff may have contributed to the changes in psychological functioning or may account for the plaintiff's future need for treatment. If it is found that the plaintiff was significantly psychologically injured before the instant event, the psychologist will attempt to determine whether the earlier injury wholly accounts for the plaintiff's present psychological injury. Alternatively, the earlier event may have increased the plaintiff's vulnerability to the present injury. This previously injured plaintiff is sometimes called an "eggshell" plaintiff. It is often difficult to clearly determine the contribution of this psychological vulnerability to the present symptom picture or to future treatment needs. While the law must attempt to make such fine distinctions in causation, psychological expertise can provide only some assistance to the fact finder in the search for causation.

The stress of litigation alone may add to the litigant's suffering. The plaintiff may lack financial resources, while the defense, possibly an insurance company or a large corporation, may be able to afford extended litigation with a team of experts. The plaintiff's counsel may pay for the expertise out of its own pocket or have experts work under a letter of protection, to be paid only if and when the case is settled in the plaintiff's favor. There are potential ethical implications in such arrangements, specifically regarding compromised objectivity, and forensic psychologists decline such engagements. An exception may be warranted when the forensic psychologist is retained as a nontestifying trial consultant whose objectivity will therefore not be relied on by the court.

Informed Consent

When the examination of the plaintiff is compelled rather than voluntarily sought for treatment purposes, the process of informed consent becomes particularly significant. The court order makes the assessment involuntary, so the plaintiff, by definition, cannot "freely and voluntarily consent." The psychologist nevertheless notifies the plaintiff or the authorized legal representative, or both, of the purpose of the assessment, the range of potential consequences, the party responsible for payment for the examiner's time, and the absence of confidentiality in the process.

Observers

The plaintiff may request an observer, such as the attorney, a therapist, or a family member, in the examination. This is especially likely when the plaintiff is a child. In some jurisdictions, the law clearly permits this accompaniment, and the examiner may have limited options to oppose it; in other jurisdictions, the matter of an observer may be decided on a case-by-case basis.

One concern about observation of the examination is that it renders the administration of some instruments a nonstandard administration and may affect the outcome in unknown ways. Some efforts have been made to assess the effects of observers or of audio recording on tests of cognitive functioning, and although there have been mixed results, there appears to be a modest impact on performance in some cognitive domains.

Second, the presence of an observer who has a stake in the outcome may significantly affect the plaintiff's presentation. The plaintiff may be less able to answer

questions honestly or spontaneously when someone else is in the room. The effect of the observer on the outcome may be particularly powerful when the plaintiff is a child and the observer is the therapist or a parent who has a distinct opinion about what happened and how it affected the child. The child may be aware of the parent's or therapist's view and may capitulate to it in any case, but it is possibly more likely to do so when the parent or the therapist is in the room.

Third, observers sometimes have difficulty remaining passive or silent. They may attempt to contribute to the discussion, speaking for the plaintiff. Indirectly, they may telegraph their attitudes to the plaintiff and affect the plaintiff's answers to questions. When multiple interviews occur, observers may intervene between interviews by pointing out to the examinee any problem areas and suggesting alternative answers to questions.

Examiners may, for all of these reasons, object to the presence of an observer or may attempt to structure the observation. This structuring might include, for example, offering to audio or video record the examination (possibly through an observation window) in lieu of having an observer in the room, requesting a neutral observer whose input is limited to ending the interview if the plaintiff seems to be in need of such protection, or seating the observer outside the line of vision of the examiner. Ultimately, however, the court may override these requests in favor of unrestricted observation.

Techniques Used in Personal Injury Assessment

The techniques and instruments that may be useful in personal injury assessment are as varied as the nature of the claimed psychological injury. Often the data collected by the forensic examiner through interview or questionnaires address day-to-day functioning. The examiner may ask for collateral data in the form of documents, records, or interviews with people who would have relevant information about the plaintiff's past and present lifestyle. Information is gathered regarding how the plaintiff lived before, including the interests, activities, and pleasure in life that are reflected in collateral information. Also explored are the plaintiff's coping resources as manifested in the handling of previous crises or trauma.

Testing may include formal assessment of any claimed loss in cognitive function, as well as assessment of general personality functioning, response style, or impression management and in-depth exploration of specific reported symptoms. While there is a proliferation of instruments designed to assess trauma or posttraumatic stress, face validity may render these instruments so vulnerable to dissimulation that their utility is limited for forensic purposes. Similarly, checklists without well-designed measures of response style may generate unreliable results regarding depression or anxiety. Multisource, multimethod assessment accomplished with reliable tools leads to robust psychological findings that are useful to the court.

Report of Findings

Ordinarily, the referring attorney is given the findings of an examination, and then, he or she determines whether they are sufficiently useful to justify calling the psychologist to testify. If the psychologist is designated as a testifying expert, opposing counsel may request a deposition to determine what opinions will be offered and the foundation for those opinions. Personal injury matters are often, but not always, resolved at some point before the case is set for trial. If settlement efforts fail and the case goes to court, the expert may testify to the findings of the examination. The fact finder (generally a jury but sometimes a judge alone) makes the determination about whether the defendant owed a duty, whether that duty was breached, whether the plaintiff was injured as a result of the breach, and what the defendant owes to make the plaintiff whole. This determination may be reached, at least in part, by relying on expert testimony, but the expert does not make the determination. Rather it is a matter for the fact finder to decide.

Mary Connell

See also Capacity to Consent to Treatment; Damage Awards; Detection of Deception in Children; Detection of Deception in High-Stakes Liars; Disability and Workers' Compensation Claims, Assessment of; Forensic Assessment; Litigation Stress; Malingering

Further Readings

Boccaccini, M. T., & Brodsky, S. L. (1999). Diagnostic test usage by forensic psychologists in emotional injury cases. *Professional Psychology: Research and Practice, 30,* 253–259.

Foote, W. E., & Shuman, D. W. (2006). Consent, disclosure and waiver for the forensic psychological evaluation: Rethinking the roles of psychologist and lawyer.

Professional Psychology: Research and Practice, 37, 437–445.

Goldberg, M. A. (2006). Examining children in personal injury claims. In S. N. Sparta & G. P. Koocher (Eds.), *Forensic mental health assessment of children and adolescents* (pp. 245–259). New York: Oxford University Press.

Greenberg, S. A. (2003). Personal injury examinations in torts for emotional distress. In A. M. Goldstein (Ed.), *Comprehensive handbook of psychology: Vol. 11. Forensic psychology* (pp. 233–257). New York: Wiley.

Greenberg, S. A., & Shuman, D. W. (1997). Irreconcilable conflict between therapeutic and forensic roles. *Professional Psychology: Research and Practice, 28,* 50–57.

Personality Disorders

Personality disorders, formerly known as character disorders, make up a class of heterogeneous mental disorders characterized by chronic, maladaptive, and rigid patterns of cognition, affect, and behavior. They are coded on Axis II of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (*DSM-IV*) and reflect patterns of thought, affect, and behavior that deviate from the expectations of a person's culture and impair social and occupational functioning. Some, but not all, cause emotional distress. Personality disorders do not stem from inadequate reactions to acute stress, but rather, they develop gradually and are expressed in adolescence or early adulthood. Many traits associated with personality disorders may be shared by nondisordered individuals. Although the signs and symptoms of personality disorders may describe characteristics that all people exhibit from time to time to a certain extent, a personality disorder is defined by the maladaptive pervasiveness and inflexibility of certain character traits.

Specific Personality Disorders

The *DSM-IV* arranges personality disorders into three clusters on the basis of similarities among the disorders.

Cluster A: Individuals with these disorders often seem odd or eccentric. The symptoms of these disorders are somewhat similar to the less severe symptoms of schizophrenia, especially in its prodromal or residual phases. This cluster includes paranoid, schizoid, and schizotypal personality disorders.

Cluster B: Individuals with these disorders are commonly described as dramatic, impulsive, and erratic. This cluster includes histrionic, narcissistic, antisocial, and borderline personality disorders.

Cluster C: Individuals with these disorders often present as anxious and fearful. It can be difficult to distinguish these personality disorders from the anxiety-based Axis I disorders in some individuals. This cluster includes avoidant, dependent, and obsessive-compulsive personality disorders.

Paranoid Personality Disorder

Individuals with paranoid personality disorder (PPD) are suspicious of others, expecting to be mistreated by others. They expect harm to come to themselves and are sensitive to any evidence of impending attacks, without sufficient basis or without considering alternative explanations. They tend to see themselves as blameless, instead finding fault for their misfortunes in others, and they are likely to look for clues that validate their expectations. They are preoccupied with doubts about the loyalty or trustworthiness of others and are, therefore, unlikely to confide in others. They are hypersensitive in interactions with others, often ascribing pejorative intent to even benign remarks or events. Behaviorally, they are often described as "vigilant," and their interpersonal relationships are marked by hostility. Their internal anxiety is related to their almost constant fear of being harmed by others. They commonly bear grudges and are unlikely to forgive perceived slights, often reacting with anger. Although some individuals diagnosed with PPD exhibit transient psychotic symptoms (e.g., persecutory delusions), they are typically in contact with reality and do not exhibit the perceptual disturbances and cognitive and behavioral disorganization often found in psychoses. Some research has suggested that PPD may be more closely related to delusional disorder than schizophrenia. PPD occurs more frequently in men and is most likely comorbid with schizotypal, avoidant, and borderline personality disorders. Its prevalence rate in the general population is between 2% and 4%, and its prevalence in outpatient psychiatric settings is about 4%.

Schizoid Personality Disorder

Individuals with schizoid personality disorders (SPD) typically exhibit an inability to form social relationships, including relationships with their family, as well as a lack of interest in doing so. The *DSM-IV* criteria for SPD include a pattern of detachment from social relationships and a restricted range of affect in interpersonal settings, as evidenced by at least four of the following characteristics: the individual with SPD neither desires nor enjoys close relationships (including with his or her family); almost always chooses solitary activities; has little or no interest in sexual experiences; takes pleasure in few activities; lacks friends or confidants (except for first-degree relatives); is indifferent to praise or criticism; exhibits emotional detachment, coldness, or flattened affect. Although it was earlier believed that SPD was a precursor to schizophrenia, there has been no strong genetic link found between these two disorders. Research has suggested that there are genetic links between SPD and Asperger syndrome, autism, and pervasive developmental disorder, not otherwise specified. Recent epidemiological studies suggest that the prevalence rate of SPD in the general population is between 1% and 3%, and the prevalence rate in outpatient psychiatric settings is about 1%. The preference for solitude and the lack of general distress in SPD may account for the low prevalence rates in psychiatric populations. Behaviorally, individuals with SPD are often described as "loners" or "lethargic," and interpersonally they desire distance from others. They are likely to feel comfortable with the interpersonal emptiness of their lives.

Schizotypal Personality Disorder

Individuals with schizotypal personality disorder (STPD) typically have odd or peculiar beliefs or appearance accompanied by social and interpersonal deficits. They tend to have cognitive and perceptual disturbances and are eccentric in their communication with others. Like individuals with schizoid personality disorder, those with STPD are socially isolated and withdrawn, but the schizotypal personality also involves oddities of thought, speech, and perception. *DSM-IV* diagnostic criteria for STPD include a pervasive pattern of social and interpersonal deficits marked by acute discomfort with close relationships as well as eccentricities in thought, perceptions, and behavior, as evidenced by at least five of the following: ideas of reference (but not delusions of reference); odd or magical thinking; unusual perceptual experiences; odd thinking and speech; suspiciousness or paranoid thinking; inappropriate or constricted affect; odd, eccentric behavior or appearance; lack of a close friend other than first-degree relatives; and excessive social anxiety that is associated with paranoid fears. Individuals with STPD may present with an erratic or bizarre manner, peculiar speech (vague or overelaborated), ruminative thinking, and atypical perceptual experiences that do not reach the level of psychosis (e.g., illusions). These individuals may report being clairvoyant or telepathic and are likely to be superstitious. Epidemiological studies place prevalence rates in the general population at less than 1% and prevalence rates in outpatient psychiatric settings at less than 1%. Research has suggested a genetic link between STPD and schizophrenic spectrum disorders. Oddities of speech and behavior have been found in children who later develop the disorder.

Histrionic Personality Disorder

Histrionic personality disorder (HPD), formerly called hysterical personality, describes individuals who are overly dramatic, attention seeking, and highly emotional. They are often uncomfortable in situations where they are not the center of attention, and they are likely to exhibit sexually seductive or provocative behavior in their interactions with others. They consistently use their physical appearance (i.e., unusual clothes, makeup, hair color) to draw attention to themselves. They exhibit rapidly shifting, shallow emotions that are often theatrical and exaggerated. Their speech is impressionistic but lacking in detail. They often misinterpret relationships to be more intimate than they actually are, and they are often highly suggestible. They are usually self-centered and can be overconcerned about the approval of others. Behaviorally, they may be seen as seductive, and interpersonally, they tend to have stormy interpersonal relationships. They often are seen as emotionally labile, capricious, and emotionally superficial. HPD has a prevalence rate in the general population of about 2% and is more common among women. It remains unclear whether the differential rate of diagnosis is due to gender bias. Comorbidity with borderline personality disorder is

relatively high. The prevalence rate in outpatient psychiatric settings is about 1%. The lower prevalence rate in psychiatric settings may be due to the culturally adaptive characteristics associated with the symptoms of the disorder.

Narcissistic Personality Disorder

Individuals with narcissistic personality disorder (NPD) have a grandiose view of their own uniqueness or worth, a preoccupation with being admired, a preoccupation with fantasies of success, and a lack of empathy for others. They often present as conceited and boastful, they are self-centered, they have a sense of entitlement, and they have a tendency to try to dominate conversations with others. They, therefore, frequently alienate others, and their lack of empathy makes the creation and maintenance of meaningful relationships difficult. Although they are sensitive to criticism, they present as arrogant and superior as a way of protecting themselves. They are often envious of others or believe that others are envious of them. When their expectations of others are not met, they are likely to react with rage, avoiding shame or dysphoria. Like individuals with borderline personality, those with NPD are likely to vacillate between idealizing and devaluing others, depending on how the other person makes them feel about themselves. Recent epidemiological studies indicate that the prevalence rate of NPD in the general population is less than 1% and that prevalence in outpatient psychiatric populations is about 2%. Some studies suggest that it may be more frequently observed in men than in women.

Antisocial Personality Disorder

Individuals with antisocial personality disorder (ASPD) consistently violate and show disregard for the law or the rights of others. They control or manipulate others without remorse or shame. This pattern of deceit and manipulation begins in childhood or early adolescence and is reflected in at least three of the following *DSM-IV* diagnostic criteria: failure to conform to social norms as indicated by unlawful behaviors; deceitfulness; impulsivity, aggressiveness, and irritability; reckless disregard for the safety of self or others; irresponsibility in work or financial matters; and lack of remorse. Furthermore, a prerequisite for the diagnosis is the presence of conduct disorder prior to age 15. Thus, for a diagnosis of ASPD, not only should there be antisocial behavior, but this pattern of behaviors should have begun in childhood. Historically, the diagnosis was synonymous with psychopathy, but this term has come to have a specific meaning (see below). Behaviorally, antisocial individuals may be described as aggressive and controlling, and interpersonally, they manipulate others through deceit or coercion. Antisocial individuals are likely to take risks, break laws, and seek excitement and sensation. They fail to plan ahead, as evidenced by impulsive and reckless behaviors. They seldom take responsibility for their behaviors, and they are motivated by their own selfish needs. They lack the responsibility and feelings for others that are required to maintain meaningful long-term relationships and are likely to be occupationally and financially irresponsible. They may be cunning, glib, and socially skilled, thereby hiding their selfish motives from others. They are likely to be easily bored and have a low tolerance for frustration or depression, acting out aggressively in response to negative emotions. Once they have acted out aggressively, they are unlikely to experience remorse for any harm to others. Any overt expression of shame or remorse is likely to be shallow, transient, or insincere. Antisocial individuals are unlikely to seek mental health treatment independently, instead presenting for treatment when coerced by others, especially legal authorities. Epidemiological research suggests that prevalence rates in the general population is about 1% to 4% and prevalence in outpatient psychiatric settings between 3% and 4%. The prevalence is thought to be three times higher in men than in women and much higher among young adults than older adults. Diagnosis is also more common among people of low socioeconomic status. It has been estimated that about 75% of convicted felons meet the diagnostic criteria for ASPD. ASPD is comorbid with a number of other diagnoses, especially substance abuse.

Psychopathy

Although psychopathy is not included in the *DSM-IV*, it is a widely accepted and clearly defined personality disorder supported by a growing body of empirical research. Despite a significant overlap in the diagnostic criteria for antisocial personality disorder, psychopathy remains a distinct disorder. Whereas the diagnosis of antisocial personality disorder focuses primarily on overt behaviors, psychopathy also includes affective and interpersonal deficits. Although the majority of psychopaths would meet the diagnostic criteria for antisocial personality disorder, only a minority of antisocial

individuals would also meet the criteria for psychopathy. The "psychopathic personality" was described by Emil Kraepelin in 1915 while referring to a subgroup of criminals who lacked a sense of morals. In 1941, Hervey Cleckley elaborated the construct through detailed case studies in his groundbreaking book, *The Mask of Sanity.* Cleckley's conceptualization of the psychopathic personality as manipulative, selfish, impulsive, and lacking empathy, remorse, and anxiety has since remained more or less intact. The defining characteristics of psychopathy include a combination of both interpersonal and affective deficits as well as overt antisocial behavior. These two factors were referred to as primary and secondary psychopathy, respectively, and remain at the foundation of modern assessment.

Borderline Personality Disorder

The term *borderline personality* was originally used to refer to individuals who were thought to be on the "border" between neurosis and psychosis. As it is currently defined, however, borderline personality disorder (BPD) is characterized by instability in affect, interpersonal relationships, and self-image, as well as markedly impulsive behavior. Individuals with BPD exhibit serious disturbances in basic identity. As a result of their unstable self-images, they also have highly unstable and intense interpersonal relationships, characterized by alternating between extremes of idealization and devaluation of others. They make desperate efforts to avoid real or imagined abandonment. Borderline individuals commonly have an intolerance for being alone. Their behavioral impulsivity may be in the areas of sex, gambling, spending sprees, substance abuse, reckless driving, or binge eating. Recurrent suicidal behavior is common, including self-mutilation or "cutting" behavior. Suicide attempts or gestures are often clearly manipulative, intended to elicit the response of others. They report chronic feelings of emptiness and often have difficulty controlling inappropriate expressions of anger. They may experience transient stress-related symptoms such as paranoid ideation or severe dissociative symptoms. BPD is one of the most lethal psychiatric disorders, with up to 10% of identified patients completing suicides. Those who successfully suicide are more likely to have comorbid major depressive disorder and/or a family history of substance abuse. Recent studies estimate that prevalence rates in the general population are at about 1% and about 9% in an outpatient psychiatric setting. Women are three times more likely than men to be diagnosed with the disorder. There is an ongoing debate regarding the possibility of gender bias and the power of applying the label of borderline to a female patient. BPD is associated with increased utilization of psychological services and psychopharmacological treatment. Recent research has suggested that the etiology of BPD can be explained by an interaction of genetic/biological and environmental factors. Comorbidity is found with substance abuse, PTSD, eating disorders, mood disorders, and personality disorders from Cluster A.

Avoidant Personality Disorder

Individuals with avoidant personality disorder (AVPD) have a pattern of extreme social inhibition and withdrawal due to the fear of being rejected, embarrassed, or criticized. They often report feelings of inadequacy. Because of their hypersensitivity to criticism and potential rejection, they avoid other people, but, unlike schizoid individuals, they desire interpersonal contact and are often lonely or bored. *DSM-IV* diagnostic criteria include at least four of the following characteristics: avoidance of occupational activities that involve significant interpersonal contact due to a fear of criticism, disapproval, or rejection; unwillingness to get involved in relationships unless certain of being liked; restraint in intimate relationships due to a fear of being shamed or ridiculed; preoccupation with being criticized or rejected in social situations; inhibition in new interpersonal situations due to feelings of inadequacy; view of self as socially inept, unappealing, or inferior; reluctance to take personal risks or engage in new activities that might result in embarrassment. Behaviorally, individuals with AVPD are described as shy and guarded, and although they desire interpersonal relationships, they are unlikely to engage in them. They may present as aloof and apprehensive and are likely to make little eye contact. Epidemiological estimates place the prevalence of AVPD at between 2% and 5% in the general population and at about 15% in an outpatient psychiatric setting.

Dependent Personality Disorder

Individuals with dependent personality disorder (DPD), due to a lack of both self-confidence and autonomy, have an intense need to be taken care of. They view themselves as weak and incompetent and others as strong, leading to submissive and clinging behaviors due to an extreme fear of separation. They

cultivate relationships that provide protection and support, and they often defer to others excessively. They often fail to express anger at or disagreement with others for fear of losing their support and love, and they are prone to being involved in psychologically or physically abusive relationships. They often have difficulty making everyday decisions without excessive advice and reassurance from others, and they look for others to assume responsibility for major areas of their lives. They have difficulty initiating projects due to lack of self-confidence in their judgment or abilities. They often will volunteer to do things that are unpleasant in order to obtain nurturance from others. They report feeling uncomfortable or helpless when they are alone due to an exaggerated fear of being incapable of caring for themselves. When a close relationship ends, they often will seek another relationship immediately as a source of support. Current estimates suggest that the prevalence rate of the disorder is 0.5% in the general population and around 1.5% in an outpatient psychiatric population. These data conflict with the *DSM-IV* assertion that DPD is one of the most frequently reported personality disorders encountered in outpatient clinics. Studies on inpatient rates suggest a higher prevalence rate, between 15% and 25%. DPD frequently co-occurs with other personality disorders as well as mood, anxiety, and eating disorders.

Obsessive-Compulsive Personality Disorder

Individuals with obsessive-compulsive disorder (OCPD) exhibit a pervasive pattern of perfectionism, orderliness, and control that interferes with flexibility, efficiency, task completion, and social interactions. Such individuals are often driven to maintain mental and interpersonal control through their preoccupation with details, lists, schedules, and rules. Their perfectionism interferes with their ability to complete a task because they believe that they cannot meet their overly strict standards. Although they are excessively devoted to work to the exclusion of leisure activities and friendships, they often are inefficient in work because they are preoccupied with trivial details. They tend to be inflexible about matters of morality, ethics, or values. Behaviorally, they are often described as stubborn and perfectionist, and they may have difficulty with interpersonal relationships due to their inflexibility. Although it was previously thought that OCPD reflected a predisposition for Axis I obsessive-compulsive disorder, more recent research suggests that OCPD is more highly comorbid with avoidant personality disorder. Prevalence rates in the general population are estimated to be between 2% and 8% and between 8% and 9% in an outpatient psychiatric setting.

Categorical Versus Dimensional Approaches

One of the most controversial topics in psychopathology over the past few decades has been the classification of personality disorders. The categorical model (e.g., *DSM*) assumes that personality disorders can be defined by a relatively small number of "disorders" or "types" that are essentially orthogonal. Each disorder has a specific set of symptoms and signs, and individuals within each diagnostic category are presumed to make up a homogeneous group. Dimensional approaches would replace the categorical classification now in use with a recognition that mental disorders lie on a continuum with mildly disturbed and normal behavior rather than being qualitatively distinct. Personality disorders, therefore, could be regarded as extreme variants of common personality characteristics, and personality disorder symptoms could be described in terms of relative standing on a number of traits. Personality disorders were first placed on a separate axis in the *DSM* in 1980, based primarily on the expert opinions of *DSM* work group members and without strong empirical evidence that these disorders existed with discrete and distinct clinical features. Later researchers have argued that the categorical classification approach of the *DSM* is inadequate. For example, they point to high levels of comorbidity; many individuals meet the diagnostic criteria for more than one personality disorder or for a personality disorder and an Axis I disorder. Work continues on the development of dimensional models (e.g., the five-factor model). Nonetheless, until a unified system of classification is developed and agreed on, the categorical system employed by the *DSM* will be the mostly widely-used by clinicians.

Matt C. Zaitchik and Trevor H. Barese

See also Antisocial Personality Disorder; Psychopathy

Further Readings

Hare, R. D., Hart, S. D., & Harpur, T. J. (1991). Psychopathy and the *DSM-IV* criteria for antisocial personality disorder. *Journal of Abnormal Psychology, 100,* 391–398.

McCrae, R. R., & Costa, P. T., Jr. (1990). *Personality in adulthood.* New York: Guilford Press.
Wirth-Cauchon, J. (2001). *Women and borderline personality disorder.* New Brunswick, NJ: Rutgers University Press.

Plea Bargaining

Plea bargaining is a process in a criminal case whereby the defendant agrees with the prosecutor to plead guilty (or no contest) in exchange for a reduction in charges or a reduction of sentence. By pleading guilty, the defendant gives up the right to go to trial. Contrary to the widespread belief that criminal cases are usually resolved through jury trials, in reality as many as 95% of criminal cases are handled by plea bargaining. This bargaining process has been viewed by some as a rational one in which the participants take into account both the probability of conviction and the likely sentence if the defendant were to be found guilty at trial; the participants arrive at a bargain that is fair to both sides. Critics of plea bargaining have focused on the flaws in the system that distort the process, such as heavy case loads, which cause prosecutors or public defenders to favor plea bargains over trials in almost all circumstances, regardless of the merits of the case. Additional causes for imperfect bargains involve psychological influences that lead to poor decision making. In spite of its importance to the criminal justice system, only a limited amount of research exists on the topic of plea bargaining.

Decision Theory Approach

Decision theory's concept of value maximization has been used to explain the plea bargaining decisions made by the prosecution and the defense. According to this model, both sides consider both the probability of conviction at trial and the severity of sentence given a jury finding of guilt; multiplying the probability of conviction by the sentence gives one the expected value of going to trial. The desirability of a plea bargain offer is based on its comparison with the expected value of going to trial. For example, consider a case in which, based on the evidence, there was a 50% chance that the jury would find the defendant guilty and, if found guilty, the sentence would be 10 years of imprisonment. The expected value of going to trial would be 5 years (.5 × 10 years). A plea bargain agreement of anything less than 5 years would be a good bargain for the defense, whereas anything over 5 years would be a good bargain for the prosecution. A bargain that would be acceptable to both sides would be close to 5 years. In a perfectly rational world, taking the case to trial and plea bargaining would have the same value, and one might expect the participants to be somewhat indifferent between trial and plea bargain.

Research has shown that plea bargaining participants do, in fact, consider the probability of conviction and the severity of the sentence. Plea bargaining decisions by prosecutors and the defense have been found to be influenced by both variables; however, these two variables alone do not suffice to explain the plea bargaining decisions. Other factors are involved.

Self-Interests of the Bargainers

Certain influences on plea bargaining that are exogenous to the merits of the case affect all the major participants—prosecutor, defense attorney/defendant, and judge. Each of these participants has self-interests outside the merits of the case that might distort the plea bargaining process.

Prosecutors

It has been argued, and there is some empirical support for the idea, that prosecutors favor resolving cases by plea bargaining as opposed to trials. Trials involve a much greater commitment of the prosecutor's time and resources. It has been argued that prosecutors do not have the resources to take any more than a small proportion of their cases to trial; thus, by necessity they must use the more efficient plea bargain to resolve most cases. However, some research has shown that even in districts where the case loads are light, plea bargaining rates remain at the same high level. Even when the case load is low, a prosecutor might prefer not to devote all the time and energy required for a jury trial, particularly given the way prosecutorial performance is evaluated. Prosecutors' reputations are based on their conviction rates. A case in which a defendant pleads guilty as a result of a plea bargain counts as a conviction for the prosecutor. Thus, for the prosecutor, even if a plea-bargained sentence is under the decision theory expected value, from a self-interest standpoint, it is still desirable because it counts as a conviction.

Public Defenders

Defense attorneys may also have certain self-interests that affect their plea bargaining decisions. One type of defense attorney, the public defender, has much in common with the prosecutor. Like prosecutors, public defenders are paid a fixed salary; whether they plea bargain a case or take it to trial has no financial impact on them. Also similar to the prosecutor, many public defenders have large case loads that would be virtually impossible to handle if any more than a limited few went to trial. Plea bargaining is a means of handling these large numbers of cases. Additional pressure on public defenders to plea bargain comes from prosecutors and judges. Due to the extremely large number of cases that public defenders must handle, there is a great deal of contact with prosecutors and judges. The personal relationships that develop as a result of this contact make them particularly vulnerable to pressure. Refusal to plea bargain on the case at hand when that process is desired by the prosecutor and/or the judge might well jeopardize clients in future cases, who might receive harsher treatment in reprisal.

Privately Hired Attorneys

Privately hired defense attorneys also have self-interests that influence their plea bargaining decisions. Prominent defense attorneys with wealthy clients may favor trials over plea bargaining for financial reasons. Attorneys for wealthy clients are paid by the hour, in most cases. The time spent in preparing for a trial and on the trial itself are all billable hours; in contrast, if a case is resolved through plea bargaining, the billable hours are considerably fewer. Taking a case to trial and winning is important to such attorneys for building their reputation as outstanding trial lawyers; such a reputation is crucial for attracting wealthy clients. Other privately hired attorneys may attempt to maximize their financial gain by emphasizing quantity over quality. Many individuals who are charged with crimes have very limited resources; they lack the means to pay an attorney to do all the background work to prepare a case and present it at trial. However, some defense attorneys take on a large number of these cases at a modest fixed rate and then handle the cases very quickly through plea bargaining. Plea bargaining allows this type of attorney to have a profitable practice based on quantity.

Judges

Although most of the actual bargaining goes on between the prosecutor and the defense attorney, the judge plays a significant role. It is the judge who must agree to the terms of the plea bargain; this is particularly true when there has been sentence bargaining as opposed to charge bargaining. As with the other actors in this process, judges may also have self-interest concerns that bias their reactions in the direction of plea bargaining. First, there is the workload issue. Plea bargains are an efficient way to reduce a judge's workload. A second, more subtle issue concerns a judge's reputation. A judge's reputation is harmed when through some judicial error the results of a trial are reversed on appeal. However, when a case is plea bargained, there is no trial and hence no possibility of a judicial trial error. The judge's interest in plea-bargained solutions often results in direct or indirect pressure on the other actors to plea bargain.

Defendant

Obviously the defendant has a self-interest in the way the case is handled; it is his or her freedom that is at stake. However, there are a number of issues that affect a defendant's preference for trial or plea bargain above and beyond the merits of the particular case. There are financial concerns. For those defendants represented by a private attorney, a plea bargain may be seen as a financially less expensive option than the much more costly trial. Furthermore, there may be incarceration time issues above and beyond the potential outcome of a trial. For the defendant who cannot make bail for a relatively minor offense, it is possible that even being found not guilty at trial would result in more jail time than a plea bargain of guilt.

A major concern of critics of plea bargaining is that innocent defendants will plead guilty to a crime that they did not commit. Rather than basing decisions on a rational assessment of the strength of the case and the probability of conviction, defendants base their decisions on faulty information and advice from the actors who are a part of the system. Although it would be extremely difficult to document how frequently innocent individuals actually accept a plea bargain, some experimental research has found that innocent defendants are less likely to agree to a plea bargain than are guilty defendants.

Psychological Influences

In addition to the various ways in which the self-interest of the various actors might distort plea bargaining decisions, a number of psychological influences have been found to distort decision making in any number of situations. For example, how decision alternatives are framed has been found to have a major impact on people's willingness to take risks. It has often been shown that when the decision alternatives are framed in terms of losses, the decision makers become more averse to risk; in contrast, when the alternatives are framed in terms of gains, individuals are more willing to take chances. Consider the case in which a plea bargain of 5 years is being evaluated in light of the probability of conviction at trial of 50%, with a sentence of 10 years. Defendant A is told that if he goes to trial, there is a 50% chance that he will lose an additional 5 years of his life above the plea bargain. In contrast, defendant B is told that if he were to go to trial, there is a 50% chance that he would gain an additional 5 years of his life as compared with the plea bargain. Although both defendants are facing the same situation, Defendant A will plea bargain to avoid the loss, and Defendant B will take the risk of going to trial for the potential gain. Framing can influence defense attorneys and prosecutors as well as defendants.

When people attempt to form judgments in ambiguous situations, they will often start from some anchor point and then make adjustments. If a prosecutor makes an unreasonable initial plea bargain offer of 20 years, which is summarily rejected, it still acts as an anchor against which subsequent bargains are evaluated. A subsequent offer of 10 years that would have been rejected had it been the first offer now becomes desirable when compared with the 20-year anchor. As with framing, anchoring effects influence prosecutors and defense attorneys as well as defendants.

Various types of attributional biases also play a part in plea bargaining. For example, one type of attribution bias that protects us from feelings of vulnerability is unrealistic optimism. Individuals tend to believe that bad things happen to other people but not to them. It would be quite natural for the defendant to believe that if the case were to go to trial, there would be a verdict of not guilty; this bias would be one of the factors causing a defendant to prefer a trial to a plea bargain.

Limitations of Research on Plea Bargaining

It should be noted that our knowledge about plea bargaining is based on an extremely small body of research. In contrast to other topics in psychology and law, such as juror decision making or eyewitness testimony, for which there are literally hundreds of studies, only a handful of studies exist on plea bargaining. It is particularly surprising that the topic of juror decision making has been so heavily researched, since only 5% to 10% of cases are resolved by jury. In addition to the limited number of studies on plea bargaining, much of the research that has been conducted has been poorly controlled. Much of our understanding of plea bargaining is based on interviews or observations of individuals who were available to the researcher as opposed to individuals selected through systematic sampling techniques. Most of the support for psychological influences is based on generalizations from other bargaining situations rather than on plea bargaining situations themselves. Given the centrality of plea bargaining to the criminal justice system, it is imperative that we increase both the quality and the quantity of research on how this process works.

Hunter A. McAllister

See also Alternative Dispute Resolution; Legal Negotiation; Litigation Stress

Further Readings

Alschuler, A. W. (1975). The defense attorney's role in plea bargaining. *Yale Law Journal, 84,* 1179–1314.

Bibas, S. (2004). Plea bargaining outside the shadow of trial. *Harvard Law Review, 117,* 2463–2547.

Fisher, G. (2003). *Plea bargaining's triumph: A history of plea bargaining in America.* Stanford, CA: Stanford University Press.

Heumann, M. (1979). *Plea bargaining: The experience of prosecutors, judges, and defense attorneys.* Chicago: University of Chicago Press.

Police as Eyewitnesses

Criminal cases often hinge on the testimony of eyewitnesses; sometimes those eyewitnesses are police officers. Police eyewitnesses perform the same tasks as

civilian eyewitnesses: They provide descriptions to police officers during interviews, attempt to identify perpetrators from lineups, and provide testimony during court trials. Laboratory research, along with evidence from actual court cases, has shown that eyewitness identifications are often unreliable or inaccurate. It is not clear if we can expect the abilities of a police officer as an eyewitness to be better than those of the average citizen. Findings and theories from a variety of psychological disciplines provide several hypotheses about police eyewitness performance, and research that compares police with civilian performance has produced varying results. Surveys indicate that most people believe that police eyewitness reports are more accurate and of better quality than civilian reports. When police eyewitnesses testify in court, the jury may view them as more credible, regardless of whether their identifications are indeed accurate. Psychologists sometimes testify as experts on eyewitness accuracy and face the question whether the police may be a more accurate population of eyewitnesses.

Findings from psychological research on perception and memory do not provide much evidence to support the notion that any one group of adults would perform better at eyewitness tasks. There is little evidence that certain groups of adults are inherently better at recalling and communicating the details of events or recognizing people, although there are some performance differences based on age and some variability in skill among individuals. Although some studies show that training can enhance identification abilities, others do not. Research in the area of expert cognitive processing demonstrates that as people develop domain expertise, they improve their ability to notice important details and filter out useless information. These research findings indicate, perhaps not surprisingly, that police officers may not have innately better memories but, rather, their specialized training and experience may increase their ability to recognize and recall specific details of crime situations.

Theories grounded in social psychology indicate that police eyewitnesses may be less accurate than civilians because of increased internal and external pressures to perform well. This social pressure may be particularly salient for new officers looking to impress their peers and superiors. Officers may unintentionally choose an innocent suspect from a lineup because they trust that their peers have arrested the correct suspect or they are highly motivated to capture the perpetrator. Furthermore, investigators may not use standard eyewitness safeguards with their peers, such as careful interviewing techniques and lineup instructions.

The psychological research that has directly investigated police officers as eyewitnesses provides only inconclusive answers. These studies used a wide variety of methodologies, such as live incidents, video incidents, verbal descriptions, and written descriptions, and compared police officers with a variety of civilian samples, such as college students, teachers, lawyers, and the general public. In these studies, the participants performed tasks such as providing descriptions and/or making identifications after witnessing a mock crime, distinguishing criminal activity from noncriminal activity, matching previously viewed faces with new faces, and performing eyewitness tasks while under stress.

Research comparing the police with civilians as they recall the details of an event sometimes has found that police descriptions are more detailed and accurate. When researchers examined the types of descriptive information the police and civilians provide, they found that the police provide more detail about perpetrators and the crime events. In some studies, the police show a greater tendency to perceive, or misperceive, suspicious or criminal events. Other research found no difference in description accuracy between police officers and civilians. Researchers found no differences in recall ability between police officers and civilians in stressful situations; however, both groups perform better in nonstressful than in stressful conditions. Research investigating eyewitness abilities based on police experience shows that experienced police officers outperform less experienced officers and civilians. In addition, experienced officers tend to provide more crime-specific information, such as details concerning violence and technical information related to the scene, than do newer officers and civilians.

Research tends to show that police officers and civilians are equally accurate when identifying criminal perpetrators from lineups. However, some studies found that police officers tend to misidentify innocent lineup members at greater rates than do civilians. This finding varies with experience, with newer officers making a greater number of incorrect identifications than do experienced officers.

Police officers testify as eyewitnesses in court just as do civilians. Surveys have found that jurors give greater weight to the testimony of witnesses who appear more confident. Some studies indicate that the police tend to have high confidence in their identification accuracy, irrespective of whether they are in fact

correct or incorrect. Because police officers regularly testify in court and may appear more reliable as witnesses, this leaves open the possibility that jurors may weigh the accuracy and importance of police officer identifications above other evidence. When psychologists testify about eyewitness accuracy, they have only these varied results to guide them in the courtroom.

Laura A. Zimmerman

See also Expert Psychological Testimony on Eyewitness Identification; Eyewitness Descriptions, Accuracy of; Eyewitness Identification: Field Studies; Eyewitness Memory; Eyewitness Memory, Lay Beliefs About; Juries and Eyewitnesses; Police Decision Making; Training of Eyewitnesses

Further Readings

Kassin, S. M., Tubb, V. A., Hosch, H. M., & Memon, A. (2001). On the "general acceptance" of eyewitness testimony research: A new survey of the experts. *American Psychologist, 56,* 405–416.

Yarmey, D.A. (1986). Perceived expertness and credibility of police officers as eyewitnesses. *Canadian Police College Journal, 10,* 31–59.

Police Decision Making

Police officers are gatekeepers of the criminal court system and must make a number of critical decisions during their interactions with citizens and in the performance of their duties. To make decisions, officers use normative criteria such as responsibility and blameworthiness as well as pragmatic and efficiency criteria such as the likelihood of conviction, the amount of time and effort needed, and the organizational barriers that may prevent a desired result. Because officers have much legal authority and make many critical decisions that affect citizens' liberty and safety, it is important to understand how officers arrive at their decisions and the societal consequences of these decisions.

This entry examines what criteria police officers use to make these decisions and what community, departmental, and personal factors affect how they interpret situations, interact with citizens, decide when to stop citizens, ask for consent to search, conduct searches, informally warn suspects, arrest suspects, and decide whether suspects are lying during questioning or interrogation. Using schema theory to examine officers' decision frames, this entry discusses racial disparity in police decision making. Much research supports the contention that compared with Caucasians, African Americans are disproportionately stopped, searched, arrested, and subjected to physical force. Cultural stereotypes and organizational policies contribute to this racial disparity. This entry explores this research on racial disparities, particularly with regard to surveillance, the decision to arrest, and the use of force.

Police work traditionally has been reactive and involves responding to citizens' calls when crimes have already been committed and when community peace has been disrupted. Police duties also involve proactive surveillance to detect criminal activity as it is being committed; for example, police officers may patrol areas that have high rates of drug dealing, prostitution, or gang-related crimes and must decide when to intervene and whether to arrest offenders. Similarly, officers may park their car to detect speeders; officers must decide which of the speeders to pull over, whether to give the speeder a ticket, and whether to search citizens or vehicles for possible illegal contraband such as drugs or weapons. Community policing, where police officers are assigned certain neighborhoods to patrol using bikes or walking, is part of proactive police work and has been implemented to prevent criminal activity and to improve the relationship between the police and citizens so that citizens are more likely to report crimes or suspicious activity to the police. Thus, it is important to examine decision making in both proactive and reactive policy work.

Officers' Decision Frames and Response Styles

Researchers have investigated whether police officers have certain operational styles, developed from their general attitudes regarding justice and law enforcement duties, that guide their decisions to arrest. Several studies have examined three overarching response styles: (1) the tough law enforcer, who arrests serious criminals and rule violators; (2) the negotiator, who emphasizes maintaining community peace and often uses mediation and other informal methods to resolve disturbances; and (3) the rule follower, who bases arrest decisions on organizational policies or legal statutes. Research generally has found that officers do not consistently decide whether to arrest on the basis of their operational ideals or overall attitudes. Moreover,

officers have much discretion on how to interpret organizational policies and legal statutes because such policies are difficult to apply consistently to ambiguous situations.

Rather than operational styles that are linked to overall attitudes and personalities, *schema theory* provides a more empirically supported framework to understand how officers make decisions. Schema theory suggests that officers have several possible guiding decision frames about how to investigate incidents, what information is most critical, and what questions should be asked to arrive at a decision. The situational context and characteristics of the incident determine which decision frame is given priority in a specific situation. Two major decision frames are the *normative* frame and the *efficiency* frame. In the normative frame, officers focus on who is responsible for the harm; in the efficiency frame, they focus on whether there is sufficient evidence to obtain a conviction, the repercussions if they do not arrest, and the credibility of the witnesses.

The number of years on the force has been shown to be the only consistent officer characteristic related to arrest decisions. More experienced officers, compared with rookie officers, tend to resolve calls more often without making an arrest, and experienced officers make fewer arrests because they are more likely to assign greater importance to efficiency and pragmatic concerns. Efficiency or pragmatic framing also can explain why officers often arrest mentally ill persons who have not committed crimes but may need involuntary commitment to a mental health hospital. Several interview studies indicate that officers are frustrated by barriers to the mental health system, by the amount of time they spend off the streets and in hospitals trying to obtain an involuntary commitment, and by the hospital staff's releasing individuals back on the streets within a few days of admittance. All these system barriers indicate to the officers that involuntary commitment decisions are neither pragmatic nor efficient decisions.

In proactive community policing duties, college-educated officers may have better performance and achieve greater neighborhood trust of the police. Studies have found that compared with high-school-educated officers, college-educated officers have higher citizen satisfaction ratings, fewer citizen complaints, and higher job performance ratings from their superiors. Based on empirical research, college-educated officers are more likely to be open minded, to have better communication skills, and to be less authoritarian.

Several studies have examined whether African American officers and Caucasian officers differ in their arrest rates, use of force, and other attitudes. Among the findings are that general attitudes toward the job are similar for African American and Caucasian officers. Research has generally found that African American and Caucasian officers do not differ on arrest rates. Only one study, however, has examined whether they differ on the criteria they use to make arrest decisions. Caucasian and African American officers both were more likely to arrest suspects if they were juveniles, visibly intoxicated, or disrespectful toward officers or if the offense was a felony. However, African American officers also considered other criteria that Caucasian officers did not: whether a crime was committed in their presence, the number of bystanders witnessing the encounter, whether the suspect was male, and the length of the officer's time on the job. Recent research has found that African American and Caucasian officers have a similar likelihood of arresting African American suspects, but African American officers are significantly less likely to arrest Caucasian suspects. Thus, racial disparity in arrest rates occurs among both Caucasian and African American officers.

Police Decisions and Racial Disparity

Racial stereotypes are widespread and permeate the media, the schools, the business community, and the criminal justice system. Individuals of all races are aware of negative racial stereotypes—for example, that African Americans are more prone to violence and more likely to be involved in the use and sale of illegal drugs. Even when individual officers are not prejudiced against African Americans or members of other ethnic minorities, these cultural stereotypes affect how police officers perform their duties. Furthermore, in attempting to reduce the distribution of illegal drugs, some studies indicate that police departments place disproportionate resources in areas where there is a high concentration of ethnic minorities. For example, based on a needle exchange survey and ethnographic observations of two open-air drug markets in Seattle, researchers determined the racial composition of dealers who distributed heroin, cocaine, methamphetamine, crack, or ecstasy. In this study, the majority of drug dealers (more than 80%)

who distributed heroin, methamphetamine, or ecstasy were Caucasian; about equal proportions of Caucasians, Latinos, and African Americans sold cocaine; and only in the distribution of crack cocaine were African Americans more frequently dealers (47%) than Caucasians (41%). In comparing the racial composition of dealers with Seattle's police departments arrest data for the sale of these five illicit drugs during the same time period, researchers found that African Americans were disproportionately arrested for drug dealing: 64% of all arrests involved African Americans, 17% involved Caucasians, and 14% involved Latinos. Although only 47% of crack cocaine dealers were African Americans, 79% of those arrested for dealing crack cocaine were African Americans; only 8.6% of arrestees were Caucasians, even though Caucasians comprised 41% of crack cocaine dealers. Similar and significant racial disparity was found for heroin dealers. Two police department mandates contribute to this substantial racial disparity in arrests for drug dealing: greater emphasis on formally arresting crack cocaine dealers than dealers of other illicit drugs and greater surveillance resources in ethnically diverse open-air drug markets. A greater propensity of violence among crack cocaine dealers cannot explain the departments' allocation of resources; arrests of crack dealers were less likely to involve gun seizures than arrests of other illicit drug dealers, and the police department noted that violence was typically not associated with crack dealing at the time of the study. Second, the primarily Caucasian open-air drug market received undersurveillance as determined by the amount of drug and other crime activity, whereas the ethnically diverse open-air market received oversurveillance, and 25 times more arrests were made there. Higher crime rates or a higher number of citizens' complaints cannot explain the police department's oversurveillance of the ethnically diverse market. The racial disparity also cannot be explained by the possibility that Caucasian drug dealing occurs in more private indoor areas. African Americans were more likely to be arrested in both outdoors and indoors areas and also were overrepresented in arrests in both the primarily Caucasian open-air and the ethnically diverse open-air drug markets. Other research also found that African Americans were more likely to be disproportionately arrested for drug possession.

Police officers may follow these organizational mandates to concentrate resources in specific areas, and then the cultural racial stereotype, which may not be a part of conscious awareness, may affect their choice of which drug dealers to arrest. Research does not show that African Americans are more likely to be drug dealers or users, nor does it indicate that African Americans are more likely to be caught because their activity is more visible. Instead, officers follow organizational mandates that increase the chances of perceiving drug dealing by African Americans, and even in primarily Caucasian open-air drug markets, officers' unconscious awareness of cultural stereotypes may direct their attention toward African American dealers. In short, cultural stereotypes may affect officers who are not racially prejudiced.

Much research suggests that young African American and Latino men are more likely to be stopped, given traffic citations, searched or asked for a consent search, arrested, and subjected to officers' use of force than are Caucasian men. Racial profiling, begun during the U.S. government's "war on drugs," is a controversial decision strategy in law enforcement that has reinforced using race as a criterion in law enforcement decisions. The use of racial profiling as a legitimate decision strategy is now being widely questioned. Numerous studies suggest that officers pull over African American drivers less for obvious traffic violations and more on the basis of race (e.g., "driving while black/brown"). Research further does not support that the stopping and subsequently higher rate of searching of minority offenders indicates a higher rate of illegal contraband possession. Thus, minorities compared with Caucasians do not have a higher rate of actual drug possession. Studies have found that minority drivers are not more likely to have illegal drugs or weapons than are Caucasian drivers, and a few studies have found that searched Caucasian drivers are significantly more likely to have illegal contraband than are minority drivers.

Police Decisions on the Use of Force

During questioning of potential suspects, police officers must decide when and how much physical force to use to stop citizens who are perceived as resisting or disrespecting their legal authority. Police departments receive much negative publicity when officers decide to use what the public perceives as excessive force to restrain citizens or when officers incorrectly perceive resistance and use weapons to force citizens to comply. For example, in recent years, media reports have revealed incidents in which officers, using

batons, flashlights, and fists, have beaten citizens who are having seizures because they incorrectly labeled the citizens' actions as unresponsive and resistant. Officers also have used inappropriate force when they misperceived mentally ill persons' actions as disrespectful and unresponsive to their legal authority; media publicity about such incidents has served as an impetus for police departments to develop special units, strategies, and training to improve officers' interactions with mentally ill citizens. It is difficult to examine what situational and officers' characteristics contribute to the use of excessive or incorrect force because individuals cannot agree (except at the most extreme) on what actions constitute excessive force. However, based on surveys completed by police officers, between 13% and 20% of officers reported having observed a fellow officer using considerably more physical force than was necessary or harass a citizen based most likely on his or her race.

Good police performance requires the ability to know when to use any coercive verbal statements or physical actions. Officers may use coercive actions, most of which are verbal, in attempting to get persons to comply with their orders and acknowledge their legitimate legal authority. Studies of the use of force often examine verbal commands and threats as well as physical force, with physical force sometimes ordered from least to more severe. Several studies have found that officers are more likely to arrest and use force against suspects who have a disrespectful demeanor than suspects who are respectful. The influence of suspects' demeanor on arrest and use-of-force decisions cannot be accounted for entirely by disrespectful suspects being more likely to commit crimes during their interactions with officers. Demeanor also receives significant consideration in officers' decisions to take juvenile offenders into custody. Demeanor and citizens' resistance also contribute to officers' use of verbal and physical force. That is, officers are more likely to use verbal or physical force against suspects who resist responding to commands or questions and/or who are more verbally or physically aggressive toward police officers. Studies have determined a relationship between citizens' resistance and officers' use of force, but it is unclear how often officers use verbal threats or physical force against nonresisting and respectful citizens.

Research has shown inconsistent findings on whether minority offenders are more likely to resist answering officers' questions or complying with commands and to use verbal or physical aggression against officers. Given the mixed results, the racial disparity in the use of force against minority offenders cannot be explained by offenders' propensity to resist or use verbal or physical aggression.

Several situational characteristics are related to officers' use of force. Officers have indicated that departmental policies concerning use of force affect their decisions to use force. In addition, studies have found that officers are more likely to use verbal coercion or physical force in situations involving conflict, against intoxicated suspects or offenders who have a weapon, when there is evidence of a crime, when two or more officers are present, when bystanders are not present, and when they are attempting to prevent crime or intervene while a crime is in progress. Officers may be more likely to use force when other officers are present because they have witnesses who can testify that the force was reasonable given the suspect's behavior; similarly, the presence of a greater number of bystanders reduces the likelihood of officers using verbal or physical force, because it increases the chance of witnesses testifying against them. Younger suspects and those of a lower socioeconomic status have a greater chance of both verbal and physical force being used against them. Minorities and male suspects are more likely to experience physical force but are not more likely to experience verbal coercion.

Some officer characteristics are related to the use of force. Officers who have job burnout reported more support for the use of force, reported greater frequency of using force, and were more likely to be independently observed using force. Officers with a greater number of years on the police force are less likely to use verbal or physical force. Compared with officers having only a high school education, officers with a college degree and those with some college experience are less likely to use coercive verbal demands or threats, and officers with a college degree are less likely to use physical force.

Loretta J. Stalans

See also Police Decision Making and Domestic Violence; Police Interaction With Mentally Ill Individuals; Police Psychology; Police Training and Evaluation; Police Use of Force

Further Readings

Beckett, K., Nyrop, K., & Pfingst, L. (2006). Race, drugs, and policing: Understanding disparities in drug delivery arrests. *Criminology, 44*(1), 105–137.

Brown, R. A., & Frank, J. (2006). Race and officer decision making: Examining differences in arrest outcomes between Black and White officers. *Justice Quarterly, 23*(1), 96–126.

Engel, R. S. (2003). Explaining suspects' resistance and disrespect toward the police. *Journal of Criminal Justice, 31*(5), 475–492.

Engel, R. S., & Calnon, J. M. (2004). Examining the influence of drivers' characteristics during traffic stops with police: Results from a national survey. *Justice Quarterly, 21*(1), 49–90.

Lundman, R. J. (1996). Demeanor and arrest: Additional evidence from previously unpublished data. *Journal of Research in Crime and Delinquency, 33*(3), 306–323.

Palone, E. A., & Terrill, W. (2007). Police education, experience, and the use of force. *Criminal Justice and Behavior, 34*(2), 179–196.

Police Decision Making and Domestic Violence

All states have enacted mandatory or preferred arrest statutes that require or encourage officers to arrest the batterer in domestic violence incidents when probable cause exists. Mandatory arrest laws still allow officers much choice about when to arrest, because the criteria for whether there is enough evidence to meet the standard of probable cause are ambiguous. Officers use several legal and extralegal criteria to make arrest decisions and also rely on stereotypes to form inferences about specific cases. This entry describes findings from numerous studies that have examined how officers interpret, investigate, and respond to domestic violence situations. A focus on how officers infer and interpret information is important to design effective academy training that addresses the unintentional effects of stereotypes and improves police decision making so that equal protection is provided to all victims of domestic violence. Although research shows that academy training has little effect on police arrest decisions, prior training has not focused on how officers arrive at decisions.

How Officers Think About Domestic Violence

Decision frames are a set of rules about how to make arrest decisions; they guide what questions are asked, what inferences are drawn, and what criteria receive the most consideration in arrest decisions. Decision frames derive from socialization and are connected to officers' values, attitudes, and worldviews. Officers may use three decision frames to investigate and interpret information: legal, normative, and efficiency.

The legal frame assumes that officers apply policies or statutes using only legal criteria and a strict interpretation of the statutes. The legal frame assumes a rational decision maker who does not use attitudes or stereotypes to interpret information. Much research shows that the legal frame is not an accurate portrayal of officers' decision making.

Officers typically give greater consideration to the normative and efficiency frames in asking questions during an investigation and making decisions about arrest. The normative frame emphasizes the following questions: Who is responsible? Was his or her actions justified or not? Using the normative frame, officers examine what happened in the past and evaluate the moral appropriateness of each party's actions and their moral character. In the case of domestic violence, officers using the normative frame would arrest both disputants if the parties are equally blameworthy. However, when the normative frame is used, battered women may be blamed for the violence when they deviate from social gender-biased norms.

Officers using the efficiency frame do not attempt to unravel the past but assess the credibility of each disputant to determine whether an arrest is likely to lead to a successful conviction. To avoid mistakes that cause lawsuits or unfavorable media publicity, they assess the likelihood that each party will commit further violence. In the efficiency frame, officers focus on the present and future ramifications of their decisions and are concerned with how an arrest will affect their time, raises, and promotions. The efficiency frame also allows departmental and system procedures to influence officers' decisions. Officers are less likely to make an arrest if more paperwork is required when a suspect is arrested, and this finding has led to policies that require officers to complete a report irrespective of whether they arrest or do not arrest a suspect. Research has found that arrest rates did not increase after mandatory-arrest state laws were enacted; however, arrest rates increased if the counties had coordinated responses, whereby the prosecutors and courts followed through with certain sanctions for arrested batterers. Research has found that when departmental policy is to arrest both parties when both claim self-defense, officers will follow this policy even when state laws discourage the arrest of both parties.

Research also has found that novice and experienced officers employed different frames for making decisions. In making arrest decisions, novice officers focused on the blameworthiness of each party, whereas experienced officers focused on their ability to substantiate claims and the risk of future violence. The shift from focusing on normative to efficiency issues occurs relatively swiftly, after 1 year of service.

Officers also use stereotypes of domestic violence, social class, mental illness, race, gender, and other salient categories. Stereotypes help officers complete missing information, interpret conflicting stories, and make assumptions about likely outcomes or responses. Research has found that experienced officers considered their stereotypic beliefs about battered women's propensity to use self-defense in arriving at their arrest decision. Moreover, individual officers have different stereotypes about domestic violence, especially regarding how much women provoke the violence or react in self-defense. Officers inferred that men who abused wives who were hallucinating or drunk were less dangerous and that wives were more responsible for the violence, suggesting that stereotypes about mental illness also guide their interpretations when suspects or victims exhibit mental illness. These stereotypes thus affect officers' inferences about the situation and may lead officers to provide unequal protection for victims who have a mental illness or violate social or gender norms.

Criteria Used in Arrest Decisions

Legal criteria that have been found to consistently increase the likelihood of arrest include a disrespectful attitude toward the police, the presence of witnesses, the presence of a weapon, the presence of the perpetrator, and a violation of an order of protection. Officers typically make an arrest only in 20% to 50% of the cases where there is clear evidence of a violation of an order of protection. This finding indicates that officers use their discretion and interpret the dangerousness and risk to the victim in determining whether to make an arrest when a perpetrator has violated an order of protection. Several studies have found that a violation of an order of protection increases the incidence of arrest, but its effect on arrest is no greater than that of other situational criteria.

Several criteria have been inconsistently related to arrest decisions: the suspect's gender or race, victim's or suspect's use of alcohol, marital status of the suspect and the victim, presence of children, presence of injuries, victim's preference for arrest, and suspect's gender. The influence of these criteria depends on other environmental and situational characteristics. For example, research based on police reports found that substance use or the presence of children decreased the likelihood that the batterer would be arrested if the victim was African American but increased the chance of arrest if the victim was Caucasian.

Research has found that arrest rates for cases involving visible injuries vary from 30% to 73% across police departments. Across archival and vignette studies from the early 1980s until 2005, the presence or seriousness of visible injuries is not sufficient to invoke arrests, and its influence on arrest decisions depends on other situational characteristics. For example, visible injuries increased the chance of arrest when the perpetrator is present but had no effect when the perpetrator has fled the scene before the police arrived. Officers also were more likely to use the presence of visible injuries in their arrest decisions when departments had a clear policy to arrest when the victim has injuries or when the jurisdiction had a coordinated response to domestic violence.

The importance of the victim's preference in arrest decisions clearly varies across departments, studies, and cases. Police officers often do not include the victim's preference in the police report even when it is a standard part of the police form, which suggests that it often is not an important criterion. Studies generally find that the victim's preference for arrest has a modest impact, accounting for 4% to 5% of variation in officers' decisions on whether or not to make an arrest. Officers often are not persuaded by the victim's preference for arrest because they think that most victims will drop charges, do not know what they want at that time, or are not providing an honest account of what happened. Officers' stereotypes about battered women and domestic violence also may affect how they interpret the victim's preference for arrest.

Police officers do not provide all battered women with the same protection. Several studies have shown that police officers are less likely to arrest perpetrators who attack women who are drunk or having affairs. Officers who use a normative frame are more likely to arrest the husband if the battered wife is mentally ill because they believe that he is more blameworthy for hitting someone who cannot control her actions. In contrast, officers using an efficiency frame are less likely to make an arrest in this circumstance because

they see the mentally ill wife as less credible and more dangerous. Interview studies have found that police officers are less likely to make an arrest in cases involving minority victims than when Caucasian victims are involved. Thus, the guiding decision frame and stereotypes determine which victims who violate social norms are more likely to receive protection.

Domestic Battery Versus Stranger or Acquaintance Battery

Are officers less likely to arrest perpetrators of intimate partner violence than perpetrators of violence against strangers or acquaintances? Mixed findings from research indicate that this question has not been resolved. Research in the 1980s found that both intimate partner and other violent crimes had similar arrest rates. Research conducted after mandatory arrest statutes were enacted has revealed inconsistent findings. Although several studies found that arrest is less likely to occur in intimate partner battery, these studies did not ensure that domestic and acquaintance battery cases were similar and thus were unable to eliminate alternative explanations. Other research indicates that whether officers treat acquaintance or stranger battery cases and domestic violence cases differently depends on situational characteristics. For example, when the suspect has fled the initial scene, officers are more likely to investigate, find, and arrest stranger or acquaintance batterers than domestic batterers. This bias occurs even though both types of victim request arrest as often and intimate partners are more likely to inform officers where the suspect can be found. Conversely, when the victim is the only witness, as in a typical domestic violence incident, officers are more likely to arrest domestic batterers than stranger or acquaintance batterers. Thus, officers under some circumstances may respond to domestic violence differently than to stranger violence, but further research is needed to obtain a more complete understanding of these circumstances.

Officers' Personal Characteristics and Decision Making

Several studies have investigated how police officers' race and gender shape their interpretation and handling of domestic violence situations. Officers' race has not been shown to influence their decisions. However, men and women officers do have different stereotypes about domestic violence, have different responses, and consider different criteria. Compared with men, women tended to perceive that wives more often acted in self-defense and were more likely to be the only party injured and that husbands had committed intentional and unjustifiable violence. Men were more likely than women to support gender-biased attitudes. Male officers who held gender-biased attitudes were more likely to believe that few cases of domestic violence involved battered women committing violence in self-defense.

Despite these differences in beliefs, male and female rookie officers typically recommended marriage counseling and only in one out of five cases referred the battered woman to a shelter. After probationary status, experienced women officers acted more in accordance with their stereotypic beliefs. Experienced female officers were less likely than males to recommend marriage counseling and more likely to refer battered women to shelters.

Male and female officers, regardless of experience, had similar arrest rates but used different criteria. Both men and women were more likely to arrest when injuries were visible or they perceived that severe future injuries were likely to occur. However, women were less likely to arrest if the battered woman was willing to settle the argument, whereas men did not consider the victim's preference. Thus, through professional socialization, women and men developed similar perceptions about their law enforcement role. However, when women officers had achieved greater job security and could defend their views, they were more likely to act on their different beliefs about domestic violence and received higher satisfaction ratings from victims. Thus, although women officers do not arrest perpetrators more often, they are more likely to provide support and information to victims and are less likely to hold gender-biased attitudes or stereotypes.

Loretta J. Stalans

See also Police Decision Making; Police Training and Evaluation

Further Readings

Eigenberg, H. M., Scarborough, K. E., & Kappeler, V. E. (1996). Contributory factors affecting arrest in domestic and non-domestic assaults. *American Journal of Police, 15*(4), 27–53.

Finn, M. A., Blackwell, B. S., Stalans, L. J., Studdard, S., & Dugan, L. (2004). Dual arrest decisions in domestic violence cases: The influence of department policy. *Crime & Delinquency, 50*(4), 565–589.

Hall, D. L. (2005). Domestic violence arrest decision-making: The role of suspect availability in the arrest decision. *Criminal Justice and Behavior, 32*(4), 390–411.

Kane, R. J. (2000). Police response to restraining orders in domestic violence incidents: Identifying the custody-threshold thesis. *Criminal Justice and Behavior, 27*(5), 561–580.

Stalans, L. J., & Finn, M. A. (1995). How novice and experienced officers interpret wife assaults: Normative and efficiency frames. *Law & Society Review, 29*(2), 287–321.

Stalans, L. J., & Finn, M. A. (2000). Gender differences in officers' perceptions and decisions about domestic violence cases. *Women and Criminal Justice, 11*(3), 1–24.

Police Interaction With Mentally Ill Individuals

Police calls for service sometimes involve the police interacting with and responding to people with mental illness. The dismantling of state mental hospitals, the changing mentally ill population, the tightening of requirements for receiving mental health support, and the offering of limited psychological services are bringing the police into contact with more people with mental illness. Police-invoked law enforcement, police-invoked order maintenance, citizen-invoked law enforcement, and citizen-invoked order maintenance are four types of police interactions with the mentally ill who violate the law. They involve the police either initiating or responding to a call for service and either enforcing the law or maintaining social order.

How the police employ their work-style attitudes and exercise their discretionary power has an impact on the outcomes of police interactions with people with mental illness. Custodial police decisions are arrest, involuntary emergency evaluation, or involuntary commitment. Noncustodial decisions are counseling, release and referral, or voluntary emergency evaluation. The police are receiving some training in these alternatives for handling people with mental illness. In some contacts with the mentally ill, police agencies that have specially trained mental health crisis teams deploy them to carry out custodial or noncustodial options to resolve police calls for service.

Prevalence and Situational Profile

Researchers have estimated that between 5% and 10% of police-citizen contacts involve people with mental illness. These numbers reflect an increase since the 1960s deinstitutionalization of state psychiatric hospitals that housed the mentally ill, offered them some treatment, kept them safe, and protected the public from the real or perceived danger of coming into contact with them. Overcrowded and poor living conditions, the insensitive treatment of the mentally ill, the economic expense of housing them, the availability of psychotropic medications such as chlorpromazine (Thorazine), the tightening of involuntary commitment procedures, and the creation of community mental health centers were the factors that shaped the deinstitutionalization movement.

The closing of many state psychiatric facilities resulted in the displacement of people with mental illness—from living in locked state warehouses to living in open community settings such as group homes, family residences, halfway houses, nursing homes, and homeless shelters that offer different levels of care. Researchers estimate that 1 of every 10 persons has some form of mental illness and that between 1 and 4 million persons in the United States have a serious mental illness.

Police contacts with the mentally ill often occur in the home. Interactions with them also occur in the streets, at halfway houses, at mental health agencies, and in public buildings. Police encounters are increasing during the night and weekend hours because mental health resources are usually unavailable at such times. Behaviors that the mentally ill frequently demonstrate during their contacts with the police include confusion, unusual or bizarre mannerisms, and aggression. Empirical investigations suggest a link between mental illness and criminal behavior. For example, persons who suffer from bipolar disorder or schizophrenia are more likely to express antisocial behaviors that society criminalizes. Most mentally ill offenders are under the influence of alcohol or drugs when they commit crimes. There is some increased risk of mentally ill individuals becoming violent.

Because many people with mental illness now languish in a variety of community settings with too few mental heath treatment centers available, they routinely

encounter the police when they manifest abnormal behaviors that require police attention.

Types of Police Interactions With the Mentally Ill

The police are responsible for safeguarding the well-being of the community. They fulfill this responsibility by enforcing laws and maintaining social order and, thus, most often respond to persons with mental illness when such persons display behaviors that rise to a level that society criminalizes. Responses may originate from police-invoked law enforcement, police-invoked order maintenance, citizen-invoked law enforcement, or citizen-invoked order maintenance.

Police-invoked law enforcement is a self-initiated response by an officer to a violation of the law by a mentally ill person. The law violation and police department policies and procedures force the officer to make contact with the mentally ill law violator.

Police-invoked order maintenance is also a self-initiated officer contact with a person with mental illness who violates the law. But in this situation, the law-violating behavior is of a less serious kind. It reflects a social order disturbance that tends to be noninjurious to others, such as public drunkenness and vagrancy.

A police call for service that originates from a complaint by a citizen can bring an officer into contact with a person with mental illness. Citizen-invoked law enforcement involves a citizen reporting that a mentally ill person has violated the law. Similarly, citizen-invoked order maintenance also involves a citizen calling for police service, but like police-invoked order maintenance, it involves law-violating behaviors that are of a less serious nature, occur less often, happen at unexpected times, and take place usually in the private homes of citizens (e.g., verbal arguments).

Whether the police are initiating or responding to calls for service or whether they are enforcing laws or maintaining social order, their work-style attitudes and use of discretion have an impact on the way they actually handle situations involving mentally ill individuals.

Police Handling of the Mentally Ill

Not all police-citizen contacts have an absolute set of official rules and procedures on how best to handle them, especially police contacts with the mentally ill whose behaviors amount to some infraction of the law. Although there is some official guidance that stems from the law, policy, training, and supervision, the police have some leeway or discretion in deciding on a response option from a range of possible responses available in a given law-violating police intervention situation. For example, in police-invoked situations with mentally ill law violators, there are no demands by citizens for the police to invoke the law mechanically. The police are free to exercise their work-style attitudes, which include some attitudes toward, perceptions of, and assumptions about people with mental illness. Thus, the mentally ill person who demonstrates public drunkenness is most vulnerable to an officer's discretionary power.

If, for example, the officer holds a legalistic perspective about policing—preoccupied with arresting law violators and performing to the letter of the law, then custodial police options such as arrest, involuntary emergency evaluation, or involuntary commitment are likely outcomes. If, however, the officer uses a problem-solving policing style—concerned about finding permanent solutions to problems, then non-custodial options such as counseling, release, and referral or voluntary emergency evaluation are attractive because they offer the person with mental illness some needed mental health treatment, thereby reducing future police contacts.

Citizen-invoked calls for police service routinely carry with them less opportunity for the police to exercise their discretion. The police concentrate their work effort on responding to citizens' complaints and meeting citizens' needs. For example, a citizen may want an officer to arrest a mentally ill person who assaulted him or her. This situation gives the officer little chance to make a discretionary decision such as suggesting a voluntary emergency mental health evaluation. In a different situation, for example, the citizen may not want to press charges for assault. The officer could make an intervention decision that calls for releasing the offender and making a mental health referral. Normally, though, the officer will choose an option that satisfies both police and citizen interests in citizen-invoked interactions with the mentally ill.

Police Training

Most police officers receive some education and training in the handling of people with mental illness. Basic recruit training hours can range from roughly 0 to 41. Fewer police officers receive continuing education at the in-service level. Among those that do,

some receive information at roll call, and others get it during formal annual blocks of instruction. Training time varies from a recommended 16-hour block devoted to mental illness.

The content of police training varies at both the recruit and the in-service training levels. Sources of training curricula are the agency itself, the state commission on peace officers' standards and training, profit and nonprofit organizations, and local mental health professionals. Police officers or mental health professionals, or both, usually deliver the training. One formal and well-recognized training curriculum developed by the Police Executive Research Forum includes seven learning modules that address police responses to people with mental illness. Generally, police officers learn to recognize their attitudes toward, perceptions of, and assumptions about the mentally ill and to dispel their misconceptions about them. Mental illness is not a crime, and people having mental illness live in their communities, have professional vocations, and call for police services.

The police learn to recognize specific symptoms and forms of mental illness, such as schizophrenia and mood, anxiety, and dissociative and personality disorders. They learn to employ techniques to handle them effectively. For example, an officer encounters a mentally ill person whose speech is high-speed and nonstop and uncontrollable and meaningless. This behavior signals to the officer that the person is in a state of high arousal and has an anxiety disorder. The officer interrupts the person's speech by asking a series of questions—for example, What is your name? How old are you? Where do you live? Where do you work? What the officer expects is to break the person's pattern of compulsive behavior and control it to some extent.

Not all police interactions with the mentally ill require arrests. The police learn both custodial and noncustodial alternatives to respond to people with mental illness whose behaviors amount to some infraction of the law. They learn community, problem-oriented strategies to resolve problems related to the mentally ill. Handling such problems, however, sometimes involves using specialized mental health crisis teams.

Some police agencies report having specially trained teams that respond to calls for service involving mentally ill persons in crisis. Police agencies that employ a team approach generally adopt one of three models: police-based response (only specially trained police officers), police/mental health–based response (both police officers and mental health professionals), or mental-health-based response (only mental health professionals). Current research suggests that most police agencies deploy a team composed of only specially trained police. Despite variations in using particular response teams, team members are receiving the specially needed training to respond to people with mental illness.

Police department policies on contacts with people with mental illness have helped departments standardize the nature of their officers' responses while giving officers flexibility to meet the needs of people with mental illness. Although people who have mental illness may commit a crime, be a victim of crime, or report a crime, police responses to encounters with them have improved with training.

Frank J. Gallo

See also Police Psychologists; Police Psychology; Police Training and Evaluation

Further Readings

Finn, M. A., & Stalans, L. J. (2002). Police handling of the mentally ill in domestic violence situations. *Criminal Justice and Behavior, 29*(3), 278–307.

Hails, J., & Borum, R. (2003). Police training and specialized approaches to respond to people with mental illness. *Crime and Delinquency, 49*(1), 52–61.

Jennings, W. G., & Hudak, E. J. (2005). Police responses to persons with mental illness. In R. G. Dunham & G. P. Alpert (Eds.), *Critical issues in policing: Contemporary readings* (5th ed., pp. 115–128). Long Grove, IL: Waveland.

Patch, P. C., & Arrigo, B. A. (1999). Police officer attitudes and use of discretion in situations involving the mentally ill. *International Journal of Law and Psychiatry, 22*(1), 23–35.

Police Executive Research Forum. (1997). *The police response to people with mental illness.* Washington, DC: Police Executive Research Forum.

Police Occupational Socialization

Police occupational socialization is the process whereby individuals learn to be fit for performing police work by becoming aware of organizational and occupational practices, internalizing them, and carrying them out as participating members of their work

group. Learning takes place through three social phases: pre-entry, entry, and in-service. This sequence involves individuals making a choice to become a police officer, learning formal and informal lessons during police recruit or academy training, and learning them on the job, respectively.

How officers make sense of these social events affects the way they perceive, influence, and interact with citizens in a law enforcement capacity. At the pre-entry phase, individuals learn about themselves, evaluate their personal qualities by comparing themselves with what they know about the police, and make a decision to become a police officer. During the entry phase, they begin to construct a self-concept that is coherent with what they learn about police roles, activities, and relationships with citizens. They begin to form a social identity about themselves as group members of the police profession. They learn to make social inferences about the citizens they meet. Finally, at the in-service phase, they strengthen and defend their self-concepts and social identity. They learn to conform to organizational and occupational norms so that they can act comfortably within the police culture. Officers develop different work-style attitudes that reflect subjective outlooks that include beliefs and values affecting how they interact with citizens during police-citizen contacts. Police socialization ensures that individuals acquire the necessary knowledge to perform adequately on the job. Understanding the role that thinking or mental processes play during socialization is at the heart of comprehending why officers act the way they do in their occupational settings.

Pre-Entry Phase

Who am I? What do I think of myself? Who is a police officer? What does a police officer do? These questions are a focal point of the pre-entry phase, in which the process of making a choice to become a police officer is a major social psychological paradigm. At the pre-entry phase, individuals explore what they know about themselves (or self-concept) and what they know about the roles and activities of police officers. Individuals piece together some understanding of "who I am" from both self-knowledge and knowledge held by others. They construct self-knowledge from inferring their personal characteristics or qualities from their past behaviors. They use what other people know about them or think about them when forming opinions about themselves.

When constructing knowledge of policing, individuals use factual or fictional perceptions. Friends or relatives who are police officers are factual or genuine sources of learning who is a cop, what characteristics he or she has, and what he or she does on the job. Fictional or imagined perceptions of policing often come from media sources. For example, television or movie cops as portrayed by actors such as Mel Gibson demonstrate characteristics of power, toughness, and aggressiveness. Steady streams of these media images define police officers as being tough, strong, and invulnerable and fitting into a box that defines machismo. Whether real or imagined, these values often become part of "who I must be."

Individuals reason from "who I am" to "who I must be," including knowledge of both the self and the police. They employ four kinds of schemas that help them generate a hypothetical picture about themselves in the police role: a person schema (who is a police officer), a self-schema (who I am), a role schema (what behaviors I expect to perform in a given situation), and an event schema (how the situation will unfold). What explains in part the decision to become a police officer is the perceived discrepancy between "who I am," on the one hand, and "who I must be," on the other: The greater the discrepancy, the higher the probability that individuals will not self-select themselves for law enforcement training.

Individuals who see themselves as trainable and suitable for the job apply for it. Before they become police officers, however, they must pass through a rigorous selection process, which most often includes a written test, a physical agility test, background investigation, a personal interview, a medical exam, and a battery of psychological tests. A police administrator considers applicants who have ideal police characteristics and the ability to perform necessary job functions. The employment decision along with the selection process usually produces a homogeneous group of applicants who demonstrate a willingness to conform to organizational (official) and occupational (both official and unofficial or working) police practices. These police applicants or recruits experience formal socialization when they enter training at the police academy.

Entry Phase

Police recruit training refines the cohort of acceptable applicants through formal and informal lessons that weed out those applicants who do not conform to

established police practices. Formal lessons involve instruction in a training curriculum, which usually includes the subject areas of administration of justice, fitness, law, police procedures, use of force, police professionalism, and community relations. Informal lessons about the job often take the form of war stories told by police academy instructors. Officers begin to learn from instructors and from their peers at the academy about unwritten rules, work attitudes, values, and beliefs of the occupational culture.

During academy training, the prevailing social psychological paradigms are self-concept, social identity, and social inferences. Officers begin to identify with the police subculture by constructing self-concepts that are coherent with what they learn about policing through formal and informal lessons at the academy. They fit into their self-concepts distinct characteristics of the police subculture, such as an ethos of toughness, autonomy, suspiciousness, secrecy, solidarity, and bravery. Officers begin to form a police identity from characteristics that belong uniquely to the police subculture and that they share with other officers. Police identification turns "I" into "we," which extends "who I am." Officers see themselves as members of the police subculture—a process known as self-categorization.

When officers self-categorize themselves, they view out-group members or non–police officers as outsiders (intergroup discrimination). They favor in-group members or police officers (in-group favoritism) because they see themselves as having more in common. The language officers use to refer to out-group members helps create and feed in-group bias. For example, "Let's get the bad guys" or "It's us against them." The in-group/out-group arrangement is implicit when officers use pronouns such as "we" and "they" or "us" and "them." Viewing themselves as part of the police subculture produces feelings of friendship, solidarity, and trust among officers. A cooperative work effort helps them tackle the challenges of contemporary policing.

At times, however, there are costs for expressing in-group favoritism. Officers might see citizens as being the same or interchangeable. For example, an officer says, "They all act alike" when speaking about members of a particular group. In this instance, the officer does not appreciate the diversity of citizens. Putting citizens into an out-group category might lead officers to process information about them differently. For example, an officer legitimizes and defends in-group beliefs and behaviors, whereas he or she marginalizes and attacks out-group ones. Officers who hold and show in-group favoritism have a tendency to accentuate in-group/out-group differences. Citizens know the differential power arrangement of police-citizen interactions. Police power coupled with certain citizen tension sometimes leads citizens to resist the police, especially when officers make evident their "us and them" mentality.

Besides officers learning to hold a worldview of "us" and "them," formal and informal training lessons teach officers to make social inferences about police-citizen interactions. Officers learn to process people and events through a cognitive lens of present danger. For example, an officer uses force against a suspect. The event happens at 1:00 a.m. If one uses the situational cue "time of day" to help explain the officer's behavior, the ecological validity of the model would be poor. Using the cue's natural metric 1:00 a.m. would reduce the accuracy of the explanation because the officer's acquisition of the cue in the force situation was subjectively different. The officer learned to form a scaled impression of 1:00 a.m. in terms of present danger.

Police work involves the possibility of danger all the time. Danger shapes police-training practices. Officers learn to see citizens as potentially uncooperative, armed, and dangerous. They learn that they work in an environment of condition yellow: always occupied with the present danger of people and events. Developing a police worldview through a cognitive lens of present danger is a major social psychological theme at both the recruit and the in-service levels of training.

In-Service Phase

At the in-service phase, integrative expressions of the social and the psychological disciplines emerge. Generally, officers, or now "rookies," reconcile their self-concepts and their social identity. They conform to police norms and develop work-style attitudes.

When rookies graduate from academy training, they usually ride along with field-training (or incumbent) officers who provide on-the-job training. Rookies learn formal lessons such as work-area-relevant information and agency-specific policies and procedures. They learn informal lessons that usually consist of a set of unwritten rules, outlooks, and behaviors such as being "tough" that officers in their agency consider normal and expected in the occupational culture. Field-training officers teach rookies "how it's done here." What lessons rookies learn help

them to reconcile inconsistencies in their self-concepts and social identity, and thus strengthen and defend them.

Formal and informal lessons during the field-training period cause rookie and incumbent officers to become more alike. Rookies conform to police norms or shared rules of conduct that establish in-the-box behaviors that most officers in most police situations accept and expect. Rookies accept a degree of conformity to these norms because they want to feel included and accepted by their peers. They learn quickly that there is a price to pay for acting outside the box. For example, a rookie officer responds with incumbent officers to a service call for disorderly conduct. The incumbent officers endorse values of toughness, aggressiveness, and respect. When the officers arrive, a male suspect becomes verbally abusive toward the rookie. While the rookie officer has a range of verbal skills available to manage this kind of behavior, the officer fears "losing face" and the consequences of outside-the-box behaviors, such as being labeled a "wimp" or "not a real cop." The rookie mixes his or her response choice with ideals of enforcing the law or preserving group norms. Because the incumbent officers endorse toughness, aggressiveness, and respect, the rookie becomes tough and aggressive and uses a forceful response to earn respect where none is necessary. In this way, the rookie meets the expectations of incumbent officers.

Rookie officers learn that police calls for service can be tense and uncertain: Calls sometimes evolve rapidly. Once rookies graduate from their field-training period, they find themselves in a new role, having a degree of autonomy in handling police calls for service, holding a police worldview of danger, having broad discretionary power, and asserting authority to carry out police objectives. To meet the demands of police service, initial changes in their psychological makeup often occur. Rookies develop different personal work-style attitudes that reflect in part their experience and organizational and occupational practices. The content and structure of their attitudes might reflect a professional, tough-cop, clean-beat crime-fighter, problem-solver, or avoider style of policing. For example, the rookie officer who assumes a tough-cop perspective believes that citizens are hostile to the police, holds a police worldview of danger, and carries out an aggressive style of policing to keep safe. Initial changes in rookies' work-style attitudes suggest that they are recognizing and responding to the role demands of a police officer. Although some rookies' work-style attitudes might remain stable throughout their career, others might modify them to cope with changing policing strategies, job functions, calls for service, and subjective outlooks.

Frank J. Gallo

See also Police Decision Making; Police Decision Making and Domestic Violence; Police Psychology; Police Selection; Police Training and Evaluation

Further Readings

Chappell, A. T., Lanza-Kaduce, L., & Johnston, D. H. (2005). Law enforcement training: Changes and challenges. In R. G. Dunham & G. P. Alpert (Eds.), *Critical issues in policing: Contemporary readings* (5th ed., pp. 71–88). Long Grove, IL: Waveland.

Van Maanen, J. (1973). Observations on the making of policemen. *Human Organization, 32,* 407–418.

Worden, R. E. (1995). Police officers' belief systems: A framework for analysis. *American Journal of Police, 14*(1), 49–81.

Police Psychologists

Over the past four decades, a rapidly growing specialty area of psychology has been that of psychologists working within the realm of law enforcement. Police psychologists are involved in the selection of employees; fitness-for-duty evaluations; various therapeutic programs, both individual and group; the evaluation, treatment, and referral of substance abuse, domestic violence, and gambling; the development and facilitation of various training initiatives; and research and consultation. On a more operational level, police psychologists respond to crisis situations including officer-involved shootings, significant traumatic events, suicide interventions, and crisis and hostage negotiations.

A functional dichotomy within police psychology is that of actual primary roles for the psychologist. Major metropolitan police departments will most likely employ multiple staff police psychologists. Generally speaking, the in-house staff psychologist is involved in day-to-day undertakings within the department, thereby compelling an immersion of his or her professional activities directly within the police environment. This constant exposure to the police culture allows for a more rapid and complete acceptance by departmental police officers, civilian support staff, and the senior-level

command staff. Typically, the staff psychologist acquires confidence and, most important, trust and credibility as a member of the department. Although not often discussed, power, hence professional influence, is of utmost significance for the in-house staff psychologist. Power in this context is operationalized as the individual psychologist's ability to professionally influence administrative and supervisory decisions. Such influence can only be attained via consistent, accurate, and professional consultative recommendations provided by the staff psychologist. Thus, it is imperative that the in-house police psychologist be administratively placed as close to the highest-ranking official in the department, usually the chief/director or sheriff, as possible. In most large departments, given the sensitivity and confidentiality of some situations (e.g., substance abuse or domestic violence), it is best for the staff psychologist to be placed one rung directly below the chief/director or sheriff in the administrative chain of command. Therefore, the in-house police psychologist is usually administratively assigned the position of an assistant/deputy chief or director. This administrative position potentially provides the staff psychologist with extraordinary positive influence within a police organization. However, the staff psychologist must always be cognizant of this fact and limit his or her activities—both professional and casual—with the senior command staff. For if the rank-and-file officers and civilian support employees perceive the in-house psychologist as being too friendly with upper-echelon supervisors, the overall trust for the staff psychologist will be severely compromised. The resulting outcome will be a significant reduction in departmental employees seeking clinical assistance with the professional staff at the psychological services section. As such, the in-house staff psychologist must always be aware of the potential impact of dual or multiple relationships.

A dual or multiple relationship occurs when a psychologist is in a professional role with a person and concurrently is in another role with the same person or when a psychologist is in a relationship with a person closely associated with, or related to, the person with whom the psychologist has the professional relationship. For example, a police psychologist would enter into a multiple relationship if he or she entered into a therapeutic/clinical relationship with the commander of the special response team with whom the staff psychologist regularly consults on tactical operation callouts. Other advantages for the in-house staff psychologist is the ability to be knowledgeable about the unspoken/unwritten rules of the department as well as the various rumors within the organization. With this in mind, the staff psychologist is able to develop a network that can quickly ameliorate conflicts and potential opportunities. Another significant advantage for the in-house staff psychologist is the ability to recognize critical training opportunities and rapidly implement appropriate training blocks. A secondary advantage to the rapid implementation of departmental training is the actual facilitation of the training blocks by the staff psychologist and his or her staff. The facilitation of the didactic block provides the opportunity for the staff psychologist and his or her staff to interact within the safety of the training environment. Often, departmental employees will initiate the scheduling of therapy on meeting the staff psychologist during the training experience.

Other primary responsibilities of the in-house staff psychologist include the provision of direct clinical intervention—usually, short-term therapy, substance abuse intervention, clinical referral, training and consultation, and crisis and hostage negotiation training and consultation. Most likely, the in-house staff psychologist is on call 24 hours a day, 7 days a week for crisis response, including officer-involved shootings and other crises, such as suicide and domestic violence. The latter professional demands of constant on-call responsibilities, including hostage and crisis intervention as well as other posttrauma and critical event responses (e.g., employee trauma and death), compel significant introspection by the psychologist considering the acceptance of the position of internal police psychologist. The constant on-call status itself can be insidiously stressful to the psychologist as well as to his or her family. In addition, it is evident that the vicissitudes of traumatic event response can lead to the dynamic of vicarious traumatization in some police psychologists. Vicarious traumatization occurs as a function of mental health professionals' consistently intervening in traumatic events. As a result of routinely being exposed to the traumatic sequelae of others, the responding psychologist may develop concomitant symptoms, such as social isolation/withdrawal, sleep and appetitive disorders, burnout, and substance abuse.

The other role for psychologists is that of an external consultant, sometimes jocularly referred to as the "out-house" psychologist. The external consultant's primary responsibility is pre-employment screening,

to be discussed in more detail later in this entry. Along with this most demanding responsibility, the external consultant is also responsible for clinical intervention, including crisis intervention, as well as training and consultation. Like the in-house staff psychologist, the external consulting police psychologist should report either directly to the chief/director or sheriff or to the next highest-ranking official in the executive chain of command. Developing a close working relationship with the highest-ranking official in the police chain of command establishes the organizational power and support necessary to effectuate departmental innovations and a more receptive consideration of professional recommendations.

The most glaring disadvantage of the external consulting psychologist is that he or she is frequently perceived as an outsider and is never completely trusted by either the command staff or the rank-and-file sworn officers, as well as the civilian support personnel.

History of Police Psychology

Psychologists began entering the realm of law enforcement during the 1950s and 1960s, when the concept of vicarious liability and negligent retention began to affect the provision of services by police departments. As such, the first role for the burgeoning field of police psychology was to develop psychometric instruments to predict job suitability of police officer candidates. Over the years, pre-employment testing/screening has become a precondition for hiring in the law enforcement selection process. Along with the early psychological testing, the nascent police psychologists consulting within major city departments were tasked with the development of prototypical employee assistance programs for alcohol abuse treatment. However, in some major departments such as San Francisco, Boston, and New York, there was no concomitant intervention for stress/emotional problems other than those related to alcohol. Consequently, many departments, notably those in Boston, New York City, Chicago, Los Angeles County, and Miami, initiated hybrid employee assistance programs known as "stress programs." Following the recommendations of the President's Commission on Law, Law Enforcement and the Administration of Justice (1967), the Los Angeles Police Department hired the first full-time in-house staff psychologist, Martin Reiser, in 1968. Reiser is widely known as the "father of police psychology." In 1971, Mike Roberts was hired as a consulting clinical psychologist for the San Jose Police Department, and so began the dichotomy of the provision of psychological services to law enforcement personnel. Reiser provided services on both a voluntary and a mandatory basis, while Roberts provided therapy solely on a voluntary basis and referred to an external consultant any counseling or testing for which an officer or employee of the department was involuntarily mandated. Today, most mental health professionals agree that voluntary referral is preferable to mandatory referral in that the latter usually raises practical as well as ethical issues and conflicts. In organizations that use mandatory referrals (ostensibly, fitness-for-duty evaluations), external consultants are contracted to provide the clinical services.

In 1973, Harvey Schlossberg became the first policeman to earn a doctoral degree in clinical psychology and become a departmental police psychologist for the New York City Police Department. Later that year, he assisted in successfully negotiating the release of hostages in the "Williamsburg Siege." Soon thereafter, under Schlossberg's direction, the New York City Police Department established the country's first hostage negotiation unit. Today, almost every major department and midsize local municipal agency uses a fully operational tactical and negotiator team with access to either full- or part-time mental health professionals for consultation.

As can be seen, police psychology has evolved into a recognized and robust specialty area within psychology. A contributing factor in the growing popularity and success of police psychology is the willingness of police psychology practitioners to remain actively involved in the dissemination of information through journals, books, and other publications. It should first be noted, however, that the Behavioral Sciences Unit of the Federal Bureau of Investigation (FBI) was instrumental in providing the forum for police psychologists from around the United States to meet and present papers germane to this new field of psychological application. A further energizing force is the networking dynamics of two relatively new professional organizations within the field of police psychology. During the FBI national conferences of 1977 and 1984, these pioneer police psychologists set in motion the establishment of two professional organizations, the Police and Public Safety Psychology Section of Division 18 of the American Psychological Association (APA) (1983) and the Police Psychological Services of the International Association of Chiefs of

Police (IACP) (1986). Some of the more significant applications of this specialty area are discussed in the following sections.

Pre-Employment Selection

Pre-employment selection has been the earliest known usage of psychology in law enforcement. Recent research has concluded that police recruitment selection procedures vary greatly, that there is no standard assessment process, and that there is an extensive variety of test battery composition. In an attempt to provide specific standards and constraints for a process with wide variance, both the Police and Public Safety Psychology Section of Division 18 of the APA and the Police Psychological Services section of the IACP proposed and ratified, via membership vote, a set of guidelines for pre-employment psychological evaluation. These guidelines established that only licensed or certified psychologists trained and experienced in psychological test interpretation and law enforcement psychological assessment techniques should conduct psychological screening for police agencies. Furthermore, police psychologists must adhere to the ethical principles and standards of the APA and all state and federal laws, including the Americans with Disabilities Act. The test battery must include objective, job-related, validated psychological instruments, including a cognitive test. Every test battery must also include an individual face-to-face, semistructured interview.

Fitness-for-Duty Evaluations

Along with pre-employment screening for police candidates, the external police consultant often has the task of facilitating mandatory fitness-for-duty evaluations (FFDE). According to the IACP (Psychological Fitness-For-Duty Evaluation Guidelines, 2004), a psychological FFDE is a formal, specialized examination of an incumbent employee (typically a sworn police officer) that results from objective evidence that the employee may be unable to safely or effectively perform a defined job task and/or a reasonable basis for believing that this may be attributable to psychological factors. The central purpose of an FFDE is to determine whether the employee is psychologically fit to safely and effectively carry out essential job tasks and responsibilities. At a minimum, the evaluator should be a licensed psychologist or psychiatrist with training and experience in psychological assessment, especially in the evaluation of law enforcement personnel. The police psychologist evaluator provides recommendations to the referring department. The department is responsible for the ultimate determination of the disposition of the employee.

Clinical Intervention

The more typical responsibility, especially for the in-house staff psychologist, is the provision of clinical intervention and responses. Interestingly, in major metropolitan police departments, crisis responses—such as officer-involved shootings, severe vehicular accidents, major injuries and deaths, suicide attempts and completions, and SWAT (special weapons and tactics) callouts—are quite common, occurring on average once per week. Critical incidents within the law enforcement community are conceptualized as traumatic events. Thus, the event is conceptualized as the officer's having experienced an event significantly outside the range of typical human experience, such that his or her responses are typical reactions to the abnormal event. The most frequently occurring psychological sequelae following a critical incident within law enforcement (especially if the police officer has the thought, "I'm going to die") are social isolation/withdrawal, sleep disturbances, flashbacks, depression and anxiety, a heightened sense of danger, hypervigilance, and increased alcohol/substance abuse. Concurrent with crisis response capability, the staff psychologist is actively involved in providing stress inoculation training at the department's training bureau. Stress inoculation training has been found to be successful in empowering police officers to prevent, or at least lessen, the psychological impact of stress within the responsibilities of police responses.

The more typical psychological interventions police psychologists routinely undertake are individual, marital, and family counseling. The most frequent presenting issues for individual therapy are stress/anxiety, depression, substance abuse, domestic violence, and, more recently, compulsive gambling. The affective disorders and marital and family interventions are triaged by the staff psychologist to other licensed mental health staff members of the psychological services section. These mental health professionals are then tasked with providing confidential intervention, usually on a short-term basis of 8 to 12 weeks of therapy. All substance abuse, domestic violence, and compulsive gambling cases are assigned to

specific members of the section who have experience in the assessment, treatment, and referral (if clinically necessary) of these more complicated and long-term issues. Many departments have developed peer-support aftercare groups for long-term maintenance and groups for substance abuse and gambling cases.

A final matter of profound significance for the police psychologist's unwavering attention is police suicide. Some experts in police psychology claim that the incidence of suicide among police officers is approaching epidemic proportions. Therefore, it is incumbent on the police psychologist to develop and maintain an effective training and intervention program focused on ameliorating the incidence of police suicide.

Crisis and Hostage Negotiation

Many police psychologists have become actively involved in the operational responsibility of assisting law enforcement tactical teams (SWAT teams) in the area of crisis and hostage negotiation. A hostage situation is defined as any situation in which individuals are being held via active coercion by another person or people and demands are being made by the hostage taker(s). Typically, the police psychologist maintains two overlapping roles in the SWAT team. Prior to providing any information or influence within a police tactical operation, the police psychologist must always remain cognizant that he or she is always bound by federal and state legal constraints, as well as by professional and ethical standards. In the role of a professional, the police psychologist provides the general theoretical and practical applications of behavioral science information. In the role of a consultant, the police psychologist designs and implements negotiator selection and training. A second function in the role of a consultant is the provision of specific behavioral recommendations to the operational chain of command. Owing to ethical constraints, other than in a rare exigent situation, the police psychologist never actively speaks with the affected individual.

Training for a Career as a Police Psychologist

At the time of writing, there are no formal graduate programs specifically for police psychology. It is suggested that psychology students interested in becoming active in this specialty area seek a doctoral degree (Ph.D. or Psy.D.) within the established fields of clinical, counseling, forensic, or industrial/organizational psychology. For those students with a preference for the role of the internal staff psychologist, it is highly recommended that they become experienced in the clinical areas of individual, couples, and marital therapy. Special emphasis should be directed at didactic and experiential training in crisis intervention. Once a psychologist is hired by a police department, crisis and hostage negotiation training is usually extended through a basic, introductory course on crisis and hostage negotiation facilitated by the Behavioral Sciences Unit of the FBI in Quantico, Virginia. Parenthetically, it should be mentioned that the position of psychological profiling is rarely offered as a freestanding occupational position within the law enforcement community. Psychological, criminal profiling is only one job task within the overall occupational realm of the police psychologist. For the doctoral student who endeavors to become an external consulting psychologist, it is clearly recommended that the area of psychological assessment be an educational and experiential imperative. Along with a clear understanding of all aspects of personality assessment, organizational consultation and crisis intervention should also be areas of competency. Some universities are affiliated with police departments for either a predoctoral practicum or predoctoral internship experiences, although such programs are very limited in scope. Regardless of either a practicum or an internship placement, however, it is important for anyone interested in a career in police psychology to become familiar with the dynamics and culture of law enforcement. As such, it is highly recommended that during the doctoral experience, the student actively seek membership in the Psychological Services sections of both the APA and the IACP. Finally, it is suggested that, if possible, the doctoral student seek out an established police psychologist in the vicinity of the campus of doctoral study, in the hope that this police psychologist will agree to provide information regarding the field of police psychology and also to establish a doctoral practicum at his or her professional practice. Ultimately, the goal for the doctoral student would be to develop a mentoring relationship with the police psychologist. Such a relationship would greatly facilitate the attainment of career goals for the doctoral graduate student and would include the actual experience of the practicum placement in police psychology, consistent interaction with a police psychologist to answer various occupational questions and career development

issues, and the potential for participation in police psychology research and introduction to other police psychologists by being sponsored to attend local and national police psychology conferences.

Scott W. Allen

See also Crisis and Hostage Negotiation; Police Psychology; Police Selection; Police Stress; Police Training and Evaluation

Further Readings

Allen, S. W. (1986). Suicide and indirect self-destructive behavior. In J. T. Reese & H. A. Goldstein (Eds.). *Psychological services for law enforcement* (pp. 412–416). Washington, DC: U.S. Government Press.

Allen, S. W. (2001). Suicide prevention training: One department's response. In D. C. Sheehan & J. I. Warren (Eds.), *Suicide and law enforcement* (pp. 9–17). Washington, DC: U.S. Government Press.

Blau, T. H. (1994). *Psychological services for law enforcement.* New York: Wiley.

Lord, V. B. (Ed.). (2004). S*uicide by cop: Inducing officers to shoot.* Flushing, NY. Looseleaf.

McMains, M. J., & Mullins, W. C. (2000). *Crisis negotiations: Managing critical incidents and hostage situations in law enforcement and corrections.* Cincinnati, OH. Anderson.

Reiser, M. (1982). *Police psychology.* Los Angeles: LEHI.

Police Psychology

Police psychology, the practice of psychology in police settings, has been part of American policing since the late 1960s and has traditionally been a clinical endeavor by clinical psychologists. Although many large police agencies and some medium-sized ones employ full-time clinical psychologists, most agencies contract for part-time work with clinical psychologists who often maintain separate private practices. The practice of psychology in police settings has also been a research, consultation, and training endeavor by psychologists who have backgrounds in, for instance, experimental, social, and industrial-organizational psychology. Therefore, generally, police psychology is a field of practice in which psychologists of different training investigate and apply psychological knowledge to police settings and problems. (Here, this does not include other law enforcement settings and professionals, such as sheriffs, marshals, or correctional officers, who at times perform job tasks similar to police officers.) Psychological services for the police have traditionally involved evaluating police applicants, educating and training police officers, evaluating job tasks and duties, and carrying out fitness-for-duty assessments.

Evaluating Police Applicants

Since the 1960s, organizations and commissions such as the President's Commission on Law Enforcement and the Administration of Justice, the Commission on Accreditation for Law Enforcement Agencies, and the International Association of Chiefs of Police have recommended that police agencies evaluate the psychological fitness of police applicants. Today, most police agencies recognize and use a psychological evaluation as one part of the selection of police officers. Typically, licensed clinical psychologists carry out the evaluation. Some psychologists use a "select-in" evaluation strategy, whereby they look for applicants who demonstrate the qualities necessary to be successful on the job and recommend that police agencies accept them for law enforcement training. Other psychologists screen out applicants who demonstrate undesirable characteristics and recommend that police agencies no longer consider employing them. Many psychologists use both screen-out and select-in evaluation strategies, by which they screen out psychopathology and select in ideal police characteristics. Both focus on screening for suitable applicants. Evaluations typically involve administering a battery of psychological tests, carrying out a personal interview, giving situational tests, and making a selection recommendation.

Psychological test batteries administered by psychologists have included intelligence tests, personality tests, projective tests, and situational tests. Intelligence tests, such as the Stanford-Binet Intelligence Test, measure applicants' cognitive abilities. Scholarly research has linked intelligence tests with success on the job and in recruit training. Psychologists use personality tests to measure the relatively stable characteristics or traits of applicants. Commonly used tests are the Minnesota Multiphasic Personality Inventory (MMPI), the California Psychological Inventory (CPI), and the Inwald Personality Inventory (IPI). These tests are self-report, paper-and-pencil personality inventories. Research has shown empirical support for their usefulness in

predicting what police applicants might say or do on the job—for example, being late or absent, using drugs, violating police procedures and rules, and using excessive force. Few psychologists continue to use projective tests, which ask applicants to respond to unstructured situations or stimuli, such as the Rorschach Inkblot Test. Less frequent among psychologists is the use of situational tests, in which police applicants engage a role-playing exercise usually representative of job-related work conditions. There has been little empirical evidence supporting the use of projective and situational tests in screening police applicants for law enforcement training.

Psychologists supplement test scores from a battery of psychological tests with information obtained from a personal interview, a common component of the psychological evaluation. Psychologists use a personal history questionnaire to gather information on applicants' background (e.g., family, work, health, and any criminal behavior). Their interview, in part, usually involves a structured question format. Psychologists, however, often ask probing questions that follow up applicants' responses and sometimes ask questions that their police agency clients request. Personal interviews with police applicants help psychologists interpret and validate test data sources.

Educating and Training Police Officers

The police have the responsibility to keep the peace, maintain order, enforce laws, and safeguard the well-being of the community. This kind of duty to act involves the possibility of danger all the time, puts police officers at risk, and requires education and training. Critical issues in police education and training to which psychologists have given considerable attention are negotiating hostage and barricaded-suspect (HBS) situations, handling people with mental illness, conducting criminal investigations, and managing job-related stress.

Negotiating Hostage and Barricaded-Suspect Situations. Most police agencies have and employ critical incident teams, sometimes called special response teams (SRT) or special weapons and tactics (SWAT) teams, to resolve or assist in resolving high-threat or special-threat conditions, such as HBS situations. Police use of critical incident teams has evolved since the highly publicized HBS situation during the 1972 Olympic Games in Munich, West Germany. The first police approach to handling an HBS situation was an *assault,* which involved officers primarily using forceful options, often with lethal consequences for suspects. Sometimes, suspects' family members subsequently took legal action against the police.

In the early 1970s, psychologists and sworn personnel developed verbal tactics as alternatives to the assault option. Such tactics focused on police officers extending incident time to de-escalate the situation and talking suspects into surrendering. Police records have shown that critical incidents teams successfully resolve most HBS situations without injury to participants when police officers negotiate verbally. When police agencies used clinical psychologists to negotiate such situations, the rate of success without injury to participants increased.

HBS negotiation training is available at the Federal Bureau of Investigation (FBI) academy in Quantico, Virginia. The FBI's Crisis Negotiation Unit delivers training to all FBI negotiators and other law enforcement negotiators. There are also private companies that develop and deliver specialized training in negotiation skills. Trainers are usually experienced police negotiators who are sometimes psychologists. Police agencies that employ full-time clinical psychologists sometimes use them to educate and train their critical incident team negotiators and work at times with them to resolve, or assist in resolving, HBS calls for service. Negotiation activities primarily focus on containing suspects, negotiating with them, uncovering the personal factors motivating their behavior, and extending incident time, which gives suspects the opportunity to vent their emotions and make sensible decisions. Negotiation training typically emphasizes developing active listening skills through role-playing. Scholarly research on the effectiveness of negotiation training is in its infancy. A recent preliminary finding showed that FBI agents significantly improved their active listening skills following participation in the FBI's National Crisis Negotiation Course. Generally, however, there is much research that needs to be done in order to evaluate the effectiveness of crisis negotiation training.

Handling People With Mental Illness. The police are having more contacts with people with mental illness. Researchers have estimated that between 5% and 10% of police-citizen contacts involve people with mental illness. Contacts often occur in the home, family members sometimes call for police services, and the police usually resolve calls without incident. Some

researchers have suggested that the dismantling of state mental hospitals, the changing mentally ill population, the tightening of requirements for receiving mental health support, and the offering of limited psychological services are possible explanations.

The police are receiving education and training in the handling of people with mental illness. They recognize that mental illness is not a crime and that people having mental illness live in their communities, have professional vocations, and call for police services. The police also know that empirical investigations have found a link between mental illness and criminal behavior. For example, persons who suffer from bipolar disorder or schizophrenia are more likely to express antisocial behaviors that society criminalizes. Most mentally ill offenders are under the influence of alcohol or drugs when they commit crimes. There is some increased risk of mentally ill individuals becoming violent.

Although people who have a mental illness may commit a crime, be a victim of crime, or report a crime, police responses to encounters with them have improved with training. Police personnel, psychologists, and other mental health professionals have developed training curricula that include topics such as symptomatology of mental conditions, nonarrest and arrest options, and community police responses. They have developed and made available model police policies for contacts with people with mental illness. These policies have helped police administrators standardize the nature of their departments' response while giving the police flexibility to meet the needs of people with mental illness.

Conducting Criminal Investigations. Psychologists have studied the procedures and tactics used by the police in criminal investigations. They have produced psychological knowledge and have helped the police apply it to criminal investigation techniques such as eyewitness identification. For example, a police detective has a crime suspect and asks an eyewitness to identify him or her by viewing photos. The detective shows the eyewitness eight photos one at a time (sequentially) rather than all at the same time (simultaneously) to reduce the chances of misidentification caused by the eyewitness comparing photos and trying to decide which one looks most like the suspect. Chances of misidentification are less when the detective does not know the actual identity of the suspect, tells the eyewitness that the suspect's photo may or may not be present, gives the eyewitness no feedback during or after the identification procedure, and asks the eyewitness about his or her level of confidence in the identification.

What psychologists have known about police interrogation tactics is that some of them lead to false confessions. For example, a police detective has a suspect of a crime and interrogates him or her for several hours. An interrogation is a stressful experience for the suspect. In a state of high stress, some suspects are highly suggestible and might come to believe that the accusations made by the detective are true. Other suspects may confess if the detective threatens punishment or makes promises during the interrogation—even if the suspect knows that he or she is innocent. In other cases, the desire for attention or fame, especially in a highly publicized crime, might motivate the suspect to confess despite having done nothing wrong.

Police detection of the lies told by suspects during interrogation has received considerable research attention by psychologists. The police know that uncontrollable physiological arousal often accompanies a suspect's lying. For example, a police detective has a suspect of a crime and uses the polygraph technique (or device) in interrogation. The polygraph examiner asks the suspect several non-crime-related questions that generate emotional responses (e.g., about past behaviors) and several crime-related questions. Both provoke physiological responses, but the crime-related questions provoke more physiological responses than the non-crime-related (or control) ones, which suggests that the suspect is guilty. Most courts do not accept polygraph results as evidence. Psychological research has suggested that the rate of accurately detecting deception is low and the rate of false positives is high. The police, however, continue to use the technique with others and try to convince suspects that they cannot beat the device and that they should admit the fact of having committed a crime.

Hypnosis is another investigative technique available to the police. Usually psychologists, psychiatrists, or trained forensic hypnotists conduct interviews using hypnosis. They use the technique mostly to obtain information from eyewitnesses or victims and rarely to obtain information from suspects. There is little empirical evidence to support the belief that hypnosis elicits reliable memories.

Criminal profiling is a set of investigative techniques used to identify the characteristics of suspects most likely to have committed a crime. For example,

a police detective analyzes a crime scene, investigates the personal history of the victim, considers motivating factors, links the nature of the crime with similar behaviors of criminals, and finally generates a hypothesis about the suspect's sex, age, race, education, marital status, personality, and other personal characteristics. Specialized training in criminal profiling is available at the FBI Academy. Police profilers use behavioral science techniques along with other techniques of criminal investigation. They use criminal profiles to focus investigations in part on particular types of suspects while continuing investigative efforts on all possible suspects. How effective is criminal profiling? Some research suggests that professional profilers do better at extracting information from crimes and making predictions about suspects than do nonprofessionals.

Managing Job-Related Stress. Police stress is a reaction (or effect) caused by unfavorable physical, psychological, or social forces. Reactions may include physical, cognitive, behavioral, and affective changes in police behavior. Police stress may stem from law enforcement work, personal life, the criminal justice system, the police organization, or the public. Stress related to law enforcement work has received considerable research, training, and counseling attention, especially incidents involving force by and against the police, such as officer-involved shootings.

Police agencies are educating and training their officers to manage job-related tasks that can be stressful. Training curricula include recognizing stress reactions and learning skills to manage their potential harmful effects. Police agencies routinely provide their officers and families with information about job-related stress and mental health support. They establish peer support teams composed of officers and psychologists or other mental health professionals. Postincident debriefings are common following critical police incidents. They serve as an early crisis intervention effort, facilitate discussion with officers, assist in restoring normalcy in officers' lives, and help police administrators identify officers who need professional mental health support. Peer support teams are usually part of the postincident debriefing.

Evaluating Job Tasks and Duties

Psychologists with training in industrial-organizational psychology have contributed mostly to the study of police officers at work. A job analysis determines what responsibilities the police have, what tasks they perform, what knowledge and skills they possess, and what results they achieve. Analysis methods primarily involve reviewing the literature on policing, reviewing departmental literature (e.g., operational manuals, rules and procedures, policies, and general orders), observing the police at work (e.g., ride-alongs and training), conducting interviews with police personnel, and administering survey questionnaires. This battery of techniques produces an exhaustive list of job duties, such as crime prevention and law enforcement, and job tasks, such as making arrests and writing reports. Police agencies use information from the job analysis to make informed decisions about organizational operations such as police selection and promotional procedures.

A job analysis is lengthy and expensive. It requires organizational cooperation and commitment at all levels; it validates pre-employment standards and selection procedures. The Americans with Disabilities Act puts police agencies on notice that they must link their pre-employment standards and selection procedures with job-related behaviors. Staying current and consistent with job analyses gives police agencies some protection against claims of discriminatory selection procedures.

Carrying Out Fitness-for-Duty Assessments

Police agencies have a responsibility to monitor the psychological fitness of their officers. They have a right to order psychological evaluations of officers who develop patterns of problematic job-related behaviors. Misconduct might take the form of abusing authority, using excessive force, misusing drugs and alcohol, and engaging in criminal behavior. Police agencies must collect and document information on the problem behaviors they wish to correct. Documentation might include performance evaluations, pre-employment psychological screening reports, disciplinary actions, medical or counseling records, and other types of relevant reports that support a fitness-for-duty evaluation. Officers who go through a fitness-for-duty evaluation must give written consent.

Only licensed or certified psychologists (or psychiatrists) who have clinical experience can carry out a fitness-for-duty evaluation. The police agency requesting the evaluation is the client and not the officer going through it. Large police departments that have in-house psychologists usually have them perform the

evaluation. However, a dual relationship occurs when in-house or outside psychologists counsel or have counseled an officer whom the police agency refers for a fitness-for-duty evaluation. Most police agencies contract with outside psychologists to avoid the conflicts that such dual relationships produce. Police departments must make every effort to avoid dual relationships.

The Psychological Services section of the International Association of Chiefs of Police recommends that psychologists have training and experience in psychological testing and police assessment techniques and that they have knowledge of police job-related functions and the legal issues surrounding employment practices. An assessment of job-related mental fitness usually involves reviewing background information, administering a battery of psychological tests, conducting a clinical interview, generating a report, and making recommendations. The scope of the assessment is breadth and depth of psychological fitness, with the aim of identifying the absence or presence of personal characteristics essential for performing job-related behaviors that the officer falls short of doing. Outcome recommendations first specify "fit" or "not fit." Police chiefs or other police stakeholders (the client) may request additional recommendations, such as mental health counseling, remedial training, or other remedies.

Frank J. Gallo

See also Police Psychologists; Police Selection; Police Training and Evaluation

Further Readings

Bartol, C. R. (1996). Police psychology: Then, now, and beyond. *Criminal Justice and Behavior, 23*(1), 70–89.

Craig, R. J. (2005). *Personality-guided forensic psychology.* Washington, DC: American Psychological Association.

Cutler, B. L., & Penrod, S. D. (1995). *Mistaken identification: Eyewitnesses, psychology and the law.* New York: Cambridge University Press.

Kurke, I. M., & Scrivner, E. M. (1995). *Police psychology into the 21st century.* Hillsdale, NJ: Lawrence Erlbaum.

McNally, V. J., & Solomon, R. M. (1999). The FBI's critical incident stress management program. *FBI Law Enforcement Bulletin, February,* 20–25.

Police Executive Research Forum. (1997). *The police response to people with mental illness.* Washington, DC: Police Executive Research Forum.

Police Selection

Police selection is a process by which police agencies decide on which applicants are suitable for law enforcement training. The application of psychology to the selection of police officers has long been a part of the process, usually in the form of a psychological evaluation performed by a licensed clinical psychologist. The evaluation typically involves considering a selection strategy, administering a battery of psychological tests, carrying out a personal interview, giving situational tests, and making a selection recommendation.

Selection Strategy

"Selecting-in" police applicants who demonstrate the qualities necessary to be successful on the job is one strategy some psychologists use to evaluate applicants' suitability for law enforcement training. A job-task analysis, usually performed by industrial-organizational psychologists, is one way psychologists obtain select-in information about necessary job skills and traits to perform them. The evolving nature of policing, however, can lead to selecting in applicants who have "no-longer-needed skills" and traits to perform the job well. Though some psychologists use select-in criteria to accept police applicants, there is a lack of consensus among police and community stakeholders on the qualities needed to be successful in the police profession. There is more agreement on the unwanted qualities of police applicants.

In practice, the selection of suitable police applicants often involves screening out those applicants who demonstrate undesirable police characteristics. Psychologists are concerned with mental stability because an unstable officer, not surprisingly, is more likely to perform poorly on the job than a stable one. Empirical evidence suggesting that a screening-out focus best predicts which candidates are more likely to experience on-the-job difficulties falls short of being consistent.

Today, many psychologists use an evaluation strategy that screens out psychopathology and selects in ideal police characteristics. Their select-in and screen-out procedures must (a) adhere to ethical principles and standards of practice, (b) focus on applicants' ability to perform necessary job functions, (c) avoid clinical diagnoses, and (d) use objective and validated tests that specify what police functions they intend to

measure. Psychologists must carry out select-in and screen-out procedures that include evaluations of mental health in accordance with the Americans with Disabilities Act, and only after a conditional offer of employment to the police applicant. Prior to conditional offers, psychologists can use personality tests and other methods that do not include evaluations of mental health. Both conditional- and preconditional-offer psychological evaluations, however, focus on screening for suitable applicants.

Psychological Tests

The Minnesota Multiphasic Personality Inventory (MMPI), the California Psychological Inventory (CPI), and the Inwald Personality Inventory (IPI) are the psychological tests commonly used for screening police applicants. The MMPI and the CPI are general self-report, paper-and-pencil, personality inventories used to assess the relatively stable characteristics of applicants. They tap a number of dimensions thought to make up a police applicant's personality, which can affect his or her on-the-job performance. The MMPI is a clinical instrument designed to measure dimensions of deviant personality and maladaptive behavior. It is composed of 550 true-or-false items. Above-average scale scores suggest a greater probability of having job performance problems. Some empirical support has linked MMPI scores with police performance ratings and disciplinary actions such as termination and suspension from duty. Authors have updated and restandardized the original MMPI; its current version is the MMPI–2.

The CPI is a nonclinical instrument designed to measure normal personality traits important for social living and interaction. Test takers complete 480 true-false questions. Empirical studies have found that below-average scale scores increase the chances of police applicants having job-related problems such as using illegal drugs, using excessive force, and violating other department rules and procedures. The authors of the MMPI and the author of the CPI did not design the instruments to screen police applicants. There are, however, police and public safety reports available for both the MMPI and the CPI.

In contrast to the MMPI and CPI, the IPI, designed to screen police applicants, predicts normal and deviant police job performance patterns of test takers. It is a self-report, paper-and-pencil questionnaire, which consists of 310 true-or-false items developed from more than 2,000 pre-employment interviews with law enforcement candidates. Test scales measure behaviors such as absenteeism, lateness, trouble with the law, depression, suspiciousness, and anxiety. Research has shown an association between above-average IPI scale scores and negative behaviors by police recruits, such as lateness, absenteeism, and dereliction of duty during academy training.

Besides the MMPI, CPI, and IPI, psychologists have used other psychological tests, such as the Sixteen Personality Factor Questionnaire, Eysenck Personality Questionnaire, Five Factor Personality Test, and Hilson Safety/Security Risk Inventory. Psychologists usually couple personality tests with cognitive ability tests such as the Stanford-Binet Intelligence Test, which have some empirical support for predicting on-the-job and police academy performance. Some psychologists also use projective tests that ask applicants to respond to unstructured stimuli or situations, such as completing a series of unfinished sentences or describing a set of inkblots; however, the use of projective tests in the selection of police officers has declined.

Psychological tests capture a sample of the police applicant's behaviors. Psychologists generally administer multiple tests, sometimes three or four. The diagnostic value of these tests is to forecast what the applicant might say or do under police work conditions. Research has linked personality test data from the MMPI, CPI, and IPI with police job-related problems and success. However, not all psychologically suitable police applicants are free from job-related problems. Poor work performance might be an artifact of attitudes and belief systems that develop after selection. Police experience and effects of the occupational culture might lead to job-related problems not predicted by applicants' psychological profiles. Situational factors might interact with personal factors to determine some inappropriate job behaviors. In short, psychological test responses, in part, help select in and screen out police applicants, but applicants might lean toward making favorable impressions in an effort to appear well suited for police work. Psychological tests together with personal interviews and situational tests round out the selection of suitable police applicants for law enforcement training and work.

Personal Interview

Personal interviews are a common selection component of psychological evaluations. Psychologists use

police applicants' interview performance to supplement their psychological test scores. They usually gather background information obtained from a personal history questionnaire, which includes questions about work, family, health, and criminal behavior. Sometimes, police agencies supply psychologists with applicants' background investigation reports. Such reports help psychologists check applicants' psychological test data.

Interviews can involve asking standardized questions, while allowing psychologists to probe the responses of police applicants. Standardized interviews let psychologists compare applicants and check cross-interviewer reliability. The interview process can expose personal characteristics not revealed by self-report questionnaires; for example, the applicant's body language during the interview may show anxiety or tension. Sometimes, psychologists ask questions requested by their police clients who have uncovered personal characteristics of applicants that are suspect. Personal interviews, when used with psychological tests, help interpret test data and help answer the complex question, Who is a suitable applicant?

Situational Tests

Psychologists have used situational tests or role-playing exercises designed to measure a sample of behaviors the police applicant might use on the job. Situational tests are usually representative of job-related work conditions. Some preliminary empirical evidence supports the use of situational tests in the selection of police officers. For example, police applicants who performed well on a "Clues Test," which asked them to investigate clues about the disappearance of a hypothetical employee, also performed well during their recruit training.

Situational tests have a practical appeal. Advanced computer technology allows police trainers to administer situational training and tests to incumbent officers. For example, an interactive computer simulation asks police officers how they would respond to different suspect behaviors directed toward them during an arrest. Officers make decisions, and trainers evaluate them.

Police psychologists appear to be slow at developing situational tests and using computer technology to administer them as part of the selection process. Law enforcement assessment centers, however, are typically private agencies that have a history of using situational tests to evaluate incumbent officers and sometimes police applicants. Situational tests make possible the observation of hidden values that only appear under conditions that require quick decisions. With situational tests, psychologists can measure behaviors deliberately concealed from pencil-and-paper tests and personal interviews. Situational tests have a lifelike quality, are time-consuming and expensive, but are becoming attractive to psychologists.

Selection Recommendation

Police agencies that psychologically screen their police applicants consider the importance of the evaluation differently. Some consider it modestly, with other selection procedures frequently used, such as the civil service exam, physical fitness assessment, background investigation, and personal interview with police personnel. Most consider it a pass-or-fail component of the selection process. They no longer consider employing applicants whom psychologists fail. Psychologists' selection recommendations are not always simple dichotomies: pass or fail, or suitable or unsuitable for law enforcement training. There are psychologists who use Likert-type scales to make their recommendations—3, 4, or 5 points ranging from not suitable to suitable.

A favorable recommendation or endorsement of an applicant by a psychologist does not guarantee that the applicant will be successful on the job. Selection recommendations are probabilistic events. They might be wrong because psychologists make their decisions under probable or uncertain conditions and with limited information that is sometimes imperfect. Psychologists will be incorrect (or False Accept) if their decision is "suitable" when the applicant's actual status is "not suitable." Psychologists will also be incorrect (or False Reject) if their decision is "not suitable" when the applicant's actual status is "suitable." Best evaluation practices to maximize "True Accept" and minimize the total number of "False Accept" and "False Reject" errors involve psychologists using personal interviews and multiple tests and validating them.

Current Trends

The Commission on Accreditation for Law Enforcement Agencies and the International Association of Chiefs of Police have recommended the psychological evaluation of police applicants.

Most police agencies recognize and use the psychological evaluation as one component of the police selection process, but not all states legislatively mandate it or require applicants to pass it. Those police agencies that do not use police selection procedures that include a psychological evaluation are mostly small departments. Some courts have looked at the failure to screen police applicants' mental fitness as negligence.

Despite the limitations associated with preemployment psychological evaluations, psychologists predict a greater number of unsuitable police applicants than one would expect to find by chance alone. Psychologically evaluating police applicants continues to be an integral and evolving component of the selection of police officers.

Frank J. Gallo

See also Forensic Assessment; Police Decision Making; Police Psychologists; Police Psychology

Further Readings

Cocharane, R. E., Tett, R. P., & Vandecreek, L. (2003). Psychological testing and the selection of police officers: A national survey. *Criminal Justice and Behavior, 30*(5), 511–537.

Gough, H. G. (1975). *Manual for the California Psychological Inventory.* Palo Alto, CA: Consulting Psychological Press.

Hathaway, S. R., & McKinley, J. C. (1983). *The Minnesota Multiphasic Personality Inventory: Manual.* New York: Psychological Corporation.

Inwald, R. E., Knatz, H., & Shusman, L. (1983). *Inwald Personality Inventory manual.* New York: Hilson Research.

Varela, J. G., Boccaccini, M. T., Scogin, F., Stump, J., & Caputo, A. (2004). Personality testing in law enforcement employment settings. *Criminal Justice and Behavior, 3*(6), 649–675.

Wrightsman, L. S., & Fulero, S. M. (2005). *Forensic psychology* (2nd ed.). Belmont, CA: Wadsworth.

Police Stress

This entry defines police officer stress and describes its consequences, origins, and the individual and organizational methods to control it. Controlling stress can enhance the delivery of police services and guide officers toward healthy lifestyles. One definition of stress is the wear and tear our bodies and minds experience as we react to physiological, psychological, and environmental changes throughout our lives. It is a nonspecific response of the body to a demand for change. Its centerpiece is the relationship between an external event and an internal response: For every action, there's a reaction.

Stress is fundamental to life, but its consequences are experienced differently. When, for example, Hurricane Katrina set down in August 2005, each of us reacted differently to it. Such reactions depend on many factors, according to Hans Selye, the individual who coined the term *stress.* Different reactions to similar events are expected because we are different: physically (age and health), psychologically (intelligence and experiences), and environmentally (family, community, and personal relationships). Also, our body contains its own unique pharmacy, which produces a chemical reaction of sorts, triggering a physiological and psychological response. Some responses are involuntary; for example, when we are extremely nervous, our palms moisten.

Good stress (*eustress*) and bad stress (*distress*) are everywhere. Without stress, there could be no life. Just as distress fosters sickness and failure, eustress promotes wellness and success. Every aspect of policing is stressful because experiences can instantly change: When an officer provides emergency care, that officer can become a victim, too. The FBI reports that each year, approximately 12 of every 100 (or 60,000) officers are assaulted. Police experiences can change from patrolling silent avenues to challenging dangerous suspects.

The consequences of uncontrolled or untreated stress among officers show that they are 30% more likely to experience health problems than other personnel, 3 times more likely to abuse spouses, 5 times more likely to abuse alcohol, 6 times more likely to experience anxiety, 10 times more likely to become depressed, and, oddly, the least likely of all occupational groups to seek help.

Stress is accumulative and, left untreated, can lead to a compromised immune system, illness, and death. Burnout or traumatic stress response is a coping device characterized by physical or psychological avoidance or distancing. Traumatic stress disorders include acute stress disorder (posttraumatic stress, consistent with overwhelming fear and revulsion), conversion reaction (hysteria, development of physical symptoms including

blindness or paralysis), counter disaster syndrome (excessive excitement and overinvolvement), peacekeepers' acute syndrome (rage, delusion, and frustration responding to atrocities), and Stockholm syndrome (identification with aggressors).

No one experiences all these disorders, but without treatment or individual resolution, officers are more likely to manifest some of these characteristics.

Sources of Stress in Police Work

Sources of police stress include stressors derived from critical incidents, general work, family, gender, and the organization. *Critical incidents* are events beyond the realm of usual experiences, igniting the emergence of a crisis reaction in those adversely affected. Characteristically, a critical incident is an unexpected occurrence disrupting an officer's control, beliefs, and values. It represents a life threat, triggering emotional or physical vulnerability, and might include events such as a fellow officer being killed or assaulted, barricaded subjects, apprehending emotionally disturbed offenders, or harming or killing an innocent person.

Events represent stressors, and reactions represent *critical responses*, which can be seen as an attempt at psychological homeostasis or a mental balance as a result of the experience of a stressor. The degree an officer is affected depends on the intensity, duration, and unexpectedness of the event. But it also depends on the officer's primary (participant) or secondary (observer) involvement, previous experiences, and mental health. (Clearly, an officer who was policing in Chicago when Hurricane Katrina arrived would have experienced a different degree of stress than a New Orleans officer.) Also, diagnostic criteria include actual or threatened death or serious injury, or a threat to an officer's integrity producing reactions of intense fear, helplessness, or horror.

Professional crisis intervention with officers experiencing critical events enhances self-esteem and discourages abusive behavior and substance abuse. Effective crisis intervention requires an immediate mandatory *debriefing*: a short-term psychological method of stabilizing and guiding an officer toward independent functioning. Debriefing includes ventilation and abreaction, social support, and adaptive coping.

Debriefing provides a standard of care, which may include making tactical plans to adapt to the incident, communication of coordinated actions, and avoidance of independent action or separation of partners during felony pursuits. However, officer resilience suggests that the same factors contributing to an officer's vulnerability to stress are the factors that contribute to resilience or *intuitive policing*: Experienced officers observe behaviors exhibited by criminals sending danger signals, moving an officer toward a reaction of public safety. Intuitive policing represents a decision-making process learned through critical-incident experiences. Critics of debriefing contend that while it would aid in immediate stress responses to some extent, it would not help resolve long-term psychological disturbances, it would accentuate stress responses, and it would exacerbate traumatic stress responses.

General Work Stressors. These are stressors arising during officer routines, such as conflict with regulations, paperwork, public disrespect, domestic violence stops, losing control on service calls, child abuse calls, another officer reported injured, lack of recognition, poor supervisor support, disrespect by the courts, shift work, death notification, poor fringe benefits, and accidents in patrol vehicles. General work stressors can change depending on experience.

Family Stressors. These stressors arise from personal relationships, but officers view family life as less of a stressor than expected. However, family members view the job of an officer as stressful for them. Officers' spouses report that shift work, concern over their spouse's cynicism, the need to feel in control at home, and an inability or unwillingness to express feelings frustrate them. Then, too, because officers seek adventure and work in distant neighborhoods at odd hours, infidelity is an option adding to family member stress and divorce.

Gender Stressors. Female and male officers share similar police stressors, but significant differences emerge for females because of differential treatment from male officers, supervisors, courts, and the public. Stress in association with gender comes from a lack of acceptance by a predominantly male force and subsequent denial of needed information, alliances, protection, and sponsorship from supervisors and colleagues; a lack of role models and mentors; the pressure to prove oneself to colleagues; exclusion from informal channels of support; and a lack of decision-making influence. A turning point leading to female officers' resignation can result from perceptions of stagnated

careers, an intense experience that brings accumulated frustrations to the foreground, lack of career fulfillment, family considerations, coworker conduct, policy, and new employment opportunities. Women tend to respond more directly to stress than men because they tend to talk about their feelings and take days off for professional and personal help to aid them.

Organizational Stressors. Police organizations differ in size, resources, and initiatives; however, organizational structures are consistent with a hierarchical bureaucracy. Therefore, the internal stressors affecting officers may include a political climate whereby commanders control policy less often than anticipated by police personnel; supervision is consistent with a hierarchical bureaucratic structure that stifles quality police services; paramilitary police models mandate strict enforcement practice, which alienates officers; local federal intervention targeting terrorists becomes a stress beehive among officers and supervisors; and officer professionalism is inhibited by the chain-of-command tradition.

Organizational stressors are a greater source of disruptive stress among officers and their supervisors than critical incidents, general work, family stressors, and gender stressors. This is consistent with officer resistance to new police initiatives and a lack of professionalism; consequently, officers band together in a police subculture for protection.

Resolving Stress

Officers and professionals can apply public health medicine's model of prevention in their development of a stress reduction model, which includes educating the healthy, educating those at risk, and treating those infected.

Individual initiatives include pervasive actions taken by an officer to curb stress because it is individually acknowledged that stress left unattended leads to poor police services and fewer quality-of-life choices among officers. Many officers believe that stress is a private matter and, consequently, resolve its effects silently through positive participation at church and in their families; through hobbies, school and training activities, and workouts; and sometimes through inappropriate activities such as substance abuse and other forms of deviant behavior.

Person-centered initiatives relate to professional or peer group intervention models. There are many choices available depending on departmental resources, objectives, and policy. Stress reduction providers include in-house units, external units, and hybrid services.

In-house units include formal employee assistance programs developed and administrated through a department to provide stress intervention services and pre-employment screening of police candidates. Informally, officers can develop volunteer peer groups to aid in stress control. Also, there are many peer groups initiated and developed among officers, and many patrol officers and supervisors admired by their peers are often sought out for guidance. In-house units are typified by stress units or volunteers employed by the organization.

External programs use an independent psychologically trained agency to provide stress intervention, including debriefing sessions and pre-employment screening.

Hybrid programs are typified by organizations that use both in-house and external programs. Departments can use personnel from other police agencies, as well; for example, the Massachusetts State Troopers stress unit also serves Boston police officers.

Obstacles associated with individual- and person-centered stress strategies include the following: (a) stress intervention is performed through a multimodal process; (b) treatment is not encouraged by the public, supervisors, and police subculture; (c) seeking help or showing feelings is seen as a weakness or shedding the uniform; (d) officers may hold an unrealistic view of the job; and (e) administrative expectation and demands.

Prescribed medication by some licensed stress practitioners includes antidepressants such as fluoxetine (Prozac) or sertraline (Zoloft), which may do little to achieve positive mood changes. However, some research suggests that such drugs may improve the way brain receptors (neurotransmitters) process crucial brain chemicals, most notably serotonin. Medication is intended to "readjust" brain functioning back to its optimal condition. Bupropion (Wellbutrin) works in a different way but may be equally effective. Most police psychologists discourage the use of medication, simply because it is too risky. In some situations, officers are drug tested, and in other situations, psychological dependence is possible. A good rule of thumb is that medication can be an alternative but only with recommendations from more than one physician.

Pre-employment screening can identify at-risk candidates who inappropriately rationalize excessive use of force, have engaged in substance abuse and crime,

hold racist attitudes, or experience severe family conflicts. Departments can develop systems of intervention targeted toward different groups of officers at different phases of their careers, resulting in the identification, treatment, and resolution of suspect officers. If potentially problematic officers go undetected, it is more likely that they will engage in the use of lethal force regardless of the situation because risk behaviors are intensified through other experiences. Desirable personality traits could be enhanced through preservice and in-service training, which would aid in the development of a personnel standard resulting in higher officer morale, fewer human rights violations, and enhanced quality of police services.

Dennis J. Stevens

See also Crisis and Hostage Negotiation; Critical Incidents; Fitness-for-Duty Evaluations; Police Decision Making; Police Occupational Socialization; Police Psychology; Police Selection; Police Training and Evaluation

Further Readings

Ellison, K. W. (2004). *Stress and the police officer* (2nd ed.). Springfield, IL: Charles C Thomas.

Selye, H. (1979). Stress, cancer, and the mind. In J. Tache, H. Selye, & S. B. Day (Eds.). *Cancer, stress, and death* (pp. 11–27). New York: Plenum Press.

Stevens. D. J. (2007). *Police officer stress: Sources and resolutions.* Upper Saddle River, NJ: Prentice Hall.

Toch, H. (2001). *Stress in policing.* Washington, DC: American Psychological Association.

Police Training and Evaluation

Police training is a process by which teachers communicate to police personnel job-related knowledge and skills and assist them in mastery of the material. Training occurs at recruit, field, and in-service levels. Sworn police personnel, nonsworn personnel, or police psychologists, who have special knowledge of police behavior, present the training topics. Psychological knowledge, in part from experimental, social, heath, clinical, industrial-organizational, educational, and sport psychology, has informed police recruits and incumbent officers in three general topical areas of training: wellness, information and skills, and supervision and management. Training sometimes crosses over all three areas. Police trainers make informed decisions about the effectiveness of training when they evaluate police performance and training curricula. Psychological knowledge has provided trainers an understanding of the conceptual grounding and application of evaluation methods at the individual officer level and at the training program level.

Recruit, Field, and In-Service Training

Agency-affiliated, regional, and college-sponsored police academies provide recruit (or basic) training. Large municipal and state police agencies usually establish agency-affiliated (or individual) academies. Regional (or statewide) academies typically provide basic training for local city and town police recruits. In some states such as California, some individuals interested in becoming police officers attend college-sponsored police-training academies, where they take part in basic police training and earn college credit. Among academies, the length of training time varies. Some recruits receive as little as 8 weeks of training, whereas others receive as much as 32 weeks. State Peace Officer Standards and Training (POST) commissions set the minimum length of recruit training time. Police academies may add training time to the minimum required by state POST commissions. Generally, agency-affiliated training academies require more hours of training than do regional or college-sponsored ones.

When police recruits graduate from basic training, most of them enter Field Training Officer (FTO) programs implemented by their agencies. FTO programs have recruits—now field trainees—ride along with incumbent officers who have formal training in teaching established program curricula and evaluating trainee performance in actual work conditions. Police trainees learn agency-specific policies and practices and work-area-relevant information. The duration of their field training and evaluation period may be as little as 10 weeks or as much as 24 weeks.

Once police trainees complete their FTO programs, they receive periodic in-service (or refresher) training during which they relearn, practice, and correct acquired job-related knowledge and skills. In-service training aims to reduce forgetting and performance deterioration, which naturally result from the passage of time. It sometimes involves acquiring new knowledge or specialized skills. Some police agencies require officers from all organizational levels to participate in in-service training. Some agencies excuse

their executive officers (e.g., chiefs) from having to participate in some types of in-service training, such as self-defense tactics, because executive officers rarely respond to calls for service that have a potential for violence. The length of in-service training varies among police agencies. It sometimes depends on the minimum standards set by state POST commissions. Often, training time is a function of departmental fiscal budgets, legislative mandates, and union contracts. The content of in-service training curricula also varies among police agencies: Some include only subject matter that is legislatively mandated (e.g., firearms training); some include a variety of topics, such as domestic violence, use of force, and diversity training; and others include curricula established by state POST commissions.

At the recruit-training level, state POST commissions determine and approve the basic training curricula. Generally, they require training in the subject areas of administration of justice, fitness, law, police procedures, use of force, police professionalism, and community relations. Typical examples of training within these subject areas are examining the role of the police, making lifestyle changes, using discretionary power, making decisions to use force against citizens, becoming aware of personal cultural influences, and responding to perceptions of bias-based policing. These exemplars represent issues surrounding police behavior that have their roots in the field of psychology.

Wellness Training

There is concern about officers' health having an impact on their job performance. Unhealthy behaviors, from poor diet to glumness, contribute to illness and poor job performance. Training that promotes wellness can assist officers in controlling unhealthy behaviors, making positive lifestyle changes, developing healthy attitudes, and performing job-related tasks at optimal levels. Some topics that are a part of wellness training for the police are alcohol abuse, critical incident survival, and stress management.

Alcohol Abuse. Following a work shift, drinking with brother and sister officers—jocularly known as "choir practice"—is a tradition through which police officers socialize, develop camaraderie, and manage stress. Choir practice often involves excessive drinking. Teaching police officers to make positive and healthy decisions about alcohol use is a part of wellness training.

Critical Incident Survival. A majority of law enforcement officers leave their jobs within 5 years of taking part in critical incidents such as an officer-involved shooting. Police officers may experience negative thoughts and feelings and perceptual distortions during critical incidents, which affect their performance levels. Educating police officers about responses to critical incidents, and the physical and mental techniques that can be used to survive them, is a preventive effort that is a part of critical-incident survival training.

Stress Management. Police officers find their work stressful because of unfavorable physical, psychological, or social stressors, such as working late shifts, making deadly-force decisions, or working with poor equipment. Health issues, alcoholism, family problems, and suicide are correlates of police stress. Helping police officers inoculate themselves against stress by making life- and work-style changes, giving them skills to offset negative stress effects, and providing information on peer support services and mental health programs are a part of stress management training.

Other Wellness-Related Training Topics. Psychological knowledge is available on eating healthy, controlling weight, and stopping smoking, which are health-enhancing behaviors that police trainers may discuss as a part of wellness training.

Information and Skills Training

Police academies and agencies have a responsibility to provide police officers with information on, and skills training in, particular tasks they are likely to perform on the job. Police trainers use different pedagogical methods such as classroom lectures, experiential activities, role-plays, and simulated scenarios to present information and skills-training topics. Hands-on training involves individual skill work, which focuses on individual responsibilities. Sometimes, trainers couple individual skill work with collective skill work, which focuses on team or group training. The following are some topics that are a part of information and skills training.

Managing Intercultural Differences. Police-citizen contacts sometimes involve the police confronting the values and practices of members of cultures different

from their own, which leads to uncertainty and intercultural conflicts. When police officers make hitherto unknown cultures familiar, understand individuals and families from cultures different from their own, and understand the cultural meaning of their own behaviors, they broaden their cultural problem-solving strategies. All these behaviors are a part of training that helps the police develop cross-cultural competence to manage intercultural differences.

Profiling. Profiling is a long-standing policing method by which officers measure criminal suspicion. Police officers make decisions of criminal suspicion under probable or uncertain conditions and with limited information that is sometimes imperfect, and thus, their decisions to act may be wrong. Informing police officers about how mental processes—heuristics, subjective reality, confirmation bias, intuition, common sense, forming impressions, overconfidence, and response bias—may wrongly influence their decisions of criminal suspicion is a part of training on police profiling.

Conducting Criminal Investigations. Conducting eyewitness identification procedures, interrogating suspects, and using lie detection equipment are crucial activities in criminal investigations. Information and skills training, in which police trainers use pyschological knowledge of best investigative practices, includes teaching police officers that showing eyewitnesses photos sequentially rather than simultaneously reduces the chances of misidentification, that threatening punishment during custodial interrogations sometimes causes suspects to confess falsely, and that using the control question technique in concert with the polygraph device is preferable.

Other Information and Skills Training Topics. Managing interactions with mentally ill individuals, making use-of-force decisions, and handling barricaded suspect/hostage situations are all job-related events for the police. Police trainers may present such topics as a part of information and skills training.

Supervisory and Management Training

Supervisory and management training is an essential part of organizational health. It focuses on police managers (or supervisors) developing skills so that they can effectively and efficiently influence, lead, and supervise police personnel to meet agency needs and carry out agency objectives. Managers need cognitive skills to diagnose personnel problems, behavioral skills to help personnel modify problem behaviors, and communication skills to communicate desired behaviors to accomplish organizational goals. Training associated with such skills has its roots in psychology, which has helped the police develop a rudimentary understanding of the workings of police behavior in the organizational setting. These skills are a part of advanced police-training programs that law enforcement, academic institutions, and private organizations offer. For example, the Federal Bureau of Investigation National Academy offers a course to develop managers of police organizations. Particular training areas, which constitute the course curriculum and have psychological knowledge richly embedded in them, are leadership development and behavioral science. Diagnosing, managing, and changing behavioral problems in the police setting are a part of the leadership development component. A part of the behavioral science unit of training is the psychology of stress.

Evaluation Methods

Evaluation of police performance and training curricula occurs at the individual officer and training program levels, respectively. At the individual officer level, police trainers use informal and formal evaluation methods. Informal evaluation of police performance occurs during teaching activities. Trainers consider officers' learning and memory differences and monitor their performance in these terms: knowledge, capacity, strategic, retrieval, and gender. For example, police trainers recognize that officers have different learning styles: visual, auditory, reading, writing, and tactile-kinesthetic. They present course material in a visual and written format; they encourage officers to take notes, ask questions, and be active in classroom dialogues; they lecture; and they have officers participate in hands-on tasks.

Formal evaluation methods take the form of written tests or practical examinations. Written tests rely on content validity. Police trainers achieve content validity by using only material that they present during training to construct written tests. To make sure that written tests are representative of the training material, trainers sometimes construct a complete list of the training material and select questions randomly from it. The purpose of using written tests to evaluate police personnel is to determine whether they have mastered the content of the training program.

Practical examinations involve evaluation of performance on hands-on or scenario-based tasks. For example, a police trainer evaluates an officer's performance on an interactive computer-simulated enforcement task that requires the officer to respond to a suspect who is actively resisting arrest. The trainer evaluates the extent to which the officer's response and decision making reflect endorsed training practices, accepted legal principles, and approved police policies.

At the training program level, evaluating the effectiveness of a program is a challenging and expensive task that requires cooperation at all levels of the police organization. Carrying out a program evaluation requires knowledge and skills in social science research and statistical methodology. Police psychologists (or other social scientists) who have knowledge of the police culture are the ones most likely to evaluate a police-training program. They may do a utilization-focused evaluation, which is a comprehensive approach that focuses on the intended use of the training program by intended users. Major evaluation activities are describing the training program and evaluating its process, outcomes, and utilization. Not all police-training programs are subjected to evaluation or are worth evaluating, especially poorly designed ones. Police administrators and trainers make informed program decisions, however, when they use outcomes from what evaluators do measure.

Frank J. Gallo

See also Police Psychologists; Police Psychology; Police Selection

Further Readings

Haberfeld, M. R. (2002). *Critical issues in police training.* Upper Saddle River, NJ: Prentice Hall.

Patton, M. Q. (1997). *Utilization-focused evaluation: The new century text* (3rd ed.). Thousand Oaks, CA: Sage.

White, E. K., & Honig, A. L. (1995). The role of the police psychologist in training. In M. I. Kurke & E. M. Scrivner (Eds.), *Police psychology into the 21st century* (pp. 257–277). Hillsdale, NJ: Lawrence Erlbaum.

Police Use of Force

Police use of force is the application in a law enforcement capacity of physical or psychological coercion against citizens. Under the law, police officers have the authority to use force for enforcing laws, preventing criminal activity, defending others, and defending themselves. They have the discretionary power to use different degrees of force against citizens who choose to violate the law. Forceful responses can range from officer presence to the use of weapons. One approach to understanding forceful responses against citizens is psychological. There is psychological knowledge bearing on (a) how officers formulate and carry out their decisions to use force by encoding situational information, making a decision to act, developing a plan of action, and initiating action; (b) how officers' involvement in a force situation puts them at risk of experiencing stress that causes unfavorable changes in their perception and memory; (c) how police candidates with particular personality traits are at risk of on-the-job problems with using force; and (d) how officers whose job-related experiences involve traumatic force situations are vulnerable to developing behaviors that lead to the use of excessive force.

Decision Making

An officer formulates and carries out a decision to use force against a citizen by encoding situational information, making a decision to act, developing a plan of action, and initiating action.

Encoding Situational Information. Encoding is a process in which the officer attends to situational conditions. It involves the sensory register, the first structure of the officer's memory system. The sensory register is responsible for registering all features of the force situation through sensory functions—for example, seeing a citizen holding a gun, hearing a gunshot, and smelling gunfire. Sensory systems keep the officer informed about the force situation. They extract information and convert it to electrical impulses that travel to the thalamus, which is located in the diencephalon of the brain. The thalamus directs sensory input to associated cortex areas of the brain, where the officer becomes aware of sensation and interprets it.

Making a Decision to Act. Making a decision to act takes place in the officer's short-term memory. The officer consciously discriminates, selects, and attends to sensations that are most dangerous, while reducing attention to less dangerous information. The officer considers the magnitude of the force situation and the probability of harm occurring if he or she takes no protective or enforcement action. What researchers

know with confidence is that officers consider citizen behavior most important when making decisions to use force. A need to use force triggers cognitive events that help the officer develop a best plan of action. If the officer fails to pay attention to important sensory input, his or her plan of action will be less than optimal.

The limbic system is associated with making a decision to act in response to situational demands. It surrounds the upper brainstem and consists of interconnected neural structures, which include the amygdala and the hippocampus. The amygdala helps regulate emotion, and it contributes to the officer's drive to act. The hippocampus is responsible for memory storage. It gives the officer access to experience when making a decision to act.

Developing a Plan of Action. Once the officer makes a decision to act, he or she begins developing a plan of action. The officer accesses long-term memory and matches the sensory input with a response that best fits the conditions of the force situation. The appropriateness of the response depends on the extent to which the officer selected important sensory stimuli, and the officer's response reflects endorsed training practices, accepted legal principles, and approved police policies. In familiar force situations, responses are available. In novel situations, the officer might search his or her experience for possible responses or use a past strategy.

Developing a plan of action begins in the brain's association cortex areas, which integrate sensory input. They carry out the processes that take place between sensation and action, which include perceiving, learning, remembering, and planning. Neural structures of the projection system—basal ganglia, cerebellum, and motor cortex—relay details of the officer's plan to the spinal system.

Initiating Action. The spinal system is responsible for initiating the plan of action. It sends motor neurons that carry details of the plan of action out to various muscle groups that will perform the action of force. It serves as the final pathway that links the central nervous system with the skeletal muscular system.

Stress Effects

Stress is a state of psychological tension. It is a reaction or effect caused by unfavorable physical, psychological, or social forces, such as in a force situation. The force situation acts as an alarm signal that triggers the stress response. The officer's sympathetic nervous system becomes abnormally active. It starts autonomic and endocrine responses that prepare the officer's body for a fight or flight. Hormonal discharges, such as the secretion of corticotrophin-releasing factor, adrenocorticotropic hormone, cortisol, epinephrine, and norepinephrine, energize the officer's body. The stress response helps the officer perform at his or her best in the force situation. However, exposure to the force situation can lead to an increase in arousal that amounts to a peak stress condition. When in a state of peak stress, an officer experiences unfavorable changes in his or her memory and perception.

Memory. The adrenal gland secretes cortisol. Research shows that high cortisol levels impair memory functions. The effect, however, is temporary. Memory functions return as cortisol levels return to normal. The officer might find it difficult to access long-term memory and match sensory input with a response that best fits the demands of the force situation.

Perception. The officer's pupils dilate to gather extra situational information, but his or her perceptual system narrows its field of focus. There is a loss of peripheral vision. The officer might retreat to widen his or her peripheral field. The officer might also overlook important visual cues and develop a less than optimal plan of action. Other possible perceptual distortions include auditory blunting, auditory exclusion, and tachypsychia.

The dominant response to peak stress is *hypervigilance*. The hypervigilant officer panics and becomes hypersensitive to situational cues. The officer cannot discriminate threatening from nonthreatening cues. A lack of attention to important situational cues might lead the officer to choose an incorrect response to the force situation.

Optimal stress in a force situation depends on factors that are unique to the officer. Some officers perform better with arousal than do others. A skillful officer who has good coping abilities can offset the negative stress effects. Under peak stress conditions, officers experience delays in encoding situational information, making a decision to act, developing a plan of action, and initiating action.

Personality Traits

Police psychologists use personality tests to predict police candidates' behavioral predispositions to use force. Candidates must demonstrate a willingness to use force. Yet they must show self-restraint. Psychologists have linked job-related uses of force with test scores on personality tests such as the California Psychological Inventory (CPI) and the Minnesota Multiphasic Personality Inventory (MMPI). Low CPI scale scores on socialization, self-control, and well-being have led to disciplinary actions against officers for unnecessary use of force. Elevated MMPI scale scores on infrequency, psychopathic deviation, and hypomania, combined with control in psychological adjustment, correctly classified aggressive officers who received disciplinary actions for aggressive misconduct against offenders, inmates, coworkers, or family members.

Which police candidates are prone to the abuse of force? Personality tests contribute some knowledge about candidates' tendency to use force. What police psychologists know is that most often, police candidates who are successful on the job do not demonstrate personality traits of impulsivity, hostility, undue aggression, and poor frustration tolerance, which put them at risk of having difficulty with on-the-job use of force. Being prone to the abuse of force, however, might be more than a matter of personality traits measured at the candidate or predisposition level. Researchers have found that some officers who had high rates of excessive force complaints had also received superior supervisory performance ratings. Psychologists had rated them as suitable for police training and work.

Not all psychologically healthy officers are free from the abuse of force. Using excessive force or using force excessively might be an outcome of personality traits that police candidates develop on the job rather than something that they bring to the job. For example, police work involves the possibility of danger all the time. Danger shapes police-training practices. Officers learn to see citizens as potentially uncooperative, armed, and dangerous. They work in an environment of condition yellow: continually occupied with the present danger of the police-citizen contact. Some researchers have suggested that because officers focus on the interpersonal dangers of police-citizen contacts, they develop a suspicious and authoritarian work personality. To cope with danger and keep safe, they employ a heavy-handed or take-charge work attitude. They are at risk of using force against citizens where none is usually necessary.

Police use of force is not a simple extension of predispositional or changing personality patterns of officers. Situational factors such as instigation might determine some acts of excessive force not predicted by officers' psychological profiles. Organizational factors such as endorsed training practices, accepted legal principles, and approved police policies might attenuate the effects of personality traits. Psychological paradigms offer some insight into police personality traits that might manifest themselves in the form of undue force against citizens.

Job-Related Experiences

Officers routinely respond to calls for service that involve violence and danger. Exposure to traumatic job-related events, such as participating in officer-involved shootings, puts officers at risk of developing posttraumatic stress disorder, which can lead to difficulties with on-the-job use of force. For example, some officers lose control or use excessive force when they suppress postshooting trauma or other job-related trauma. Responses to postshooting trauma sometimes involve officers rushing possible force situations to experience the thrill again. Symptoms of postshooting trauma, such as trouble sleeping, emotional fatigue, anger, alcohol abuse, and anxiety, sometimes reveal themselves in the form of excessive use of force.

Police burnout, shift work, role expectations, and organizational stress are other job-related experiences that can result in undue use of force. Steps in place to understand and control police use of force are preemployment psychological screening, use-of-force training, and psychological monitoring. Police psychologists use psychological tests to screen out police candidates who show particular personality traits that might lead to difficulties with on-the-job use of force. Use-of-force training occurs at the recruit and incumbent levels. Psychological perspectives on police decision making and performance in use-of-force situations are typical topics that police trainers discuss. Monitoring the psychological fitness of officers following their involvement in traumatic job-related force situations involves officers participating in critical-incident debriefings, peer support programs, or individual counseling.

Frank J. Gallo

See also Police Decision Making; Police Psychology; Police Selection; Police Training and Evaluation

Further Readings

Geller, W. A., & Toch, H. (Eds.). (1995). *And justice for all: Understanding and controlling police abuse of force.* Washington, DC: Police Executive Research Forum.

Scrivner, E. M. (1994). *Controlling police use of excessive force: The role of the police psychologist.* Washington, DC: U.S. Department of Justice.

Twersky-Glasner, A. (2005). Police personality: What is it and why are they like that? *Journal of Police and Criminal Psychology, 20*(1), 56–67.

U.S. Department of Justice. (1999). *Use of force by police: Overview of national and local data.* Washington, DC: Author.

Worden, R. E. (1995). Police officers' belief systems: A framework for analysis. *American Journal of Police, 14*(1), 49–81.

Polygraph and Polygraph Techniques

Polygraph is a general term that refers to the use of autonomic physiological measures to make assessments about a person's credibility. Polygraph techniques find wide application in the criminal justice and national security systems of many countries, and their use is growing worldwide. There are two major families of polygraph techniques. *Knowledge approaches* look for responses that indicate knowledge possessed by a person attempting deception. *Deception approaches* assess credibility by examining a person's response to accusatory questions that directly address the issues under investigation. Both approaches have strengths and weaknesses, and both are the subject of controversy in the scientific literature. This entry describes the approaches, their strengths and weaknesses, their application in practice, and the controversy concerning them.

History

The desire to use physiological responses as indices of truth or deception is a very old one. The lore of many cultures contains stories of trials by ordeal that have some basis in autonomic physiology. For example, many Asian cultures have legends of placing dry rice in the mouth of the accused. If the accused was able to spit out the rice it was assumed that he or she was not nervous and that he or she was truthful. If, however, the mouth was dry and the rice stuck, it was assumed that he or she was deceptive. Scientific research on the topic also has a long history, with reports of attempts to detect deception with physiological measures going back to the first psychologists and the end of the 19th century. However, this approach has one basic difficulty: To date, no specific physiological response, or pattern of physiological responses, has been identified that is uniquely identified with truth or deception. Therefore, efforts to use physiological measures have to rely on techniques of stimulus control and inference to assess credibility. During much of the 20th century, there was little interest in credibility assessment by scientific psychology, and the application of the polygraph for that purpose grew as a profession in law enforcement and national security agencies, primarily in the United States. A modern era of research began in the early 1970s in the laboratory of David Raskin at the University of Utah. In the past decade, applications of the polygraph and research on physiological deception detection have grown rapidly worldwide.

Standard Physiological Measures in Modern Polygraphs

Several companies around the world manufacture polygraph instruments for use in the field as credibility assessment devices. A typical field polygraph instrument takes measures of respiration, blood pressure, and the electrodermal response. Respiration is measured from stretch sensors placed over the upper chest and abdomen. A continuous measure of relative blood pressure is monitored from an inflated cuff on the upper arm. Electrodermal activity (galvanic skin response) is recorded from the palmar surface of the hand. Some polygraph instruments in current field use also measure the peripheral vasomotor response (blood flow near the surface of the skin), usually from the thumb. Most of the instruments in current field use are digital computer-based systems. Currently, there is little controversy concerning the ability of field polygraph instruments to adequately measure the physiological values they claim to measure.

During the past decade, the U.S. government has invested in a number of research projects in an effort to find new dependent physiological measures for credibility assessment. Electroencephalograms, neural imaging, thermal imaging, eye movement, and

others have been examined, but as yet, none of these new measures have achieved sufficient scientific basis for use in application.

The Knowledge Approach

Technique

In the knowledge approach, which is often referred to as the Guilty Knowledge Test or, more correctly, as the Concealed Knowledge Test (CKT), the subject is presented with a series of items in multiple-choice format. The items are designed to represent some bit of knowledge that the truthful person would not know. For example, John Doe is murdered with a pistol that the police have determined to be a .380 automatic. The media reports indicated that the victim was shot to death, but the police never publicized the exact type of weapon. A suspect might be asked, If you shot John Doe, you would know the type of weapon: Was the gun used to shoot John Doe a .38 special revolver? A .45-caliber automatic? A .357 Magnum? A .380 automatic? A 9mm automatic? A .22-caliber revolver? A window of approximately 20 seconds would follow each alternative to allow for the suspect's autonomic responses to take place and then recover. Because people tend to produce physiological responses to the first item in any series, the critical item is never placed in the first position, and the first item in the CKT series is never evaluated.

It is assumed that on recognition of the correct alternative, the deceptive person will generate autonomic responses. It is also assumed that the truthful person will have no reason to produce a specific response to the critical item and will thus be producing nonspecific responses at random. Thus, the likelihood that an innocent person would produce his or her largest response to the critical item in a 1-item CKT is 0.20. With a 2-item CKT, the likelihood that an innocent person would give his or her largest response to the critical item on both CKT series is 0.20×0.20, or 0.04. As the number of items increases, the likelihood of making a false-positive error (a truthful person appearing deceptive) is thus definable and rapidly becomes quite small.

Strengths of the CKT

The CKT has two principle strengths. First, it is possible to precisely define the likelihood of making a false-positive error and to control that error rate by the number of items used in the CKT. Research has consistently shown that the statistical prediction holds well in application. It is also possible to pretest the transparency of the items in a CKT by presenting the series of items and alternatives to persons known to be truthful regarding knowledge of the crime. Transparency refers to the ability of innocent persons to guess the critical item from a series. While testing for transparency of items is common in research settings, it is not known whether or not it is a common practice in the field.

The second great strength of the CKT is that it is a very simple test to administer. With a few hours of training with the equipment, an undergraduate research assistant can administer the CKT as well as an experienced polygraph examiner. There are examples in the literature of the CKT being completely automated for machine administration.

Weaknesses of the CKT

The CKT has three primary weaknesses. The first, known as memorability, concerns the fact that for the CKT to work, the deceptive person must remember the details of the crime. In that regard, the extensive research on eyewitness memory indicates that eyewitnesses, particularly those under stress, are prone to make mistakes in recounting the details of a crime. The perpetrator of a crime is an eyewitness to that crime, and it is likely that the perpetrator will be a highly stressed eyewitness of the crime. Moreover, many perpetrators are also intoxicated. To date, there is no theory to predict what specific details from a crime scene are likely to be remembered. The memorability problem is avoided in most laboratory research on the CKT by screening a number of details of the crime scene with pilot subjects and then using only the highly memorable items in the subsequent testing or by using overlearned items of personal history. Such a screening of items is not possible in real cases. Laboratory research on the CKT has revealed a slight tendency toward false-negative errors—that is, toward deceptive individuals appearing truthful on the test. However, the few existing field studies of the CKT suggest that the false-negative rate in the field may be as high as 50%.

The second major weakness of the CKT is one of applicability. Research conducted by the Federal Bureau of Investigation in the United States found that fewer than 10% of their cases were amenable to the use of the CKT, if they had wanted to use it. In nearly 90% of the FBI case files examined, the nature of the case was such that there were not enough items of concealed knowledge to conduct a CKT.

The third weakness of the CKT concerns countermeasures—that is, things that a deceptive person might do in an effort to defeat or distort the test. Research shows the CKT to be susceptible to mental and physical countermeasures if subjects are knowledgeable about the technique and have received training in the use of countermeasures.

Application of the CKT

Although a great deal is written about the CKT in the scientific literature, it presently has very little application in either law enforcement or national security. There is essentially no application of the CKT in the United States. The only country that reports a general use of the CKT in law enforcement is Japan. In Japan, persons with special training in psychology and eyewitness memory are part of the crime scene investigation team, and they actively search for and document possible bits of information for use in CKT when the crime scene is first investigated. It may be that this careful crime scene documentation results in a higher rate of applicability for the technique. However, a clear explanation of how Japanese examiners overcome the memorability problem is not presently in evidence.

The Deception Approach

The Techniques

The Relevant-Irrelevant Test. The deception approach asks direct accusatory questions (referred to as Relevant questions) under the assumption that persons attempting deception will produce physiological responses when they lie. The earliest version of the deception approach was the Relevant-Irrelevant Test (RIT). Along with direct accusatory questions (e.g., Did you shoot John Doe?), the RIT also asks irrelevant (neutral) questions, to which the person is assumed to be responding truthfully (e.g., Are the lights on in this room?). The working assumption of the RIT is that persons attempting deception will produce a large and consistent physiological response to the relevant questions, whereas the truthful will not distinguish between the irrelevant and the relevant questions.

Virtually all the scientists who work in this area dismiss the working assumptions of the RIT as naive. Clearly the truthful will recognize the relevant questions as the more important class of stimuli and are thus likely to produce physiological responses to them, and in fact, research does show a very large number of false-positive outcomes to the RIT. As a result, the RIT has very little application in forensic polygraph testing. However, the RIT is still in use for periodic screening of sex offenders and in screening job applicants. At this time, any use of the RIT is highly controversial, and the scientists active in this area do not support its use.

Comparison Question Tests. John Reid developed the notion of an active comparison question in the context of law enforcement examinations during the late 1940s in response to the obvious problems with the RIT. The idea of the active comparison question was to provide a stimulus in the test that would evoke physiological responses from the innocent but not from the guilty. The comparison question took the form of a question that the subject was probably going to respond to with a lie. For example, after discussing the death of John Doe and after the subject of the examination has denied being involved in John Doe's death, the polygraph examiner would tell the subject that he or she is going to be asked some questions about his or her basic character in an effort to show that he or she is not the type of person who would have shot John Doe. The subject would then be asked a question such as "Before the year 2006, did you ever hurt someone?" The comparison question is deliberately vague and covers a long period of time. In the context of the examination, the subject is led to believe that an affirmative response is damaging because it shows that he or she is the kind of person who would have committed the crime. However, for virtually all subjects, it can be assumed that a definitive "No" response is probably a lie in view of the deliberately vague presentation of the comparison question.

The working assumption of the Comparison Question Test (CQT) is that guilty participants will produce consistent physiological responses to the relevant questions, while they will respond only minimally to the comparison questions. Although the guilty are assumed to be lying in their answers to the comparison questions, it is assumed that the comparisons are likely to be viewed as unimportant compared with the relevant questions, which directly address the issues under investigation. The innocent are expected to respond more to the comparison questions because they know that they are lying or are at least uncertain about the veracity of their answers to the comparison questions, whereas they know they are responding

with the truth to the relevant questions. Thus, differential reactivity is expected from the innocent and the guilty. Guilty subjects should produce consistently greater physiological responses to the relevant questions than to the comparison questions, and innocent subjects should produce consistently greater physiological responses to the comparison questions than to the relevant questions. If differential reactivity is not observed—that is, no response to either question type or equal response to both question types, the test is considered to be inconclusive.

In application, a CQT will contain between two and four relevant questions and a similar number of comparison questions. The question series will also contain some neutral and other questions that are not used directly for credibility assessment. The questions will be repeated a minimum of three times, but more presentations may be obtained. The resultant data are evaluated by making systematic comparisons between the responses to relevant questions and contiguous comparison questions. The standard in application is a human-based system that is semi-objective in that it is rule based, and in some physiological response systems, actual objective measures of physiological response are made (e.g., the electrodermal response), but in other response systems, human judgment is involved in making evaluations (e.g., the respiratory responses). Currently, there are three human-based scoring systems in use in the field, and persons trained in those systems show high levels of reliability in their total scores. Reliability coefficients for total scores are usually .9 or better.

Validity studies of the CQT have produced a range of estimates. However, current meta-analyses seem to be converging on a validity estimate for the CQT of near 90% accuracy for decisions (i.e., excluding approximately 8% of the tests that are inconclusive.) That said, there is controversy in the literature concerning the appropriate methodology for both laboratory and field studies in this area and about the generalizability of currently obtained results. By manipulating those studies that one views as having adequate methodology, the estimate of the validity of the CQT can be increased or decreased in reference to the figure mentioned above.

Strengths of the CQT

The great strength of the CQT is its wide applicability. The CQT is a highly versatile technique that can be applied to most credibility assessment situations. If unambiguous relevant questions can be formulated, then the applicability of the CQT would seem to be limited only by the subject's mental competence. In the laboratory and in many field studies, the CQT has been shown to be capable of a high level of accuracy.

Weakness of the CQT

The CQT is criticized at a number of levels. At one level, the CQT is criticized because it lacks a well-developed theory of underlying processes to explain why it works. Certainly, the lack of theory has hampered basic research in this area. An articulated theory would be useful in guiding research and in predicting conditions of generalizability of research results. However, the CQT polygraph is not unique in being a technology in successful widespread application without complete understanding of the underlying processes. Aspirin was in widespread use as a fever reducer and pain reliever for over 100 years before a complete explanation of its mechanisms was forthcoming.

A more telling criticism of the application of the CQT, particularly in the United States, concerns a lack of professional standards and regulation. Polygraph testing in the United States is controlled by a patchwork of standards and state licensing regulations. In many states, there is no regulation at all. As a result, the quality of practice in the polygraph profession in the United States is highly variable. Worldwide, this may not be the case. In Israel and Japan, psychologists are heavily involved in polygraph programs. In the People's Republic of China, the government polygraph program is organized within the Chinese National Academy of Sciences. One positive development concerning standards is that the American Association of Testing and Materials International (ASTM) has recently formed committees and is promulgating consensus standards for the administration of polygraph tests and for the training of polygraph examiners.

It has been suggested that some police agencies in the United States use the polygraph primarily as an interrogation prop to aid in obtaining confessions. Anecdotally, there are several well-known exoneration cases that have involved polygraph examinations as part of the process leading to false confessions. This is a topic clearly in need of additional research.

Finally, the CQT shares with the CKT a similar weakness regarding countermeasures. Some knowledgeable subjects can use mental and physical countermeasures to produce false-negative outcomes in

laboratory settings. As with the CKT, we do not know how successful countermeasure attempts are against the CQT in the field.

Application of the CQT

The CQT is in widespread application around the world as an investigative tool, as a screening tool for national security, and in the monitoring and treatment of sexual offenders on their release from incarceration. In some jurisdictions, the results of polygraph examinations are used as evidence in courts of law. The use of the polygraph in postconviction mitigation and sentencing seems to be growing. Although the controversy in the scientific literature remains, the use of the CQT worldwide seems to be accelerating.

Charles Robert Honts

See also Detection of Deception: Use of Evidence in; Detection of Deception in Adults; False Confessions; Public Opinion About the Polygraph; Sex Offender Treatment

Further Readings

Edelman, J. (2005). Admissibility of polygraph (lie detector) examinations. *Criminal Law Journal, 29,* 21–36.

Faigman, D. L., Kaye, D., Saks, M. J., & Sanders, J. (Eds.). (2005). Polygraph tests. In *Modern scientific evidence: The law and science of expert testimony* (Vol. 4. Forensics 2005–2006 ed., chap. 40, pp. 547–655). Eagan, MN: Thompson West.

Grubin, D. (2006). Accuracy and utility of post-conviction polygraph testing of sex offenders. *British Journal of Psychiatry, 188,* 479–483.

Honts, C. R. (2004). The psychophysiological detection of deception. In P. Granhag & L. Strömwall (Eds.), *Detection of deception in forensic contexts* (pp. 103–123). London: Cambridge University Press.

Kleiner, M. (2002). *Handbook of polygraph testing.* New York: Academic Press.

National Research Council. (2003). *The polygraph and lie detection.* Washington, DC: National Academies Press.

Popout Effect in Eyewitness Identification

The "popout" effect refers to the subjective experience of witnesses who report virtually immediate or apparently automatic recognition of the perpetrator of a crime from a photo array or lineup. Researchers have detected this experience among witnesses by asking them to endorse one of several statements about the decision strategy they used when making their decision about a simultaneous lineup. In some (though not all) studies, witnesses who were accurate more frequently endorsed statements such as "I just recognized him, I cannot say why" and "His face just popped out at me" (automatic processing) than did inaccurate witnesses. The latter more often endorsed items such as "I compared the faces with one other to narrow the choices" and "I first eliminated the ones that were definitely not him, then chose among the rest" (deliberative processing). The popout effect has been of interest to eyewitness researchers and is relevant to the criminal justice system because such subjective reports could potentially be used as an indication of whether or not an identification decision is likely to have been accurate.

Evidence for the popout effect comes almost exclusively from examination of the relationship between identification accuracy and the characteristics of the subjective reports described above. While eyewitness researchers might well consider popout to be intuitively plausible, the reliance on retrospective reports to validate the effect is problematic. Indeed, it has been suggested that the demands associated with providing such retrospective reports might lead witnesses who have a very strong memorial image of the offender (and hence find it relatively easy to detect a match or an absence of a match in a lineup) to endorse items suggesting the occurrence of popout regardless of the actual characteristics of their search or decision processes.

Moreover, the view that reports of popout most likely imply an accurate identification is challenged by the finding that witnesses who misidentified a very similar looking but innocent foil from a simultaneous lineup were as likely to report popout as witnesses who accurately identified the perpetrator. This again points to the unreliability of subjective reports of the decision process as indicators of identification accuracy. Moreover, researchers have also shown that witnesses may be more likely to endorse the statement that the perpetrators' face "popped out" at them and that they "just recognized him, I don't know why" if they had been told that they picked the suspect from the lineup (when the perpetrator was in fact not present in the lineup), even though such feedback following the identification cannot have affected the actual

decision process. There may be other factors that influence the extent to which popout is reported retrospectively, such as the typicality (in comparison with the broader population) of the face, the size of the array, and the location of the target in the array.

Despite these problems with validating the popout phenomenon, it is at least not inconsistent with data from studies in which the time taken to make the identification decision, identification response latency, has been examined. These studies show that accurate identification responses are, on average, significantly faster than inaccurate responses. Furthermore, there is at least some evidence that participants who endorsed more items suggestive of automatic processing tended to be those who made faster identifications, whereas those who endorsed more deliberative processing items tended to be slower.

The popout effect has been distinguished from another type of decision process, an absolute decision strategy, on the ground that an absolute decision strategy does not predict shorter decision latencies whereas popout does. The reason for shorter decision latencies when popout occurs is that the examination of the lineup may cease after the face has popped out of the array. In contrast, an absolute decision strategy is characterized by witnesses comparing the members of the lineup with their memory of the perpetrator, with this occurring for each member of a simultaneous lineup array. Other behavioral data, such as eye movement recordings, have not, as yet, been investigated to provide converging evidence for the popout effect, but they could help validate the effect. If popout occurs, it would be expected that witnesses would engage in very little scanning of the members of the lineup, fixating quickly on the lineup member that pops out. This eye movement pattern should differ from both an absolute judgment strategy, where each lineup member should be fixated but overt comparisons between lineup members should not be detected, and a relative judgment strategy, where eye movements should indicate comparisons between the various lineup members.

It is worth noting that basic research in the area of visual search points to a phenomenon that appears to parallel the popout experience attributed to some witnesses when viewing a photo array. The popout effect in the visual search paradigm appears to derive from an early, "preattentive" registration of the key features of a stimulus during parallel processing of the full stimulus array, with this leading to rapid termination of the search of the stimulus array.

In sum, the popout effect has been argued to occur on the basis of witnesses' subjective reports of the decision strategy used to make an identification decision and the time taken to make the decision. It is important because it could potentially be helpful in distinguishing accurate from inaccurate identification decisions. However, the reliance on retrospective reports to demonstrate the phenomenon is problematic, with future research needing to be directed at identifying behavioral measures of popout.

Carolyn Semmler and Neil Brewer

See also Response Latency in Eyewitness Identification

Further Readings

Brewer, N., Gordon, M., & Bond, N. (2000). Effect of photoarray exposure duration on eyewitness identification accuracy and processing strategy. *Psychology, Crime & Law, 6,* 21–32.

Dunning, D., & Stern, L. B. (1994). Distinguishing accurate from inaccurate eyewitness identifications via inquiries about decision processes. *Journal of Personality and Social Psychology, 67,* 818–835.

Ross, D. F., Rapus Benton, T., McDonnell, S., Metzger, R., & Silver, C. (2007). When accurate and inaccurate eyewitnesses look the same: A limitation of the "pop-out" effect and the 10- to 12-second rule. *Applied Cognitive Psychology, 21*(5), 677–690.

Weber, N., Brewer, N., Wells, G. L., Semmler, C., & Keast, A. (2004). Eyewitness identification accuracy and response latency: The unruly 10–12 second rule. *Journal of Experimental Psychology: Applied, 10,* 139–147.

Wells, G. L., Olson, E. A., & Charman, S. D. (2003). Distorted retrospective eyewitness reports as functions of feedback and delay. *Journal of Experimental Psychology: Applied, 9,* 42–52.

Pornography, Effects of Exposure to

For as long as people have been able to draw and write, they have created pornography. Greek vases and Roman brothels contain ancient, sexually explicit images. Modern technologies for delivering sexually explicit images, such as the Internet, have made pornography ubiquitous. The affordability, accessibility, and anonymity of Internet pornography have also

proved a boon to the industry. The total market for adult material in the United States is now estimated to be $13 billion a year.

The subjective experience of viewing sexually explicit materials and societal reactions to their availability are characterized by shifting definitions and mores. Over the past 150 years, concern about the psychological effects of exposure to pornography on the viewer's character, morality, and, lately, tendency to engage in sexually violent behavior has driven social/legal policy as well as social science research on the problem of pornography.

Psychological investigations have focused on how the thoughts, attitudes, and behaviors of individuals are influenced by exposure to sexually explicit messages. To understand pornography research, it is useful to consider it in the context of the debate about pornography's effects in society. The terms of this debate have often framed the research agenda. One way of organizing the theory and research on the effects of sexually explicit material is by the normative concepts *pornography, erotica,* and *obscenity.* The term *obscene* is derived from the Latin *ob*, meaning "to," and *caenum*, meaning "filth." Obscenity has traditionally been associated with filth and offensiveness, disgust, shame, and the idea of insulting or breaching an accepted community moral standard. *Pornography* is derived from the Greek *porne*, meaning "whore," and *graphein*, meaning "to write." Pornography then literally means the "writing of harlots" or the depiction of women as prostitutes. *Erotica*, derived from the Greek god *Eros*, refers to sexual love. It is often used to refer to literary or artistic works that have a sexual quality or theme.

The Obscenity Theoretical Perspective

Currently, the law in the United States is organized around a test formulated for obscenity fashioned by the Supreme Court in 1973, which emphasizes the filth and offensiveness, disgust and shame associated with viewing sexually explicit materials. The test states that the basic guidelines for the trier of fact must be (a) whether "the average person, applying contemporary community standards" would find that the work, taken as a whole, appeals to the prurient interest (defined as a "shameful, morbid, unhealthy interest in sex"); (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by applicable state law; and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value.

This test with its focus on community standards has meant that magazines such as *Playboy* and *Penthouse* may be banned in towns with conservative values. Theoretically, the decision makes every local community the arbiter of what is acceptable. Both the prosecution and the defense are entitled to introduce evidence during an obscenity prosecution regarding the types of depictions a given community will accept given the current social climate, social mores, and so on. The evidence of community standards may include expert testimony, surveys, and comparable materials.

The social-psychological research on perceptions of community standards for sexually explicit depictions has involved several communities across the United States and has found considerable slippage between community sentiment and legal actors' presumptions. In a few studies, community residents were randomly assigned to view sexually explicit films charged in obscenity cases. The results showed that residents believed, contrary to prosecutors, that sexually explicit films charged in the case do not appeal to a morbid unhealthy interest in sex and are not patently offensive. The community members indicate that they would be substantially less accepting of sexually explicit materials, however, if they contained rape and bondage, and they show no acceptance of child actors. Other research has confirmed that the majority of residents randomly selected from the community do not judge materials before the court to appeal to a prurient interest in sex and have tolerance for such materials. A lower percentage of people believe that others in the community tolerated the materials they personally found acceptable.

Psychological research has been conducted on the idea that exposure to sexually explicit materials insults or breaches an accepted moral standard and that these materials induce greater promiscuity and a loss of respect for marriage and fidelity and other traditional moral values. This research has attempted to test the hypothesis derived from the "obscenity" theoretical perspective that exposure to sexually explicit material has a corrosive effect on men's relationships with women and a negative impact on male intimacy and sexual performance and satisfaction within marriage.

The survey research suggests that people who report being happily married are less likely to report using Internet pornography. This research supports the idea that married women may be distressed by their

husbands' use of sexually explicit material and that this may threaten the stability of their marriage. The survey data by the American Academy of Matrimonial Lawyers in Chicago, Illinois, regarding the impact of Internet usage on marriages indicate that the Internet had been a significant factor in divorces they had handled during the past year and that a majority of divorce cases involved one party having an obsessive interest in pornographic Web sites.

Decreased sexual satisfaction with traditional sexual relationships has also been observed after exposure to sexually explicit materials. One study looked at the impact of consuming nonviolent pornographic material on male and female participants drawn from college and nonstudent populations from a midwestern city. As part of the study, participants were exposed to either pornographic or innocuous, nonpornographic content in hourly sessions for six consecutive weeks. In the seventh week, participants were asked to rate their personal happiness regarding various domains of experience and the relative importance of gratifying experiences. The results showed that exposure to pornography negatively affected self-assessment of sexual experience. The male and female participants reported less satisfaction with their intimate partner generally and with their partner's affection, physical appearance, sexual curiosity, and sexual performance. Additionally, the participants who were repeatedly exposed to pornographic material assigned increased importance to sexual relations without emotional involvement.

The proponents of the obscenity/traditional moral values theoretical perspective have also attempted research into whether the compulsive behavior associated with repeated exposure to sexually explicit materials is psychologically damaging. This research is inconclusive, and there is skepticism among psychiatrists and other mental health professionals regarding the case for including pornography addiction as a mental disorder.

Theoretical Perspectives on Pornography

Some feminists have argued that pornography both discriminates against women and provokes violence against women. Catherine Mackinnon and Andrea Dworkin proposed not a criminal obscenity law but an antidiscrimination civil law designed to confront pornography. As an alternative to obscenity law, several communities revised their discrimination laws to reflect this concern. Such a law was adopted in Indianapolis in 1984. The law declared that works that portrayed the graphic, sexually explicit subordination of women, whether in pictures or in words, were pornographic if they also included scenes or pictures in which women are presented as sexual objects who enjoy pain or humiliation; experience sexual pleasure in being raped; or are tied up, cut up, or mutilated or in which women are presented as being dominated, violated, exploited, or possessed through postures or positions of servility or submission. Women could sue on behalf of all women or a group or themselves for damages.

The Seventh U.S. Circuit Court of Appeals ruled that the law was unconstitutionally vague and that the kind of expression it sought to bar was protected by the First Amendment. The court noted that under the Indianapolis law, sexually explicit speech or expression is pornography or not depending on the perspective of the author; this is viewpoint discrimination. According to the court, speech that subordinates women is pornography no matter how great the literary or political value of the work. On the other hand, according to the law, speech that portrays women in positions of equality is lawful no matter how graphic the sexual conduct.

Research testing feminist sociolegal theory has examined pornography's effect on attitudes that justify violence against women, such as rape myth acceptance, and undermine viewer sensitivity to victims of rape and violence. The research literature examining the association between acceptance of rape myths and exposure to pornography has been examined in a meta-analysis. This analysis shows that nonexperimental studies show almost no effect—exposure to pornography does not increase rape myth acceptance. The laboratory experimental studies have found that exposure to pornography does increase rape myth acceptance; however, this effect occurs primarily for violent pornography rather than nonviolent pornography. The generalization of the finding causes some concern because of the difference demonstrated between experimental and nonexperimental research.

Neil Malamuth and his colleagues have conducted research testing feminist sociolegal theory that has also examined sexual arousal to depictions of rape. A series of studies examining the effects of exposure to sexual violence in the media on perceptions of rape victims have been conducted. Specifically, these studies have been concerned with the impact of positive- versus negative-outcome rape in pornographic

portrayals. These studies have generally taken the following form: Male subjects were either exposed to depictions of mutually consenting sex, a rape in which the female victim eventually becomes aroused (positive outcome), or rape that is abhorred (negative outcome) by the victim. Afterward, the subjects were shown a rape depiction and asked about their perceptions of the act and the victim. The males exposed to the positive rape portrayal perceive the second rape as less negative and more normal than those first exposed to other depictions. The researchers have also conducted studies that have asked male subjects how they think women in general would react to being victimized by sexual violence. Those first exposed to a positive rape portrayal believed that a higher percentage of women would derive pleasure from being sexually assaulted. The effect of the portrayal was particularly apparent in men with self-reported inclinations to aggress against women.

Edward Donnerstein and his colleagues have conducted research on the effects of exposure to pornography on aggressive behavior. Meta-analytic reviews have been undertaken of the effect of exposure to pornography on aggressive behavior under laboratory conditions, considering a variety of possible moderating variables, such as level of sexual arousal, level of prior anger, type of pornography, gender of subject, gender of target of aggression, and medium used to convey the sexually explicit message. The results demonstrated that nudity actually reduces subsequent aggressive behavior, that consumption of pornography depicting nonviolent sexual activity increases aggressive behavior slightly, but that media depictions of violent sexual activity generate more aggression than depictions of nonviolent sexual activity. No other moderator variable produced homogeneous findings in the meta-analysis.

The data collected from women participating in a battered women's program have also been examined to determine whether pornography use increases the probability that battered women will be sexually abused by their partners. This research shows that certain disinhibitory factors, such as alcohol use, mediate or exacerbate the effects of pornography on sexual violence. Compared with batterers who do not use pornography and alcohol, the combination of alcohol and pornography does increase the odds of sexual abuse.

This theoretical perspective has also fueled research on discriminatory and sexually aggressive behavior. The research shows that short-term exposure to nonviolent sexual media stimuli can produce cognitive changes in men that, in turn, can affect attitudes toward women. Daniel Linz and colleagues tested whether viewing these materials affects their judgment of women in subsequent face-to-face interactions. Sex-typed men and non-sex-typed men viewed one of three equally stimulating films: sexually explicit and degrading, sexually explicit and nondegrading, and nonsex. After the viewing, the men interacted with women and then evaluated their partners' intellectual competence and sexual interest. The results indicated that men's sex role orientation moderated the film effects for men's evaluations of their female partners' intellectual competence and sexual interest.

High pornography use is not necessarily indicative of high risk of sexual aggression unless other variables come into play. The combination of sexually explicit media with personality variables has also been examined within this theoretical perspective. Research by Neil Malamuth and his colleagues suggests that pornography is most likely to affect behavior when two streams of dispositional variables, one labeled "sexual promiscuity" (measured by the number of times an individual has had sexual intercourse and age at the time of the first intercourse) and the other "hostile masculinity" (a general sense of hostility as well as more specific hostility toward women), coalesce. Among men classified as being relatively low risk for sexual aggression on the basis of their levels of hostile masculinity and sexual promiscuity, there is only a minor difference between those who report sexual aggression and differing levels of pornography use. For men who were previously determined to be at high risk for sexual aggression based on hostile masculinity and sexual promiscuity, research has shown that those who are additionally very frequent users of pornography were much more likely to have engaged in sexual aggression than their counterparts who consume pornography less frequently.

This perspective has also generated research on the more general culture of violence against women cultivated by the media. Daniel Linz and his colleagues have conducted research on the effects of "slasher" films, films that often juxtapose sex and violence for male and female victims and that pair sexiness with the torture and death of female victims. Men who repeatedly viewed movies depicting violence against women came to have fewer negative emotional reactions to the films, to consider them as significantly less violent, and to consider them less degrading to women. It has also been found that there is a tendency for the desensitization to filmed violence against women to spill

over into subjects' judgments of female victims in other contexts. Men who were exposed to large doses of filmed violence against women judged the victim of violent assault and rape to be significantly less injured than did the control groups.

The Liberal Normative Theory

This perspective emphasizes that the free flow of ideas is so valuable to the discovery of sexual truths and erotic art and literature that it should be interrupted only when a grave harm to another person occurs as a result of exposure to sex-related materials. The threshold for censorship should be set high to guard against frivolous attempts to censor ideas that are taboo now but may be acceptable later. This position emphasizes that as long as the recipient of sexually explicit messages restricts his or her behavior to private actions, such as sexual fantasy, or only acts on these ideas with a consenting partner, society has no right to interfere. For example, only if it can be shown that consumption of sex depictions is causally related to rape or other violent crimes can the government regulate such depictions. No effect short of these direct threats of violence is sufficient justification for society to interfere with the individual's right to view sex-related materials and with the right of others to produce it. This position embraces findings such as the meta-analyses focusing on the use of pornography by convicted sex offenders, as compared with men from the noncriminal general population. Studies have examined several types of dependent measures, including frequency of pornography use, age at first exposure, the degree to which pornography was a prelude to some sexual act, and degree of sexual arousal. The findings showed a slight difference but not one that was judged to be reliable.

This theory of freedom of expression has led to concerns with methodological problems in laboratory studies on the effects of sexually explicit materials. For example, in the laboratory, only attitudes toward rape or, at best, physiological arousal can be measured, not, of course, actual rapes. However, these critics point out, when privately consumed, pornography is often associated with masturbation or consenting sex, and thus, laboratory settings may be dissimilar to the typical experience with pornography. By attempting to simply arouse subjects in the laboratory, such studies ignore completely the potential that pornography consumption and masturbation may serve as a substitute for rape that results from the use of pornography to release sexual tension.

These critics note that the incidence of rape in the United States has actually declined in the past 25 years, while pornography has become freely available to teenagers and adults through the Internet. Studies have shown, for example, that while the nationwide incidence of rape was showing a drastic decline, the incidence of rape in the four states having the least access to the Internet showed an increase over the same time period. The four states having the most access to the Internet have shown declines in rape. More sophisticated analyses controlling for offender age have found that the effect of the Internet on rape is concentrated among those for whom access to the Internet is greatest—males aged 15 to 19 years. They have also found that the advent of the Internet was associated with a reduction in rape incidence. However, the growth in Internet usage has had no apparent effect on other crimes.

Daniel Linz

See also Media Violence and Behavior; Obscenity

Further Readings

Allen, M., D'Alessio, D., & Emmers-Sommer, T. M. (2000). Reactions of criminal sexual offenders to pornography: A meta-analytic summary. In Roloff (Ed.), *Communication yearbook 22* (pp. 139–169). Thousand Oaks, CA: Sage.

Allen, M. D., Emmers, T. M., Gebhardt, L., & Giery, M. (1995). Pornography and rape myth acceptance. *Journal of Communication, 45,* 5–26.

Linz, D., & Malamuth, N. (1993). *Pornography*. Newbury Park, CA: Sage.

Linz, D. G., Donnerstein, E., & Penrod, S. (1988). Effects of long-term exposure to violent and sexually degrading depictions of women. *Journal of Personality and Social Psychology, 55,* 758–768.

Malamuth, N. M., Addison, T., & Koss, M. (2000). Pornography and sexual aggression: Are there reliable effects and can we understand them? *Annual Review of Sex Research, 11,* 26–91.

Postdoctoral Residencies in Forensic Psychology

Forensic psychology was formally recognized as a specialty by the American Psychological Association (APA) in 2001 (through the Committee for Recognition

of Specialties and Proficiencies in Professional Psychology). The basic elements of specialty training in professional psychology are graduate education (doctoral program), internship, and postdoctoral training. This model of training is pyramidal in structure: Students receive a broad and general education at the graduate level, more specific applied experience at the internship level, and advanced specialized knowledge and skills at the postdoctoral level. An organized, systemic postdoctoral program is called a residency or a postdoctoral fellowship (these terms are interchangeable). Although the APA does not yet accredit forensic residency programs, the American Board of Forensic Psychology has developed some interim recommendations that can be used by students who are interested in applying to residencies.

The first formal concerted effort to develop training models in forensic psychology was convened in 1997 (the "Villanova Conference"). The participants in that conference discussed the entire range of training and specifically noted that there were inadequate numbers of postdoctoral fellowships (or residencies) to meet the training needs of all those seeking forensic specialization. In 2001, when forensic psychology was recognized as a specialty by APA, 11 residency programs in forensic psychology were identified. A recent search of ads in the *American Psychological Association Monitor,* the Web site of the American Psychology-Law Society, and an Internet search resulted in identification of 17 residency programs as of March 2007. Although there may be a few more programs that were not identified, it is clear that there are still too few programs to meet the demands of students interested in becoming forensic psychologists. Many psychologists will obtain alternative means of training (e.g., through continuing education activities and individually arranged supervision of forensic work), but residency programs remain the "gold standard" for preparation for forensic specialization.

Accreditation Issues

The APA's Committee on Accreditation accredits postdoctoral residencies, based on general principles for such programs, buttressed by specific Specialty Education and Training Guidelines. The Forensic Specialty Council is the entity responsible for developing such guidelines for forensic psychology, and it is anticipated that these will be available in 2008. In the interim, there is no mechanism for formal accreditation of forensic residency programs. However, the American Board of Forensic Psychology (ABFP), which is a Specialty Board of the American Board of Professional Psychology (ABPP), which awards diplomate status to qualified practitioners, has developed its own guidelines. The ABFP has recognized the value of residency training in forensic psychology and has determined that successful completion of such a residency is considered equivalent to 4 years of postdoctoral experience and, thus, would meet the experiential requirements to apply for diplomate status. The ABFP had identified the following criteria to recognize residency programs for this purpose (with a caveat that these will be superseded by the criteria to be developed by the Forensic Specialty Council as noted above):

1. The residents must have completed all requirements for their doctoral degree, including an internship, prior to beginning residency training.
2. There must be an identifiable director of training who either has a diploma in forensic psychology from ABPP, has at least 5 years' experience practicing forensic psychology, or is certified by their jurisdiction (through statute or regulations) to perform forensic evaluations.
3. The residents must be formally identified as trainees, paid a stipend, and be given a diploma or certificate of completion.
4. The residency must have a structured written curriculum, including didactic training or a regular series of seminars. Although the ABFP does not identify a required curriculum, it does require that the didactic training include a course on case law, ethics, and sociocultural factors/ethnic factors that affect individuals who are provided forensic evaluations or treatment.
5. The residency must include clinical experiences in forensic practice.
6. The residency program must include at least 2,000 hours of training, over a minimum 9-month period and a maximum of 24 months. At least 25% of the resident's time must be spent providing professional forensic psychological services.
7. A minimum of 2 hours a week of supervision by a licensed psychologist is required.
8. The residency program must have a formal evaluation process that includes a written assessment of the resident's progress and skill attainment.

Standard Elements of Forensic Residency Programs

Gary Melton and colleagues, in one of the classic books on forensic psychology, identified, in addition to basic clinical training, the following elements of specialized knowledge and experience required by forensic psychologists:

1. Understanding of how the legal system works
2. Forensic evaluation methodologies, including specialized forensic instruments
3. Legal doctrines relevant to forensic evaluations
4. Research about areas that are relevant to forensic psychology but that are not part of the standard "clinical" preparation
5. Rules, procedures, and techniques related to providing expert witness testimony

An additional, important element relates to special ethical dilemmas and practice issues that are unique to forensic practice. All forensic psychologists must be familiar with the Specialty Guidelines for Forensic Psychologists (which were developed in 1991 jointly by the American Psychology-Law Society and the American Academy of Forensic Psychology and are currently being revised). Residency training programs in forensic psychology should prepare residents for forensic practice by providing education and training within all these areas, at a minimum.

Accessing Information About Programs

The majority of the current forensic residency programs emphasize forensic work within the criminal justice system (as opposed to areas of civil practice). Most programs focus on work with adults (in areas such as competency to stand trial, criminal responsibility, aid in sentencing, violence risk assessments, sex offender evaluations), although some focus on juveniles. At least one program focuses on civil work with children and families, including child custody issues and termination of parental rights. As there is no current directory of forensic residency programs, specific information about the available programs can be obtained either through their advertisements in the *APA Monitor* (publication of the APA) or through the *American Psychology-Law Society Newsletter*.

Ira K. Packer

See also Diplomates in Forensic Psychology; Forensic Assessment

Further Readings

Bersoff, D., Goodman-Delahunty, J., Grisso, T., Hans, V., Poythress, N. G., & Roesch, R. (1997). Training in law and psychology: Models from the Villanova Conference. *American Psychologist, 52,* 1301–1310.

Melton, G. B., Petrila, J., Poythress, N. G., & Slobogin, C. (1997). *Psychological evaluations for the courts*. New York: Guilford Press.

Otto, R. K., & Heilbrun, K. (2002). The practice of forensic psychology: A look to the future in light of the past. *American Psychologist, 57,* 5–18.

Packer, I. K., & Borum, R. (2003). Forensic training and practice. In A. M.Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 21–32). Hoboken, NJ: Wiley.

Postevent Information and Eyewitness Memory

Human memory, however accurate generally, is not a perfect processing system. Over time, our memory becomes less accurate, primarily for two reasons. First, our memory is not permanent, and information fades from memory over time. Most people are familiar from experience with this unfortunate feature of memory but are less familiar with the second factor that influences the accuracy of memory—memory can be distorted by the influence of postevent information. Although memory can be influenced by subsequent experiences, there are constraints on the conditions under which this is likely to occur. Nonetheless, when memory accuracy is a premium, such as in forensic situations involving eyewitness memory, it is important to recognize that eyewitness memory can be suggestively influenced. In these situations, the impact of postevent information should be minimized by avoiding misleading questions, and when it is relevant to do so, jurors should be informed about the potential fallacies in eyewitness memory that can result from a suggestive interview.

How can postevent information influence memory? Take the example of eyewitnesses who observe a convenience store robbery. From their observations, they construct a memory for what transpired during the robbery. Most of the time, it is this memory that police officers want to examine. However, virtually all eyewitnesses to crimes who eventually testify in court are interviewed by police officers at least once and typically multiple times. In police interviews, the eyewitness is questioned about what happened, and if the investigating officer has specific suspicions about what occurred, the interview may include some leading questions (e.g., "Was it a white four-door sedan?" "Was he or she wearing athletic clothing?" "Was he or she carrying anything?" "May he or she have had a gun in his or her hand that was in his or her jacket pocket?"). Questioning such as this presents one source of postevent information. Another source of postevent information is self-generation; that is, the eyewitness may introduce new information by just thinking about or talking about the robbery. Either way, the postevent information affects one's memory of the original observed event, and over time, individuals become less able to differentiate between the information that is in their memory because it was actually observed and the information that was introduced after the event by postevent information.

Most of the time, the influence of postevent information is minimal and inconsequential. However, in the case of an eyewitness to a crime, when it is important to know exactly what transpired, postevent information may be an important source of memory error. For this reason, the distortion in memory that results from postevent information is often referred to as the *misinformation effect.*

Research on the Effect of Postevent Information

There is a great deal of research on the effect of postevent information, much of it spawned from the early work of Elizabeth Loftus. In a typical experiment on this topic, participants first view a sequence of slides, a videotape, or a film of an event. After viewing this event, they read a narrative or are asked some questions that intentionally mislead them about the identity of a small set of target items viewed in the original event (the misled condition), or they do not receive the misleading information (the control condition). The principal result is that the participants are more accurate recognizing the original target item in the control condition than in the misled condition; that is, they are misled by the postevent information presented in the narrative or questions.

In a related paradigm for studying the effect of postevent information, Elizabeth Loftus had individuals view a video of a traffic accident. They were subsequently asked questions regarding how fast the cars were traveling prior to the accident. Whereas individuals who were asked, "About how fast were the two cars going when they *hit* each other?" provided a mean response of 34 mph, individuals asked, "About how fast were the two cars going when they *smashed* each other?" responded with a mean speed of 40.8 mph. Surprisingly, the wording of this question—the postevent information—also affected their memory of the car accident more generally. One week later these individuals were questioned again. When asked whether they had seen broken glass in the film, whereas 34% of the individuals who had received the question, including the word *smashed*, indicated having seen broken glass in the film, only 14% of those who received the *hit* question reported remembering broken glass. The impact of postevent information is thus not limited to immediate questioning but can have long-term consequences as well.

Cognitive Interpretations of the Effect of Postevent Information

There are several explanations for how postevent information influences memory, and there is evidence that the cognitive mechanisms underlying each of these explanations play some role in the misinformation effect. Take for an example Elizabeth Loftus's now classic study in which participants viewed a car approaching an intersection with a *stop sign.* In the misled condition, the sign was later suggested to be a *yield sign* ("Did another car pass the red Datsun while it was stopped at the *yield sign*?"). In a subsequent test, individuals were less likely to recognize the stop sign if they had been in the misled condition. One interpretation of this result is that the postevent information impairs memory of the observed event. That is, being presented the *yield sign* literally degrades and replaces memory of the observed *stop sign*. A second interpretation of the misinformation effect is that the original information (*stop sign*) and the suggested information (*yield sign*) are both present in memory, but individuals make what Marcia Johnson calls a source-monitoring error and confuse what was seen with what was subsequently suggested. A third interpretation of

the effect of postevent information is that the misleading postevent information simply substitutes information in memory when there is no accessible memory for the relevant details of the original event. In fact, even when we pay attention, we do not remember everything about an event that we observe. According to this interpretation, only if individuals cannot remember seeing a *stop sign* are they likely to incorporate the suggested *yield sign.*

This latter interpretation, referred to as the *trace strength theory of suggestibility*, has important implications for some of the constraints on the effect of postevent information. Although memory is a constructive process, and we can incorporate postevent information into our memory for what we observe, in fact our memory is generally quite accurate. What is the vehicle by which the veracity of memory is preserved? It is now clear from a number of research studies that stronger memories are more likely to resist suggestion than weaker memories; we are less likely to be misled about details of events if we saw them very clearly to begin with and remember them well than if we did not remember them well. Kathy Pezdek conducted a research study in which children were presented a sequence of slides depicting an event. The target slides that were presented once or twice each were included in the sequence. A postevent narrative was then read that described the same event; in the narrative were several misleading sentences that suggested a change in what had been observed in the slides. The children were significantly less likely to be misled by the postevent narrative if they had observed the target slides twice rather than once; the stronger memory was more resistant to suggestibility. This conclusion is also supported by the results of other studies in which it has been reported that children are less suggestible in domains in which they have greater knowledge (i.e., greater memory strength).

Can Postevent Information Plant False Events in Memory?

Research on the influence of postevent information is often used to imply that it is relatively easy to suggestively mislead a person to believe that an entirely new event had occurred when it had not. This assumption is at the heart of the false-memory debate. This debate concerns the veracity of delayed memory for incidents of childhood sexual abuse. Analyses by Jennifer Freyd and her colleagues have established the pervasiveness of childhood sexual abuse. Nonetheless, some claims of childhood sexual abuse might be based on "false memories"; that is, the abuse never occurred, but memory of the abuse was planted by postevent information, such as suggestive questioning by overzealous police officers, social workers, or therapists who interviewed the child.

According to the trace strength theory of suggestibility, if a child is recalling an event that was experienced several times, he or she would be expected to have a more accurate memory of the event and be less vulnerable to suggestive influences such as biased interviewing procedures than if the event had occurred only once. This is especially important in child abuse cases because it is common for a perpetrator to frequently abuse the same child. A child's memory for an incident that occurred frequently would be expected to be relatively reliable, even in the face of possibly suggestive interviewing.

Another important constraint on the effect of postevent suggestion is that implausible events are less likely to be suggestively planted in memory than plausible events. In one study on this point, Kathy Pezdek and her colleagues had 20 confederates read descriptions of one true event and two false events to a younger sibling or close relative. The more plausible false event described the relative being lost in a mall while shopping; the less plausible false event described the relative receiving an enema. Three events were falsely remembered: all were the more plausible events. Thus, all memories are not equally likely to be suggestively planted in memory, and individuals with differing prior experience and prior knowledge are not equally vulnerable to suggestion. The relative ease of suggestively planting false childhood memories of sexual abuse versus being lost in a mall while shopping should be related to the relative plausibility of these two events to a particular individual. This research demonstrates that although memory can be influenced by postevent information, there are constraints on the conditions under which this is likely to occur.

Kathy Pezdek

See also Delusions; Eyewitness Memory; False Confessions; False Memories

Further Readings

Freyd, J. J., Putnam, F. W., Lyon, T. D., Becher-Blease, K. A., Cheit, R. E., Siegel, N. B., et al. (2005). The science of child sexual abuse. *Science, 308,* 501.

Loftus, E. F., Miller, D. G., & Burns, H. J. (1978). Semantic integration of verbal information into a visual memory. *Journal of Experimental Psychology: Human Learning and Memory, 4,* 19–31.

Pezdek, K., & Banks, W. P. (Eds.). (1996). *The recovered memory/false memory debate*. San Diego, CA: Academic Press.

Pezdek, K., Finger, K., & Hodge, D. (1997). Planting false childhood memories: The role of event plausibility. *Psychological Science, 8,* 437–441.

Posttraumatic Stress Disorder (PTSD)

This entry briefly examines the history of the diagnosis of PTSD, the current symptoms that characterize this syndrome, risk factors for PTSD, and evidence about the prevalence of this disorder in relation to specific traumas. It also summarizes the debate about the expression of PTSD in children and other special populations and discusses the ongoing controversies surrounding this diagnosis. A special effort is made to include mention of forensic issues relevant to the diagnosis of PTSD.

History of the PTSD Diagnosis

PTSD was officially introduced into the mental health nomenclature in 1980 with the publication of the American Psychiatric Association's *Diagnostic and Statistical Manual*, third edition (*DSM-III*). The concept of a cluster of symptoms that occur in response to a particular stressor, however, has existed for centuries and has been referred to by terms such as *nerve-trauma hypothesis, shell shock,* and *stress response syndrome.* In *DSM-I*, veterans of World War II and the Korean War who continued to experience traumatic symptoms were diagnosed as having *gross stress reactions.* By *DSM-II*, in 1968, this term was replaced with *transient adjustment disorder of adult life.* The actual addition of the diagnosis of PTSD to the *DSM-III* has been attributed to the political and social pressure applied by advocates and psychiatrists after the Vietnam War; although these individuals more specifically lobbied for the inclusion of a *DSM* diagnosis of *post-Vietnam syndrome.* However, the *DSM-III* Task Force argued against including a diagnosis that was tied to a specific political event, while they were simultaneously persuaded by data showing that similar stress reactions occurred in victims exposed to other traumatic stressors, including natural disasters, rape, and/or confinement in a concentration camp. The *DSM-III* Task Force thus decided that an individual suffering from PTSD must have been exposed to a traumatic event, including but not necessarily restricted to combat, that was outside the realm of ordinary experience to meet the criteria for PTSD. Consequently, PTSD and the recently included diagnosis of acute stress disorder are distinctive in the *DSM* system because, unlike the majority of *DSM* diagnoses, the causal origin of these disorders is explicitly delineated in the diagnostic criteria.

Current PTSD Diagnostic Criteria

The research related to the disorder was greatly intensified after the inclusion of PTSD in the official nomenclature of *DSM-III*, was instrumental in the development of a variety of assessment tools geared toward measuring trauma symptoms, and led to the development of scholarly journals devoted to the topic of trauma. These events, in turn, provided much of the information to be considered by the task forces dedicated to creating the *DSM-III-R*, which was published in 1987; the *DSM-IV*, which was published in 1994; and the *DSM-IV-TR*, which was published in 2000. Considerable changes to the diagnostic criteria for PTSD were introduced in these revisions. One striking difference was in the nature of the trauma that had to be experienced to receive this diagnosis. The trauma criteria in *DSM-IV-TR* now specify that the affected person had to experience, witness, or be confronted with an event(s) that involved actual or threatened death, serious injury, or a threat to the physical integrity of self or others. The person also had to experience intense fear, helplessness, and/or horror in response to the traumatic event or events.

These changes have considerably broadened the types of events that can be considered as precipitants to PTSD since the traumatic event did not have to be directly experienced by the individual with PTSD symptoms or be highly unusual or statistically infrequent. Consequently, PTSD has now been claimed to result after a variety of events, including a difficult labor (even with a healthy baby), a miscarriage, watching a traumatic event on TV, the shock of receiving

even inaccurate bad news from a doctor, learning that one's child has a chronic disease such as diabetes, and completing work duties as a policeman or fireman. Of particular relevance to forensic psychologists is the determination that PTSD can also occur as a result of automobile accidents or workplace injuries and even in response to hearing sexual jokes or experiencing verbal harassment. Compensation for traumatic symptoms resulting from these types of events is now routinely being sought through legal channels.

The symptom criteria for PTSD in *DSM-IV-TR* were also changed. To receive the diagnosis, the traumatized person is now required to report at least one reexperiencing symptom, three or more avoidant/numbing symptoms, and two or more symptoms of hyperarousal as a response to the traumatizing event. Moreover, according to the *DSM-IV-TR*, the traumatized individual has to experience these symptoms for at least 1 month, which is considerably less than the 6 months required for the PTSD diagnosis as specified in the *DSM-III*.

Another noteworthy addition is that PTSD is one of the few *DSM-IV-TR* diagnoses in which malingering is specifically identified as a necessary component of the differential diagnosis. Malingering has been defined as the intentional production of false or grossly exaggerated symptoms, as a result of external incentives. Therefore, clinicians assessing PTSD need to be able to rule out malingering as a diagnosis when financial remuneration and/or benefit eligibility are a part of their patient's clinical picture. For example, more than 90% of veterans experiencing PTSD symptoms seek financial compensation for their emotional distress. Determining which, if any, of these patients are malingering is difficult because most PTSD symptoms are obtained by self-report measures and easily feigned clinical interviews. Therefore, one of the major problems with the diagnosis is that many PTSD symptoms are nonspecific and subjective.

It is now recommended that symptom validity tests be routinely included in PTSD assessment procedures. Clinicians also need to be able to detect when a patient has been coached to report particular symptoms (i.e., by his or her attorney or by a family member), as malingering has been considered a threat to the therapeutic alliance and has been shown to have a significant negative economic impact. Detecting malingering may require clinicians to collect accurate historical records related to the trauma and to interview other family members about the patient and his or her symptoms. Clinicians may also need to ask for specific examples of reported symptoms, look for inconsistencies in the self-report, and obtain physiological measures of responses to trauma-related versus neutral stimuli, if possible. Efforts should also be made to determine how to best manage and/or treat patients who have, or are thought to have, exaggerated or feigned their PTSD symptoms, as this may be a relatively common event in some settings.

Prevalence of PTSD

The *DSM-IV-TR* indicates that the lifetime prevalence for PTSD is approximately 8% in the population of U.S. adults. Women are at significantly greater risk of developing PTSD than are men. However, estimates of the rates of the disorder in at-risk or high-risk populations have varied substantially. For example, among the survivors of the Oklahoma City bombing, only about 35% developed PTSD. There is also evidence that the prevalence of PTSD has been increasing across cultures, perhaps as a consequence of the broadened criteria for what constitutes a significant trauma. Since only a small number of individuals who experience trauma go on to develop PTSD, researchers have concentrated on delineating risk factors for developing the disorder. These include lower intelligence, experiences of childhood trauma and interpersonal violence, having a psychiatric diagnosis prior to experiencing the trauma, dissociation in the weeks following the event, use of avoidance rather than problem-focused coping strategies, a poor social support network, and perhaps having a genetic vulnerability to strong physiological reactions to stress. The national comorbidity study also identified a number of consequences associated with a diagnosis of PTSD. These included increased risk of developing other psychiatric disorders, committing suicide, failing school, experiencing a teenage pregnancy or marital difficulties, and having an unstable work history.

Issues Related to Diagnosing PTSD in Children and Other Special Populations

Diagnosing PTSD is especially difficult in children because they may not have experienced significant distress at the time of the event (i.e., in some cases of childhood sexual abuse). They may also have limited

verbal abilities, especially when they are very young, and may have little insight about their thoughts and feelings to offer the clinician. Children may also have a different symptom pattern that is not well represented by the adult criteria for PTSD. For example, it has been suggested that children may have longer durations of avoidance and fewer symptoms of reexperiencing (e.g., visual flashbacks) than adults have. Children may also be more likely than adults to mask their feelings of fear, helplessness, or horror with rage, hostility, refusal to go to school, and behavioral outbursts that may be more suggestive of conduct disorder than PTSD. Children may also report more concentration difficulties and cognitive changes posttrauma than adults do. Finally, some studies have shown that there are large numbers of children who have been exposed to a severe discrete trauma who fail to meet the full criteria for PTSD as specified for adults; yet these reactions were of sufficient severity to create a functional impairment for the child. Taken as a whole, these findings have led researchers, such as Michael Scheeringa and colleagues, to delineate an alternative set of criteria for PTSD that can be used with infants and very young children. The efficacy of these criteria is currently being considered.

Diagnosing PTSD in individuals who have suffered a traumatic brain injury is also controversial. Specifically, it has been questioned whether a person who has posttrauma amnesia for the traumatic event can receive a diagnosis of PTSD since these individuals also have no recollection of feeling helpless, fearful, or horrified in response to the trauma.

The symptom pattern of PTSD may also be different and more complex in individuals who have experienced a chronic stressor (such as childhood physical or sexual abuse or kidnapping and torture) as opposed to those who have experienced a discrete stressor. Some have argued that complex PTSD is better described by the *International Classification of Diseases*, 10th revision (*ICD–10*) diagnosis of *enduring personality change after catastrophic experience* than by the symptom pattern detailed for PTSD.

PTSD: Current Controversies

Many controversies currently surround the diagnosis of PTSD. As stated previously, there are differences of opinion about which types of trauma should be considered as significant enough to generate symptoms of PTSD. There is also debate about the number of symptoms needed for the diagnosis, with some experts arguing that significant impairment can still occur in individuals who fail to qualify fully for the diagnosis. Moreover, PTSD has been shown to have high rates of comorbidity with other diagnoses such as major depressive disorder, alcohol dependence, and other anxiety disorders. These may be due to the high degree of symptom overlap between PTSD and other disorders. For example, PTSD and depression share symptoms of insomnia, impaired concentration, social withdrawal, and diminished interest in or satisfaction from previously pleasurable activities. Similarly, PTSD and generalized anxiety disorder share symptoms of irritability, hypervigilance, exaggerated startle response, impaired concentration, insomnia, and autonomic hyperarousal. Thus, the degree to which there is an identifiable stress reaction has been questioned, and debate continues about how to differentiate a normal reaction to a horrific event from an abnormal reaction to a horrific event, such that it would constitute a psychological disorder. Additionally, PTSD is theorized to have a dose-response relationship with experienced trauma, such that more severe stressors are thought to be associated with worse symptoms and a greater likelihood of receiving the diagnosis of PTSD. While some researchers have found evidence in support of this relationship, data from other studies have failed to establish a linear relationship between the severity of the trauma experienced and the likelihood of experiencing PTSD symptoms.

The development of a theoretical model for what causes PTSD to occur in some but not all individuals has also engendered debate, as the prevalence of PTSD is rather rare (between 1% and 8% of the general population) relative to the number of Americans known to have been exposed to a sufficiently severe and potentially traumatizing stressor (estimates suggest 66% or more of the general population). These findings have led researchers to conclude that trauma is necessary but not sufficient to cause PTSD and that the person's subjective experience of and attributions about the trauma may be as important as the event itself.

Another controversy that surrounds the diagnosis of PTSD has focused on the validity of recovered memories of trauma. For example, if recovered memories of childhood sexual abuse are not accurate, then can they cause PTSD? Additionally, studies have shown that trauma memories change across time, are dynamic rather than static, and are related to a person's current clinical state.

Last, further concern has been generated with regard to the efficacy of using early psychological

interventions to promote recovery from posttraumatic stress. Data have accumulated that suggest that routine, one-shot psychological debriefing after trauma may not augment the recovery process and, in some cases, may actually impede it. Therefore, controversy about what constitutes a best-practice prevention effort for PTSD is ongoing.

Jennifer Langhinrichsen-Rohling and Martin Langhinrichsen-Rohling

See also Coping Strategies of Adult Sexual Assault Victims; False Memories; Forensic Assessment; Malingering

Further Readings

McNally, R. J. (2003). Progress and controversy in the study of posttraumatic stress disorder. *Annual Review of Psychology, 54,* 229–252.

Mizey, G., & Robbins, I. (2001). Usefulness and validity of post-traumatic stress disorder as a psychiatric category. *British Medical Journal, 323,* 561–563.

Perrin, S., Smith, P., & Yule, W. (2000). Practitioner review: The assessment and treatment of post-traumatic stress disorder in children and adolescents. *Journal of Child Psychology and Psychiatry, 41*(3), 277–289.

Rosen, G. M. (2004). *Posttraumatic stress disorder: Issues and controversies*. Chichester, UK: Wiley.

Rosenbaum, L. (2004). Post-traumatic stress disorder: The chameleon of psychiatry. *Nordic Journal of Psychiatry, 58,* 343–348.

Tierney, J. A. (2000). Post-traumatic stress disorder in children: Controversies and unresolved issues. *Journal of Child and Adolescent Psychiatric Nursing, 13*(4), 147–158.

Presence of Counsel Safeguard and Eyewitness Identification

The presence-of-counsel safeguard, provided by the Sixth Amendment of the United States Constitution, guarantees every defendant the right to an attorney both at trial and during pretrial proceedings, including live, postindictment lineups. The presence of an attorney at live, postindictment lineups serves to protect defendants from erroneous convictions resulting from mistaken eyewitness identifications by allowing attorneys to attend pretrial identifications, advise their client of their legal rights and obligations, oppose the use of suggestive lineup procedures, and observe and record any suggestive procedures used during the identification test. Research has examined attorney behavior to determine the effectiveness of this safeguard.

The effectiveness of the presence-of-counsel safeguard rests on several psychological assumptions about attorney behavior. Specifically, for the presence-of-counsel safeguard to be effective, attorneys must be knowledgeable about factors that influence lineup suggestiveness and be able to recognize these factors when present in an identification test. Furthermore, this safeguard is effective only if attorneys attend their clients' lineups and document any suggestive factors to support a motion to suppress the identification evidence or challenge the identification through cross-examination at trial.

How effective is the presence-of-counsel safeguard? Although a number of studies have examined attorney knowledge and opinions of the factors influencing eyewitness memory and identification accuracy, to date, only one study has examined attorney sensitivity to factors present in lineups and known to influence eyewitness identification accuracy.

Veronica Stinson and colleagues assessed attorney sensitivity to lineup suggestiveness by creating a videotaped lineup wherein aspects of the lineup known to produce higher rates of false identifications were manipulated. These lineup features included the individuals presented along with the suspect, called foils (biased vs. unbiased); the instructions given to the eyewitness (biased vs. unbiased); and the presentation of the lineup members (simultaneous vs. sequential). Prior to viewing one version of the videotaped lineup, attorneys were instructed to assume that the suspect in the videotaped lineup was their client, and they were provided with a photograph of the person suspected of the crime along with a written description of the eyewitness's memory of the event and of the perpetrator. After viewing the lineup, attorneys evaluated the suggestiveness and fairness of the overall lineup procedure and of the foils, instructions, and presentation of the lineup. Attorneys were also asked to indicate the likelihood that they would file a motion to have the identification suppressed at trial.

The results indicated that attorneys are effective in safeguarding their clients from foil-biased lineup procedures. Attorneys, however, may not fully safeguard their clients from instruction-biased lineup procedures. Although attorneys appeared to be sensitive to the harmful effects of instruction bias and to recognize biased instructions in a lineup procedure, they did not believe that biased instructions reduced the fairness of

the lineup. Furthermore, attorneys reported that they would be unlikely to file a motion with the court to suppress the identification when the lineup instructions are biased. Research, however, has shown that judges are more likely to grant a motion to suppress an identification when the lineup instructions are biased than when they are unbiased. Finally, attorneys lacked knowledge regarding the beneficial effects of sequentially presented lineups, suggesting that they are unable to effectively safeguard their clients from presentation-biased lineup procedures.

Although this study would suggest that attorneys are somewhat sensitive to factors influencing lineup suggestiveness, the presence-of-counsel safeguard is effective only if attorneys are actually present at their client's postindictment lineups. Surveys of attorneys and police officers, however, suggest that defense attorneys are rarely present at the construction or presentation of their clients' identification tests. Thus, the effectiveness of the presence-of-counsel safeguard may be limited not only by attorney knowledge of and sensitivity to factors influencing lineup suggestiveness but also by the absence of attorneys at their clients' lineups.

Jennifer L. Devenport

See also Eyewitness Memory; Identification Tests, Best Practices in; Instructions to the Witness; Lineup Filler Selection; Lineup Size and Bias; Motions to Suppress Eyewitness Identification; Simultaneous and Sequential Lineup Presentation; Wrongful Conviction

Further Readings

Brigham, J. D., & Wolskeil, M. P. (1983). Opinions of attorneys and law enforcement personnel on the accuracy of eyewitness identification. *Law and Human Behavior, 7,* 337–349.

Potter, R., & Brewer, N. (1999). Perceptions of witness behaviour-accuracy relationships held by police, lawyers and mock-jurors. *Psychiatry, Psychology, and Law, 6,* 97–103.

Stinson, V., Devenport, J. L., Cutler, B. L., & Kravitz, D. A. (1996). How effective is the presence-of-counsel safeguard? Attorney perceptions of suggestiveness, fairness, and correctability of biased lineup procedures. *Journal of Applied Psychology, 81,* 64–75.

Wogalter, M. S., Malpass, R. S., & McQuiston, D. E. (2004). A national survey of U.S. police preparation and conduct of identification lineups. *Psychology, Crime, & Law, 10,* 69–82.

Presentence Evaluations

Presentence evaluations are those assessments conducted prior to the sentencing stage of proceedings to assist the court in making an appropriate disposition. Individual differences in crimes, criminals, and circumstances justify the need for personalized sentences in each case. Mental health professionals, probation officers, and social workers are among those in the forensic field called on to conduct these assessments. This entry explores the importance of presentence assessments, the content of such assessments, and standards of practice in completing high-quality assessments.

Historically, the goals of punishment were retribution, incapacitation, and general deterrence. These objectives do not require in-depth knowledge of the offender. However, with the aims of reform and rehabilitation came a need for further information regarding the offender prior to imposing a sentence. Indeed, some scholars have suggested that the sentencing decision may be the most important decision made about a defendant in the entire court process. It is now common practice for the court to order the completion of a presentence report to assist the court in making an appropriate disposition. Probation officers are frequently involved in the preparation of these reports; however, if mental health issues arise, the mental health professional may be called on to complete an assessment at this stage. The ordering of such evaluations varies in different jurisdictions, and consistent criteria do not exist. Some information suggests that judicial decisions to order assessments at this stage may be influenced by the judge's commitment to rehabilitation or retribution.

Specific requests made by the court will dictate the focus of these evaluations, and the content of reports will vary depending on the needs of the court as well as of practitioner called on to conduct the evaluation. The specific role of the mental health professional will be in providing information relating to culpability, which would include aggravating and mitigating factors in offending; risk assessment, such as risk management strategies; and mental status and treatability assessments, including identifying specific and appropriate treatment needs of the offender and an evaluation of the treatability of the offender. Indeed, judges have requested that the examiner inform the court why a particular recommendation is needed,

what form it should take, and what impact it is likely to have on the offender.

When mental health professionals are called on to conduct an assessment of the accused at this stage of proceedings, the report is likely to follow a fairly standard format that typically includes a review of the following: (a) personal and family data, including information regarding the offender's childhood, school, employment, relationships, substance use, and mental and physical health; (b) offense information, which moves beyond a simple recounting of events to include motivation for the offense and the defendant's attitude toward the offense; (c) a review of criminal history, including juvenile adjudications, past response to corrections, and criminal behaviors not resulting in arrest; (d) an evaluation of the accused, which may include the results of testing as well as a current mental status assessment; (e) a risk assessment; and (f) conclusions including recommendations and risk management strategies.

There has been relatively little research on judge's views of presentence reports. That research that has been conducted appears to have asked the question generally instead of focusing on specific reports. Although responses have been favorable in many cases, those criticisms that do exist focus on the unrealistic recommendations made and the jargon used in reports. Indeed, research suggests the need to tie the content of the report to its purpose—that is, to concentrate on issues relevant to understanding the offending behavior and considering constructive responses to it. In doing so, the examiner should also consider the seriousness of the offense, as this has been a criticism of past reports. Furthermore, reports should make use of appropriate language free from jargon, prejudicial or stereotypical language, and spelling and grammatical errors. In addition, standards of practice would require providing thorough but concise information in a logical format and presenting information from a variety of sources including, but not limited to, a file review of police records, court transcripts, and criminal record; an interview with the offender, including testing information; and interviews with collateral sources, such as family members, spouses, employers, and other relevant community contacts. Additionally, the offender may be asked to sign release forms so that records may be obtained from various community agencies with which the accused has had prior contact, including hospital and community mental health centers, substance abuse treatment programs, and community corrections.

Despite some criticism, presentence evaluations or the recommendations such assessments provide appear to play a prominent role in sentencing decisions. As such, providing reports of consistent quality is of paramount importance because failure to do so may contribute to inequality in outcomes. There is a need for further research to examine the quality of these assessments and the impact they have in sentencing offenders. Such information will assist the examiner in providing evaluations of the highest quality and help ensure that these evaluations meet the needs of the court.

Karen E. Whittemore

See also Forensic Assessment; Probation Decisions; Risk Assessment Approaches; Violence Risk Assessment

Further Readings

Andrews, D. A., Bonta, J. Y., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior, 17,* 19–52.

Heilbrun, A. B. (1999). Recommending probation and parole. In A. K. Hess & I. B. Weiner (Eds.), *The handbook of forensic psychology* (2nd ed., pp. 303–326). New York: Wiley.

Melton, G. B., Petrila, J., Poythress, N. G., & Slobogin, C. (1997). *Psychological evaluations for the courts: A handbook for mental health professionals and lawyers* (2nd ed.). New York: Guilford Press.

Rogers, R., & Mitchell, C. N. (1991). *Mental health experts and the criminal courts*. Toronto, ON, Canada: Carswell.

Pretrial Publicity, Impact on Juries

When a trial is deemed newsworthy by the press, it is likely that information about the nature of the allegations, the character of the defendant, or other case-relevant information is reported in the media. Although the First Amendment to the Constitution guarantees the right to free speech and a free press, there is concern among the courts and scholars that providing information about a case to potential jury members before a trial may bias the jury pool by creating negative perceptions of the defendant and

entrenching jurors' opinions about the defendant's guilt before they hear the evidence that is introduced at trial. Empirical research suggests that exposure to pretrial publicity causes jurors to be more conviction prone, especially when the publicity is designed to elicit an emotional response rather than present facts. Results from trial simulation studies suggest that traditional remedies for the negative influence of pretrial publicity on juror decisions, including voir dire, judicial instruction, and continuances, may not be effective in eliminating bias.

Effects of Pretrial Publicity on Juror Decisions

Some of the information provided to the general public, such as comments on the defendant's character, discussion of a defendant's prior criminal record, or presentation of evidence against the defendant (e.g., a confession made by the defendant), may create bias in a potential jury member and prevent him or her from hearing the case fairly. In fact, some of the evidence that the media report pretrial may be ruled inadmissible at trial. A community member exposed to inadmissible evidence via pretrial publicity (PTP) may be unable to put aside or ignore the prohibited information if he or she is chosen to serve as a juror for the case. These kinds of biases violate the defendant's Sixth Amendment right to a fair and impartial jury.

Researchers have typically examined the effects of PTP through field studies and experimental studies. In field studies, PTP is assessed by surveying community members from the venue in which a case will be tried regarding the extent of their exposure to media regarding the case, the information they know or remember about the case, and their perceptions of the defendant's guilt. Similar information is obtained from community members in other venues to which the case may be moved, generally locations in which the media coverage of the case was less or nonexistent. Knowing this information, researchers can compare both the amount of PTP and the perceived guilt of the defendant between the different venues. The relationship between PTP exposure (as reported by the community members) and pretrial judgments of the defendant's guilt can also be examined. In general, field studies have shown that community members who reside in the venue in which the trial is to be held and therefore have received the most PTP exposure possess significantly more biased attitudes against the defendant than community members in remote venues. Field studies have the benefit of studying PTP in naturally occurring environments; however, this method also has its shortcomings. Field studies cannot estimate the effects of PTP after the presentation of evidence, its processing, and deliberation with other jurors. Experimental methods are needed to make such assessments.

As opposed to field studies, experimental studies are typically conducted in a laboratory in which the nature and extent of PTP are manipulated while holding other variables constant. Typically, after exposure to PTP, participants watch a trial stimulus and are asked to judge the guilt of the defendant, either on their own or after deliberation with other mock jurors. The effects of varying levels of PTP on verdict choices are examined. The primary advantage of experimental methods is the ability to make causal conclusions about the effects observed. However, experimental studies have often used relatively artificial PTP exposure, as well as undergraduate college students as participants, and therefore have been criticized for their low ecological validity.

In general, experimental research indicates that PTP negatively influences perceptions of the defendant; as more pieces of prejudicial information are presented pretrial, jurors' pretrial perceptions of the defendant become more negative. The prejudicial impact of the PTP persists even after jurors hear trial evidence. Mock jurors who are presented with negative PTP are more likely to find the defendant guilty than jurors who are not presented information pretrial. The prejudicial effect of PTP has been found in both criminal and civil cases and is greater when the PTP is emotionally based (e.g., graphic details of a brutal rape) rather than factual (e.g., details of the defendant's past criminal history). Furthermore, research indicates that even publicity that is topically, but not directly, related to a case (known as general PTP) can influence jurors' evaluations of trial evidence as well as their verdict choices.

Potential Remedies for Prejudicial Effects of PTP

The American Bar Association recognized the harm that prejudicial PTP can cause and has suggested a number of methods to counteract its effects, including voir dire, judicial instruction, continuance, and change of venue. Unfortunately, research has failed to

show that most of these methods successfully decrease the effects of PTP on juror judgments.

One of the most common methods used to combat PTP effects is voir dire. During voir dire, attorneys and/or judges question potential jurors about biases they may hold that would prevent them from hearing the case fairly. When PTP is a concern, the judge has the option to extend voir dire questioning to uncover any juror bias that may be the result of exposure to PTP. Empirical research, however, has identified several issues concerning voir dire that prevent its effectiveness. Research has shown that attorneys' ability to uncover general juror bias is limited. It may be difficult to identify biased jurors in part because attorneys must rely on jurors to self-report their bias, and jurors may lack the ability to recognize the factors that influence their decision making, including exposure to PTP. Exacerbating the problem of self-report is jurors' motivation to answer voir dire questions in socially desirable ways, feeling a responsibility to the court to remain unbiased. Although it is possible that voir dire may be a vehicle for encouraging jurors to set aside their biases, research thus far has failed to show its effectiveness in reducing the bias produced by PTP exposure.

Another potential remedy for PTP effects is judicial instruction to jurors about their duty to avoid being influenced by PTP. The instructions emphasize the importance of disregarding previously heard information about the case and relying solely on the information presented during the trial. Although research has shown that jurors generally do not follow judicial instructions to disregard information, these instructions have been found to be more effective when paired with a rationale for why the information should be disregarded. Early research found support for judicial instructions as a remedy for PTP; however, the methodologies of these early studies have been criticized. Methodologically sound research is yet to provide support for the usefulness of these instructions.

Continuance—delaying the start of a trial—has been used as a remedy to PTP, with the hope that the effects of PTP will decrease as time passes since the last exposure to the prejudicial media. Research on continuance is limited, but some studies have indicated that the passage of time can decrease the effects of factual PTP but not emotional PTP. A meta-analysis, however, suggests that longer delays between PTP and a trial can actually increase PTP effects. These findings may be due to a sleeper effect—the tendency of unreliable information to become more influential over time because the information becomes detached from the unreliable source in memory. Similarly, information presented in PTP may be difficult to disregard even when jurors are instructed to do so, because the information becomes separated from its source over time, making it impossible for jurors to identify which information in memory came from the trial evidence and which information came from PTP.

Finally, a trial may be moved from one venue to another that is less saturated by PTP in an attempt to minimize the effects of PTP on juror judgments. Empirical research shows that a change of venue is the most effective way to remedy PTP effects, as studies have found that jurors in areas more heavily saturated by PTP are more biased in support of the prosecution and against the defendant than jurors in areas less saturated by PTP. It has been argued that in extremely high-profile cases, finding a venue where potential jurors have not been tainted by PTP is impossible. However, content analyses of actual media coverage have shown that even in highly publicized cases such as the Oklahoma City bombing, alternative venues with little, or at least reduced, PTP can be found. Thus, even if a change of venue cannot eliminate PTP effects, it may be able to reduce them.

Psychological Consultation in PTP Cases

When a defendant believes that community members have been exposed to a significant amount of PTP concerning the case, his or her counsel may file a motion to seek remedies to counteract the bias that may result from the prejudicial information. When such motions are filed, either side may call an expert who may provide testimony to the judge making determinations about whether to implement any remedies, such as expanded voir dire or a change of venue. The expert may testify about experimental psychological research on PTP, including the negative impact it has on jurors' perceptions of the defendant and on verdict decisions. The expert may make comparisons between the types of PTP used in research and the types of publicity that have been released in the current case. The expert may also testify about experimental research testing the effectiveness of the suggested remedies. Although research indicates that most traditional remedies besides change of venue are ineffective, judges themselves report a strong belief in the effectiveness of remedies such as extended voir dire and judicial instruction.

Additionally, when experts are testifying in a change-of-venue hearing, they may provide the court with data they have collected to assess the level of prejudice in that particular case by comparing the responses from community members in the current venue with community members' reports of bias in alternative venues. The expert may present differences in the amount of PTP exposure reported by community members, their level of knowledge about case facts, and their perceptions of the defendant's character and likelihood of guilt as a function of the community in which the respondents live. Additionally, the expert may present results from content analyses of the quantity and quality of PTP in the current venue as well as possible alternative venues. The expert may then testify about differences in media exposure between the communities, including the number of articles reporting on the case, the types of prejudicial information divulged, and the amount of emotional PTP in each of the venues.

PTP continues to be a concern to defendants, the courts, and researchers. Research has consistently demonstrated that exposure to negative information about the defendant pretrial affects jurors' perceptions of the defendant, that these negative perceptions persist even after trial evidence is presented, and that these perceptions have been shown to influence jurors' verdict decisions. Additionally, many of the most commonly implemented remedies to counteract PTP have proved to be ineffective when empirically tested. Of the remedies, change of venue seems to be the best method for reducing the negative effects of PTP. Expert testimony addressing these research findings as well as results from surveys assessing the communities' level of prejudice against the defendant may assist the courts in their quest to provide the defendant with a fair and impartial jury.

Sarah Greathouse, Julia C. Busso, and Margaret Bull Kovera

See also Inadmissible Evidence, Impact on Juries; Juries and Judges' Instructions; Jury Selection; Public Opinion About Crime; Trial Consulting; Voir Dire

Further Readings

Bornstein, B. H., Wisenhunt, B. L., & Nemeth, R. J. (2002). Pretrial publicity and civil cases: A two-way street? *Law and Human Behavior, 21,* 3–17.

Dexter, H. R., Cutler, B. L., & Moran, G. (1992). A test of voir dire as a remedy for the prejudicial effects of pretrial publicity. *Journal of Applied Social Psychology, 22,* 819–832.

Kovera, M. B. (2002). The effects of general pretrial publicity on juror decisions: An examination of moderators and mediating mechanisms. *Law and Human Behavior, 26,* 43–72.

Lieberman, J. D., & Arndt, J. (2000). Understanding the limits of limiting instructions: Social psychological explanations for the failures of instructions to disregard pretrial publicity and other inadmissible evidence. *Psychology, Public Policy and Law, 3,* 677–711.

Steblay, N. M., Besirevic, J., Fulero, S. M., & Jiminex-Lorente, V. (1999). The effects of pretrial publicity on juror verdicts: A meta-analytic review. *Law and Human Behavior, 23,* 219–235.

Studebaker, C. A., & Penrod, S. D. (2005). Pretrial publicity and its influence on juror decision making. In N. Brewer & K. D. Williams (Eds.), *Psychology and law: An empirical perspective* (pp. 254–275). New York: Guilford Press.

Studebaker, C. A., Robbennolt, J. L, Penrod, S. D., Pathak-Sharms, M. K., Groscup, J. L., & Davenport, J. L. (2002). Studying pretrial publicity effects: New methods for improving ecological validity and testing external validity. *Law and Human Behavior, 26,* 19–41.

Prison Overcrowding

With well over 2 million individuals confined in jails and prisons in the United States, it is easy to understand why the federal prison system and 24 state prison systems were above their rated capacity at the end of 2004. The data supplied by the Bureau of Justice Statistics revealed that the federal prison system had the highest rate of overcrowding in 2004 (140%), but this was only because states such as Alabama, California, Delaware, and Illinois housed a significant portion of their inmate populations in private and contract facilities. Local and county jails held 747,529 offenders in mid-2005, which represents approximately one third of the incarcerated population. These facilities were at 95% capacity, although this figure is deceptive because research indicates that smaller jails often operate well below their rated capacity, whereas larger metropolitan jails often operate well above their rated capacity.

Prison overcrowding is of particular interest in the United States, in part because of the number of people

who are confined in American jails and prisons and in part because of several well-known court cases in which states have been ordered to improve the conditions of confinement to include alleviating overcrowding. However, prison overcrowding is neither a particularly new nor an exclusively American problem. With the advent of the prisoners' rights movement in the early 1970s, prison conditions have come under increased scrutiny. One such area of increased scrutiny is the degree to which the inmate population exceeds the rated capacity of the institution in which it is housed. Furthermore, concerns about prison overcrowding extend beyond the borders of the United States. Canada, Great Britain, and the Scandinavian countries have recently raised concerns about prison overcrowding, and many nations in Africa, Asia, and South America have prisons that are more crowded than those in the United States.

Measurement

Prison overcrowding has traditionally been defined by density (i.e., the proportion of inmates to rated capacity of an institution; the ratio of single cells to multiple-person cells). A distinction can be drawn, however, between overcrowding and density. Whereas overcrowding is a psychological condition based on a perception of limited space by an incarcerated individual, density is a physical condition, such as the ratio of inmates to available space in an institution. There are two forms of density: spatial density and social density. Spatial density, the measure most often used in prison-overcrowding research, is normally calculated as the proportion of inmates in an institution or prison system to the available space as established by the rated capacity of the institution or system. Prison and jail officials often consider their institutions overcrowded when they exceed 80% of the rated capacity. Social density, on the other hand, is measured by the amount of double and triple bunking found in a correctional institution. Research indicates that inmate health problems and violence may rise as social density increases.

Causes

The overriding cause of prison overcrowding is fairly obvious: The number of inmates exceeds the spatial and social capacity of correctional institutions and prison systems to house these inmates. On the other hand, the underlying cause of this surplus of inmates is less apparent. Several sets of factors appear to have contributed to the growth of jail and prison populations in the United States and other parts of the world. One important factor, at least in the United States, is a punitive public. Many people in the United States want to see those who violate society's rules punished for their actions. Politicians frequently comply with the public's demand for greater punishment because they do not want to appear weak on crime. Accordingly, they introduce legislation that provides for mandatory, determinate, or longer sentences; reduces good-conduct time credit; and restricts or eliminates early-release programs such as parole.

In addition to the legislative response of politicians and policymakers to a punitive public, there are several other factors that may contribute to prison overcrowding. Drug use is instrumental in a quarter to a third of all new jail and prison admissions and is the leading cause of parole and conditional release violation. As such, drugs are both directly and indirectly (harsher sentences for drug offenses) linked to prison overcrowding. Demographic changes contribute to prison overcrowding, as exemplified by the crime explosion of the mid-1960s when the baby boomers were in the age range most conducive to crime (late teens to mid-20s). Over time, prisons age and become less efficient; some may even be closed. This places an increased burden on existing facilities and adds to the growing overcrowding problem. With advances in technology, law enforcement may become more efficient, which could potentially increase the jail and prison populations and contribute to prison overcrowding.

Consequences

The most frequently mentioned consequence of prison overcrowding is aggression. Early research on overcrowding in rodents indicated that mice and rats raised in a crowded environment were more violent, stressed, and diseased than mice and rats raised in an uncrowded environment. Studies conducted on prison overcrowding, however, have yielded mixed results. In some studies, prison overcrowding has been found to correspond to an increase in future disciplinary problems, particularly aggression. In other studies, prison overcrowding has failed to correlate with aggressive and nonaggressive disciplinary problems.

In still other studies, prison overcrowding is associated with a noticeable decline in future aggressive and nonaggressive disciplinary problems.

There are several possible explanations for these inconclusive and sometimes anomalous findings. First, because younger individuals often have trouble avoiding getting disciplinary reports in prison, it is possible that changes in the age structure of the prison or the practice of housing older and younger prisoners in separate facilities could influence the results of overcrowding research. Second, most of these studies overlook the positive or ameliorative effects that may reduce the negative impact of prison overcrowding. When researchers examine the effect of educational, occupational, and psychological programming on prison-based aggression, they frequently find that these positive pursuits can have a calming effect. Both these factors, age and positive influences, suggest that a systems approach should guide research on prison overcrowding.

Aggression and disciplinary problems may be the principal outcome measures used in research on prison overcrowding, but they are not the only possible consequences of overcrowding. Additional consequences of prison overcrowding include reduced recreation time for prisoners, decreased access to health and mental health care, poor staff morale, increased facility maintenance costs, diminished institution security, and fewer opportunities for inmates to learn trades and attend school. These consequences, as well as the possibility of a rise in future aggression, illustrate the importance of finding a solution to the problem of overcrowding. A solution may not be immediately forthcoming, but by paying close attention to the systemic nature of prison overcrowding a solution, or combination of solutions, may well be found.

Solutions

Potential solutions to the problem of prison overcrowding can be divided into three general categories: administrative responses, front-end strategies, and back-end strategies. The most common administrative response is to build more prisons, although this is an expensive proposition that may fail to produce its desired effect. Prison construction will have little impact on prison overcrowding if the problem resides with the jail and its inability to manage pretrial and short-sentence inmates. Other administrative responses that could potentially offer a solution to the overcrowding problem include converting existing prison and nonprison facilities into inmate housing units, double and triple bunking, transferring inmates to private or contract facilities, and achieving greater multiagency communication and cooperation.

Front-end strategies are designed to manage prison overcrowding by reducing the number of new inmates entering the prison system. One of the most obvious front-end strategies is to prevent crime before it occurs. Even when crime does occur, incarceration may not always be the best option. Diversion programs that call on the individual to perform community service and the use of special drug and mental health courts can relieve overcrowding by diverting individuals who commit nuisance and petty crimes away from the prison system and into programs tailored to their individual needs. House arrest, intensive probation supervision, and drug surveillance in lieu of incarceration are additional ways to manage first-time offenders convicted of nonviolent crimes without resorting to incarceration and adding to the already burgeoning correctional rolls.

Back-end strategies help reduce prison overcrowding by releasing individuals from prison months or even years before their statutory release dates. Releasing inmates to halfway houses 6 to 12 months before their scheduled release can help ease prison overcrowding while maintaining some modicum of supervision over the inmate. If an individual does well in the halfway house, then the next logical step would be home confinement with monitoring provided by an electronic bracelet or similar surveillance device. Early release through parole is another back-end strategy capable of alleviating prison overcrowding. Allowing incarcerated offenders to earn good-time credit every month for good behavior, which would then move the offender's release date up, is another example of how prison overcrowding can be reduced with a back-end strategy.

Future Research

Prison overcrowding research, practice, and policy could benefit from a number of alterations in how the field is conceptualized and studied. First, several researchers have recommended a systems approach to research on prison overcrowding. A systems approach would show that new prison construction may not always be the solution to prison overcrowding. Not only is new prison construction expensive, but it also

fails to address issues such as pertinent overcrowded jails, excessive sentences, and distinguishing between those who require incarceration and those who can be managed in a less restrictive environment. The systems approach also suggests that resolving prison overcrowding will require cooperation and to some extent integration of the three primary approaches to reducing prison overcrowding: namely, administrative responses, front-end strategies, and back-end strategies.

Much of the research on prison overcrowding has taken a molar approach to the problem of overcrowding by using aggregate data from prisons or entire prison systems. Although this has shed light on the causes and consequences of prison overcrowding and pointed out possible solutions, it also has limitations. In recent years, researchers have called for more research on individual-level factors that may moderate the consequences of overcrowding. The few studies that have been conducted on this issue have produced potentially important findings, such as the fact that some white inmates, particularly those who were raised in rural areas, are more likely to perceive prison conditions as overcrowded than black inmates, who are often raised in more crowded urban environments. Another interesting line of research suggests that individuals who interpret or misinterpret behavior as aggressive are more likely to perceive the prison environment as overcrowded.

Adopting a systems approach to research on prison overcrowding and including individual-level moderator variables in the analysis may enable us to better understand prison overcrowding and its effect on the inmates and staff who live and work in correctional institutions and attain a firmer grasp of how overcrowding can be effectively managed in the correctional environment.

Glenn D. Walters

See also Drug Courts; Public Opinion About Sentencing and Incarceration

Further Readings

Davis, R. K., Applegate, B. K., Otto, C. W., Surette, R., & McCarthy, B. J. (2004). Roles and responsibilities: Analyzing local leaders' views on jail crowding from a systems perspective. *Crime and Delinquency, 50,* 458–482.

Gaes, G. G., & McGuire, W. J. (1985). Prison violence: The contribution of crowding versus other determinants of prison assault rates. *Journal of Research in Crime and Delinquency, 22,* 41–65.

Harrison, P. M., & Beck, A. J. (2005, October). *Bureau of Justice Statistics Bulletin: Prisoners in 2004*. Washington, DC: Bureau of Justice Statistics.

Kinkade, P., Leone, M., & Semond, S. (1995). The consequences of jail crowding. *Crime and Delinquency, 41,* 150–161.

Lawrence, C., & Andrews, K. (2004). The influence of perceived prison crowding on male inmates' perception of aggressive events. *Aggressive Behavior, 30,* 273–283.

Paulus, P. B. (1988). *Prison crowding: A psychological perspective*. New York: Springer-Verlag.

Vaughn, M. S. (1993). Listening to the experts: A national study of correctional administrators' responses to prison overcrowding. *Criminal Justice Review, 18,* 12–25.

Probation Decisions

Probation officers' decisions affect the legal experiences and case outcomes of a substantial number of defendants and offenders. Probation officers exercise discretion and use subjective judgments and standardized assessment tools in making decisions that influence the dispositions of criminal cases and offenders' progress under community supervision. Probation officers serve the court by providing judges with information, protect the community by enforcing the conditions of probation, and assist offenders to reintegrate into the community by brokering services and other resources. Probation officers make decisions at the pretrial, presentence, and postsentence stages of the criminal justice process.

Pretrial Decisions

At the pretrial level, probation officers evaluate defendants for release on bail or pretrial supervision, which allows them to remain free while their case is pending. The evaluation process focuses on defendants' risk of flight and their likelihood of continuing their criminal activity. Probation officers collect information on a variety of factors that are related to offenders' ties to the community and their propensity to continue their criminal activity. Officers use interviewing techniques and data collection forms as the basis for their judgments. They must decide whether to recommend pretrial release and, if so, whether to

recommend a bail amount or conditions of pretrial supervision, including curfews, home confinement, and drug testing. They also must decide what constitutes an infraction or violation of those conditions and how to respond to the infraction—for example, asking the judge to issue a warrant for a person's arrest and ordering that the person be detained in jail until the case is heard in court.

Presentence Decisions

When the case proceeds to the trial or plea bargaining stage, probation officers help judges render sentences through presentence investigation (PSI) reports. Judges order presentence investigations, mostly in felony cases, to obtain background information that will guide them in imposing the most appropriate sanction. In particular, PSIs assist judges in ascertaining whether prison is an appropriate sentence in light of the crime and the offender's criminal and social history. Information in a PSI places the offense in a larger context that informs the judge in determining whether probation is a sufficiently punitive and fitting alternative to incarceration.

To obtain information for PSIs, probation officers interview offenders; review their criminal, educational, and military records; and contact family members and others who know important details about the offender's life. The PSI report presents the judge with the offender's comprehensive social, criminological, and psychological profile. The report covers the offender's history of treatment for medical, psychiatric, and substance use disorders as well as the circumstances of the offense. In addition, it covers his or her social and family relationships, present living conditions, and financial and housing status.

The PSI report also describes the resources available to help people who might be sentenced to probation and contains specific sentencing recommendations, if requested by the court or required by the statute. A probation officer can present his or her opinions regarding the offender's motivation and readiness to change and the circumstances surrounding the offender's criminal involvement. The PSI formulates an appropriate supervision or treatment plan, and if the person is sentenced to prison, it helps prison administrators decide whether the person should be placed in a minimum-, medium-, or maximum-security facility. Probation officers exercise discretion when conducting a PSI, deciding what questions to ask, how to ask the questions, what details to include in or exclude from the report, and whether the offender will be better served by probation or imprisonment.

Probation officers display their own particular styles in the PSI information-gathering process. For example, the officer whose style reflects a social work orientation might focus on psychological data, whereas the officer oriented toward rule enforcement might focus on the offender's criminal record and current charges. Individual differences among officers and variations in department standards produce wide disparities in the manner in which presentence investigations are prepared by officers and used by judges.

Postconviction Decisions

Probation requires offenders to be supervised in the community under conditions of release. All probationers are subject to statutorily mandated or standard conditions of release, such as reporting to their probation officer and getting permission from the sentencing judge to leave the jurisdiction. They also are prohibited from owning a gun. An arrest on probation constitutes a violation that could result in a prison sentence. The special conditions of probation can be punitive (paying restitution) or rehabilitative (attending drug treatment) and are designed to respond to the particular facts of the case or needs of the offender. Probation officers are responsible for enforcing the conditions of probation and reporting to the court violations of probation.

Shortly after an offender is sentenced to probation, probation officers conduct an intake interview to assess an offender's risk and needs. Risk assessment strategies evaluate the likelihood that an offender will be rearrested while on probation, whereas need assessment strategies evaluate offenders' problems and needs for services in areas such as addiction, mental health, and employment. Probation officers use case classification tools that structure their decisions about case management strategies. These tools contain static (age, instant offense, and number of previous convictions) and dynamic (employment, educational level, and substance use disorders) factors. The most common tool, the Level of Service Inventory–Revised, examines both dynamic and static variables to classify cases for supervision and services.

In the intake assessment process, probation officers must determine the degree to which offenders are likely to recidivate and identify which members of their caseloads pose a threat to public safety. Based on this determination, officers devise and implement a

supervision strategy that monitors probationers at a level commensurate with their likelihood of future criminal activity. The officer's duty as a control agent is to ensure that the conditions of probation are fully satisfied, investigate reports or indications of behavior that could jeopardize the safety of others, and initiate probation revocation proceedings to remove offenders from the community for failing to comply with the conditions of their probation sentence.

The reintegration of offenders into the community requires an evaluation of probationers' needs and an identification of their major problem areas and deficiencies. The purpose of the evaluation is to formulate a treatment plan that will encourage offenders to fulfill the probation contract. Officers act as counselors in their efforts to rehabilitate offenders. The probation officer's basic function in this area is to support the probationer in making important transitions: from law-abiding free citizen to convicted offender under supervision, and finally a return to free citizen.

Although probation officers are usually the principal change agent in offenders' lives, they are often unable to deliver all the interventions necessary to accomplish the successful reintegration of offenders. Limited departmental programs and personnel and large caseloads demand the use of community resources. The probation officer as resource broker assesses the service needs of the probationer, locates the social service agencies that address those needs, refers the probationer to the appropriate program, and verifies that the probationer has actually received services. The officer is responsible for facilitating the delivery of services that are unavailable in the community.

Probation officers perform a number of tasks throughout the probation process to protect the community and foster offender change. The supervisory decision, which is central to the surveillance or control aspect of probation, consists of two components. The first component pertains to the frequency with which a probationer reports to the officer. Although limited by legal statute and specified at the time of sentencing, the frequency of contacts is typically modified in accordance with the court's or officer's assessment of the offender's risk of continued criminal behavior (potential threat to the community). Probationers can report on a monthly (the prescribed and most common frequency), bimonthly, or weekly basis. In general, offenders who are at greater risk report more often.

The second component pertains to the type or mode of supervision. An officer can monitor a probationer through office visits, telephone contacts, mail-in reports, or electronic contacts. An offender's assessed level of risk determines the selection of a supervision mode. For example, felony probationers are required to visit the probation office regularly or observe a curfew; people who have committed less serious offenses are allowed mail-in reports. Related to the determination of a supervisory mode is the officer's decision to assume a particular interactive posture with different members of their caseload. The changes in posture involve shifts in a probation officer's attitudes, focus, and emotional tone during contacts with offenders.

Officers' supervisory styles are altered in response to probationers' demeanor on report days; their genuine willingness to cooperate in the rehabilitation process; and their expressed resolve to lead a productive and law-abiding life (e.g., find a job, finish school, and refrain from gang activity). These factors are generically referred to as the probationer's "attitude." Offenders who are honest in their self-disclosures and willingly accept the conditions of their sentence are viewed as possessing a positive attitude. A negative attitude, in contrast, is expressed in a probationer's belligerence, indifference, sarcasm, or blatant attempts to patronize or curry favor with an officer. Such behaviors are indicative of a poor adjustment to probation.

At any point during the probation sentence, an officer can initiate collateral contacts or cultivate relationships with a probationer's spouse, parent, teacher, friends, or employer or representatives of other agencies serving the offender. These contacts verify information such as residence, employment, and compliance with special conditions. They can also be initiated to enlist the aid of significant others in efforts to control, rehabilitate, and reintegrate the offender. If officers suspect that a probationer has resumed illegal activities, they can request reports that detail subsequent arrests or charges that the probationer might have incurred during the probation sentence.

Another discretionary decision of probation officers involves the determination of whether the probationer can benefit from counseling or extradepartmental resources. This decision consists of a gross evaluation of major problem areas (emotional, physical, interpersonal, and financial). During initial meetings with a probationer, the officer searches for telltale signs and symptoms of drug or alcohol abuse, psychological disorders, intellectual deficits, or inadequate social or vocational skills.

In the past, probation officers relied on their own sensitivity, common sense, and subjective judgments

to alert them to probationer needs and direct them in formulating problem-solving strategies. For example, studies have shown that probation officers, especially veterans, have stereotypes of offenders ("burglar," "white-collar criminal," "gang member") that affect their decisions about supervision. The type of counseling services delivered by officers typically follows a didactic, instructional model. Officers are reluctant to render treatment services because of their educational backgrounds, which have not prepared them to conduct actual psychotherapy sessions. However, officers are increasingly likely to use cognitive behavioral therapy, which is an evidence-based technique for changing offender behavior.

Officers are faced with two limitations in selecting an appropriate treatment: The time they spend counseling or advising an offender is restricted because of large caseloads, and the choice of referrals is dictated by situations or factors outside the officer's control (e.g., economic conditions that limit the number of job referrals; a lack of government funds, which limits openings in drug treatment programs). Therefore, officers must be highly selective in choosing probationers who need treatment most and are most likely to benefit from interventions. Offenders who take the initiative in requesting services or are younger, have shorter criminal records, and display a positive attitude are generally considered the best candidates for counseling and adjunctive resources.

Probation officers can recommend an offender for early termination if the offender is no longer a significant risk to the community, has exhibited exemplary behaviors (taken the necessary steps toward becoming a functional member of society), and has shown that the continuation of the sentence might disrupt the offender's pursuit of a noncriminal lifestyle (early termination can be recommended on the basis of an offender's request to leave the state for gainful employment). In contrast, officers can ask the court to extend periods of supervision beyond the expiration of the original sentence. Final authority in this matter rests with the court. However, because judges are so dependent on the information furnished by probation officers, they generally concur with the officer's request.

The prospect of early termination is an incentive for good behavior and demonstrates to probationers that cooperation and compliance with rules are rewarded. A key factor in the decision to recommend early termination is the regularity of the offender's reporting. If a probationer has been reporting regularly, it increases the likelihood that his or her case will be reviewed for early termination. The best probationers are those who routinely report at their scheduled times. If a cancellation is unavoidable, they promptly call their officers to inform them about the extenuating circumstances that prevented their attendance. The probationers who are frequently tardy, periodically skip appointments, and call with untenable excuses for failing to report are evaluated negatively. In fact, when queried about the progress of a case, officers are likely to respond on the basis of a quick tally of the number of times the particular individual has missed a report day.

The final discretionary task of a probation officer is the decision to initiate revocation proceedings. In most circumstances, if offenders have perpetrated a crime during the probation term, their sentence is automatically revoked. However, if the violation does not involve a new offense or the breaking of a serious rule, the officer can evaluate the offender's criminal history, attitude, report behavior, and employment status before filing a violation of probation petition to the court. A probationer who is seen as having potential for healthy change is often "given a pass" for minor transgressions. The officer carefully screens and selects the violations that are eventually brought to the court's attention.

Following the filing of a revocation petition, the officer must decide whether or not to recommend revocation and a sentence to prison or a continuance or extension of the probation sentence. This determination is based on the same set of factors as the one used to decide whether to file a violation-of-probation petition. On occasion, officers will suggest a short stay in jail when the probationer seems to have promise but needs to be "jolted" by serving some "hard time." The court does not always follow the probation officer's recommendations. Nonetheless, as in the case of early termination, the court usually abides by the officer's suggested course of action.

Arthur J. Lurigio

See also Bail-Setting Decisions; Parole Decisions; Presentence Evaluations; Risk Assessment Approaches; Sentencing Decisions; Sentencing Diversion Programs

Further Readings

Abadinsky, H. (2005). *Probation and parole: Theory and practice* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Champion, D. J. (1998). *Probation, parole, and community corrections* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

Larivee, J. J. (2001). Returning inmates: Closing the public safety gap. *Corrections Compendium, 26,* 1–12.

Lurigio, A. J., & Carroll, J. S. (1985). Probation officers' schemata of offenders: Content, development, and impact on treatment decisions. *Journal of Personality and Social Psychology, 48,* 1112–1126.

Mackenzie, D. L, Browning, K., Skroban, S., & Smith, D. A. (1999). The impact of probation on the criminal activities of offenders. *Journal of Research in Crime and Delinquency, 36,* 423–434.

Petersilia, J. (2001). *Reforming probation and parole in the 21st century*. Lanham, MD: American Correctional Association.

Stevens, D. J. (2005). *Community corrections: An applied approach*. Upper Saddle River, NJ: Prentice Hall.

Procedural Justice

This entry focuses on the psychology of procedural justice (PJ) and the law. PJ is a judgment about the fairness of the procedures employed to resolve conflict. Psychological research shows that PJ enhances satisfaction with conflict procedures and outcomes independent of actual dispute outcomes or outcome fairness. Among the procedural criteria that enhance fairness are having one's say, neutrality, benevolence, and respect—an effect that occurs in legal contexts across cultures. Research has shown that procedural fairness effects are diminished and outcome effects are enhanced when outcomes are favorable or when they pose threats to central moral values. The psychology of retributive justice concerns the fairness of responding to rule violations or legal infractions. PJ research can assist in the evaluation of alternative dispute resolution procedures, such as mediation and restorative conferences.

Procedural Justice and the Law

The earliest research on the psychology of fairness focused on people's beliefs as to whether the outcomes of their conflict were fair. This distributive justice research was the first to conduct empirical tests of the proposition that people's satisfaction with the resolution of conflict is influenced by outcome fairness rather than exclusively by outcome favorability—a proposition that dates to Aristotle. Although the original demonstrations of distributive fairness effects on satisfaction were not conducted in legal settings, subsequent research established the importance of outcome fairness for people's satisfaction with the resolution of conflicts in legal settings as well. For example, a study of felony defendants found that their belief that their sentence was fair was a better predictor of their satisfaction with the outcome of their case than was the duration of their incarceration.

The first systematic research concerning the psychology of procedural fairness was conducted by John Thibaut, a professor of psychology, and Laurens Walker, a professor of law. Their seminal work led them to theorize that disputants' satisfaction with the resolution of their conflicts was influenced by the fairness of the conflict resolution procedures as well as the fairness of the outcomes produced by those procedures. Furthermore, they proposed that beliefs about procedural fairness were influenced by the manner in which control was distributed between disputants and potential third parties in litigation procedures (e.g., autocratic, adversarial, or negotiation procedures). Finally, they asserted that beliefs about procedural fairness were a critical determinant of litigants' (and observers') procedural preferences and their satisfaction with legal procedures and outcomes.

Thibaut and Walker's theory of PJ postulated that disputant process control and decision control were critical determinants of procedural fairness and satisfaction. The adversarial procedure was asserted to be superior because of its optimal distribution of control—allocating process control to the litigants or their lawyers (permitting each party to present evidence on their behalf) and decision control to the judge (thus ensuring that a decision would be imposed, even in high-conflict settings). One early study compared the procedural preferences of undergraduate students from four countries (France, West Germany, Britain, and the United States). This study found the adversarial procedure (common to U.S. courtrooms) to be perceived as fairer and preferred to alternative procedures by U.S. residents as well as by citizens in the European countries where the adversarial procedure is not legally institutionalized and where judges typically exert a greater degree of process control than in U.S. courtrooms.

Most important, Thibaut and Walker's laboratory research was the first to demonstrate what is referred to as the *fair process effect*: that the use of fair procedures enhanced disputants' acceptance of contested outcomes. This was a profoundly important finding for the fields of psychology and law, and it has been replicated in numerous studies of people engaged in

actual disputes in legal settings. While subsequent PJ research focused heavily on the procedural criteria of process control (or "voice") and decision control, research has also established that numerous other procedural criteria, including correctability, consistency, decision accuracy, and ethicality, also enhance procedural fairness.

Challenges to Procedural Justice Theory

The original PJ theory was developed out of research conducted in high-conflict settings (legal disputes). It assumed that disputants were motivated to obtain fair outcomes, and therefore preferred procedures that permitted them to express their views about appropriate outcomes and be influential in shaping those outcomes. Although the theory was well supported, some findings did not fit well with its predictions. For instance, the theory predicted that process control was important because it increased the likelihood of obtaining fair and beneficial outcomes. However, research showed that voice (i.e., process control) enhanced fairness even when disputants did not think that their voice was influential. This noninstrumental voice effect led two psychologists, Tom Tyler and Allan Lind, to propose a group value theory of PJ. This theory has profoundly influenced subsequent research and theory on PJ.

Group Value and Interactional Justice Theories

Whereas PJ theory is an instrumental theory that emphasizes disputants' concern with control, the group value theory emphasizes people's concern with their social relationships with groups and institutions and the authorities representing those institutions; it asserts that when people encounter authorities who represent valued groups (such as legal institutions), they look for information concerning their group belonging and group standing. This theory also asserts that three procedural criteria are particularly influential for beliefs about group standing and, hence, fair treatment: neutrality; benevolent authorities; and respectful treatment. In this view, voice—the opportunity to express one's views, even without any influence on one's outcomes, enhances procedural fairness for symbolic rather than instrumental reasons because it communicates one's favorable group standing. A related theory, interactional justice theory, likewise asserted that interpersonal concerns such as polite treatment shape judgments of procedural fairness.

An extensive body of research, including experiments conducted with undergraduate participants in psychology laboratories and surveys of citizens about their actual legal encounters (e.g., encounters with judges or the police), provides strong support for the central claims of the group value and interactional justice theories. This research shows that fair treatment enhances people's satisfaction with legal authorities, legal institutions, and outcomes. Furthermore, this fair treatment effect remains after controlling for the absolute outcomes and the distributive fairness of these legal encounters; it occurs in civil and criminal cases and among misdemeanors and felons and participants and observers.

Whereas the earliest research was strongly supportive of the claim that process control and decision control increased procedural fairness, more recent research has supported the group value theory's claim that neutrality, benevolent authorities, and respectful treatment increase procedural fairness because of what this treatment communicates about people's relationships with valued groups and authorities.

Moderators of the Influence of Procedures and Procedural Fairness

Researchers have also examined the conditions under which procedural fairness exerts more or less influence on legal attitudes and behavior. Two lines of research concerning moderating influences have been particularly influential. One has shown that the impact of procedural fairness is diminished when outcome favorability is high (and is enhanced when outcome favorability is low). A second has investigated the moderating influence of moral beliefs on the importance of procedural fairness. While the research described above shows that fair procedures lead to increased acceptance of undesirable outcomes, or increased perceptions of distributive fairness (a "fair process" effect), additional research has demonstrated that the fair process effect is diminished when people view certain trial outcomes (such as convicting a guilty defendant or acquitting an innocent one) as morally mandated. This research suggests that among those who perceive a particular outcome as morally mandated, the fair process effect does not occur. For these people, due process affects outcome satisfaction

less than their belief that the morally mandated outcome was obtained.

Justice Approaches to Legitimacy and Compliance With the Law

Deterrence approaches to compliance with the law are guided by the instrumental perspective that people's compliance is shaped by their estimates of the penalties that will result from noncompliance. According to a deterrence perspective, the likelihood of crime decreases as the certainty and severity of punishment for crime increase. PJ research and theory suggests an alternative, normative approach to compliance: People will voluntarily obey the law when they believe it is the right thing to do. Morality and beliefs about legitimacy (of the law or legal authorities) are normative perspectives on compliance. A legal authority is said to have legitimacy when people think it is appropriate to comply with their decisions because the authority deserves to be in power and is entitled to obedience.

While research in legal settings has shown that compliance with the law is influenced by beliefs about the likelihood and severity of punishment, other research that compares expectations about punishment and beliefs about legitimacy as determinants of compliance shows that legitimacy is more influential. A considerable body of research in legal and other (e.g., organizational and political) settings indicates that authorities and institutions are perceived as more legitimate, and elicit greater levels of compliance with their decisions, when they enact procedures fairly. For example, one study asked civilians about their encounters with the police. This survey found that citizen's reports that they were treated fairly were influenced by procedural criteria such as process control, neutrality, and respect and that as beliefs about fair treatment increased, so did citizens' beliefs about the legitimacy of the legal authorities and their intent to comply with the law.

Cross-Cultural Views

The question of the cross-cultural generalizability of PJ theories has been addressed in numerous studies, starting with the earliest work by Thibaut and Walker. Research described above showed that European residents showed the same preference for adversarial procedures over autocratic ones evidenced by the U.S. residents, despite the fact that the adversarial procedures are not institutionalized and are less familiar to participants in these European countries. Similar findings have been replicated in other countries, including Hong Kong, Japan, and Spain. Similarly, cross-cultural research has supported the claims of the interactional justice and group value theories.

Whereas the earliest tests of cross-cultural generalizability compared PJ effects in various countries, more recent research has shifted from a country focus to a focus on the cross-cultural variability of social values. This work has examined the way in which the cultural variability of social values moderates the influence of PJ criteria such as voice, benevolence, neutrality, and respect. Two dimensions of social values have received considerable attention: individualism-collectivism (the degree to which ties among individuals in society are weak, such as in individualist societies, where people are expected to look after themselves, or strong, as in collectivist societies, where people are integrated into stable, cohesive in-groups that place a high value on harmonious social relations) and power distance (the degree to which people expect or accept inequality in formal power among persons, with high-power-distance individuals being the most accepting of power differentials and low-power-distance individuals being more in favor of equality).

Although the general pattern of findings is supportive of the role of voice, benevolence, neutrality, and respect across cultures, this work has also shown that the strength of the relationships between procedural criteria and procedural preferences and fairness judgments varies with individualism-collectivism and with power distance. For example, people in collectivist societies, such as China, express a greater preference for mediation (a procedure that places greater reliance on cooperation and interpersonal harmony than do adversarial procedures) than people in individualist societies, such as the United States. Similarly, research has shown that individuals in societies high in power distance (such as the Arab and Latin American countries) are more tolerant of disrespectful or unfair treatment from authorities and are less sensitive to variations in opportunities for voice than individuals from low-power-distance societies (such as the Scandinavian countries). Although this research points to cultural variability on power distance and individualism-collectivism, there is also considerable variability among individuals within cultures, and the effects shown to result from cultural variation on these

constructs are expected to result from individual differences on these constructs as well.

Retributive Justice

Although there is an abundance of research on procedural and distributive justice, less attention has been paid to the psychology of retributive justice, concerning reactions to rule violation. When an injustice is addressed in the legal system, options for sanction largely involve victim compensation and offender punishment. Research suggests that a primary determinant of the impulse to punish rule-breaking behavior is the perpetrator's state of mind. If victims and third parties judge perpetrators to have committed harm unintentionally (negligence), psychological reasoning focuses on compensation for harm. However, when perpetrators are thought to have intentionally violated group norms and values, observers are motivated to punish the offender.

Proportionality is a central characteristic of retributive sentencing. The severity of the punishment assigned by observers increases with the perceived seriousness of the offense and the harm caused. Additional factors, such as the offender's age or previous criminal record, or the observer's cultural background, can also affect the severity of sanctions. Mitigations and justifications may eliminate or suppress the relationship between the severity of an intentionally committed offense and the severity of the punishment (e.g., when an offender kills someone who threatens his or her own life or the life of another). Studies have found that apologies and expressions of remorse also decrease the severity of the sentences recommended.

Sentencing in the criminal justice system has several underlying aims, including deterrence, rehabilitation, incapacitation, and retribution. Retribution is the only sentencing aim that is nonutilitarian and based on judgments of "just deserts"; as such, it is often considered a retrograde and vindictive motive for sanction. However, research on retributive justice suggests that retribution can be forward looking, in that it aims to ensure that problems of the past do not recur. Retributive justice performs an important role in maintaining the cohesion of social groups and is motivated by group members' concern for the group's welfare. Criminal violations of social norms constitute a salient threat to an individual's well-being, and offenses against innocent victims threaten group members' stable worldviews, in which one's environment is perceived as predictable and controllable. Punishment is seen as a stabilizing force, used to prevent future violations of group norms and restore the social order. Research supports the fundamental role of retribution in people's reactions to norm violations, suggesting that people assign punishment for just deserts rather than utilitarian motives. In addition to the rational, group-stabilizing motivation behind the desire for retribution, recent research demonstrates the role of moral emotions in assigning sanctions for norm violation. The severity of observers' assigned punishments for offenses increases when those offenses elicit, in particular, anger and moral outrage.

Alternative Dispute Resolution (ADR)

In recent decades, various procedures have emerged as alternatives to the court in resolving legal disputes. They include small-claims mediation, divorce mediation, judicially mediated plea bargaining, judicial settlement conferences, court-annexed arbitration, and summary jury trials. The Dispute Resolution Act of 1998 requires every federal district court in the United States to implement a dispute resolution program where one does not already exist and to improve existing programs. The growing popularity of ADR programs has prompted extensive investigation into disputants' responses to ADR.

While ADR procedures can be distinguished according to legal and structural characteristics (e.g., whether the procedure is voluntary, whether it is binding, the identity of the third party, the degree of formality, and the nature of the outcome), they can also be distinguished according to the degree of control that disputants retain over the process and the decision. For example, in court-annexed arbitration, participants retain process control in the presentation of evidence but relinquish decision control to the arbiter. In mediation procedures, participants retain process control, presenting their version of events, but also retain decision control, aiming to reach a bilateral agreement. Consistent with psychological theory about PJ, research suggests that the increased levels of participation and voice, as well as the respectful treatment from benevolent authorities that can accompany these alternative procedures, enhance fairness and satisfaction. Correlational field studies have also found that mediation procedures are more likely to produce decisions that are obeyed than are adjudication procedures.

Restorative Justice (RJ)

Restorative justice (RJ) is an approach to criminal behavior that emphasizes healing victims, offenders, and communities. This variant of ADR is being increasingly adopted by justice systems worldwide. The basic premise of RJ is that crime is a violation of individuals and communities, not merely a violation of law. RJ prioritizes the goal of reparation of harm rather than the traditional punitive goal of just deserts. RJ is fundamentally different from other ADR and traditional courtroom procedures in its emphasis on the psychological importance of group belonging and its core goal of reintegrating offenders into important social groups. The group value model offers clues as to why people support restorative sanctions: Restorative sentencing emphasizes that an offender has lost his or her status as a respected member of the group and should perform reparative acts to regain that status.

RJ consists of a variety of practices at various stages of the criminal legal process, including court diversion, actions taken in conjunction with police and court decisions, reparation boards, and meetings between victims and offenders. RJ procedures are more prevalent in juvenile than in adult justice systems but are becoming more common in dealing with adult offenders. In the United States, RJ programs tend to be privately run or community based, with a number of RJ programs also developed by individual probation departments. Other nations, however, tend to implement RJ programs more systematically, incorporating RJ procedures as one component in a hierarchy of legislated responses to juvenile crime.

One common RJ practice is conferencing, in which the offender, the victim, and their supporters come together to discuss an offense. At the end of a conference, all participants, including the victim and offender, decide on a course of action for the offender to complete. The agreement is an undertaking by the offender to make reparation for the harm caused by the crime and might include, for example, community service or monetary compensation.

Consistent with research showing that ADR procedures engender greater disputant satisfaction, RJ conference participants report fairer treatment than their counterparts who experience court procedures. The RISE project in Australia, one of the few experimental studies of conferencing, randomly assigned cases to either RJ conference or court. Across all offense types included in the study (youth violence, drunk driving, shoplifting, and property crime with personal victims), participants' fairness judgments were higher in the conference condition. Studies on RJ conferencing have also found that recidivism is lower following conferencing than after court procedures.

Although early evaluations of RJ are promising, both the predominance of nonexperimental studies (with potential selection biases in participants, programs, and types and severity of offenses studied) and the need for systematic examinations of the psychological processes underlying participants' responses to RJ preclude authoritative conclusions about its effectiveness.

Larry Heuer and Diane Sivasubramaniam

See also Alternative Dispute Resolution; Plea Bargaining; Public Opinion About the Courts; Therapeutic Jurisprudence; Victim-Offender Mediation With Juvenile Offenders; Victim Participation in the Criminal Justice System

Further Readings

Darley, J. M., & Pittman, T. S. (2003). The psychology of compensatory and retributive justice. *Personality and Social Psychology Review, 7*(4), 324–336.

Latimer, J., Dowden, C., & Muise, D. (2005). The effectiveness of restorative practices: A meta-analysis. *The Prison Journal, 85*(2), 127–144.

MacCoun, R. J., Lind, E. A., & Tyler, T. R. (1992). Alternative dispute resolution in trial and appellate courts. In D. K. Kagehiro & W. S. Laufer (Eds.), *Handbook of psychology and law* (pp. 95–118). New York: Springer-Verlag.

Morris, M. W., & Leung, K. (2000). Justice for all? Progress in research on cultural variation in the psychology of distributive and procedural justice. *Applied Psychology, 49*(1), 100–132.

Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Lawrence Erlbaum.

Tyler, T. R. (2006). *Why people obey the law*. Princeton, NJ: Princeton University Press.

Profiling

Profiling is a relatively new investigative technique that, in the past 30 years, has developed from what used to be described as an art to a rigorous science based on advanced empirical research. Results from the first wave of research have shown that there is

validity to the idea that aspects of an offender's characteristics may be inferred from the way the offender acts at the crime scene. Ongoing research is focused on refining these efforts so that a systematic and reliable framework may be put in place, one that can provide a solid basis for constructing a useful psychological tool for police investigations.

Definition

Profiling (also known as offender profiling, crime scene profiling, psychological profiling, and personality profiling) is the process of linking an offender's actions at the crime scene to their most likely characteristics to help police investigators narrow down and prioritize a pool of most likely suspects. Investigators' efforts are focused on matching an offender's behavior in one situation to behaviors or characteristics in another situation.

Psychologists are sometimes called on during a police investigation to analyze the behavioral indicators of the crime and, based on these, to draw up a profile of the most likely characteristics of an offender responsible for such actions. In addition, psychologists continue to be involved in researching the processes of profiling itself, so as to establish its validity and utility as a police investigation tool.

Development

Although profiling was attempted as long ago as the mid-1880s, in the Jack the Ripper serial murder case in London, profiling as it is known today is a relatively new area in forensic psychology. Much of the early work in profiling dates back to the 1970s and 1980s, when there was an initiative to focus on analysis of the crime scene itself. Most of this work, typically done by practicing clinicians or police investigators, was based on understanding an individual's behavior at the crime scene through interviews with actual offenders and primarily focusing on the offender's internal motivations and drives, in addition to identifying specific behaviors.

With its increasing popularity through the 1980s, and also with more recent efforts to bring profiling into court as evidence, the method came under increasingly close scrutiny by researchers within the field. Consequently, the 1990s saw the creation of a new area of forensic psychology, investigative psychology, spearheaded by David Canter and colleagues, that focuses on the contribution of psychology to police investigations. Researchers in this growing field have stressed the importance of providing a solid methodological approach and framework for establishing an empirically based science testing the psychological principles on which profiling rests.

Early evaluation studies of the emerging field of profiling showed that extant models of criminal behavior were mostly unsubstantiated and not founded on rigorous scientific study. Other work evaluating actual written profiles showed that these included much unsubstantiated information. Based on these results, researchers in profiling have emphasized the importance of empirically validated research to establish a link between the actions of offenders at the crime scene and their corresponding characteristics.

Components

The main psychological premise behind profiling is that there will be consistency between the way offenders act at the crime scene and who they are. This is based on the broader findings from longitudinal studies and cross-situational consistency in general as well as from findings on the development of criminal behavior. By understanding consistencies in offenders' development and change over time, the suggestion is that we can link the way they behave at the crime scene with how they have previously behaved in different contexts. Three general interlinked areas have been the focus of recent profiling research: individual differentiation, behavioral consistency, and inferences about offender characteristics.

Individual differentiation aims to establish differences between the behavioral actions of offenders and uses this to identify subgroups of crime scene types. The focus here is on analyzing the observable, rather than motivational, aspects of the crime to increase the reliability and practical utility of these models in actual investigations. Although it is important to gain insight into the cognitions of offenders and add these to emerging models, research has shown that motivations are inherently more subjective and difficult to measure. As such, behaviors provide a more reliable unit of analysis, at least at the first stages of building models of criminal differentiation that are valid, reliable, and ultimately useful and applicable to actual investigations.

Behavioral studies of differentiation usually focus on differences among crimes scenes in various observable factors, including victim characteristics, interaction with the victim, nature of the violence, and other activities engaged in by the offender at the crime

scene. Much of this work has aimed to understand how an offender engages in patterns of actions that all demonstrate a similar underlying psychological dimension or subset. Any crime can be profiled using the appropriate frameworks, and work to date has included theft, burglary, robbery, arson, fraud, rape, pedophilia, crimes committed by youths, homicide, serial homicide, and others. The relevant psychological dimensions depend on the crimes analyzed. Some examples used in homicide work include behaviors indicative of expressive and instrumental types of aggression—such as treating a victim as an object or as a person, acting in a controlled or an impulsive manner—all of which are already well-established thematic classifications of human behavior in the general psychological literature.

Behavioral consistency is a key issue in profiling, specifically for understanding both the development of an offender's criminal career and an individual's consistency across a series of crimes—that is, whether the same subsets of actions are displayed at each crime scene over a series (linking serial crime). Much of this work has focused on whether consistency in criminal behavior can be established over time, as well as how individuals change and develop through learning and experience and whether offenders specialize or are generalists.

The search for consistencies has been approached in various ways in the theoretical literature, notably by establishing whether the offender acts according to the same psychological subtype or theme from one crime to the next (e.g., expressive or instrumental), whether the offender engages in the same specific behaviors from one crime to the next (modus operandi), or whether the offender engages in highly specialized behaviors unique to him or her and that are related more to his or her personal agenda, or fantasies (signature). The first few published studies on empirically validating these theoretical concepts indicate that although some consistency is evident, our understanding of the intricacies of the actual patterns over time requires closer empirical study, specifically in terms of how offenders develop, mature, experiment, and change in a consistent manner across time, as well as how situational factors influence an offender's behavioral consistency.

Inferences about offender characteristics is at the core of profiling and also uses consistency analysis as its main focus. At this stage, however, the main aim is to establish the link between subgroups of crime scene actions and subgroups of offender background characteristics in order to make predictions about an offender based on his or her criminal actions at the crime scene. This can then ultimately be used as a primary tool for the police to narrow their suspect pool down to statistically the most likely offender. Offender characteristics focused on typically include demographics, such as gender, age, and education, previous interpersonal and criminal history, home location and travel patterns (also known as geographical profiling), and the offender's relationship with the victim.

C. Gabrielle Salfati

See also Criminal Behavior, Theories of; Police Decision Making; Serial Killers

Further Readings

Alison, L., Smith, M. D., Eastman, O., & Rainbow, L. (2003). Toulmin's philosophy of argument and its relevance to offender profiling. *Psychology, Crime & Law, 9*(2), 173–183.

Canter, D. (2000). Offender profiling and criminal differentiation. *Legal and Criminological Psychology, 5,* 23–46.

Canter, D. V., Alison, L. J., Alison, E., & Wentink, N. (2004). The organized/disorganized typology of serial murder: Myth or model? *Psychology, Public Policy, and Law, 10*(3), 293–320.

Salfati, C. G. (2000). Profiling homicide: A multidimensional approach. *Homicide Studies, 4*(3), 265–293.

Salfati, C. G., & Bateman, A. (2005). Serial homicide: An investigation of behavioral consistency [Electronic version]. *Journal of Investigative Psychology and Offender Profiling, 2*(2), 121–144. Retrieved from http://web.jjay.cuny.edu/~gsalfati/salfati%20and%20bateman%20abstract.htm

Salfati, C. G., & Canter, D. V. (1999). Differentiating stranger murders: Profiling offender characteristics from behavioral styles. *Behavioral Sciences and the Law, 17,* 391–406.

Prosecutorial Misconduct

Prosecutorial misconduct is any courtroom behavior on the part of the prosecutor that violates trial rules and denies defendants their right to due process. Examples of misconduct may include making unfair or improper comments about the defendant, defense counsel, or a defense witness; suppressing, tampering

with, or fabricating evidence; or making material misstatements regarding law or fact. The legal and psychological importance of examining prosecutorial misconduct is its potential to induce a jury to consider improper factors during the decision-making process.

Legal scholars contend that prosecutorial misconduct often occurs because of the prosecutor's quest to secure a conviction. In doing so, prosecutors compromise impartiality by using improper methods to establish guilt—for example, inappropriately inferring guilt from a defendant's silence. Although higher courts consistently express disapproval of improper prosecutor conduct, they frequently affirm the conviction, concluding that some prosecutorial errors are harmless. For an error to be considered harmless, reviewing courts need to establish that the outcome of the trial was not significantly affected by the error.

Forms of Prosecutorial Misconduct

The most common form of prosecutorial misconduct occurs in argument to the jury; however, it can also take place in evidence hearings, opening statements, and cross-examination. For example, it is misconduct to comment on a defendant's failure to testify. Similarly, it is improper for the prosecutor to address the credibility of the testimony of codefendants or co-conspirators. Commenting on a defendant's silence, or inferring questionable relationships among defendants, improperly suggests guilt and encourages a jury to find the defendant guilty. It is also considered misconduct for the prosecutor to question the integrity of the defense counsel. This includes unconfirmed claims that defense counsel fabricated evidence, courtroom displays of dissatisfaction with defense witnesses, or interruptions of defense objections. In general, any unsupported, damaging comments on the part of the prosecutor that challenge a defendant's constitutional rights can be considered misconduct.

A review of appellate decisions also finds prosecutors cited for misconduct regarding issues related to evidence. Prosecutors must not introduce or attempt to introduce inadmissible evidence and, in the same vein, must disclose evidence favorable to the defendant. It is misconduct for prosecutors to use false or misleading evidence, misrepresent evidence to the jury, or destroy or tamper with evidence. In addition, it is improper for the prosecutor to make material misstatements of law or fact. Opening statements must be limited to offering admissible evidence, and closing arguments must be limited to evidence presented. Repeated instances of uncorrected misstatements could result in ordering a new trial.

Prosecutorial Misconduct in Capital Trials

Prosecutorial misconduct has been identified as a leading cause of unfairness during the sentencing phase of capital trials. Courts have expressly condemned this type of misconduct, which occurs in closing arguments. Defense attorneys contend that improper prosecutor remarks during the closing argument have the potential to inflame the sentencing jury if the argument introduces arbitrary factors to the jury's recommendation of the death penalty. Empirical evidence indicates that individuals exposed to improper statements made by the prosecutor in the closing argument recommended the death penalty significantly more often than those not exposed to the statements. These results support the need to address regulating the penalty phase to minimize the likelihood that the jury will sentence the defendant to death for improper reasons.

Although the Supreme Court has not yet established specific guidelines determining the parameters of permissible prosecutorial argument, lower courts have provided general principles for defining improper penalty-phase arguments. In general, prosecutors are prohibited from stating their personal belief in the death penalty or from referring to their discretionary decision to seek the death penalty. It is misconduct to mislead the jury about its responsibility by implying that imposing the death penalty would deter others or protect the community. It is also considered improper to argue support for the death penalty in a religious context. Some state courts have ruled it improper for prosecutors to discuss the impact of the crime on the victim's family or to argue that a victim's family deserves a particular verdict. Overall, rulings on improper prosecutor arguments appear to be based on distinguishing between those that merely communicate misinformation and those that introduce extralegal factors that are likely to influence a jury's sentencing recommendation.

Remedies for Prosecutorial Misconduct

There is a considerable body of legal literature addressing remedies, or cures, for prosecutorial misconduct. Legal professionals concur that prosecutorial

misconduct is unlikely to affect the jury if countered by the defense attorney's objections or corrected by the judge's instructions. The Supreme Court has indicated that arguments with the potential to unduly influence the jury should be clarified by a specific judicial instruction. This instruction rebuts the inferences or implications made by the prosecutor in the closing argument. Similarly, defense attorneys stress the need to form prompt, articulate objections to improper statements to avoid any problems on appeal. The underlying assumption of each of these legal safeguards is their potential to minimize the effects of the prosecutor's improper argument on the jury.

In assessing the effect of prosecutorial misconduct, the pertinent question is whether the misconduct caused the trial proceedings to be fundamentally unfair. The standard for reviewing a prosecutor's improper penalty-phase argument is whether the argument affected the defendant's due process right or whether the argument unduly influenced the jury's recommendation of death.

Judith Platania

See also Death Penalty; Jury Deliberation; Sentencing Decisions; Sentencing Diversion Programs; Victim Impact Statements

Further Readings

Berger v. United States, 295 U.S. 78 (1934).
Brooks v. Kemp, 762 F.2d. 1383 (11th Cir. 1985).
Chapman v. California, 386 U.S. 18 (1967).
Darden v. Wainwright, 477 U.S. 168 (1986).
Gaskill, J. B. (1991). Prosecution misconduct in trial: The improper attempt to influence the jury. *California Attorneys for Criminal Justice Forum, 18*(5), 12–25.
Platania, J., & Moran, G. (1999). Due process and the death penalty: The role of prosecutorial misconduct in closing argument in capital trials. *Law and Human Behavior, 23,* 471–486.

Proxy Decision Making

Proxy decision making (also known as substituted judgment) refers to the use of the legal system to replace one person's judgment with that of another. This process exists to protect individuals from exploitation while allowing them to retain as much decision-making latitude as possible. Society's interests are served by preventing persons with mental disabilities from engaging in physically, financially, or otherwise harmful conduct. Different categories of proxy decision making include substitutions for prior judgment (as previously expressed in wills and other advance directives); present judgment (involving current capacity to provide informed consent to treatment or to refuse treatment); and future judgment (concerning projected ability to conduct personal and financial affairs).

In 1540, the Statute of Wills enabled English citizens for the first time to bequeath "real property" such as buildings and land. Within 2 years, this law was amended to invalidate wills by persons who were not "sane." Modern legal challenges still seek to determine whether the testator (a) understood what it means to make a will, (b) was aware of the nature and extent of his or her property, (c) could describe a rational plan for distributing that property, and (d) could identify the "natural objects of one's bounty"—meaning the persons one would normally expect to inherit the possessions in question. If such challenges succeed or if it can be proven that the will was substantially affected by another person's "undue influence," then a probate court will substitute its judgment for that of the deceased. Psychologists testifying in such proceedings may conduct a *psychological autopsy,* reflecting all currently available information about the decedent's cognitive status, medical condition, and interpersonal relationships during the period in question.

In recent years, the law has provided for a range of *advance directives* that allows persons to preordain specific aspects of their future care. These include *living wills* (conveying the desire to forgo artificial means of life-sustaining treatment) and *health care surrogacy* (empowering another person to make general health care decisions in the event of future incapacity). If an advance directive is successfully challenged on the grounds that it was not the product of a rational decision, then the individual's prior judgment may be set aside.

Substitutions for present judgment may occur when persons are unable or unwilling to provide informed consent to health care services. Typically, medical treatment cannot be delivered unless patients assent to it without coercion, after being provided with an explanation of potential risks and benefits, as well as any available alternatives, in language that the patient is capable of understanding. The Capacity to Consent to Treatment Instrument and the MacArthur Competence Assessment Tool for Treatment are

among the instruments psychologists may use to determine a patient's capacity to provide informed consent.

Persons may be hospitalized for a brief period without their informed consent if a qualified health professional determines that an emergency exists. A petition for lengthier periods of civil commitment may be upheld if the court concludes that, based on a qualifying mental condition, the patient presents a danger of harm to self or others, no less restrictive alternative to hospitalization exists, and the patient may reasonably benefit from the treatment provided in that setting. If patients refuse to provide informed consent to psychiatric medication once they have been civilly committed, the facility may attempt to obtain a separate court order to compel this form of treatment if failure to take such medication will constitute a further danger of harm to self or others. Criminal defendants may not be medicated for the purpose of achieving trial competency without their informed consent, unless the medication in question is medically appropriate, will significantly enhance the likelihood of a fair trial, and represents the least restrictive alternative available to further this purpose.

Substitutions for future judgment may occur as a result of guardianship proceedings, in which a person is alleged to be incapable of making decisions at a later date about a specified range of personal and financial affairs. The court may ultimately appoint a guardian to oversee or prevent the respondent's participation in activities such as voting, marrying, consenting to medical treatment, driving an automobile, or choosing a place to live. Guardians may also control the respondent's ability to spend money, sell property, and otherwise make contracts, or this may become the separate responsibility of a court-appointed conservator charged with monitoring solely financial matters. Psychologists participate in such proceedings based on their skill in assessing strengths and weaknesses in each area in question. In the past, courts typically rendered "all-or-none" decisions regarding guardianship, such that respondents found lacking capacity in one or more areas would find all their activities subject to supervision; now, however, most jurisdictions provide for "limited" or "partial" guardianship plans that are tailored to the unique needs of the individual.

Eric York Drogin

See also Capacity to Consent to Treatment; Capacity to Consent to Treatment Instrument (CCRI); End-of-Life Issues; Forcible Medication; Guardianship; MacArthur Competence Assessment Tool for Treatment (MacCAT–T); Psychiatric Advance Directives; Psychological Autopsies; Testamentary Capacity

Further Readings

Drogin, E. Y., & Barrett, C. L. (2003). Substituted judgment: Roles for the forensic psychologist. In I. B. Weiner (Series Ed.) & A. M. Goldstein (Vol. Ed.), *Comprehensive handbook of psychology: Vol. 11. Forensic psychology* (pp. 301–312). Hoboken, NJ: Wiley.

Marson, D. C., Huthwaite, J. S., & Hebert, K. (2004). Testamentary capacity and undue influence in the elderly: A jurisprudent therapy perspective. *Law and Psychology Review, 28,* 71–96.

Mazur, D. J. (2006). How successful are we at protecting preferences? Consent, informed consent, advance directives, and substituted judgment. *Medical Decision Making, 26,* 106–109.

Parry, J. W., & Drogin, E. Y. (2001). *Civil law handbook on psychiatric and psychological evidence and testimony*. Washington, DC: American Bar Association.

Volicer, L., Cantor, M. D., Derse, A. R., Edwards, D. M., Prudhomme, A. M. et al. (2002). Advance care planning by proxy for residents of long-term care facilities who lack decision-making capacity. *Journal of the American Geriatrics Society, 50,* 761–767.

Psychiatric Advance Directives

Psychiatric advance directives (PADs) allow competent persons to document advance instructions for their future mental health treatment or designate a health care agent to make decisions for them in the event of an incapacitating psychiatric crisis. PADs may enhance patient self-determination, improve therapeutic alliance, and prevent psychiatric crises; however, there are a number of legal, ethical, and logistical barriers preventing the effective implementation of PAD laws. Research shows that most people with mental illness would want a PAD if they received help and that a manualized facilitation increased completion and understanding of PADs as well as improved working alliance and perceived met treatment need. Studies also show that people with mental illness incorporate clinically useful information in PADs but that much more work is needed to bolster the use of PADs in actual clinical practice.

PADs are relatively new legal instruments. Prior to the 1990s, most laws involving people with mental illness, such as involuntary civil commitment, on balance have placed limits on patient autonomy in the interest of public safety or the patient's "best medical interests." In the past 15 years, however, PADs have been promulgated with the goal of promoting greater self-determination among people with mental illness. If followed by treatment providers, PADs may help patients gain better access to the types of treatment that work best for them—especially during times when they are most in need of care but least able to speak for themselves. Furthermore, the very exercise of preparing a PAD, and discussing it with a mental health professional, may enhance therapeutic alliance and improve treatment engagement.

In theory, PADs provide a transportable document—increasingly accessible through electronic directories—to convey information about a patient's treatment history, including medical disorders, emergency contact information, and medication side effects. Clinicians often have limited background clinical information about psychiatric patients who present in crisis centers or hospital emergency departments. Nonetheless, these are the typical settings in which clinicians are called on to make critical patient management and treatment decisions, using whatever limited data may be available. With PADs, clinicians could gain immediate access to relevant information about individual cases and thus improve the quality of clinical decision making—appropriately managing risk to patients' and others' safety while also enhancing patients' long-term autonomy.

The use of legal coercion in mental health services remains highly controversial, as it exposes a fault line between two important societal values: respecting the rights of individuals to choose their own health care and accepting social responsibility to care for those who are unable to care for themselves. Although involuntary treatment may well be effective in improving treatment adherence in the short run, it comes at the price of reducing personal liberty. Insofar as PADs may provide a means to promote both autonomy and beneficial treatment for persons with severe mental illness, some scholars believe that PADs may help resolve this fundamental dilemma in mental health law and policy by reducing the need for involuntary treatment.

As of 2006, 25 states had passed specific PAD statutory provisions. However, all states provide some type of legal instrument—typically a health care power of attorney—that patients can use to plan for their psychiatric as well as medical treatment during future periods of decisional incapacity. States' advance directive laws were given added force by the federal Patient Self-Determination Act (PSDA) of 1991. The PSDA requires that all hospitals receiving federal funds inform patients of their rights, including the right to prepare advance directives as authorized under state law and to institute policies for implementing advance directives. In short, federal law helps ensure that people with mental illness, in whatever state they live, can use medical advance directives to specify mental health treatment preferences or assign proxy decision makers for mental health decisions.

Ethical and Legal Questions

PADs pose certain ethical and legal dilemmas. For example, how should a clinician react if a severely mentally ill patient presents a PAD refusing treatment? Although doctors typically cannot override end-of-life advance directives, most of the new PAD statutes allow doctors to trump mental health treatment preferences that are inconsistent with appropriate psychiatric care as defined by community standards of practice. However, in *Hargrave v. Vermont* (2003), the U.S. Court of Appeals for the 2nd Circuit recently upheld a lower court's decision striking down a state law that allowed mental health professionals to override a hospitalized person's advance refusal of psychotropic medications through a general health care proxy. The court ruled that the Vermont override law—which applied only to persons with psychiatric disorders in the state hospital—was discriminatory on the basis of disability and thus violated the Americans with Disabilities Act, Title 3.

Some commentators worry that the *Hargrave* decision could have perverse consequences. Assuming that some severely mentally ill individuals prefer to remain unmedicated and assuming that they are able to document such preferences in advance while fully competent, the question arises, What are the ethical and fiscal implications of a state policy that, in effect, sanctions indefinite involuntary confinement of such persons when they become incapacitated but without providing them effective treatment? Should taxpayers be expected to shoulder the burden of paying for substantially longer hospital stays for psychiatric patients with PADs refusing medications? Another unintended consequence of *Hargrave* is that psychiatrists, in reaction to the specter of treatment-refusal PADs and

potential legal liability in such cases, may be reluctant to support PADs or to encourage patients to complete them. Although understandable, this reaction would beg the question of whether any substantial number of patients actually use PADs to document advance refusals of all medication; new research suggests that this may be a moot concern.

The presumption of competence to execute PADs is another controversial legal feature of these statutes. On the one hand, some mental health professionals would argue that a clinical assessment of competence should be required for patients who want to complete PADs, in view of the fluctuating decisional capacity that often characterizes severe mental illness. On the other hand, some scholars have noted that mandatory screening for competence—placing the burden on people with mental illness to prove that they are competent before completing a legal document—would amount to discrimination against adults with disabilities.

Currently, only two jurisdictions, Indiana and Louisiana, require that persons with mental illness be deemed competent before they write a valid PAD. However, in states where this is not required, there could still be practical reasons for patients to voluntarily request a clinical assessment of their competence prior to completing a PAD. Even people who do not have mental illnesses may elect to have a competence assessment at the time they prepare a legal document such as a will—precisely to avoid the problem of later challenges to testamentary capacity and thus ensure that their wishes are followed. With respect to implementing PADs, the practical question is, How can people with severe mental illness best ensure that future clinicians will abide by their preferences as documented in advance, without unduly questioning their competence to make those advance decisions and thus calling into doubt the PAD's legal validity?

Current Research and Trends

While a number of legal and ethical questions about PADs remain unanswered, a body of empirical research on PADs has begun to emerge. Studies indicate that although approximately 70% of patients with mental illness would want a PAD if offered assistance in completing one, less than 10% have actually completed a PAD. Why is there a gap between interest in and completion of PADs? First, people with mental illness report difficulty in understanding advance directives, skepticism about their benefit, and lack of contact with a trusted individual who could serve as proxy decision maker. The sheer complexity of filling out these legal forms, obtaining witnesses, having the documents notarized, and filing the documents in a medical record or registry may pose a formidable barrier.

Recent surveys of mental health professionals' attitudes about PADs suggest that they are generally supportive of these legal instruments but have significant concerns about some features of PADs and the feasibility of implementing them in usual care settings. Clinicians are concerned, for example, about following PADs that may contain treatment refusals or medically inappropriate instructions. They also worry about lack of access to PAD documents in a crisis, lack of staff training on PADs, lack of communication between staff across different components of mental health systems, and lack of time to review the advance directive documents.

For these reasons, among others, PADs have yet to gain widespread use in systems of care for people with severe mental illness. The research indicates, however, that as more people learn about these laws, PADs will be used more frequently. For instance, whereas most of the psychiatrists, social workers, and psychologists surveyed believed that PADs would help people with severe mental illnesses, clinicians with more legal knowledge about PADs were more likely to endorse PADs as a beneficial part of patients' treatment planning. Additionally, research indicates that PADs typically contain clinically useful information and almost never include medically inappropriate information. Swanson and colleagues analyzed the content of more than 100 PAD documents and found that psychiatrists rated the advance directives to be highly consistent with standards of community practice. Most participants used the advance directive to refuse some medications but provided clear reasons for their choices; none used an advance directive to refuse all treatment. Instead, most people who completed PADs used these documents to request that inpatient staff treat them with respect and talk with them about their treatment. More than one third listed specific medical conditions and/or medication side effects that would directly lead to more informed clinical decision making by doctors in emergency departments and inpatient settings.

Finally, new evidence is emerging from a large-scale randomized clinical trial of $N = 469$ individuals with mental illness, suggesting that a manualized

PAD facilitation helps overcome patient barriers to completing PADs and may improve working alliance and treatment engagement among people with severe mental illness. The authors found that 61% of participants in the facilitated session completed an advance directive or authorized a proxy decision maker, compared with only 3% of control group participants. At 1-month follow-up, participants in the facilitated session had a greater working alliance with their clinicians and were more likely than those in the control group to report receiving the mental health services they believed they needed.

In another analysis from this clinical trial, the authors systematically examined competence to complete PADs, using a newly developed instrument that evaluates patients' understanding, appreciation, and reasoning ability applied to PADs and the specific treatment decisions contained in PADs. The authors found that the majority of participants at baseline scored above 50% of the highest possible point total on this instrument. That people with mental illness are generally able to understand, appreciate, and reason adequately with respect to PADs is consistent with prior research reaching the same conclusion.

The study also showed that the manualized PAD facilitation significantly improved patients' competence to complete PADs, as well as their capacity to make reasonable treatment decisions within the framework of a PAD. The facilitation intervention increased PAD competence most dramatically for patients with low cognitive functioning and limited initial understanding of PADs.

Concluding Remarks

In sum, PADs were designed as legal instruments for persons with mental illness to retain some control over their treatment during periods of decisional incapacity. In practice, PADs could yield other indirect benefits, such as improving communication between providers, patients, and family caregivers; enhancing therapeutic alliance and treatment engagement; and mobilizing clinical resources. Jointly, these influences could work together to help avert psychiatric crises, as well as to improve the management of such crises when they do occur, without resorting to involuntary commitment.

However, it may be necessary to provide resources to assist persons with mental disorders in completing PADs, configure information systems to make PADs accessible, and educate clinicians about the potential benefits and drawbacks of PADs and their legal obligations regarding PAD compliance. The National Resource Center on Psychiatric Advanced Directives disseminates state-by-state information on PADs and educational material to patients, family members, policymakers, and clinicians through its Web site. Such steps could be critical to ensuring that these legal instruments are implemented effectively in clinical practice and that people with mental disorders are afforded the opportunity to plan and participate in their own mental health treatment.

Eric B. Elbogen, Jeffrey W. Swanson, and Marvin S. Swartz

See also Capacity to Consent to Treatment; Civil Commitment; Competency, Foundational and Decisional; Mandated Community Treatment; Mental Health Law; Proxy Decision Making

Further Readings

Appelbaum, P. S. (2004). Psychiatric advance directives and the treatment of committed patients. *Psychiatric Services, 55*(7), 751–752.

Elbogen, E. B., Swanson, J. W., Appelbaum, P., Swartz, M. S., Ferron, J., & Van Dorn, R. A. (2007). Competence to complete psychiatric advance directives: Effects of facilitated decision making. *Law and Human Behavior, 31,* 275–289.

Hargrave v. Vermont, 340 F.3d 27 (2nd Cir. 2003).

Srebnik, D., & La Fond, J. Q. (1999). Advance directives for mental health treatment. *Psychiatric Services, 50*(7), 919–925.

Swanson, J. W., McCrary, S. V., Swartz, M. S., Elbogen, E. B., & Van Dorn, R. (2006). Trumping psychiatric advance directives: Ethical and legal considerations. *Journal of the American Academy of Psychiatry and the Law, 34*(3), 385–394.

Swanson, J. W., Swartz, M. S., Elbogen, E. B., Van Dorn, R. A., Ferron, J., Wagner, H., et al. (2006). Facilitated psychiatric advance directives: A randomized trial of an intervention to foster advance treatment planning among persons with severe mental illness. *American Journal of Psychiatry, 163*(11), 1943–1951.

Web Sites

National Resource Center on Psychiatric Advanced Directives: http://www.nrc-pad.org

Psychological Autopsies

A psychological autopsy (or psychiatric autopsy—the terms are used interchangeably) is a reconstructive mental state evaluation (RMSE) focused on understanding a deceased individual's mental state at and around the time of death, typically for the purpose of identifying the cause of death (accident vs. suicide or another explanation). Norman Faberow, Robert Litman, and Edwin Shneidman are credited with developing the concept and pioneering the technique of the psychological autopsy in connection with their consultation with the Los Angeles County Coroner's Office, which requested that they assist in determining the cause of death (i.e., suicide or accident) in a subset of "equivocal" cases.

The psychological autopsy is one form of RMSE that can be defined as an expert inquiry focused on discerning some aspect of the mental state of a deceased person at an earlier point in time. Expert opinions formed by mental health professionals and based on RMSEs are typically—but not always—conducted in connection with some type of legal proceeding. As such, RMSEs can be considered as a forensic evaluation or forensic inquiry the goal of which is to provide the legal decision maker (i.e., judge or jury) with information that it would not otherwise have (based on the expert's inquiry and opinions), so that it can make a more informed and accurate decision in the legal issue at hand. For example, expert testimony regarding a deceased person's mental state has been introduced in testamentary capacity proceedings (when a deceased individual's capacity to execute a valid will at some prior time is at issue), life insurance and workers' compensation litigation (when the cause of an individual's death, including the existence of potential psychological contributors, is at issue), and criminal litigation (when the psychological state of a decedent is relevant to some aspect of a criminal proceeding). In addition, mental health professionals and mental health agencies sometimes employ psychological autopsies as a quality assurance mechanism in cases where clients commit suicide. Such inquires serve to aid in understanding what caused the suicide and identifying good or bad professional practice surrounding the person's care, both of which are seen as having the potential to improve future care and practice.

Because the person of interest (i.e., the decedent) is not available, the mental health professional conducting a psychological autopsy must rely solely on collateral, or "third-party" sources of information, including interviews with persons familiar with the individual of interest; interviews with persons who had contact with the individual at and around the time in question (e.g., around the time the will was executed or the decedent died); and a review of various documents including the individual's health care records, writings, or correspondence. Depending on the type of case and the issues at hand, areas of inquiry that may be relevant include (a) alcohol and drug use; (b) medical status and history; (c) mental health status and history; (d) economic and psychosocial stressors; (e) the nature and quality of interpersonal, family, and marital relationships; (f) behavior and verbal and written communications; and (g) legal history and records.

There are a number of limitations inherent to RMSEs, some of which also affect more commonly practiced psychological evaluations, including both therapeutic and forensic evaluations. First, as noted above, the lack of a standard assessment technique or procedure increases the likelihood of unreliable assessments and invalid opinions. Second, an obvious limitation is the psychologist's inability to assess the individual whose mental state at some prior time is of relevance (via either interview or administration of psychological testing, if indicated). Third, because the time of interest is in the (often distant) past, the available records may be limited and the recollections of third parties who may be interviewed by the examiner may suffer and be less accurate as a result. Fourth, third-party informants who are interviewed by the psychologist may distort representations of the decedent's mental state and behavior, either knowingly (e.g., because of their desire to bring about a particular outcome in a legal case, such as when a potential beneficiary intentionally denies the deceased testator's severely impaired mental state at the time the will is executed so that the will is declared and the beneficiary receives the inheritance) or unknowingly (e.g., when a spouse fails to recognize and report the deceased spouse's suicidal behaviors because of guilt over the death).

Little research has been conducted examining the reliability and validity of opinions formed using RMSEs. Of course, assessing the validity of this technique is challenging because of problems with criterion validation. That is, to examine the accuracy of opinions that are formed using an RMSE, one must be able to compare the formed opinions with the actual

facts or outcome (which is never knowable or known). As a result of the limited data regarding the reliability and validity of opinions formed when using RMSE techniques, commentators have recommended that professionals who are asked to conduct such examinations proceed cautiously and make clear the limitations inherent in such inquiries.

Randy K. Otto

See also Criminal Responsibility, Assessment of; Expert Psychological Testimony; Forensic Assessment; Testamentary Capacity

Further Readings

Ogloff, J. R. P., & Otto, R. K. (2003). Psychological autopsy and other retrospective mental state evaluations: Clinical and legal issues. In I. Z. Schultz & D. O. Brady (Eds.), *Handbook of psychological injuries* (pp. 1186–1230). Chicago: American Bar Association Press.

Poythress, N., Otto, R. K., Darkes, J., & Starr, L. (1993). APA's expert panel in the congressional review of the U.S.S. Iowa incident. *American Psychologist, 48,* 8–15.

Scott, C. L., & Resnick, P. J. (2006). Patient suicide and litigation. In R. I. Simon & R. E. Hales (Eds.), *Textbook of suicide assessment and management* (pp. 527–544). Washington, DC: American Psychiatric Publishing.

Psychological Inventory of Criminal Thinking Styles

The Psychological Inventory of Criminal Thinking Styles (PICTS) is an 80-item self-report inventory designed to measure eight thinking styles presumed to reinforce, support, and maintain a criminal lifestyle. The eight thinking styles assessed by the PICTS are Mollification, Cutoff, Entitlement, Power Orientation, Superoptimism, Sentimentality, Cognitive Indolence, and Discontinuity. The PICTS also contains two validity scales—Confusion and Defensiveness; four factor scales—Problem Avoidance, Interpersonal Hostility, Self-Assertion/Deception, and Denial of Harm; two content scales—Current and Historical; two composite scales—Proactive Criminal Thinking (P) and Reactive Criminal Thinking (R); and a general score covering all 64 criminal thinking items—General Criminal Thinking (GCT).

Description and Development

There were 32 items on the PICTS when it first appeared in 1989, 4 for each thinking style. In 1990, the PICTS was expanded to 40 items with the addition of two validity scales, and the ratings went from 3 points (*agree, uncertain, disagree*) to 4 points (*strongly agree, agree, uncertain, disagree*). In 1992, the number of items per scale was raised to 8 to produce an inventory of 80 items. Norms were established by administering this third version of the PICTS to 150 minimum-security male federal inmates, 150 medium-security male federal inmates, 150 maximum-security male federal inmates, and 227 state and federal female inmates. The PICTS validity scales were successfully revised in 2001, leading to the fourth and current version of the PICTS, in which the content (phrasing) and position (item number) of the 64 thinking-style items and 8 retained validity scale items remained constant across Versions 3.0 and 4.0. Consequently, research studies and norms from Version 3.0 should be applicable to Version 4.0.

Hierarchical Organization

Factor analytic research has revealed one-, two-, four-, and eight-factor solutions for the PICTS. Like the criminal thinking it is designed to measure, the PICTS is factorially complex and hierarchically organized. The eight PICTS scales are at the bottom of the hierarchy. The P and R scales are in the middle of the hierarchy, with the Mollification, Entitlement, and Superoptimism thinking-style scales loading heaviest on P and the Cutoff, Cognitive Indolence, and Discontinuity thinking-style scales loading heaviest on R. At the top of the hierarchy, P and R merge to form general criminal thinking, as measured by the GCT.

Reliability

Internal consistency (Cronbach's alpha coefficient) is .54 to .79 for the PICTS scales, .80 to .91 for the P and R scales, and .93 for the GCT. Test-retest reliability (Pearson *r*) after 2 weeks is .73 to .93 on the thinking-style scales, .88 to .96 on the P and R scales, and .85 to .93 on the GCT. Test-retest reliability (Pearson *r*) after 12 weeks is .47 to .86 on the thinking-style scales, .70 to .88 on the P and R scales, and .84 to .85 on the GCT.

Validity

The content validity of the PICTS is supported by the fact that inmates familiar with the lifestyle concept participated in the measure's development and furnished the content for several PICTS items. Furthermore, the eight thinking styles believed to support a criminal lifestyle are assessed on the PICTS.

In early studies evaluating the predictive validity of the PICTS, it was determined that several of the PICTS thinking-style scales, Cutoff and Entitlement in particular, predicted future disciplinary problems in prison and subsequent arrests in the community. More recent research has shown that higher-level PICTS scales—such as the P and R, and GCT—are incrementally valid predictors of future disciplinary problems and recidivism when age, prior arrests, and popular non-self-report rating scales such as the Psychopathy Checklist: Screening Version are controlled.

Exploratory and confirmatory factor analyses have been used to support the construct validity of the PICTS as a factorially complex and hierarchically organized construct with both general (GCT) and specific (eight thinking-style scales) features. Furthermore, the pattern of convergent and discriminant correlations between the PICTS thinking-style scales and various measures of personality indicate that the PICTS correlates better with similar constructs (antisocial personality) than with dissimilar constructs (depression, anxiety, schizophrenia).

Future Research

One direction for future research is testing the cross-national validity of the PICTS. Promising results have been reported in studies from Canada, the United Kingdom, Ireland, and Australia. Although the PICTS has been translated into a number of different languages and dialects, there have been no studies to date examining its utility in non-English-speaking populations.

A second direction for future PICTS research is using it to measure change in offenders enrolled in psychological programming. Although studies indicate that several PICTS scales appear to change over the course of intervention, longitudinal studies are required to ascertain whether a change on the PICTS reflects a meaningful change in thinking and behavior and whether or not this has a direct bearing on future recidivism.

Recent studies have shown that the latent structure of criminal thinking, like the latent structure of psychopathy and antisocial personality, is dimensional rather than categorical in nature. What needs to be determined is whether the dimensionality observed on the PICTS is the same or different from the dimensional structure of psychopathy and antisocial personality.

Glenn D. Walters

See also Forensic Assessment; Psychopathy Checklist: Screening Version

Further Readings

Blud, L., Travers, R., Nugent, F., & Thornton, D. (2003). Accreditation of offending behaviour programmes in HM Prison Service: "What Works" in practice. *Legal and Criminological Psychology, 8,* 69–81.

Palmer, E., & Hollin, C. (2003). Using the Psychological Inventory of Criminal Thinking Styles with English prisoners. *Legal and Criminological Psychology, 8,* 175–187.

Walters, G. D. (1995). The Psychological Inventory of Criminal Thinking Styles: Part I. Reliability and preliminary validity. *Criminal Justice and Behavior, 22,* 307–325.

Walters, G. D. (2002). The Psychological Inventory of Criminal Thinking Styles (PICTS): A review and meta-analysis. *Assessment, 9,* 283–296.

Walters, G. D., & Mandell, W. (2007). Assessing the incremental validity of the Psychological Inventory of Criminal Thinking Styles (PICTS) and Psychopathy Checklist: Screening Version (PCL: SV) with disciplinary report count data. *Law and Human Behavior, 31,* 141–157.

Psychopathic Personality Inventory (PPI)

The PPI is a widely used self-report measure designed to detect the principal personality traits of psychopathy. Revised in 2005 as the Psychopathic Personality Inventory–Revised (PPI–R), it consists of 154 items arrayed in a 4-point Likert-type format. The PPI–R, like the original PPI, yields a Total score reflecting global psychopathy as well as eight-factor analytically derived content scales reflecting specific facets of psychopathy: Machiavellian Egocentricity, Rebellious Nonconformity (formerly Impulsive Noncomformity), Blame Externalization (formerly Alienation), Carefree Nonplanfulness, Social Influence (formerly Social Potency),

Fearlessness, Stress Immunity, and Coldheartedness. The PPI–R also contains three validity scales designed to detect aberrant response styles that are potentially problematic among psychopathic individuals: Virtuous Responding (formerly Unlikely Virtues), Deviant Responding, and Inconsistent Responding (formerly Variable Response Inconsistency).

Construction of the PPI and PPI–R

The PPI, consisting of 187 items, was developed over the span of several years in the late 1980s. It was constructed largely in response to a perceived need for an easily administered questionnaire measure of psychopathy that would facilitate research on, and the clinical assessment of, psychopathy. In contrast to most previous measures of psychopathy, it was developed to be applicable to nonclinical (e.g., student, community) as well as clinical (e.g., offender, substance abuse) samples. Prior to the construction of self-report measures of psychopathy, most of the research on this condition was limited to offenders, primarily because extant measures of psychopathy required access to detailed file information. The development of the PPI and other self-report measures of psychopathy has facilitated research concerning the manifestations of this condition in community and student settings, permitting investigators to examine the characteristics of "successful" or "adaptive" individuals with high levels of psychopathic traits.

The PPI was designed to detect the key personality traits of psychopathy, such as superficial charm, dishonesty, manipulativeness, guiltlessness, callousness, fearlessness, self-centeredness, externalization of blame, and poor impulse control. The initial constructs targeted for inclusion in the PPI were derived from a comprehensive review of the clinical and research literatures on psychopathy, including the seminal writings of Hervey Cleckley, Benjamin Karpman, David Lykken, Robert Hare, and Herbert Quay. In an effort to distinguish psychopathy from cognate but separable constructs (e.g., antisocial personality disorder, crime proneness), items explicitly assessing antisocial and criminal behaviors were not included in the prospective item pool. To enhance the likelihood that the psychopathic respondents would be willing to endorse trait-relevant items, most PPI items were phrased to be socially normative.

The PPI items and constructs were progressively refined by means of factor analyses on three successive undergraduate samples, with a total sample size of 1,156 participants. The eight lower-order factors that make up the PPI emerged across all three rounds of test development and appeared to assess the core affective and interpersonal traits of psychopathy. The three validity scales of the PPI assist with detection of socially desirable responding and malingering, which may be particular causes for concern in forensic settings.

The PPI was revised in 2005 to reduce its length, decrease its reading level, eliminate psychometrically suboptimal and culturally specific items, and develop norms for general population and offender samples. Based on factor analyses of large student, community, and offender samples, a number of inadequately functioning PPI items were eliminated or rewritten. The revised version of the test, the PPI–R, consists of 154 items divided into the same eight content scales and three validity scales as the PPI.

Higher-Order Factor Structure

Higher-order-factor analyses of the PPI–R content scales have generally yielded a two-factor structure. One factor, called "Fearless Dominance," consists of the Social Influence, Fearlessness, and Stress Immunity content scales. The other factor, called "Self-Centered Impulsivity," consists of the Machiavellian Egocentricity, Rebellious Nonconformity, Blame Externalization, and Carefree Nonplanfulness content scales. The eighth PPI–R content scale, Coldheartedness, does not load substantially on either higher-order factor. The analyses indicate that the two PPI–R higher-order factors display markedly divergent correlates. For example, Fearless Dominance correlates negatively with indices of depression, anxiety, and suicidality, whereas Self-Centered Impulsivity correlates positively with these indices.

Reliability

The test-retest reliability of the PPI–R Total score (average 20-day retest interval) in a general population sample is .93, with the test-retest reliabilities of the PPI–R content scales ranging from .82 to .95. The internal consistency (Cronbach's alpha) of the PPI–R Total score in a general population sample is .92, with internal consistencies of the PPI–R content scales ranging from .78 to .87. These test-retest and internal consistency figures are comparable with, and slightly higher than, those generally reported for the PPI. The

internal consistency of the PPI–R Total score in an offender sample is somewhat lower (.84), with the internal consistencies of the PPI–R content scales ranging from .71 to .83.

Validity

Numerous studies in college and offender samples provide support for the construct validity of the PPI and PPI–R. The Total scores on these measures correlate moderately to highly with other self-report, interview-based, and observer measures of psychopathy. The PPI Total score correlates moderately with measures of personality disorders known to overlap with psychopathy, such as narcissistic, histrionic, and borderline personality disorders, but weakly with measures of most other (e.g., schizoid) personality disorders. Moreover, the PPI and PPI–R Total scores display adequate discriminant validity from measures of constructs that are theoretically distinct from psychopathy (e.g., depression, schizotypy, psychosis proneness, social desirability).

In addition, the PPI and PPI–R Total scores correlate negatively with several traits of the well-known "five-factor model" of personality, especially Conscientiousness and Agreeableness, and positively with measures of sensation seeking and Machiavellianism. Finally, the PPI Total score demonstrates positive correlations with measures of delinquent behaviors and substance abuse, laboratory measures of poor impulse control and planning, and offender disciplinary infractions. Future research should help determine whether (a) the PPI–R exhibits incremental validity above and beyond other well-validated measures of psychopathy (e.g., the largely interview-based Psychopathy Checklist–Revised), (b) observer reports of psychopathy can supplement the PPI–R by filling in some of the "blind spots" generated by psychopathic individuals' lack of insight regarding the nature of their symptoms, and (c) the PPI–R can help identify potentially adaptive expressions of psychopathy, such as charismatic leadership and heroic forms of altruism.

Scott O. Lilienfeld and Michelle R. Widows

See also Forensic Assessment; Psychopathy Checklist–Revised

Further Readings

Cleckley, H. (1988). *The mask of sanity: An attempt to clarify some issues about the so-called psychopathic personality* (5th ed.). Augusta, GA: Emily S. Cleckley.

Lilienfeld, S. O., & Andrews, B. P. (1996). Development and preliminary validation of a self-report measure of psychopathic personality traits in noncriminal populations. *Journal of Personality Assessment, 66,* 488–524.

Lilienfeld, S. O., & Widows, M. R. (2005). *Psychopathic Personality Inventory–Revised (PPI–R) professional manual*. Lutz, FL: Psychological Assessment Resources.

Psychopathy

Although psychopathy may be viewed as an evolutionary adaptation that serves the individual well, it typically is construed as a personality disorder, or a chronic, inflexible, and maladaptive pattern of relating to the world. Most conceptualizations of psychopathy emphasize traits of emotional detachment, including callousness, failure to form close emotional bonds, low anxiety proneness, remorselessness, and deceitfulness. However, the most widely used measure of psychopathy goes beyond these traits to assess repeated involvement in antisocial behavior. The Revised Psychopathy Checklist (PCL–R) was developed with criminal offenders and weighs past antisocial behavior as strongly as traits of emotional detachment in diagnosing psychopathy. Predominant use of the PCL–R and offender samples has established a large research literature on unsuccessful psychopathy. Relatively little is known about individuals with traits of emotional detachment who escape contact with the legal system; express their psychopathic tendencies in a manner that does not conflict with the law; or even attain success in business, political, and other settings. Indeed, most contemporary research and virtually all practical interest in psychopathy revolve around the utility of the PCL–R in forecasting offenders' violent and antisocial behavior and, to a lesser extent, offenders' treatment amenability. Recent research challenges the prevailing assumptions that (a) traits of emotional detachment per se predict violence and (b) individuals with psychopathic traits cannot be effectively treated. In this entry, research on these practical issues is reviewed before turning to more fundamental questions about the basic nature and manifestations of psychopathy. Theoretically driven research on the potential mechanisms that underpin the disorder reveal the importance of emotional detachment as a likely manifestation of classic or "primary" psychopathy. Such research also suggests that there

may be a "secondary" variant of psychopathy, marked by psychological disturbance and violence potential.

Practical Interest in Psychopathy

A variety of psycholegal issues that arise in the criminal and juvenile justice system call for the identification of individuals who are inalterably dangerous. Increasingly, measures of psychopathy are being applied to inform decisions about the length of offenders' sentences, their level of institutional supervision, whether they should be released from prison on parole, whether they should receive any treatment, and whether they should be sentenced to death. Psychopathy measures predominantly are used as prosecution tools. As shown in this section, there are reasons to question the assumption that these measures identify individuals who are inalterably dangerous.

Violence Prediction

The most widely used measure of psychopathy is also the number one tool used to assess risk of future violence. In fact, forensic psychologists use the PCL–R to assess risk twice as often as they use tools that were specifically designed as risk assessment tools. This is not the case for other well-validated measures of psychopathy such as the Psychopathic Personality Inventory (PPI). Instead, the diagnostic measure for personality disorders has become the most widely used tool for assessing violence risk, owing to a series of studies indicating that the PCL measures robustly predict violence and recidivism for offenders, forensic patients, and even psychiatric patients. Although the absolute size of this relationship is weak ($r \approx .25$), the PCL–R is among the strongest single predictors of violence and other criminal behavior, on a level that competes with leading risk assessment tools.

Although this relationship suggests that emotionally detached psychopaths callously use violence to achieve control over and exploit others, recent research suggests otherwise. The lion's share of the PCL–R's utility in predicting violence is attributable to its saturation with indices of past violence and criminality. Although there is debate about its factor structure, the original PCL–R model has two moderately correlated scales: The first assesses core interpersonal and affective features of *emotional detachment* that are central to most conceptualizations of psychopathy; the second assesses impulsivity, irresponsibility, poor anger controls, and *antisocial behavior*, which some view as peripheral to psychopathy. A meta-analysis of 42 studies indicated that the PCL–R's antisocial behavior scale is significantly more predictive of violent and general recidivism than its emotional detachment scale. Moreover, three original studies indicate that the emotional detachment scale does not significantly predict future violence, independent of its association with the antisocial behavior scale.

Psychopathy explains the predictive utility of the PCL–R less than do two other factors. First, indices of past violent and criminal behavior naturally are linked with future, like behavior. Information about criminal behavior determines one's ratings of some PCL–R items and heavily affects one's ratings of many others. Second, ratings of past violent and criminal behavior appear to capture something traitlike that is clinically useful but not specific to psychopathy. The PCL–R (antisocial or total scores) manifests some incremental utility in predicting future violence and crime, beyond indices of past, like behavior. Recent research suggests that the PCL–R may tap constructs of antagonism or "externalizing" that place individuals at high risk of involvement in violent situations. Antagonism involves suspiciousness, hostility, combativeness, and irritability. Externalizing weaves together traits of aggression and behavioral disinhibition, antisocial behavior, and substance use. Neither construct is specific to psychopathic personality disorder. Both are related to violent and antisocial behavior.

Treatment Amenability

Practical interest in psychopathy revolves around its implications for assessing both violence risk and treatment amenability. The prevailing assumption is that psychopathy cannot be effectively treated. In fact, the results of one early study led many to opine that treatment only "made psychopaths worse"—that is, more likely to re-offend than if they had not been treated. This study was a retrospective matched trial that compared the recidivism rates of mentally disordered offenders released from either a prison or a radical therapeutic community program. The treatment program was active in the 1960s and involved unconventional interventions such as extended nude encounter groups and administration of psychedelics, alcohol, and other drugs to psychopaths to disrupt their defenses, increase their anxiety, and generally make them more accessible to treatment.

Therapeutic pessimism about psychopathy is so deeply entrenched in clinical and forensic circles that it rarely has been subjected to empirical evaluation.

To date, no randomized controlled trial has compared the outcomes of psychopathic individuals who do, or do not, receive treatment. Moreover, no published study has examined treatment programs developed particularly for those with psychopathy; instead, treatment for other conditions (mental disorder, substance abuse, or recidivism risk) has been administered "as usual" to those with psychopathy.

Nevertheless, a mounting body of recent quasi-experimental evidence challenges the assumption that individuals with psychopathy do not respond to conventional treatment. This research suggests that psychopathy, like many other personality disorders, complicates the first-line treatment of mental and substance abuse disorders. Simply put, individuals with psychopathy tend to have low treatment motivation, to misbehave in treatment, and to respond more slowly to treatment. However, when provided sufficient "doses" of treatment, those with psychopathy are as likely as anyone else to manifest reduced risk of violence and recidivism.

Three nonexhaustive examples will be provided here. First, a meta-analysis of 44 studies indicated that (a) therapeutic communities were the most common and least effective form of treatment for those with psychopathy and (b) across treatment modalities and definitions of psychopathy, treatment was moderately successful in reducing recidivism for psychopathic individuals (a 62% success rate). Second, a prospective study of approximately 900 civil psychiatric patients indicated that psychopathy did not moderate the effect of outpatient treatment on future violence. Of those who received relatively intensive treatment during one 10-week period, those with psychopathic traits were as likely as those without such traits to show significantly reduced violence potential in the next 10-week period. Third, a prospective study of 381 offenders mandated to substance abuse treatment indicated that treatment involvement significantly reduced risk of recidivism during the year after release, regardless of the effect of psychopathic traits. In the latter two studies, propensity scores were applied to control for the nonrandom assignment of individuals to less versus more intensive treatment. The effects remained moderate and significant. Together, this research suggests that individuals with psychopathy should be recast as high-risk (not hopeless) cases in need of intensive treatment. Correctional research indicates that focusing intensive resources on the highest-risk cases maximizes reduction in recidivism.

Basic Nature and Manifestations of Psychopathy

The relatively recent surge of interest in applying measures of psychopathy has affected our conceptualization of the construct itself. To be certain, use of the PCL–R has advanced the field's understanding of the nature and manifestations of psychopathy. The ever-increasing momentum of research on psychopathy is largely attributable to the PCL–R's ability to assess reliably traits such as callousness, facilitate comparison of results across studies, and clarify communication among practitioners and researchers. However, referring to the PCL–R as the "gold standard of psychopathy" signals that the field has mistakenly conflated a *measure* with a *construct*. A PCL–R score is no more psychopathy than a Wechsler Adult Intelligence Scale (WAIS–R) score is intelligence.

As research on the PCL–R's utility in predicting violence has accumulated, the dominant view of psychopathy itself has shifted. Most modern views of psychopathy may be traced to Hervey Cleckley's influential book *The Mask of Sanity* (1941). Based on a series of case studies, Cleckley articulated 16 criteria for psychopathy that emphasized traits of emotional detachment. Although the PCL–R is based on Cleckley's conceptualization, it omits some features that Cleckley viewed as central to psychopathy (e.g., low anxiety) and emphasizes tendencies toward violent and antisocial behavior. Cleckley viewed these tendencies as largely "independent" of the more fundamental manifestations of psychopathy. As the field has come to equate psychopathy with the PCL–R, there has been slippage toward the notion that psychopathy is a violent variant of antisocial personality disorder. Now, psychopaths are called "intraspecies predators," and criminal behavior has been held up as the "ultimate criterion" for measures of psychopathy.

Notably, this entry focuses on the nature and manifestations of psychopathy among those for whom measures of psychopathy are best validated: adult, Caucasian, male offenders. Questions have been raised about the applicability of the psychopathy construct to juveniles, African Americans (who do not manifest some deficits on laboratory tasks thought prototypic of psychopathy), and women (who do not yield a clear factor structure for measures of psychopathy).

Validation Hierarchy

Predictive utility (which seeks clinical utility) cannot be mistaken for construct validity (which seeks construct identification). To increase the PCL–R's predictive utility, one could go beyond criminal behavior to include items that assess young age and male gender. This would not, however, necessarily enhance the measure's validity in assessing psychopathic personality disorder. To advance understanding of the construct, psychopathy must be evaluated against a validation hierarchy dictated by a theory of the disorder.

There are two major groups of theories about psychopathy. The first group begins with Cleckley, who posited that psychopathy is a largely inherited affective deficit that results in self-defeating behavior. Similarly, Robert Hare hypothesizes that this affective deficit involves impaired processing of emotional meanings related to language and may be based on reduced lateralization of verbal processes. The second theoretical group begins with the Fowles-Gray model of psychopathy, which references two constitutionally based motivational systems that influence behavior. The behavioral inhibition system (BIS) regulates responsiveness to aversive stimuli and is associated with anxiety, whereas the behavioral activation system (BAS) regulates appetitive motivation and is associated with impulsivity. According to the Fowles-Gray theory, primary psychopaths possess an intact BAS and a weak BIS, so they do not experience anticipatory anxiety that causes most people to inhibit activity that leads to punishment or nonreward. In a related sense, David T. Lykken's primary psychopath is fearless. Without the experience of fear to facilitate learning to avoid conditions associated with pain, the primary psychopath has difficulty with avoidance learning. Rather than fearlessness, Joseph P. Newman's conceptualization emphasizes a lack of anxiety. Specifically, Newman postulates that a cognitive processing or "response modulation" deficit lies at the core of Cleckleyan psychopathy. These individuals are unable to suspend a dominant response set to accommodate feedback from the environment.

Despite the differences among them, most of these theories describe psychopathy as a largely inherited affective or cognitive processing deficit. These theories dictate a validation hierarchy that places pathophysiologic and etiological mechanisms at the top, as they offer the greatest potential for explaining the disorder and potentially altering its course. Although unmodulated, unrestrained, or self-defeating behavior is symptomatic of the disorder, and may be found at lower levels of the validation hierarchy, there is nothing specific to criminal or violent behavior. Indeed, several theories explicitly omit criminal behavior. The question is whether the diagnostic criteria for psychopathy identify a homogeneous group of individuals with clearly delineated deficits and largely genetic pathophysiology.

Deficits and Etiology

The PCL–R has been most thoroughly evaluated in laboratory experiments as comprising the diagnostic criteria for psychopathy. Although these criteria do appear to identify a group of individuals with theoretically relevant deficits, they could be refined to do this better. On the one hand, PCL–R scores are associated with diminished startle response to negative or aversive emotional cues, less autonomic arousal during fear and distress imagery, and greater recall for the peripheral details of aversive images. On the other hand, the PCL–R omits key features of psychopathy, such as low anxiety. Among offenders with high PCL–R scores, only those who also manifest low anxiety show response modulation deficits on a passive avoidance learning task or reduced sensitivity to cues of punishment when a reward-oriented response set is primed. Moreover, the PCL–R overemphasizes antisocial behavior. When PCL–R scale scores are examined, performance on many of these laboratory measures is more strongly linked with the emotional detachment scale than the antisocial behavior scale. Integrating across studies, the core of psychopathy seems to involve emotional detachment, including low anxiety, not antisocial behavior.

Although one might interpret the results of these experiments as evidence that psychopathy is genetically influenced, caution should be exercised in drawing premature inferences because the heritability of these laboratory variables is unclear. To date, no behavior genetic studies of PCL–R psychopathy have been conducted. Nevertheless, several survey studies indicate that childhood maltreatment is more strongly associated with the PCL–R's antisocial behavior scale than its emotional detachment scale. In keeping with the experimental data, this suggests that emotional detachment is a more theoretically valid indicator of psychopathy than antisocial behavior.

To date, only one behavior genetic study of psychopathy has been conducted with adults or adolescents. In this twin study of more than 600 17-year-olds drawn from the community, a measure of normal personality was used to estimate scores on a promising self-report measure of psychopathy, the PPI. Although

the PPI has "Fearless Dominance" and "Impulsive Antisociality" scales that appear somewhat like the two scales of the PCL–R, the PPI is not saturated with indices of violent and antisocial behavior. The study yielded moderate heritability estimates for both scales (h = .45 to .49). The extent to which these results will generalize to the context in which psychopathy is typically studied (i.e., direct assessment of PCL–R psychopathy with offenders) is unclear.

In summary, the criteria for diagnosing psychopathy can identify individuals with clearly delineated deficits, particularly if they are modified to include low anxiety and de-emphasize antisocial behavior. At present, it is unclear whether these deficits are largely genetically determined. However, as shown next, the present criteria clearly do not identify a homogeneous group of individuals as psychopathic.

Homogeneity

Although psychopathy usually is treated as a unitary construct, Ben Karpman's seminal theory posits that there are two variants: primary psychopathy is underpinned by an inherited affective deficit, whereas secondary psychopathy reflects an acquired affective disturbance. Primary psychopathy is consistent with classic conceptualizations of psychopathy as a deficit, whereas secondary psychopathy represents a more psychopathological, hostile, and violent variant.

Although the etiological distinctions between them have not been rigorously investigated, there is evidence that primary and secondary variants of psychopathy can be identified. Despite differences in their methodology, three studies have identified—among offenders with PCL–R scores in the range deemed psychopathic—primary and secondary variants. In the first study, model-based cluster analysis was applied to 96 inmates' scores on a measure of general personality to identify two groups of psychopaths: one emotionally stable (primary) and the other aggressive (secondary). Although the two groups were difficult to distinguish in their psychopathic traits, secondary psychopaths reported more fights, greater alcohol abuse, lower socialization, and higher trait anxiety than primary psychopaths. In the second study, model-based cluster analysis was applied to 124 inmates' scores on the PCL–R and a measure of trait anxiety to reveal two groups. Relative to primary psychopaths, secondary psychopaths had greater trait anxiety, fewer psychopathic traits, and comparable levels of antisocial behavior. Across validation variables, secondary psychopaths manifested more borderline personality features, poorer interpersonal functioning (e.g., withdrawal, lack of assertiveness), more symptoms of major mental disorder, and greater treatment responsivity than primary psychopaths. A similar approach was used in the third study of 116 juvenile offenders, which also yielded primary and secondary variants. Secondary variants were more likely than primary variants to endorse early childhood abuse.

These recent findings raise fundamental questions about the nature of psychopathy. Are secondary psychopaths still "psychopaths" if the mechanisms that underpin their traits differ from psychopathy as classically construed? The findings may also have substantial practical implications for risk assessment and risk management. Relative to primary psychopaths, secondary psychopaths theoretically are both more prone to violence and more amenable to treatment. The next generation of research holds promise for addressing these key questions, ideally while distinguishing between the practical enterprise of clinical prediction and the pursuit of understanding the psychopathy construct.

Jennifer L. Skeem and Patrick J. Kennealy

See also Antisocial Personality Disorder; Forensic Assessment; Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); Juvenile Psychopathy; Personality Disorders; Psychopathic Personality Inventory (PPI); Psychopathy, Treatment of; Psychopathy Checklist: Screening Version; Psychopathy Checklist: Youth Version; Risk Assessment Approaches

Further Readings

Cleckley, H. (1976). *The mask of sanity* (5th ed.). St. Louis, MO: Mosby.

Lilienfeld, S. O. (2005). *Psychopathic Personality Inventory–Revised* (PPI–R). Lutz, FL: Psychological Assessment Resources.

Lykken, D. T. (1995). *The antisocial personalities*. Hillsdale, NJ: Lawrence Erlbaum.

Patrick, C. J. (2006). *Handbook of psychopathy*. New York: Guilford Press.

Skeem, J. L., & Cooke, D. J. (in press). Is criminal behavior a central component of psychopathy? Conceptual directions for resolving the debate. *Psychological Assessment*.

Skeem, J., Poythress, N., Edens, J., Lilienfeld, S., & Cale, E. (2003). Psychopathic personality or personalities? Exploring potential variants of psychopathy and their implications for risk assessment. *Aggression & Violent Behavior, 8,* 513–546.

Psychopathy, Treatment of

The treatment of psychopathy is a controversial and underinvestigated area of study. Many researchers and clinicians have suggested that the pervasive and manipulative nature of the disorder makes it unlikely that psychopathic individuals can benefit from treatment. It is of concern that the primary characteristics of psychopathy (e.g., manipulation, deceit, and shallow affect) result in low treatment compliance and efficacy. To elaborate on this point, Ivan Zinger and Adelle Forth (1998) contend that the pessimistic views of treating the psychopath derive from three primary sources. First, Hervey Cleckley's description of the psychopath's inability to form affective relationships considered necessary for effective treatment was influential. Second, psychopaths who cause substantial harm to society tend to decrease the compassion of clinicians, thereby reducing therapist motivation. Third, serious personality disorders have often been considered intractable by many clinicians. Zinger and Forth also argued that these views are entrenched in the minds of both mental health and legal professionals, resulting in few objective efforts to examine treatment amenability in psychopaths. Despite these early concerns, recently there has been renewed interest in examining the treatment of psychopathy, as some researchers believe that treatment gains are possible if the modality and dosage of treatment are suited to the disorder. Recent advances in the treatment of other personality disorders also spurred a renewed interest in the treatment of psychopathy. Although contemporary research suggests that the field has been overly pessimistic about the prognosis for treating psychopathy, there are few well-controlled studies on the topic. It is therefore difficult to draw firm conclusions either way with respect to treatment outcomes.

Randy Salekin first shed light on the psychopathy-treatment relation by conducting a meta-analysis on 42 studies. The results of that study indicated that psychopathic individuals could show some benefit from psychotherapy; however, the treatment had to be intensive and typically involved both the psychopath and family members. Although the quality of the studies in the meta-analysis was somewhat limited, the review underscored two important points: (1) there was no evidence for psychopathy being considered an untreatable disorder and (2) there was a need for a second generation of research on the topic. Salekin's review and meta-analysis also highlighted several problematic areas that would need resolution before the field could move forward with a more informative generation of research. These problems included definitional concerns, an unclear etiology of psychopathy, and few controlled treatment-outcome studies. Each of these concerns is reviewed in further detail below.

Defining Features

Most problematic has been disagreement about the conceptualization and defining features of psychopathy. Hervey Cleckley offered a well-accepted early version of psychopathy. However, this version was replaced in the *Diagnostic and Statistical Model* (*DSM*) with a behavioral model for antisocial personality disorder. Lee Robins and Robert Cloninger suggested that antisocial personality disorder (i.e., psychopathy) might be best measured by examining behavior rather than personality because the assessment of personality was less reliable. Robert Hare offered a two-factor model for psychopathy that incorporated both Cleckley's personality model of psychopathy and behavioral aspects similar to those outlined in Robins and Cloninger's work. While these theorists purport to be assessing the same construct, the items of each model differ significantly, complicating the psychopathy (antisocial personality) treatment-outcome question. That is, depending on the model used, psychopathy might be more or less treatable. However, there is little in the way of systematic research to shed light on the treatment potential for each of the different models.

Whatever the chosen model, current diagnostic systems (e.g., *DSM-IV-TR* [fourth edition, text revision], *International Classification of Diseases*, 10th revision [*ICD-10*]) use cutoff points for diagnosing disorders, resulting in various permutations for a given disorder. This is pertinent to psychopathy research and practice because certain characteristics might be more resistant to treatment. For instance, "absence of nervousness," "manipulation," "deceitfulness," or other factors might be of most concern for treatment. To elaborate on this point, absence of nervousness, a cardinal feature of early definitions, may generate the hypothesis that psychopathy is difficult to treat; however, because the cutoff scores are set low on some measures (*DSM*-APD [antisocial personality disorder]) and moderate to high on others (PCL–R), it might mean that some individuals classified as having the disorder do not exhibit the trait that would make them less amenable (absence of nervousness). Of

equal concern, because few contemporary measures of psychopathy incorporate this feature, it is possible that newer indices may identify individuals who are amenable to treatment, even though they might be labeled as psychopathic. Thus, the mix of psychopathic characteristics could be very important in making determinations of amenability (unamenability).

Even if all symptoms were to be accorded equal weight in the amenability question, it is difficult to know at what point individuals become unamenable to treatment. It is also not clear from other disorders (e.g., depression) that endorsing all possible symptoms results in a more untreatable condition. Even assuming that higher-scoring individuals are less amenable to treatment, there are no data to suggest that individuals scoring more than 30 on the PCL–R (the cutoff score most often used for adults) are the worst candidates for treatment. Assessment with such instruments rests on the assumption that all criteria carry equal weight (and this may not be the case as noted above) and that any combination of items that exceeds a predetermined cutoff score is sufficient to warrant diagnosis (and presumably a conclusion that the individual is unamenable to treatment). Thus, even the use of dimensional scores that may reflect degrees of treatment amenability (or unamenability) is not well tested. And, as mentioned, if items are not of equal weight in answering amenability queries, such a perspective would not alleviate the potential for particular symptoms to have more or less effect on treatment amenability.

Etiology

The etiology for psychopathy is not well understood. Even for proposed theories, the specific linkage between etiology and treatment is not always well developed or articulated. What we do know is that the majority of prominent theories suggest a predisposition to the disorder. Specifically, temperamental style, low fearfulness, deficiency in psychopathy constraint, or a similar deficit, are frequently mentioned. Psychopathy researchers have also begun to show a genetic link to the disorder. Other theories suggest that psychopathy develops through a specific set of environmental conditions (e.g., poor attachment due to maltreatment). There is little in the theories themselves, however, even those emphasizing genetic factors, that could rule out the potential for treatment.

In sum, theories regarding the etiology of psychopathy suggest that psychopathy may develop through predisposition, harsh environmental conditions, or the interaction of temperament and environment. Even individuals with a particular temperamental style interact with others in ways that can foster either detachment and aggression or attachment and prosocial behavior. Moreover, the acceptance of linear deterministic theories that ignore the potential multiple factors that affect the development of psychopathy and are unable to account for the complexity of psychopathy symptoms will not be helpful in designing treatment programs. Specifically, theories that focus on only one component, or aspect, of psychopathy (e.g., frontal lobe dysfunction, deficiency in serotonin, response modulation) without explicating other manifestations (e.g., superficial charm, good intelligence, manipulation) are overly simplistic. Theories will have to be more encompassing when accounting for the symptoms of psychopathy because theory hints at methods and targets for intervention. For example, many of the current theories point toward parental practices and contextual factors as targets for potentially successful intervention. Or some theories suggest notifying psychopaths of their deficits in therapy so that they can begin to try to alter them.

Treatment-Outcome Studies

Another area of concern with respect to the treatment of psychopathy is that there are not many well-controlled treatment-outcome studies. The meta-analysis mentioned earlier showed that there may be some treatment effect for psychopathic individuals. Specifically, treatment may be beneficial if it is intensive and of long duration. This meta-analysis also found that youths evidenced the most gain from psychotherapy and that incorporating family and other support groups into treatment appeared to be helpful. This review and meta-analysis suggested that, like individuals with other disorders, psychopaths probably show moderate and incremental change over time rather than a complete transformation. Although this study suggested that a second generation of research was needed on this topic, few subsequent studies have been conducted. Specifically, very few studies have systematically examined the treatment response differences between psychopaths and nonpsychopaths. In those that have, psychopathic traits tend to be seen as

predicting early termination or poor treatment performance rather than targets for intervention themselves. This is particularly evident in the substance abuse literature, where the primary intervention target is substance use rather than psychopathy or psychopathic traits, even after numerous studies have demonstrated that psychopaths show fewer treatment gains using traditional interventions for substance use. Despite the limitations, these studies have a few hopeful findings that deserve greater attention. First, several programs found some positive benefits from treatment, even for individuals with high levels of psychopathy. Second, longer, more intensive treatments generally showed better effects, consistent with the view of psychopathy as a pervasive and destructive personality disorder.

The primary conclusion we can draw from past work in this area is that much more intensive and thoughtful research is needed if we are to further facilitate practice with psychopathic individuals. At present, there are few specific programs designed for treating psychopathy itself, and there are mixed findings regarding behavior and compliance while in treatment. It would be naive to conclude that treatment would not be difficult, particularly given what we know about the treatment of other severe forms of psychopathology; however, it is equally naive to conclude that psychopaths cannot benefit from treatment simply because of the complexity of the disorder. Working between these two extremes, the literature reviewed above indicates that more research is needed to study the risk, protective, and causal factors of psychopathy as well as to begin intervention development. Ultimately, the goal should be to test the efficacy and effectiveness of informed treatment programs.

Directions for Future Studies

In many clinical settings, psychopaths are seen as untreatable despite a lack of scientific support for this claim. Three problem areas are clear from the research that exists on the topic. First, classification is a critical issue with regard to treatment. Further clarity regarding the features of the disorder is necessary to accurately assess treatment amenability. This clarity can be gained in part by specifying the conceptualization of psychopathy used in treatment-outcome studies as well as the specific symptomatology present that makes it difficult (or easy) to treat them. Also necessary for understanding treatment effectiveness is work on the temporal stability of psychopathy. Few studies have examined the psychopathy-treatment relation from contemporary concepts of the disorder or compared treatment effects across broad models. In a meta-analysis by Salekin, the Cleckley psychopath was the most frequently investigated conceptualization of psychopathy in treatment-outcome studies, yet most current research uses Hare's conceptualization of psychopathy. Given that his definition differs from Cleckley's, treatment-outcome studies that employ this definition are necessary, particularly if psychologists are to make statements about treatment amenability based on the PCL–R.

Third, to better understand the psychopathy-treatment relation, several issues should be addressed in future studies. Treatment programs specifically aimed at reducing psychopathic characteristics should be developed and ought to be based on theory regarding the etiology and maintenance of psychopathy. These studies should be controlled and systematic to determine the effectiveness of different treatment modalities. For example, researchers should use psychopathy instruments pre- and posttreatment to examine the changes in symptom level, and raters should be blind to previous scores or intervention group membership. These studies should also investigate whether external criteria, such as recidivism and conduct problems, are reduced following treatment. This type of information would inform psychologists whether there is evidence that psychological change implies reduced risk of reoffending. In addition, in light of the characteristics of psychopathy, research needs to evaluate the possibility that clients are "faking good" rather than showing evidence of substantive changes in psychopathic traits.

In sum, the literature on the treatment of psychopathy has changed from pessimistic to cautiously optimistic with the notion that carefully designed and focused interventions may be able to produce measurable change in psychopathic individuals. Through careful design and evaluation of treatment intervention programs, it is hoped that the second generation of research on treatment outcomes will allow for earlier, more effective intervention with psychopathic individuals to reduce the high societal cost of persistent offending. The eventual goal should be to use theories of etiology to initiate prevention and intervention efforts before the development of the disorder causes the individual, and society, substantive harm.

Randall T. Salekin and Ross D. Grimes

See also Conduct Disorder; Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); Hare Psychopathy Checklist: Screening Version (PCL:SV); Hare Psychopathy Checklist: Youth Version (PCL:YV); Psychopathy; Risk-Sophistication-Treatment Inventory (RSTI)

Further Readings

Cleckley, H. (1941). *The mask of sanity*. St Louis, MO: Mosby.

Cloninger, C. R. (1978). The antisocial personality. *Hospital Practice, 13,* 97–106.

Hare, R. D. (2003). *The Hare Psychopathy Checklist–Revised* (2nd ed.). Toronto, ON, Canada: Multi Health Systems.

Robins, L. N. (1966). *Deviant children grown up: A sociological and psychiatric study of sociopathic personality.* Baltimore: Williams & Wilkins.

Salekin, R. T. (2002). Psychopathy and therapeutic pessimism: Clinical lore or clinical reality? *Clinical Psychology Review, 22,* 79–112.

Salekin, R. T., Rogers, R., & Machin, D. (2001). Psychopathy in youth: Pursuing diagnostic clarity. *Journal of Youth and Adolescence, 30,* 173–195.

Zinger, I., & Forth, A. E. (1998). Psychopathy and Canadian criminal proceedings: The potential for human rights abuses. *Canadian Journal of Criminology, 40,* 237–276.

Psychopathy Checklist–Revised

See Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R)

Psychopathy Checklist: Screening Version

See Hare Psychopathy Checklist: Screening Version (PCL:SV)

Psychopathy Checklist: Youth Version

See Hare Psychopathy Checklist: Youth Version (PCL:YV)

Psychotic Disorders

The term *psychosis* was first used in the medical literature by Ernest von Feuchtersleben in his textbook *Principles of Medical Psychology* (1847). Originally, the concept was defined broadly to include any impairment of the higher mental functions. Starting in the late 1800s, psychopathologists such as Emil Kraepelin, Eugen Bleuler, and Kurt Schneider began to differentiate specific psychotic disorders on the basis of their symptomatology and course. According to contemporary views, psychotic disorders are psychopathological conditions characterized primarily by profound disturbances in cognition, perception, emotion, and volition that result in severe psychosocial dysfunction, including inability to meet the demands of daily life, and impaired reality testing.

Symptomatology

Psychotic disorders comprise literally scores of symptoms, many of which have a variety of distinct manifestations. The symptoms are not specific and occasionally can be observed in other disorders, including cognitive disorders and mood disorders. Psychotic symptoms can be categorized into four broad categories, according to functional domain.

Disturbances of Cognition. These can be divided into disturbances of thought content (i.e., what a person thinks or talks about) versus disturbances of thought form (i.e., the way in which a person thinks or speaks). Symptoms related to thought content include delusions (beliefs held with certainty that are demonstrably false and culturally abnormal) and ideation (overvalued beliefs). Specific symptoms that occur with some frequency include thought insertion (others are placing thoughts in the person's head), thought withdrawal (thoughts are being taken out of the person's head), thought broadcasting (others can hear the person's thoughts), misidentification (others are impersonating the person's loved ones), and thoughts of reference (ordinary occurrences have a special meaning or were arranged just for the person). Disturbances of thought content are often characterized according to thematic content (e.g., persecutory, grandiose, erotomanic, jealous, somatic, or nihilistic) or according to whether they are bizarre (strange and impossible, totally implausible), fixed (stable over time), and systematized (complex and internally coherent).

Symptoms related to thought form include loose associations (jumping quickly from topic to topic), tangentiality (keeps wandering off the topic), circumstantiality (speech is only indirectly relevant to the topic being discussed), derailment (loses track of the topic completely), perseveration (keeps returning to the same topic), thought blocking (abruptly stops talking), neologisms (makes up new words), clanging (speech is full of rhymes), pressured speech (talks quickly and loudly), incoherence (speech is unintelligible), and echolalia (repeating words spoken by others).

Disturbances of Perception. These also can be divided into two major types. First, hallucinations are sensations in the absence of an external stimulus. They may occur in any sensory modality. The most common are auditory (e.g., hearing voices that other people can't hear, often several people conversing in negative terms with or about the person or telling the person what to do) and visual (e.g., seeing things that other people can't see, such as lurking strangers, ghosts, or visions). Second, depersonalization and derealization are abnormalities in perception of self and the environment, respectively. Depersonalization often involves "out-of-body" experiences (e.g., people perceive that their minds have left their bodies and are floating around the room or that they no longer have control over the movement of their own bodies). Derealization, in contrast, often involves the perception that the outside world is unreal or a sham (e.g., other people are automatons).

Disturbances of Emotion. These involve either the absence of normal affect or the presence of abnormal affect. Symptoms of the first type include blunted affect or poverty of affect (a restricted range and depth of emotional displays), anhedonia (loss of feelings of pleasure), and flat affect (near-complete absence of emotion). Symptoms of the second type include perplexity (confusion or uncertainty about what is going on), stormy affect (intense and labile emotions), incongruity (emotional displays that are apparently opposite to the tone of the topic being discussed), and silly affect (emotional displays that are unrelated to the topic being discussed and are often perceived as immature or juvenile).

Disturbances of Volition. These involve difficulties with voluntary, purposive behavior. Symptoms related to problems making plans and carrying out goal-directed activity include abulia or avolition (inactivity), apathy (ambivalence or loss of interest), anergia (loss of energy), autism or social withdrawal (failure to interact with other people), self-neglect (neglect of one's own health and hygiene), negativism (ignoring the directions of others, resisting attempts to be moved by maintaining a rigid posture), and alogia or mutism (not speaking at all). Symptoms related to disturbance of behavioral tone, also known as catatonic symptoms, include hypertonia (overactivity, such as moving a lot or moving quickly) and hypotonia or catalepsy (underactivity, such as moving rarely, moving slowly, and waxy flexibility). Disturbances of purposeful activity include mannerisms (strange gestures or movements, such as walking on tiptoe or wiggling the fingers), stereotypies (repetitive, tic-like movements or vocalizations, such as constantly rubbing one's head or barking like a dog), grimaces, posturing (assuming strange poses, such as standing with one leg in the air or sitting with arms extended), echopraxia (repeating the movements of others), and bizarre behavior (e.g., masturbating in public, eating inedible substances, playing with feces).

Symptom Clusters. Clinical observation and research have found that certain psychotic symptoms frequently co-occur. There are at least three distinct syndromes (i.e., symptom clusters). *Positive symptoms* are pathological by their presence—things such as delusions, hallucinations, stormy affect, and mannerisms. *Negative symptoms* are pathological by their absence; examples are poverty of speech, poverty of affect, and social withdrawal. *Disorganization symptoms* reflect impairment in the regulation or coordination of basic psychological functions—for example, incoherence, silly affect, and bizarre behavior.

Contemporary Classification

The classification of psychotic disorders is based on symptomatology, course, and etiology. In the fourth edition of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders,* or *DSM-IV,* psychotic disorders are grouped under the heading "Schizophrenia and Other Psychotic Disorders" and comprise a number of specific conditions.

Schizophrenia is characterized by a progressive or insidious onset (the prodromal phase), during which

negative symptoms predominate presentation. This is followed after a period of months or even years by a period of acute exacerbation (the active phase) lasting a month or longer, during which positive and disorganization symptoms predominate. In the majority (about 80%) of cases the course is chronic, characterized by at least some persistent negative symptoms (the residual phase) as well as the occasional recurrence of positive or disorganization symptoms. The total duration of symptoms (prodromal plus active plus residual phases) should be at least 6 months. The symptoms should occur in the absence of prominent symptoms of depression or mania and should not be the result of substance intoxication or withdrawal or of general medical conditions. A number of commonly occurring subtypes of schizophrenia have been identified based on their primary symptomatology, including Paranoid Type (prominent delusions or hallucinations), Catatonic Type (prominent disturbances of volition), Disorganized Type (prominent disorganization symptoms), Residual Type (prominent negative symptoms), and Undifferentiated Type (doesn't fit one of the other types). Age of onset is typically between 15 and 45 years; onset is about 5 years earlier in males than in females. Schizophrenia can have a debilitating affect on social adjustment, including impaired occupational functioning; failure to establish intimate relationships and reduced fertility; increased mortality owing to suicide, accident, and illness; and elevated risk of serious violence. In about 50% of cases, there is little or no improvement in social adjustment over time; in about 30%, there is substantial improvement; and in about 20%, there is good recovery or remission. Good prognosis is associated with having achieved adequate social functioning prior to onset of the disorder (e.g., absence of premorbid personality disorder), acute onset (e.g., short prodromal phase, onset following experience of a major life stressor), the presence of abnormal affect (e.g., stormy affect, perplexity, confusion), the absence of blunted or flat affect, and the absence of a family history of schizophrenia. Early detection and treatment may also be associated with good prognosis.

Schizophreniform Disorder. This differs from schizophrenia only with respect to its course. Whereas the total duration of symptoms in schizophrenia is at least 6 months, in schizophreniform disorder it is at least 1 month but less than 6 months. Two subtypes are recognized, With or Without Good Prognostic Features; the former may be associated with a full return to premorbid social functioning, whereas the latter may develop into full-blown schizophrenia (if psychotic symptoms persist or recur).

Brief Psychotic Disorder. This differs from schizophrenia and schizophreniform disorder in that the total duration of symptoms for all phases is less than 1 month, followed by a full return to premorbid social and occupational functioning. Three subtypes are recognized: Two subtypes, With and Without Marked Stressors, are diagnosed according to whether symptom onset occurs shortly after and apparently in response to stressful life events; the third, With Postpartum Onset, is diagnosed in women when symptom onset occurs within 4 weeks of giving birth.

Schizoaffective Disorder. This differs from schizophrenia only in that at some point during the active phase of the illness, the person also suffers from prominent symptoms of depression or mania (i.e., meets criteria for a major depressive, manic, or mixed episode) but has had a period of at least 2 weeks in which delusions or hallucinations were present in the absence of mood symptoms. Two subtypes are recognized, based on the nature of the mood symptoms: Bipolar Type, if the mood disturbance includes at least some symptoms of mania, and Depressive Type, if the mood disturbance is limited to symptoms of depression. Schizoaffective disorder is associated with a better long-term prognosis than schizophrenia, although with a worse prognosis than mood disorders such as major depressive disorder or bipolar I disorder.

Delusional Disorder. This is characterized by prominent nonbizarre delusions that persist for at least 1 month. The person may also exhibit prominent olfactory or tactile hallucinations related to the content of the delusions. The delusions should occur in the absence of prominent auditory or visual hallucinations and the absence of prominent mood symptoms, and they should not be the result of substance intoxication or withdrawal or of general medical conditions. Seven subtypes are recognized, based on the predominant theme of the delusions: Erotomanic, Grandiose, Jealous, Persecutory, Somatic, Mixed, and Unspecified Type. Delusional disorder may cause only limited or restricted disturbance of psychosocial functioning.

Shared Psychotic Disorder. This is diagnosed when the person develops delusions similar to those exhibited by a close acquaintance who suffers from a psychotic

disorder. The delusions should occur in the absence of prominent mood symptoms and should not be the result of substance intoxication or withdrawal or of general medical conditions.

Psychotic Disorder Due to a General Medical Condition. This is characterized by prominent delusions or hallucinations that arose during or shortly after and apparently in response to the physiological result of a general medical illness, which has been confirmed by history, physical examination, or laboratory findings. The symptoms should not occur only during periods of clouded consciousness (i.e., delirium). Two subtypes are recognized, With Delusions and With Hallucinations, based on which psychotic symptoms are predominant.

Substance-Induced Psychotic Disorder. This is identical to Psychotic Disorder Due to a General Medical Condition, except that history, physical examination, or laboratory findings indicate that the symptoms arose during or shortly after and apparently in response to substance intoxication or withdrawal. Two subtypes are recognized, With Onset During Intoxication and With Onset During Withdrawal.

Epidemiology

The lifetime prevalence of psychotic disorders in the general population is about 3% to 4%; the most common psychotic disorder is schizophrenia, with a lifetime prevalence of about 1% to 2%. Psychotic symptoms occur with much greater frequency; the lifetime prevalence of isolated delusions of hallucinations may be as high as 4% to 8%, and the lifetime prevalence of any psychotic symptom may be as high as 10% to 20%. The prevalence of psychotic disorders apparently varies little across nations, although within various nations, they may be diagnosed more often among members of ethnocultural minority groups and among recent immigrants. There is evidence of a small gender difference, with slightly higher rates among men than among women.

Etiology

Considerable research indicates the importance of neurobiological factors in the etiology of psychotic disorders, most likely as vulnerabilities or predisposing factors. Behavioral genetic studies indicate that psychotic disorders, and especially schizophrenia, are substantially heritable; however, molecular genetic studies have not been successful in isolating which genes, or even which chromosomes, are involved. The strength of the genetic contribution seems to vary as a function of the type of schizophrenia, with the strongest genetic loading associated with negative and disorganization symptoms. Many behavior geneticists agree that a polygenetic model is most likely, although there is also some support for a multifactorial model in which specific genes produce major effects and polygenes potentiate or insulate against the effects of the specific genes. Other studies have found that psychotic disorders are associated with a history of pregnancy and birth complications, including increased rates of maternal influenza in the second trimester, smoking and nutritional deprivation, and mother-child Rh incompatibility during pregnancy; obstetrical complications during delivery; and congenital abnormalities evident following delivery. Neuroimaging and postmortem studies have found an increased rate of structural brain abnormalities in people with psychotic disorders, as well as in their first-degree biological relatives, including enlarged ventricular and sulcal spaces; decreased brain volume, especially in the frontal and temporal regions, thalamus, amygdale, and hippocampus; reduced interregion connectivity; cytohistological abnormalities in the prefrontal and temporal regions, thalamus, hippocampus, and parahippocampal gyrus; and changes in regional activity during performance of cognitive tasks. Pharmacological studies indicate that disturbances of the dopaminergic neurotransmitter system in the brain (e.g., elevated frequency and activity of dopamine receptors) may be related to positive psychotic symptoms, whereas the serotonergic and glutamate systems may be related to both positive and negative symptoms.

Psychosocial factors may also be important in the etiology of psychotic disorders, most likely as triggers or precipitating factors. Life event studies indicate that active phases of psychotic disorders—both first episodes and recurrences—may occur shortly after, and apparently in reaction to, major life stressors. Also, a high level of negative expressed emotion in close personal relationships is associated with increased risk for development of psychotic disorders, as well as the recurrence of active phases. Both these factors, however, may be of limited importance in the absence of a neurobiological vulnerability or predisposition.

Treatment

Pharmacological treatments have been used for more than 50 years during the active phase of psychotic disorders. In the 1950s through the 1970s, the mechanism

of action of antipsychotic agents (e.g., phenothiazines, butyrophenones, thioxanthenes) was blockade of D_2 dopamine receptors. These "typical" antipsychotics resulted in a substantial reduction of positive symptoms (and, to a lesser extent, disorganization symptoms) in about 60% of cases, limited reduction in about 30% of cases, and no response in about 10% of cases. Maintenance doses also helped reduce the recurrence of active phases. But typical antipsychotics had a minimal effect on negative symptoms and were associated with a high rate of serious side effects, including sedation and movement disorders. In the 1980s, "atypical" antipsychotics (e.g., clozapine, amisulpiride) were introduced. Their mechanism of action is more widespread than that of typical antipsychotics; they affect the serotonergic and adrenergic systems, in addition to the dopaminergic system. Atypical antipsychotics are at least as effective as typical antipsychotics in reducing positive symptoms (even in cases where typical antipsychotics are ineffective), and they may also reduce negative symptoms. They also have serious negative side effects, however, and are very expensive. The effectiveness of pharmacological treatment has greatly reduced the use of other, more invasive somatic treatment, such as electroconvulsive therapy and prefrontal lobotomy; it has also greatly reduced the frequency of long-term institutionalization.

Psychosocial interventions are frequently used to manage active symptoms, reduce active symptoms that are refractory to pharmacological treatment, improve social functioning following an active phase, and reduce the risk of recurrence. Institutionalization or respite care is used when it is difficult to deliver appropriate services in the community and when risk of suicide or violence is acute. Psycho-educational programs for patients and their families are used to improve compliance with other treatments and to reduce the rate of relapse. Cognitive behavioral therapy is used to manage active psychotic symptoms, such as delusions and hallucinations, as well as to improve compliance with other treatment. "Dual disorder" or "co-occurring disorder" programs are used to treat symptoms of substance use disorders in people who also suffer from psychotic disorders. Rehabilitation and social skills programs are used to improve interpersonal and occupational functioning.

Most often, treatment of psychotic disorders is long-term and multimodal: Pharmacological interventions are used in combination with one or more psychosocial interventions. Delivery of services may be most effective when coordinated using assertive case management techniques.

Forensic Relevance

In the law, competency to make important decisions typically requires that the person can accurately perceive the environment, rationally manipulate information about the environment, and communicate desires and intentions to others. These specific decision-making capacities may be impaired by the presence of psychotic symptoms, especially positive and disorganization symptoms. For this reason, psychotic disorders are particularly important in psycholegal evaluations of adjudicative competencies (e.g., stand trial, waive the right to counsel, confess) and culpability in criminal settings and evaluations of other competencies (e.g., consent to treatment, testify, make wills, sign contracts) in civil settings. For example, research on adjudicative competencies and culpability indicates that as many as 80% to 90% of people who are found legally incompetent, or nonculpable, may suffer from psychotic disorders or from other disorders (e.g., cognitive or mood disorders) with prominent psychotic symptoms.

With respect to the ability to control one's behavior, the law typically requires that the person can freely form goals or intentions appropriate to the situation; develop plans to achieve those goals; and implement, evaluate, and modify those plans as necessary. These specific capacities also may be impaired by psychotic symptoms of all types. In criminal settings, psychotic disorders may be important in psycholegal evaluations of culpability and in civil matter evaluations of other competencies (e.g., consent to treatment, testify, make wills, sign contracts) in civil settings. In both criminal and civil settings, an issue of particular concern is serious violence associated with psychotic symptoms, particularly positive and disorganization symptoms. In some cases, the nature of the psychotic symptoms is directly related to the violence (e.g., a person with persecutory delusions assaults someone he believes is trying to poison him); in others, the psychotic symptoms interact with other factors (e.g., substance use) to generally destabilize social adjustment and increase interpersonal conflict that may result in violence. Research suggests that psychotic disorders cause a twofold increase in the odds that a person will engage in serious violence.

Stephen D. Hart
and Laura S. Guy

See also Delusions; Hallucinations

Further Readings

Jibson, M. D., Glick, I. D., & Tandon, R. (2004). Schizophrenia and other psychotic disorders. *Focus, 2,* 17–30.

Lieberman, J. A., Stroup, T. S., & Perkins, D. O. (Eds.). (2006). *The American Psychiatric Publishing textbook of schizophrenia*. Washington, DC: American Psychiatric Publishing.

Public Opinion About Crime

Hundreds of research studies that have examined a wide range of topics on public perception about crime support the conclusion that citizens generally are not well-informed about this issue. For example, the public perceived that crime rates for several different types of crime were increasing during times when in fact those crime rates were decreasing or remaining stable. The public also overestimates the proportion of crime that is violent and makes incorrect generalizations about the types of crimes most commonly committed by specific ethnic groups. Furthermore, people hold many stereotypes about specific crimes that are inconsistent with the types of cases that come through the courts and with how those crimes are defined in statutes. Jurors with these misperceptions often acquit atypical cases or recommend less severe charges.

There is consensus across different cultures and countries that violent crimes are more serious than property crimes, which in turn are perceived as more serious than drug or victimless crimes. Despite public consensus on relative seriousness, criminal laws in Canada and the United States provide higher maximum jail sentences for some property crimes, such as grand larceny, than for violent crimes, such as fondling a child or inflicting moderate injuries on a person with the intent to harm. All social groups also attributed greater importance to environmental factors than to individual dispositional or mental factors as general explanations for why crimes occur.

Given the potential influence of public perceptions, this entry reviews research addressing the following questions: (a) To what extent are the public's general beliefs about crime consistent with the nature and severity of reported crime? (b) How much agreement exists in the public's views about the seriousness of specific criminal acts, and how well does the criminal law mirror public views about the seriousness of different crimes? (c) Based on the accumulated research, what are the nature of the public's stereotypes and the extent to which these stereotypes are consistent with the caseload of the criminal justice system and with how laws are defined?

Public Views of the Severity and Amount of Crime

Systematic national survey research in several countries, including the United Kingdom, Canada, Australia, Spain, and the United States, has shown that the public is not well-informed about the nature of crime. In the 1990s, when reported violent crime showed a significant decrease, the majority of the public believed that violent crime was increasing. Studies that have compared citizens' estimates of crime rates with police data have repeatedly found that the public overestimates the amount of theft, fraud, burglary, rapes, and violent crime. The majority also overestimates the proportion of crime that is violent; for example, violent crime comprises about 10% of the crime reported to the police, but the majority estimated that violent crime accounted for 30% or more. The majority also indicated that specific crimes, such as murder or burglary, were increasing during times when the system actually showed a decline. Most people also substantially overestimate the percentage of offenders released from prison who commit another serious crime. Whereas 30% to 40% of offenders released are arrested again for another serious crime, the majority of the public believes that about 60% to 75% commit additional serious crimes. The gap, of course, between public estimates and official police data is quite large, and the difference between reported crime and the actual commission of serious crimes may not entirely account for the difference. The news media's reporting of serious crimes and released prisoners committing new serious crimes also may contribute to the public's overestimates of the amount and severity of crime.

Public's Ranking of the Seriousness of Offenses

Researchers and professionals often assume that criminal laws and their associated punishment match public opinion concerning the relative moral wrongfulness and harmfulness of different crimes. This model, called the consensual model, assumes that societal members of different gender, social class, and ethnicities agree about what values should be protected and

the wrongfulness of certain acts. This model assumes that the public should determine what is and is not a crime or a serious crime, and public support and compliance with the law will be ensured if the laws mirror public views. Research on crime seriousness has been conducted for more than 40 years. This research started with the belief that a scale of seriousness of different crimes could inform police, prosecutorial, and judicial responses to crime, and by matching public and professional responses to crime, the public's confidence in the system would be warranted.

To determine whether the consensual model could describe how crimes are defined and justice administered in society, researchers tested whether the public agreed about the seriousness of different acts. Much research has found that the public perceives violent crime as more serious than property crimes, which in turn were perceived as more serious than public-order and victimless crime. Moreover, comparisons across Great Britain, Canada, Denmark, Finland, Holland, Kuwait, Norway, and the United States indicated that people from different cultures generally agree about which crimes are more serious than other crimes. Americans and Kuwaitis, however, perceived rape to be more serious than robbery or aggravated battery, whereas respondents from the Scandinavian countries and Great Britain indicated that these offenses had the same level of seriousness. Overall, there is more agreement than disagreement across countries in the relative seriousness of different offenses. Men and women, individuals of different social classes and ethnicities, victims and nonvictims, and incarcerated offenders and nonoffenders also agree on the relative ranking of different crimes, with the exception of murder and rape. Women generally have rated rape as more serious than murder, whereas men rated murder as more serious than rape.

Though the public demonstrates high consensus about the relative ranking of different categories of crime, there is considerably less consensus about which specific types of white-collar, victimless, and minor property crimes are more serious within each of these crime categories. For example, there is less consensus about, and changes across time in, the relative seriousness of different forms of white-collar crimes, such as tax fraud and price fixing. The public shows more agreement about the relative ranking of different acts of violence, which may partly be due to its greater familiarity with violent acts. In ranking the seriousness of different criminal acts, the public considers the seriousness of physical injuries, offenders' intent, and offenders' prior criminal record; crimes that are intentional and committed by repeat offenders are perceived as more serious.

Do members of the public, legislators, and criminal justice professionals hold similar views about the relative seriousness of different crimes? Research has found that even though the public ranks all forms of violence as more serious than property crimes; criminal laws in Canada and the United States provide higher maximum punishments for some property crimes, such as car theft and grand larceny, than for violent crimes such as fondling a child and punching an intimate partner. Legislators in enacting criminal laws thus have not mirrored the public's views of crime seriousness and give greater priority to protecting property than to personal dignity and freedom from injury, whereas the public has the opposite priorities. Studies also have found that the public, compared with police officers, agreed on the relative seriousness of different crime categories but differed in the absolute seriousness of specific crimes. For example, the public, compared with police officers, provided a higher seriousness rating to white-collar crimes and statutory rape (i.e., an adult having sex with a consenting minor) and a lower seriousness rating to residential burglary. Both the police and the public regarded street crimes as very serious, but the public also was concerned with white-collar crimes and statutory rape.

Public's Stereotypes of Crimes and Criminals

People tend to believe that crime is committed by a small, easily identifiable group of criminals who are very likely to commit further crimes in the future. The majority of the public blame society, unemployment, neighborhood problems, and lack of parental supervision as the major causes of crime, whereas about one third perceive individuals as solely responsible for their criminal acts and explain crime in terms of lack of morals, drug use, and mental or personality problems. More highly educated and self-identified liberal individuals and younger individuals generally attribute more importance to societal inequities, such as unemployment and discrimination, in explaining the high crime rates than do conservatives and older respondents. Despite these differences across backgrounds, all social groups assigned greater importance to environmental factors than to individual dispositional or mental factors as explanations for why crimes generally occurred.

Stereotypes of specific offenses are widespread and influence (a) public responses as to how to control crime, (b) jurors' interpretation of evidence and verdicts, and (c) eyewitnesses' accounts and recall of crimes. Stereotypes consist of visual images and detailed information about how the crime happens; the harm done; appropriate sanctions; and offenders' motives, dangerousness, intent, and social background.

Respondents are agreed on which pictures of men look like criminals and often describe criminals as young, unattractive males. Race also is often part of the public's stereotypes. When the public thinks of violent criminals, it often imagines young African American adults who have quit high school, are associated with gangs, and are unemployed or work in unskilled jobs. The public imagines that African Americans generally commit violent street crimes and Caucasians commit white-collar crimes; swindlers are pictured as intelligent male professionals in their thirties. In accordance with probation data, the public and probation officers agreed that the typical burglar is single, unemployed, and a high school dropout. Respondents also agree on the facial features of rapists, murderers, battered women who kill their abusers, and robbers, suggesting that many people may have visual images associated with their stereotypes about specific crimes. These distorted stereotypic images of specific types of offenders may interfere with witnesses' accurate recall of specific crimes.

Jurors often rely on information in stereotypes to draw inferences from evidence that is presented at trials and to decide whether defendants should be acquitted or convicted. The public obtains information about crime from the media, personal experiences, and interpersonal conversation. For many citizens, the news and entertainment media are the primary source of information about different crimes, and cultural stereotypes of specific crimes provide exaggerated information about the severity of the typical crime. For example, research shows that the public's stereotype of the typical burglar is a man who carries a weapon, steals valuables worth several thousand dollars, and ransacks the place, which is not consistent with the characteristics of burglary cases that come to the attention of the police. Research demonstrates that individuals holding exaggerated stereotypes often acquit offenders who commit atypical burglary, such as forced entry into a building with the intent to commit another felony but without taking any property. The public also incorrectly labels the forced entry into a home to take property when victims are not present as a robbery rather than a burglary. Based on experimental studies using detailed cases and open-ended questions, the majority of the public also holds misconceptions about robbery, assault, rape, and kidnapping, which may affect verdicts. The public also holds several misconceptions about battered women and rape victims, which calls for introducing expert testimony to correct jurors' misconceptions. For example, jurors were not well-informed about battered women's emotions, the batterer's propensity to make promises to change and persuade the victim to stay, and the victim's propensity to self-blame or to predict when she is about to be attacked. Individuals often hold many myths about rape. Consistent with media stories, the majority of the public agreed that the most credible rape involves a stranger accosting a woman on the street with a weapon and inflicting injuries, and the least credible were marital rape or instances in which the victim willingly left with the acquaintance and the rape involved no weapon.

Individuals, however, may differ in their personal stereotypes about crime through acquiring information from interpersonal conversations and direct experience. Research shows that when individuals acquire information about burglaries and muggings from interpersonal conversations and direct experience, their stereotypes about these crimes are more consistent with the caseload handled by the criminal justice system. This research thus suggests that the public's distorted stereotypes about specific crimes may be corrected through education and media campaigns that provide the public with a more representative sample of stories about crimes and criminals. Much research supports the influential role of public views about crime on verdict and punishment decisions; such influence is problematic given the misconceptions that the public holds.

Loretta J. Stalans

See also Jury Decisions Versus Judges' Decisions; Public Opinion About Sentencing and Incarceration; Story Model for Juror Decision Making

Further Readings

Finkel, N. (1996). *Commonsense justice.* Boston, MA: Harvard University Press.

Roberts, J. V., & Stalans, L. J. (2000). *Public opinion, crime and criminal justice*. Boulder, CO: Westview Press.

Smith, V. L. (1993). When prior knowledge and law collide: Helping jurors use the law. *Law and Human Behavior, 17*(5), 507–536.

Stalans, L. J., & Lurigio, A. J. (1990). Lay and professional beliefs about crime and criminal sentencing: A need for theory, perhaps schema theory. *Criminal Justice and Behavior, 17*(3), 333–349.

Public Opinion About Sentencing and Incarceration

Two contrasting images of the public have emerged from the literature on public attitudes toward sentencing: a punitive public that demands long prison terms and a merciful public that supports community-based sanctions after considering the seriousness of the offense and the perceived character and blameworthiness of the offender. Although politicians and the media insist that the public wants to impose tougher and longer prison sentences, research shows that public views about appropriate sentences are much more complex. For example, although the majority of the public claims courts are too lenient, research using detailed cases consistently finds that the public imposes less severe punishment than judges or sentencing statutes. This disjuncture in attitudes occurs because the public relies on easily recalled violent crimes to answer general questions about its satisfaction with the court's sentencing. Moreover, the public wants more severe sentences for violent offenders but prefers community-based sanctions that can restore and rehabilitate nonviolent offenders.

Thus, politicians and scholars must examine how the public arrives at sentencing attitudes to obtain a more accurate view of the public's demands. This entry describes the findings from numerous studies that have examined whether public judgments about appropriate sentences are consistent with sentencing laws and practices. To fully understand the public's conception of justice, this entry examines the inferences and beliefs that contribute to citizens' views: their knowledge about sentencing options and prisons, their views of the primary goals of sentencing, and the effects of context and information on their decisions.

Public Knowledge About Sentencing, Parole, and Prisons

Misperceptions of criminal justice statistics abound. The average member of the public tends to underestimate the severity of the sentencing process as well as the parole system. When asked to estimate the average sentence for a particular crime, many people provide a response that is lower than the actual level. This finding has emerged from research conducted in the United States, England, Canada, and Australia. The public also is unaware of which crimes require prison time and of the minimum or maximum prison time required by criminal statutes. These underestimates underlie public attitudes that there should be more congruency between the assigned sentence and the actual number of years served. In those countries that have parole, most people assume that almost all offenders get parole, when in fact only a small fraction are released from prison early. Although offenders sentenced to life often are released on parole after serving on average a decade or more in prison, the public overwhelming agrees that a life sentence should mean that the offender serves his or her natural life in prison.

Since only a small percentage of the public has ever visited a prison, perceptions of prison life tend to be inaccurate, and the majority of the uninformed public indicated that prisons are too easy on offenders. Based on perceived public desires, several states have reduced many amenities for prisoners. However, when the public is informed about a variety of amenities and asked whether each specific amenity should be retained or eliminated, a different picture of public attitudes emerges. The majority of the public wants to retain educational, vocational, and psychological programs and also supports supervised visits with families, telephone calls, and air conditioning. The public is more selective in providing entertainment and recreational amenities. About 62% to 75% of the public would retain arts and crafts, basic television, basketball, conjugal visits with spouses, and college education programs. The majority of the public, however, supports eliminating boxing or martial arts, cable television, condoms, cigarettes, and pornography, including magazines such as *Playboy.* The public supports amenities that have rehabilitation potential or are useful for managing inmate behavior. The public, however, does not want prisoners to have amenities

for free that law-abiding, low-income citizens cannot afford.

The public is not well-informed about community-based sanctions. Research conducted in several countries, including England, Canada, Australia, the United States, and Germany, found that the majority of the public can provide a correct definition of community service but knows little about other community-based alternatives such as conditional sentences, probation, house arrest, and electronic monitoring. The public performed at chance level in identifying the correct definition of a conditional sentence. When asked about community-based sentences, over two-thirds of adults mentioned restitution, while only one-third spontaneously mentioned probation as an alternative. Moreover, about one-quarter is completely unaware of probation as an alternative. Furthermore, research shows that the majority of respondents who were informed about the alternatives chose community-based sanctions, whereas uninformed respondents chose imprisonment. Thus, when the public is informed of the existence of alternatives to incarceration, support for imprisoning offenders declines considerably. These findings indicate that the public is unfamiliar with community-based sanctions but supports such sanctions, especially for nonviolent felonies. This lack of familiarity is not surprising given that community-based sanctions are not well publicized in the media and that prisons are much more salient, especially with the growth in the number of prisons and prisoners in recent decades.

Impact of Information on Crime and Justice

Though the public lacks much knowledge about sentencing, research suggests that educating the public may change its top-of-the-head punitive responses. Based on deliberative polling after participants took part in a televised weekend event on the nature of crime and justice, the more punitive respondents, after receiving accurate information about crime and the justice system, became much less punitive and more supportive of community-based alternatives, and this attitude change lasted over a 10-month period. Researchers found that respondents who initially lacked knowledge about crime and justice were more likely to change their attitudes than those who were better informed.

General Versus Specific Questions About Sentencing

How the question is asked also affects the public's response. Opinion polls conducted in all Western nations over the past 25 years have routinely shown that approximately three quarters of the public says that sentences should be harsher. Research shows, however, that people recall atypical violent crimes when answering this abstract question. When asked about specific crimes, public views change. It is important, therefore, to pose specific rather than general questions to the public. This can be clearly illustrated with respect to the "three strikes" laws in the United States. Researchers have found strong general support for this law, which would mandate a lifetime prison sentence for an offender convicted of a serious felony for the third time. When specific cases are examined, the strong support for the "three strikes" statute remains only for offenders with three violent felony convictions. The public generally prefers a more flexible approach to sentencing that allows individualized judgments for each specific case and is uncomfortable with the mandatory lifetime prison sentence for repeat felony offenders.

An examination of the public's responses to detailed cases rather than general questions also is useful in understanding what goals the public wants to achieve in sentencing offenders. When asked to choose between punishment and rehabilitation, at least two thirds of Americans chose rehabilitation and prevention programs. At least two thirds of the public, when asked general questions that do not force a choice, assigned substantial importance to all five of the major goals of sentencing: retribution, rehabilitation, individual deterrence, general deterrence, and incapacitation (prevention of future crimes during the time in prison). Deterrence is achieved by providing offenders with severe enough punishment so that convicted offenders (individual) or potential offenders in society (general) refrain from committing future crimes. Thus, general questions do not provide sufficient information about what the public wants sentences to achieve.

When specific, detailed cases are used, support for sentencing goals varies by offenders' criminal history; offenders' social, substance abuse, and employment history; and the type of crime. Much research suggests that the public supports proportional justice, in

which the severity of the sanction matches the severity of the harm done and the culpability of the offender. Research shows that retributive justice is the main goal that the public wants to achieve for serious violent crimes. However, felony murder laws and other laws that hold offenders who committed the crime (principals) and those who helped in less direct ways (accessories) to the same punishment also are incongruent with public views of justice. The public prefers that principals receive longer prison terms than accessories and thus negates the law's equality principle in favor of proportional retributive justice.

At the same time, for nonviolent offenders, the public supports restorative justice, which now is part of several countries' sentencing schemes. Restorative justice emphasizes community-based sanctions that allow offenders to be reintegrated as productive, law-abiding citizens more easily but that require offenders to accept responsibility and make amends for the harm done, express sincere remorse, and provide restitution to the victims. Thus, community service and restitution that are directly related to the harm done are examples of restorative sanctions. Combinations of community-based sanctions can be used to achieve restorative justice. Both restorative justice and retributive justice are based on fairness, though restorative justice considers fairness toward the victim, the offender, and society. Evidence for support of restorative justice is quite consistent throughout the world. For example, numerous studies have asked respondents to choose between community-based alternatives and prison in sentencing specific nonviolent criminal offenders; the majority of the public across European and North American countries chose community-based alternatives. Of the community-based sanctions, restitution and community service orders have the most support because these sanctions address the needs of the victim and allow close monitoring of the offender in the community, whereas standard probation is the least supported. For several years, from 1989 to 2000, the International Crime Victimization Survey asked respondents to sentence a repeat 21-year-old burglar. Almost three fourths of New Zealanders; about two thirds of residents of Australia, Britain, Canada, Finland, and the Netherlands; about half of U.S. citizens and Latin Americans; 40% of residents of Asian countries; and about 30% of residents of Africa recommended community-based alternatives (typically a community service order). In 15 Eastern European countries, endorsement of community service rather than imprisonment for the repeat burglar has increased across time, with a divided public in 1992, but by 2000, about 72% of the public endorsed community service. These findings show widespread support for restorative justice for the serious property crime of burglary and suggest that Europeans have the strongest support, whereas less industrialized countries have the least support, for community-based alternatives.

Mandatory Minimum Prison Terms and Retributive Justice

In recent decades, politicians have enacted statutes that provide longer mandatory minimum prison terms for many offenses or longer prison terms for repeat offenders. These statutes are based on the goal of retributive justice—providing punishment that is proportional to the seriousness and harmfulness of the offense. The public shows strong support for punishing adult offenders based on seriousness of the crime, particularly those convicted of serious crimes of violence. However, based on vignette and video studies, the public prefers more flexibility in meting out justice than retributive justice systems allow. The majority of the public attends to individual characteristics, such as the offender's potential to be rehabilitated, employment status, criminal history, and so forth. For example, in response to realistic videotaped sentencing hearings, laypersons, compared with judges (and with statutorily required mandatory minimum prison terms), gave less severe sentences and were less likely to choose prison sentences for a repeat residential burglar, a cocaine dealer, and a mugger who caused an elderly woman to fall and break her hip when he stole her purse. Moreover, when offenders had a substance abuse problem and asked for treatment, laypersons overwhelmingly recommended court-mandated substance abuse treatment, whereas judges were more likely to recommend prison terms to achieve retributive justice or deterrence. Thus, researchers have characterized the public as supporting "individualized proportionality" in that the public assigns harsher punishment to more severe crimes but also considers the individual circumstances surrounding the crime in meting out justice.

In the past three decades, the U.S. government has engaged in a "war on drugs"; national survey data indicate that the public is quite skeptical that this government effort will reduce crime rates and believes that the sentences are too severe. For example, the U.S. federal sentencing guidelines' mandatory minimum prison time for drug possession is incongruent with the

public's rehabilitation orientation and preference for probation for marijuana possession. Public leniency is shown in both hypothetical and real cases; many cases of defendants charged with possession of cocaine, crack, or marijuana have resulted in jury nullification. Interviews with jurors who acquitted defendants despite proof beyond a reasonable doubt indicate that these jury nullifications occurred because jurors believed that the federal sentencing guidelines imposed an unjust, too severe punishment. The majority also is willing to recommend treatment programs to small-time drug dealers but want prison terms for major drug dealers or small-time drug dealers who fail a second time. Americans also disagree with the provision in U.S. sentencing guidelines that adds a mandatory 9 years to drug-trafficking sentences when the drug is crack cocaine; they believe that drug traffickers should receive similar prison terms regardless of whether they are selling heroin, cocaine, or crack cocaine. The public supports punitive penal policies only when violence is associated with the drug trafficking and in these cases wants longer sentences than the U.S. sentencing guidelines allow.

Although a strict retributive justice approach provides sanctions that are proportional to the amount of harm done and does not consider the offenders' criminal history or background, the public supports harsher sentences (e.g., prison time) for recidivists than for first-time offenders. At the same time, the public is more forgiving than federal sentencing guidelines. When the guidelines' recidivist premiums are compared with the public's sentences assigned to detailed cases with a different number of prior convictions, the public appears to recommend shorter prison terms for recidivists than the guidelines allow. Moreover, the public overwhelmingly does not support life in prison without parole for an offender whose third strike is a felony property crime. The public clearly wants recidivists to receive more severe punishments, but its response is more tempered than recidivist-sentencing statutes.

Loretta J. Stalans

See also Death Penalty; Jury Decisions Versus Judges' Decisions; Jury Nullification; Public Opinion About Crime

Further Readings

Applegate, B. K. (2001). Penal austerity: Perceived utility, desert, and public attitudes toward prison amenities. *American Journal of Criminal Justice, 25*(2), 253–268.

Roberts, J. V., & Hough, M. (2004). *Changing attitudes to punishment: Public opinion, crime and justice.* Cullompton, UK: Willan.

Roberts, J. V., & Stalans, L. J. (2004). Restorative sentencing: Exploring the views of the public. *Social Justice Research, 17*(3), 315–334.

Roberts, J. V., Stalans, L. J., Indemaur, D., & Hough, M. (2003). *Penal populism and public opinion: Lessons from five countries.* Oxford, NY: Oxford University Press.

Robinson, P. H., & Darley, J. M. (1995). *Justice, liability & blame: Community views and the criminal law.* Boulder, CO: Westview Press.

Rossi, P., & Berk, R. (1997). *Just punishments.* New York: Aldine de Gruyter.

Public Opinion About the Courts

The study of public opinion about the courts is closely tied to concerns that date back to the Constitutional Convention. Then, and subsequently, it has been noted that while the executive branch has the power of the sword and the legislative branch the power of the purse, for compliance with its orders, the judiciary uniquely must rely on the public's belief in its legitimacy.

Public opinion today about the U.S. Supreme Court is different from public opinion about the other, "lower" courts; the U.S. Supreme Court enjoys consistently higher levels of confidence, support, and loyalty. This is often explained by reference to political and legal socialization, which inculcates loyalty to the Supreme Court. Other courts do not appear to benefit from such socialization. For the trial courts, with which the public can have direct contact, the public has modest levels of confidence, loyalty, and support. The lower courts need to continually demonstrate that they deserve the public's compliance by making decisions through procedures that the public perceives as fair. African Americans are less likely than members of other groups to be persuaded that fair procedures are being used.

The Public's Image of the Courts

The level of public support for and confidence in the courts is best assessed in comparison with other public institutions. Both the U.S. Supreme Court and the lower courts tend to be ranked higher than the executive or legislative branches of government. The relative advantage is considerable for the U.S. Supreme

Court and modest for other courts. Other courts tend to be rated lower than the police and similar to local schools and executive bodies but higher than legislative bodies and the mass media. The public is most critical of how courts handle juvenile and family cases and generally of the processing of cases in high-volume court venues such as traffic and small claims. The jury system is the most highly rated component of the courts. Former jurors, in turn, are the group most likely to hold positive views about the courts.

The public, in general, knows very little about how the courts work and is not attentive to issues regarding the courts. Many public opinion surveys about the courts, virtually all concerning trial courts, have been carried out at the national and state levels over the past 30 years. What emerges from the accumulation of confidence survey findings is a national stereotype that does not vary greatly from state to state or from one decade to the next. A stereotype is the shorthand description of "courts" that comes up in people's head—images that are commonly held, some positive and others negative.

On the positive side, people tend to believe that judges are well qualified and honest, defend people's rights, and treat people with dignity and respect. In recent years, it has become clear that people like alternative dispute-resolution methods, such as arbitration and mediation, and are highly positive about the features of problem-solving (drug and domestic violence) courts.

On the negative side, the list is longer. People report that courts are slow, difficult, and costly to access; do not allow people to participate meaningfully in court proceedings; and are out of touch with community sentiment. The presumed leniency of judges in sentencing offenders is another negative characteristic but one that may now be declining in significance. The majority of the public believes that the courts produce less favorable outcomes if you are a member of a minority group, on a low income, or a non–English speaker. Finally, studies indicate that African Americans have less confidence in the courts, on average, than do other Americans. This does not extend to all minority groups; Asian Americans generally have a positive view of the courts, while the position of Latinos depends on the specific context and topic under consideration.

In an important sense, the lower courts have two publics. One consists of the slightly more than half of all adults with one or more direct experiences of the courts. The most common form of such experience is serving as a member of a jury, applicable to about one adult in four. That proportion has been rising in recent decades in response to jury source list reform and the reduction in occupational exemptions.

The public with direct court experience tends to remember those encounters for decades, no matter how trivial objectively, and draw heavily on them when evaluating the courts. Among those with court experience, the extent of exposure to media representations of the courts, perceptions of judicial leniency in sentencing, and political ideology are poor predictors of confidence in or support of the courts. The opposite is true for people without direct experience, who appear to draw on a national rather than a locally formed image of the courts.

The evidence points to a slightly negative general impact of court experience per se, but one that varies according to the role a person played in a case. Individuals serving on a jury (as opposed to the essentially neutral impact of being summoned but not seated as a juror) are the most positive, while civil litigants tend to be the most negative.

Explaining Opinions About the Court

Those interested in explaining the sources of support for the U.S. Supreme Court rely primarily on legitimacy theory, which emphasizes institutional loyalty. Research on the U.S. Supreme Court sought to explain the sources of two types of support and their interrelationship. *Diffuse support* is a willingness to accept the decisions of the Court as legitimate, a belief that the Court has the right to decide questions of constitutional interpretation. *Specific support*, the other aspect, refers to responses to individual decisions issued by the Court.

Specific support rises and falls as individuals react to well-publicized decisions. Diffuse support tends to vary little. Even the polarizing decision in *Bush v. Gore* (2000) did not diminish the reservoir of goodwill for the Court. In the immediate aftermath of the decision, support for the Court among the Democrats sharply declined and that of Republicans increased just as sharply. Over time, people return to the loyalty or diffuse support that they had for the U.S. Supreme Court prior to a controversial decision. Research suggests that the U.S. Supreme Court is more effective than other parts of government in leveraging its perceived legitimacy into compliance with unpopular

decisions and presumably more so than the lower courts.

Early studies of public opinion about the lower courts focused on the influence of socioeconomic and demographic backgrounds on satisfaction with the outcomes of specific cases and with the courts generally. Opinions were predicted to vary according to a person's educational level, gender, race and ethnicity, political ideology, and knowledge of the courts.

Starting in the mid-1970s, social psychologists took a different direction by focusing on perceptions of the fairness of court procedures. A substantial body of research applying a variety of methodologies in a wide range of adjudicatory contexts, and in many countries, established that the perception of procedural fairness is the most important influence on a court user's satisfaction with the courts. People who lose in the courtroom can nonetheless leave satisfied with their day in court, confident in the courts, and likely to comply with the court's decisions.

The work of Tom Tyler and his colleagues provides the theoretical basis for anticipating such a finding. They argued that the public's concerns had more to do with "relational" issues than with "instrumental" factors such as the absolute or relative outcome. Group value theory explains this expectation: People value their membership in social groups and seek evidence that they are indeed valued by those groups. The behavior of the judge, or other decision maker, provides the confirmation.

Procedural fairness consists of various "symbolic criteria" that people can look for as they assess how they are being treated:

- *Respect:* Being treated with dignity and having one's rights respected
- *Neutrality:* Decision makers who are honest and impartial and who base decisions on facts
- *Voice:* Having the opportunity to express one's viewpoint to the decision maker
- *Trustworthiness:* Benevolent and caring decision makers, who are motivated to treat you fairly, are sincerely concerned about your needs, and consider your side of the story

Voice is the element of procedural fairness on which the courts tend to score the lowest relative to the executive and legislative branches; neutrality is where they tend to score the highest. People with direct experience tend to focus on what they can use to decide on the judge's trustworthiness. In the absence of such experience, the focus is on clues about neutrality.

The significance of procedural fairness is that when measured and placed in a predictive model of satisfaction with the courts, sociodemographic characteristics, including race, and political ideology tend to be statistically insignificant. In other words, if African Americans are less satisfied with the courts, it is because they perceive less procedural fairness in the courts than do other groups. Factors related to the practical side of court performance, as in cost and case delay, also tend to be far less consequential than perceptions of fairness. This is particularly true among people who had experience of a court case. People with no court experience give greater attention to the practical side of court operations, but their perception of procedural fairness still is the primary factor influencing their support for the courts. Researchers are more successful in predicting the opinions of people with court experience than of those without such experience.

There is an important exception to this general pattern. Judges and lawyers generally tend to attach greater importance to the fairness of outcomes than to procedural fairness. There may be a practical dimension to this reverse of the pattern found in the public at large. Judges are able to evaluate the fairness of legal decisions and are less concerned about confirming their value to the group. The public, however, is poorly equipped to assess legal decisions and therefore focuses on whatever clues it can find on how it and others are being treated by the decision maker.

Thus, perceptions of procedural fairness assume an overwhelming importance in shaping public responses to specific court decisions or broader opinions on the courts in general. Procedural fairness can be used to explain reactions to U.S. Supreme Court decisions. The majesty and mystery with which the Court surrounds its decision-making process appears to conform to the symbols people associate with a fair process. Consequently, some observers have questioned whether the public is being too generous in its esteem for the Supreme Court.

David B. Rottman

See also Drug Courts; Legal Socialization; Procedural Justice; Public Opinion About Crime; Public Opinion About Sentencing and Incarceration; U.S. Supreme Court

Further Readings

Bush v. Gore, 531 U.S. 98 (2000).

Gibson, J., Calderia, G., & Spence, L. K. (2003). Measuring attitudes toward the United States Supreme Court. *American Journal of Political Science, 47*(2), 354–367.

Heuer, L. (2005). What's just about the criminal justice system? A psychological perspective. *Journal of Law and Policy, 13*(1), 209–228.

Hibbing, J. R., & Theiss-Morse, E. (2001). Process preferences and American politics: What the people want government to be. *American Political Science Review, 95*(1), 145–153.

MacCoun, R. (2005). Voice, control and belonging: The double-edged sword of procedural fairness. *Annual Review of Law and Psychology, 1,* 171–201.

Tyler, T. (1990). *Why people obey the law*. New Haven, CT: Yale University Press.

Tyler, T. (2001). Public trust and confidence in legal authorities: What do majority and minority group members want for the law and legal institutions? *Behavioral Science & Law, 19*(2), 215–235.

Public Opinion About the Polygraph

The public is routinely informed that suspects have been administered a polygraph test and have either failed or passed the test. In some cases, this information is provided during the trial. Consequently, how the public judges the polygraph test is of interest to those in the legal community. A number of studies have addressed how the public responds to polygraph tests, and these studies generally suggest that people react to polygraph test results much differently than the courts assume they do.

As used in criminal investigations, the polygraph test consists of a series of questions administered to a suspect by a polygraph examiner, who measures the suspect's physiological responses to each of the questions. In most instances, the pattern of questioning of suspects involves a variant of the Control Question Test (CQT), in which suspects are asked both relevant questions and control questions. A pattern of higher physiological responses to the relevant questions results in a failed test.

The courts have been largely unwilling to admit polygraph test evidence into trials. Much of this reluctance stems from the concern that the polygraph test cannot reliably determine when someone is truthful or deceptive. This concern was first articulated in 1923 in *Frye v. United States*, in which it was ruled that the lie detector had not gained general acceptance in the scientific community. Today, courts routinely cite the 1993 case of *Daubert v. Merrell Dow Pharmaceuticals*, which did not concern the polygraph specifically but rather any scientific evidence. More important to the present discussion, a second concern surrounding the polygraph test is that the public may see the test as infallible and place unwarranted trust in the results. Because the polygraph test gets directly to the heart of the matter—whether the suspect is truthful or deceptive in denying the crime, there is the fear that jurors will simply disregard all other evidence and place their trust entirely in the results of the polygraph test. This belief on the part of the court was articulated in the 1975 case of *United States v. Alexander.*

Polygraph test results typically are entered into trial evidence either as a result of prior stipulation (i.e., prior agreement between the parties) or as a result of a separate hearing. Presently, approximately one third of the states allow polygraph tests into evidence under prior stipulation. Stipulated tests arise in instances where the prosecutor asks a defendant to submit to a polygraph test and agrees to drop the charges if the test is passed but will introduce the test results into evidence if the test is failed. In instances where the defense wants to admit the results of a passed test over the objection of the prosecution, a hearing typically called a *Kelly-Frye* or a *Daubert* hearing is conducted to determine the admissibility of the polygraph evidence.

Several studies have investigated whether jurors are likely to place unwarranted trust in polygraph test results. Here, the findings have been consistent in showing that the public remains rather skeptical about the validity of polygraph tests. These findings have come about from jury simulation studies, in which the participants are given information about a criminal trial and asked to render judgments. The cases in these studies have varied the crime in question from burglary to rape to murder. The manner in which the trial information was presented to participants has varied from videotaped trial simulations, audiotaped information, and lengthy trial transcripts, to brief summaries of trial facts. Moreover, the characteristics of participants have also varied, from college undergraduates to samples of community members.

In these studies, when evidence that the defendant failed a polygraph test is introduced into the trial, it consistently has failed to affect verdicts or measures related to verdicts (e.g., confidence ratings, strength of evidence ratings). In comparison, in studies in which other forms of equally suspect evidence are also introduced—such as eyewitness testimony, participants have tended to rely heavily on this information when rendering judgments. Moreover, participants fail to draw a distinction among the different types of polygraph test evidence. For example, research has consistently shown that the Guilty Knowledge Test (GKT) is much less likely to result in false positives (i.e., truthful suspects misclassified as deceptive) than is the CQT. Yet when studies have varied the type of polygraph test admitted in instances where the defendant failed the test, again no differences were found. That is, participants are no more trusting of the GKT than they are of the CQT. When researchers have varied whether the polygraph test results indicated that the defendant had passed the test or failed the test, there were again no differences in verdicts when compared with a control group that did not receive polygraph test results in the trial. Finally, because it is possible that participants are less apt to rely on polygraph evidence when other, more reliable forms of evidence are present than when it is the sole evidence against the defendant, researchers have varied the presence of failed polygraph evidence both with and without other corroborating evidence. Again, no differences were found for guilty judgments, as participants were no more likely to rely on polygraph evidence when it was the chief evidence against a defendant than when it was one of many pieces of evidence against the defendant.

However, whereas jurors are rather reluctant to use polygraph evidence in their decisions, the general public appears to be less skeptical of the test than are experts. That is, surveys of experts in areas such as psychophysiology suggest that compared with the general public, they are more uniformly condemning of the value of polygraph tests. The general public tends to be more varied in its beliefs. Moreover, the general public is less inclined to perceive subtle differences in the techniques (e.g., CQT vs. GKT) but rather holds a generally skeptical attitude toward all polygraph tests. What is clear, then, is that despite the opinions of many within the legal community who fear that polygraph evidence may be overly probative in the minds of jurors, the research thus far is consistent in demonstrating that neither are polygraph test results highly valued by jurors nor do jurors place unwarranted trust in the test when rendering judgments concerning the defendant.

Bryan Myers

See also Detection of Deception: Use of Evidence in; Detection of Deception in Adults; Polygraph and Polygraph Techniques

Further Readings

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

Lykken, D. T. (1998). *A tremor in the blood: Uses and abuses of the lie detector* (2nd ed.). New York: Plenum Press.

Myers, B., Latter, R., & Abdollahi-Arena, M. K. (2006). The court of public opinion: Lay perceptions of polygraph tests. *Law and Human Behavior, 30*(4), 509–523.

United States v. Alexander, 526 F.2d 161, 164 (8th Cir. 1975).

R

Race, Impact on Juries

The relationship between race and the decision making of juries is complex and controversial. Media and public discussions of the topic often focus on anecdotal evidence in the form of recent high-profile cases in the United States. Researchers, on the other hand, have begun to generate a wide-ranging empirical literature regarding the influence of a defendant's race on jurors, between-race differences in juror tendencies, and the effects of jury racial composition on verdicts and deliberations. The findings of these studies are not always consistent, and the psychological processes through which race influences decision making merit additional investigation. Nonetheless, this body of research clearly indicates that race has the potential to affect trial outcomes—a conclusion that is noteworthy from a practical standpoint and carries important implications for ongoing debates regarding jury representativeness, peremptory use during jury selection, and racial disparities in capital sentencing.

Researchers who investigate these issues typically do not seek to provide definitive conclusions concerning whether race was influential in any particular case. Rather, this research attempts to identify—through a variety of methodologies—general tendencies and statistical trends regarding race. Some researchers conduct archival analyses, selecting a sample of actual cases from a particular jurisdiction over a particular time period and using regression analysis to determine whether a variable such as defendant race reliably predicts verdicts. Other researchers conduct interviews with former jurors to assess perceptions of the role played by race at trial or to compare the experiences of jurors of different races. Social scientists tend to use mock juror experiments and jury simulations in which judgments are compared across slightly different versions of the same case or between juries of different racial compositions. Each of these research strategies has unique strengths and limitations, emphasizing the importance of converging empirical findings from multiple study types.

Race of Defendant

From a historical perspective, the question of whether the race of defendants influences legal decision making can be answered with a straightforward "yes." In the pre–Civil War United States, for example, statutes mandated that certain behaviors were illegal when practiced by Blacks but not by Whites; different punishments were also on the books for White versus Black perpetrators. Even well into the 20th century, "Jim Crow" laws not only facilitated racial segregation in the U.S. South, but also criminalized behaviors and established punishments that disproportionately targeted Blacks. A long litany of anecdotal examples indicates that such overtly disparate treatment was not confined to legislative bodies and law enforcement but was also apparent in jury verdicts and appellate court rulings.

In the past half-decade, in the wake of the Civil Rights Movement and the end of statutory discrimination, it has become more difficult to provide unqualified answers to questions regarding defendant's race. As fewer individuals become willing to endorse overtly prejudicial attitudes or to admit to racial discrimination,

researchers have come to focus on behavioral measures in the effort to assess the influence of race. This development mirrors more general trends in social science research: Many theorists have described contemporary manifestations of racial bias as more subtle and ambiguous than in previous eras, and few empirical investigations today rely on self-report measures to identify the influence of race.

Much current research on the issue of defendant's race addresses the question of whether White jurors render different judgments in cases involving White versus Black defendants. Presumably, this focus reflects both the historical context reviewed above (in which Black defendants have often received disproportionately harsh treatment at the hands of a predominantly White legal system) as well as a more general tendency in social science research to consider racial bias in terms of the dichotomy of White perceivers and Black targets. Literature reviews and meta-analyses of experimental research report mixed findings regarding the influence of race on White mock jurors, but a general tendency emerges such that Whites, often, are more conviction-prone and recommend harsher sentences for Black versus White defendants. A smaller number of archival analyses provide converging evidence for this conclusion.

A great deal remains unknown regarding the influence of a defendant's race, however. The case-by-case variability of these effects suggests the importance of determining precisely when and why a defendant's race colors legal judgments. Studies have identified a range of factors that render defendant race more likely to influence jurors, including when the evidence at trial is ambiguous, when the crime in question is violent, and in the face of incriminating inadmissible evidence or inflammatory pretrial publicity. Further exploration of these and other variables is needed, as are future examinations involving defendants of races other than White and Black. The race of the victim is another important consideration because archival research on capital sentencing indicates that the influence of a defendant's race is often greater for interracial versus same-race murders; indeed, the "Baldus study," an extensive archival investigation discussed in the U.S. Supreme Court's *McCleskey v. Kemp* (1987) decision, indicates that victim race is an even stronger predictor of capital sentencing outcomes than defendant race.

Efforts to combat disparate legal treatment by race would also be facilitated by a better understanding of the psychological processes through which a defendant's race affects jurors. To the extent that hostile attitudes toward defendants of particular groups, in-group/out-group effects, or overt motivations for race-based jury nullification are responsible for such effects, accurate identification of biased jurors during jury selection becomes of paramount importance. But a defendant's race may influence even those jurors who do not harbor explicit racial prejudices or motivations. Cognitive associations between race and crime likely impact legal judgments, either because jurors personally endorse the belief that individuals of particular racial groups are more likely to commit certain crimes or through mere awareness of the race-relevant crime stereotypes endemic to society and perpetuated by popular culture. The processes through which a defendant's race influences decision making merit additional empirical attention.

Race of Juror

As mentioned above, the majority of experimental research regarding defendant race has focused exclusively on the individual judgments of White jurors. A smaller subset of studies has examined the judgments of jurors of other races. The objective of such studies, typically, is not to identify general between-race differences in juror verdict tendencies (e.g., non-White jurors are more acquittal prone than Whites; Black jurors are particularly skeptical of police testimony), despite the fact that many legal practitioners and laypeople harbor such across-the-board assumptions. Rather, most studies examining juror race seek to determine whether particular factors—such as defendant race—have different effects on jurors of different backgrounds.

On the question of the intersection between defendant and juror race, many experiments have converged on the conclusion that jurors are likely to be lenient toward same-race defendants. In other words, the finding that Black defendants tend to be judged more harshly than White defendants is likely specific to studies involving White jurors; the opposite pattern is often expected for Black jurors. In fact, more than one mock juror experiment has indicated that the influence of a defendant's race is more pronounced or consistent among Black jurors than among White jurors. However, the interaction between juror and defendant race is complex, and a notable exception to this "same-race leniency" tendency can be found in what some researchers refer to as the "black sheep effect." Studies have demonstrated that in some instances, jurors tend to be harsher in their judgments of a same-race defendant, such as when the evidence against the defendant is

unambiguously strong, the crime in question is particularly heinous, or the victim is also of the same race as the juror.

Studies using actual trials have examined juror race by comparing the subjective jury service experiences of individuals of different races. Interviews with jurors from capital cases, for example, have revealed that White jurors report greater satisfaction with their jury experiences than do non-White jurors, that Black jurors are more concerned that the jury may have made a mistake than their White counterparts, and that Black jurors are sometimes concerned that the Whites with whom they served failed to understand Black defendants' personal circumstances. Again, though, most of these studies only examine White and Black participants, and much remains to be learned regarding the ways in which the experiences and decision making of jurors varies and converges across different racial groups.

Jury Racial Composition

Although the title of this entry refers to "juries and race," the research described to this point has focused not on the decision making of juries but rather on the private judgments of individual jurors. Most research examining race and legal decision making at the group level is archival in nature. One finding to emerge from this literature parallels the between-race juror effects reported above: The greater the proportion of Whites to non-Whites on a jury, the harsher a jury tends to be toward non-White defendants. This group-level variation on the same-race leniency phenomenon has been observed for Whites and Blacks on capital juries as well as for Whites and Latinos on nonfelony juries. A smaller number of experimental studies have produced comparable findings among investigations of White and Black jurors, White and Latino jurors, and jurors of African versus Indian descent.

Whereas archival analyses demonstrate that a jury's racial composition is associated with its verdict tendencies, only experimental data reveal the causal link between composition and decision. But even experiments rarely shed much light on the processes through which such influence occurs. There are multiple possible explanations for why a jury's composition sometimes affects its decision making, and these possibilities are not mutually exclusive. First, the relationship between a jury's composition and its verdict may simply be the group-level manifestation of the same-race leniency effect found among individual jurors. That is, to the extent that generalized differences exist between, for example, the tendencies of White and Black jurors for a given case, the racial makeup of a jury is likely to shape the predeliberation jury vote split and, therefore, also likely to have an impact on verdict tendencies. In this manner, more Black jurors in a trial involving a Black defendant might render a guilty verdict less likely because Black jurors tend to be more lenient toward Black defendants than are White jurors.

There are additional explanations for the effects of a jury's racial composition beyond a simple demographic, vote-split account. Indeed, archival and experimental investigations have found that a jury's racial composition can predict not only verdict tendencies but also the process and content of its deliberations. Many legal scholars and judges have argued that a diverse jury composition leads to a diversity of information exchanged during deliberations. The assumption underlying this proposition is typically that jurors from racial minority groups tend to bring to the jury room different perspectives and life experiences than would otherwise be heard during deliberations of homogeneously White juries. Though few empirical jury studies have tested this prediction, research from nonlegal domains has demonstrated a link between a demographic diversity and the breadth of perspectives with which a group approaches a decision. But the effects of jury composition need not be wholly attributed to the informational contributions of racial minority jurors. Recent research—set in both legal and nonlegal contexts—suggests that a diverse group composition also affects the judgments and cognitive performances of White individuals. Specifically, experimental research indicates that the racial composition of a jury can affect White mock jurors' verdict preferences, evidence processing, and performance during deliberations; even the mere expectation of deliberating on a diverse jury has been found to influence the private judgments of White as well as Black mock jurors.

In sum, research on jury racial composition—like research on race and legal decision making more generally—has provided compelling evidence that race can exert a causal effect on trial outcomes. The precise mechanisms that account for this influence of racial composition remain in need of additional empirical investigation, as do a variety of questions regarding the generalizability of these findings across different types of cases and racial groups. Moreover, published research on this topic does not allow for definitive assessment of whether a jury's racial composition was

influential in any particular case or whether a different verdict would have been reached by a jury with a different composition. Nonetheless, jury racial composition appears to be more than a constitutional consideration; it is a variable with the potential for performance effects related to intragroup dynamics, deliberation content, and final verdict.

Samuel R. Sommers

See also Chicago Jury Project; Death Penalty; Jury Deliberation; Jury Nullification; Racial Bias and the Death Penalty; Scientific Jury Selection; Voir Dire

Further Readings

Baldus, D. C., Woodworth, G., & Pulaski, C. A., Jr. (1990). *Equal justice and the death penalty: A legal and empirical analysis.* Boston: Northeastern University Press.

Bowers, W. J., Steiner, B. D., & Sandys, M. (2001). Death sentencing in Black and White: An empirical analysis of jurors' race and jury racial composition. *University of Pennsylvania Journal of Constitutional Law, 3,* 171–275.

McCleskey v. Kemp, 481 U.S. 279 (1987).

Mitchell, T. L., Haw, R. M., Pfeifer, J. E., & Meissner, C. A. (2005). Racial bias in mock juror decision-making: A meta-analytic review of defendant treatment. *Law and Human Behavior, 29,* 621–637.

Sommers, S. R. (2006). On racial diversity and group decision-making: Identifying multiple effects of racial composition on jury deliberations. *Journal of Personality and Social Psychology, 90,* 597–612.

Sommers, S. R., & Ellsworth, P. C. (2003). How much do we really know about race and juries? A review of social science theory and research. *Chicago-Kent Law Review, 78,* 997–1031.

Racial Bias and the Death Penalty

The issue of racial bias in death sentencing has long been a significant concern in the system of capital punishment. Many studies across the United States have found the race of the defendant (combined with the race of the victim) to be a salient predictor of juror decision making in capital cases, with Black defendants convicted of killing White victims to be most likely to receive the death sentence. Racial bias in capital trials appears to be correlated with the following: (a) the ethnic background of the district attorney pursuing the death penalty; (b) the racial breakdown of the jurors in capital cases; (c) jurors' failure to understand jury instructions in death penalty trials; and (d) jurors' attitudes toward the death penalty and their death qualification status. Research also suggests that whether Blacks' physical appearance resembles racial stereotypes may be a factor in jury decisions.

In the United States, 38 states use capital punishment as the ultimate penalty for defendants convicted of crimes such as first-degree murder, capital sexual battery, and treason. The United States is the only country in the Western world to employ the death penalty and, along with China, Iran, and Saudi Arabia, is responsible for 94% of the world's executions.

Clearly, capital punishment is an extraordinarily controversial issue. The debate about the death penalty appears to be several fold, involving issues such as its lack of financial feasibility, its questionable deterrent value, the execution of innocent persons, diminishing public support for capital punishment, increasing public support for the alternative penalty of life without the possibility of parole, and lethal injection constituting "cruel and unusual punishment." One of the most salient controversies surrounding capital punishment is the fact that it appears to be arbitrarily and capriciously applied, with the majority of capital defendants and death row inmates being men of an ethnic minority charged with/convicted of killing a member of the ethnic majority.

Legal Background

The issue of racial bias was addressed by the U.S. Supreme Court 20 years ago in *McCleskey v. Kemp* (1987), in which the Court was forced to take a realistic look at the issue of social injustice in the application of the death penalty. In a brief submitted to the Court, social scientists concluded that prosecutors were 70% more likely to seek the death penalty against a Black person accused of killing a White person than in cases with any other racial composition.

In addition, the study found that when Black defendants were convicted of killing a White victim, they were 22 times as likely to receive the death penalty as Blacks convicted of killing Blacks and 7 times more likely to receive the death penalty than Whites convicted of killing Blacks.

In spite of the conclusions brought forth by the data, the Court said that the overall pattern of discrimination

did not mean that racial issues actually entered into sentencing decisions in Georgia. The Court also argued that the study's reliance on statistical probabilities was an inherent weakness in the data (as opposed to its greatest strength). The Court insisted that researchers must provide "exceptionally clear proof" that racism is a factor in jury decision making in capital cases. Because research has indicated that people with the most prejudices are often the least likely to admit them, this standard has proven to be difficult, if not impossible, to meet.

Statistical Analysis of Racial Bias

Although recent findings have suggested that racial bias appears to permeate the system of capital punishment, the issue is more complex than previously imagined. For example, roughly half the death row inmates in the United States are Black, Hispanic, or Asian. Although only 34% of defendants who have been executed have been Black, 80% of murder victims in capital cases in which the defendant was subsequently executed were White (while only 50% of murder victims are White). As of January 2007, 213 Black death-row inmates were executed for killing a White victim, whereas only 15 White defendants were executed for killing a Black victim.

In addition, research has found that in 96% of the states that have conducted systematic reviews of the correlation between race and the death penalty, there was a pattern of race-of-defendant or race-of-victim discrimination, or both. A recent study in North Carolina suggested that people who killed White victims were 3.5 times more likely to receive the death penalty. Another study found that capital defendants in California were 3 times more likely to receive the death penalty if their victims were White than if they were Black and 4 times more likely to receive the death penalty than if their victims were Hispanic. Another report released in New Jersey by the state Supreme Court found that the state is more likely to pursue capital charges against defendants who kill White victims. Indiana, Maryland, and Virginia have conducted similar studies and concluded that the race of both the defendant and the victim is a controlling factor in most capital cases.

Causes of Racial Bias

One possible cause of the aforementioned bias is the race of the person who decides to pursue capital charges at the outset. For example, in most states, the vast majority (by some counts, 98%) of chief district attorneys are White, whereas only 1% are Black.

Another probable explanation of the bias is that jurors make decisions based on their race and that of the defendant rather than on the evidence in the case. For example, a recent study found that White jurors were more likely to sentence Black defendants to death.

Failure to understand jury instructions may also lead to death penalty decisions in which race appears to be a factor. For example, research conducted by Mona Lynch and Craig Haney suggested that when instructional comprehension was poor, Black defendants were even more likely to receive the death penalty.

Certain juror characteristics also appear to affect racial bias in the system of capital punishment. For example, a study by Brooke Butler found that both attitudes toward the death penalty and death qualification status (i.e., jurors' eligibility to hear a capital case based on their attitudes toward the death penalty and whether they would be able to disregard personal convictions that the capital punishment is wrong and consider the death penalty as an option) correlate with various forms of prejudice. Specifically, as support for the death penalty increased, venirepersons (i.e., jurors who are eligible to hear a capital case) were more likely to believe that discrimination against Blacks is no longer a problem in the United States; that Blacks have more influence in school desegregation plans than they ought to have; that Blacks are getting too demanding in their push for equal rights; that Blacks have gotten more economically than they deserve; and that, over the past few years, the government and news media have shown more respect toward Blacks than they deserve.

The same study also revealed that death qualification status was significantly related to jurors' beliefs that racism remains a problem in the United States today. Specifically, death-qualified venirepersons were more likely to believe that discrimination against Blacks is no longer a problem in the United States.

It also appears that simply looking "more Black" affects the way jurors make sentencing decisions in capital cases. For example, recent findings suggest that in cases involving White victims, the more stereotypically "Black" a defendant is perceived to be, the more likely that person is to be sentenced to death.

Brooke Butler

See also Death Penalty; Death Qualification of Juries; Race, Impact on Juries; U.S. Supreme Court

Further Readings

Amnesty International. (2003, April 24). *Death by discrimination: The continuing role of race in capital cases.* Retrieved July 2, 2007, from http://web.amnesty.org/library/index/engamr510462003

Baldus, D., Woodworth, G., & Pulaski, C. (1990). *Equal justice and the death penalty: A legal empirical analysis.* Boston: Northeastern University Press.

Bedau, H. (1997). *The death penalty in America: Current controversies.* New York: Oxford University Press.

Butler, B. (in press). Death qualification and prejudice: The effect of implicit racism, sexism, and homophobia on capital defendants' right to due process. *Behavioral Sciences and the Law.*

Eberhardt, J. L., Davies, P. G., Purdie-Vaughns, V. J., & Johnson, S. L. Looking deathworthy: Perceived stereotypicality of Black defendants predicts capital sentencing outcomes. *Psychological Science, 17,* 383–386.

Haney, C. (2005). *Death by design: Capital punishment as a social psychological system.* New York: Oxford University Press.

Lynch, M., & Haney, C. (2000). Discrimination and instructional comprehension: Guided discretion, racial bias, and the death penalty. *Law and Human Behavior, 24,* 337–358.

McCleskey v. Kemp, 481 U.S. 279 (1987).

Rape Trauma Syndrome

Rape trauma syndrome (RTS) is a topic about which experts testify in legal cases. It is most often used by prosecutors in sexual assault cases to counter a defendant's claim that the sexual contact in question was consensual. The specific nature of the testimony varies from case to case but often includes a description of the common effects of rape and an opinion that a particular complainant's behavior is consistent with—or not inconsistent with—having been raped. Judicial decisions regarding the admissibility of RTS testimony have varied because of differences in the specific nature of the testimony given as well as changes over time and across jurisdictions in rules regarding the admissibility of expert testimony. Nonetheless, expert testimony on RTS generally is admissible, particularly when it is offered to educate the jury (versus to prove that a rape occurred).

Definition of Rape Trauma Syndrome

The term *rape trauma syndrome* was first coined by Burgess and Holmstrom in 1974 to describe a two-stage model of reactions to rape among adult rape victims. Their model was a description of symptoms observed in a sample of 92 adult female rape victims seen in a hospital emergency room. Based on interviews with these women, Burgess and Holmstrom described an acute phase of the recovery process, which was characterized by a great deal of disorganization in the victim's lifestyle. Physical (e.g., muscle tension) and emotional (e.g., fear, self-blame) symptoms were common during this phase. The second (reorganization) phase began 2 to 3 weeks after the rape. Victims often moved during this phase, and trauma symptoms (e.g., nightmares, fears) were still common. Although the term RTS continues to be used in legal decisions and commentary, subsequent research has conceptualized rape trauma in terms of specific diagnoses and symptoms rather than stages of recovery.

RTS is sometimes referred to as a specific type of posttraumatic stress disorder (PTSD) in expert testimony, case law, and legal commentary. Indeed, rape is an example of a traumatic event that can lead to PTSD as defined in the *Diagnostic and Statistical Manual* (*DSM*) of the American Psychiatric Association. The *DSM* outlines very specific criteria that must be met for individuals to be diagnosed with PTSD: (a) They must have experienced a traumatic event that involved actual or threatened death, serious injury, or threat to physical integrity and react to that event with intense fear, helplessness, or horror; (b) they must report a specified number of symptoms involving reexperiencing the event, avoidance, and heightened arousal; and (c) the symptoms must last for at least 1 month and cause clinically significant distress or impairment in functioning. Studies suggest that the vast majority of rape victims meet the criteria for PTSD immediately postrape and that approximately 50% continue to meet the criteria at 1 year postrape. Current PTSD prevalence rates among victims raped several years previously range from 12% to 17%. Several studies have found that rape victims report more symptoms of PTSD than nonvictims and victims of other types of traumas.

Although case law tends to focus on PTSD, several other symptoms are also common following a sexual assault, including fear, anxiety, depression, health

problems, and substance abuse. These symptoms are both common in rape victims and more common in victims than in nonvictims. Some argue that only evidence that symptoms are more common in victims than nonvictims is relevant to whether a rape occurred. Evidence that symptoms are common among rape victims is not relevant if the symptoms are equally common among nonvictims. However, evidence that a symptom is not common following rape, but is consistent with having been raped (i.e., is a possible consequence), is relevant if the defense claims that the symptom is inconsistent with having been raped.

In summary, RTS has been used to refer to the description of the effects of rape in Burgess and Holmstrom's 1974 study, research on rape-related PTSD, and research on other effects of rape. This can be very misleading because the RTS symptoms described by Burgess and Holmstrom are not the same as those described in the *DSM* criteria for PTSD. In addition, unlike PTSD, RTS is a description rather than a diagnosis with specific criteria. Some of the symptoms described by Burgess and Holmstrom have been found to be more common in victims than in nonvictims in subsequent research, but this research has not replicated Burgess and Holmstrom's stage model. The term RTS will be used here to refer to the entire body of research on the effects of rape.

Expert Testimony on RTS

Most often, the purpose of expert testimony on RTS is to counter a defendant's claim that the sexual contact in question was consensual. It can be difficult to prove nonconsent because there are often no witnesses or other physical evidence, and the complainant often knows the defendant. Expert testimony regarding psychological trauma experienced by a complainant is considered to be the strongest evidence available in consent defense cases.

Expert testimony on RTS was first introduced in U.S. courts in the early 1980s. Most states that have ruled on its admissibility have found it to be admissible although decisions vary depending on the specific nature and purpose of the testimony in a particular case. For example, the testimony offered can differ in terms of whether the expert provides only a general description of the common aftereffects of rape or whether the expert also provides an opinion regarding whether a particular complainant is suffering from RTS. Testimony also differs in terms of whether the expert refers to RTS or to PTSD.

Several criteria determine whether expert testimony is deemed admissible. First, the expert has to be qualified. Various kinds of professionals (e.g., psychologists, psychiatrists, crisis workers) have provided testimony, but their qualifications have rarely been an issue in determining the admissibility of RTS evidence. The second criterion is that the evidence should be scientifically reliable and valid. RTS evidence generally is seen as reliable if it focuses on whether RTS is a generally accepted response to sexual assault and is not seen as reliable in determining whether a rape occurred. The third criterion is that the evidence should be helpful to the jury. In general, the testimony is seen as helpful in educating jurors about the common effects of rape and particularly common misconceptions about rape and rape victim behavior. The final criterion is that the testimony should not be unfairly prejudicial to the defendant. This has been the most controversial aspect of the testimony, but the degree of prejudice depends on the nature of the testimony. The testimony is generally viewed as less prejudicial if the expert uses the term PTSD versus RTS, if the testimony is used to rebut a defendant's claim that a complainant's behavior was inconsistent with having been raped, and if the testimony concerns victims as a class versus the specific complainant. The testimony is viewed as unfairly prejudicial and as invading the province of the jury if it is used to prove that a rape occurred (e.g., if the expert states that he or she believes that the victim was raped or definitely has RTS).

Although RTS evidence was initially introduced in sexual assault cases to corroborate the complainant's claim that sexual contact was nonconsensual, defendants have also sought to use the testimony to support their version of the facts. For example, a defendant may try to offer expert testimony that, because a complainant does not have RTS, she must not have been raped. Compelling complainants to be examined by defense experts undermines protections introduced by rape shield laws and could deter reporting. Nonetheless, concerns about complainants must be balanced against the rights of the accused. The admissibility of RTS evidence by the defense depends on several factors. For example, expert testimony offered by the defense is more likely to be admissible if the prosecution first offered the testimony. Some argue that it should only be admissible in these circumstances. In addition, some

argue that the defense should be allowed to compel an examination of a complainant if the prosecution expert did an examination but not if the prosecution expert only provided general testimony about the effects of sexual assault.

Patricia A. Frazier

See also Coping Strategies of Adult Sexual Assault Victims; Expert Psychological Testimony; Posttraumatic Stress Disorder (PTSD); Victimization

Further Readings

Davis, K. (1998). Rape, resurrection, and the quest for truth: The law and science of rape trauma syndrome in constitutional balance with the rights of the accused. *Hastings Law Journal, 49,* 1511–1570.

Frazier, P. (2005). Rape trauma syndrome: Scientific status. In D. Faigman, D. Kaye, M. Saks, & J. Sanders (Eds.), *Modern scientific evidence: The law and science of expert testimony* (Vol. 2, pp. 317–343). Eagan, MN: Thomson West.

Frazier, P., & Borgida, E. (1992). Rape trauma syndrome: A review of case law and psychological research. *Law and Human Behavior, 16,* 293–311.

Garrison, A. (2000). Rape trauma syndrome: A review of a behavioral science theory and its admissibility in criminal trials. *American Journal of Trial Advocacy, 23,* 591–657.

Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR)

The Rapid Risk Assessment for Sexual Offense Recidivism, abbreviated as the RRASOR (pronounced like the cutting tool), is an actuarial scale designed to assess different levels of sexual recidivism risk for convicted sexual offenders. This scale was the first empirically validated actuarial instrument specifically designed for the assessment of sexual offense recidivism. As such, it served both to change the manner by which people conducted risk assessments and as the stepping stone for the development of second-generation actuarial instrumentation, though it is still being used because of its unique contribution to risk assessment technology. This overview describes the instrument's development, summaries of tests of reliability and validity, how it has been used in furthering risk assessment knowledge, and the reason why it is still used despite the availability of newer instruments.

Development of the RRASOR

R. Karl Hanson was the sole developer of the RRASOR. He started (in 1997) with a set of seven empirically derived correlates to sexual recidivism selected from the findings of a then recently completed meta-analytic study. These seven risk factors were selected based both on their correlation with sexual recidivism and the presumed ease in finding the relevant information in prison records. A regression analysis using measures of these seven variables across six aggregated samples found that a subset of four of the seven variables accounted for nearly all the relevant variance of sexual recidivism. These four risk factors (prior sex offenses, offender age being younger than 25 years, ever having a male victim, and ever having an extrafamilial victim) were then combined to form an instrument called the RRASOR. A cross-validation test of the new scale with an independent seventh sample documented supportive evidence of the scale's utility.

Scoring for 3 of the items is dichotomous, while scoring for the "prior sex offense" item involves four levels, with higher item scores always representing high recidivism risk. Each additional sign of risk is scored 1 point. The total scale score for the instrument is computed through simple addition across the 4 item scores. The final form of the instrument offers recidivism rates for each of six rank-ordered score levels (i.e., scale total scores of 0 through 5) for 5- and 10-year follow-up periods.

Although scores of 6 were possible, no one with that score was found among the nearly 2,600 subjects used to develop the instrument. Offenders with RRASOR scores of 6 have been found since by other researchers and risk evaluators, though that score is so rare that its associated degree of recidivism risk is still unknown.

The developmental study found the RRASOR to have an ROC (Receiver Operating Characteristic) ranging from .62 to .77 (relative to sexual recidivism) across the seven samples used to develop it. This range of ROCs is very much similar to the ROCs found from cross-validation tests of the instrument.

Reliability and Validity Findings

There have been between two and three dozen empirical tests involving the RRASOR to date. These have occurred using samples across at least eight countries

(Belgium, Canada, England, the Netherlands, New Zealand, Sweden, the United States, and Wales). Interrater reliability tests have typically found the instrument's reliability to fall in the .90 to .94 range—very high, though not surprising given the small number of items on the scale.

The RRASOR's predictive accuracy (as measured by the ROC) is regularly found to be equal to that of other actuarial instruments when tested with individual samples. When viewed across a host of samples in a meta-analytic test by R. Karl Hanson and Kelly Morton-Bourgon, the RRASOR showed a lesser degree of relationship with sexual recidivism than did a second-generation actuarial scale called the STATIC–99 (described briefly below). The RRASOR's predictive validity relative to sexual offenders' nonsexual violent recidivism, however, has regularly been found to be poor, indicating the instrument's effectiveness is specific to sexual recidivism.

Use of RRASOR in Furthering Risk Assessment Technology

As a first-generation instrument, the RRASOR served to demonstrate that actuarial procedures could be effective in assessing sexual re-offending risk. The development of a second-generation risk assessment instrument, the STATIC–99, was completely based on combining the 4 items from the RRASOR with the items from one other scale, for a total 10-item scale. Given that the STATIC–99 has become the most widely used actuarial instrument for assessing sexual recidivism risk, the RRASOR served well toward its own improvement.

The RRASOR has also served as a covariate in analyses to scale out the possible effect of different a priori recidivism risk levels (such as relative to the effect on sexual recidivism rates of aging, of the inability to suppress deviant responding on the penile plethysmograph, and of sex offender treatment). These occasions represented the first time researchers could statistically control for different risk levels in an empirically validated way.

Why the RRASOR Is Still Used

Research involving dimensions of risk (i.e., risk driven independently by offenders' sexual deviance, their general antisociality, and other dimensions) has documented the utility of the RRASOR and fueled its continued use. The 3 nonage items from the RRASOR appear regularly as correlates to measures of sexual deviance and as not correlating strongly with measures of general criminality. Advocates of multidimensional risk assessment procedures often still use the RRASOR when assessing sexual recidivism risk to address risk driven by subjects' sexual deviance, while assessing general antisociality-driven risk with other instruments.

Dennis M. Doren

See also Minnesota Sex Offender Screening Tool–Revised (MnSOST–R); Risk Assessment Approaches; Sex Offender Civil Commitment; Sex Offender Risk Appraisal Guide (SORAG); Sexual Violence Risk–20 (SVR–20); STATIC–99 and STATIC–2002 Instruments; Violence Risk Appraisal Guide (VRAG)

Further Readings

Doren, D. M. (2002). *Evaluating sex offenders: A manual for civil commitments and beyond.* Thousand Oaks, CA: Sage.

Doren, D. M. (2004). Stability of the interpretative risk percentages for the RRASOR and STATIC–99. *Sexual Abuse: A Journal of Research and Treatment, 16*(1), 25–36.

Doren, D. M. (2004). Toward a multidimensional model for sexual recidivism risk. *Journal of Interpersonal Violence, 19*(8), 835–856.

Hanson, R. K. (1997). *The development of a brief actuarial risk scale for sexual offense recidivism.* Retrieved February 2, 2007, from www.psepcsppcc.gc.ca/publications/corrections/199704_e.pdf

Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*(1), 119–136.

Reconstructive Memory

Reconstructive memory refers to a class of memory theories that claim that the experience of remembering an event involves processes that make use of partial fragmentary information as well as a set of rules for combining that information into a coherent view of the past event. These theories provide a powerful way of understanding how witnesses remember crimes, how reliable recovered memories of abuse are, and how jurors remember testimony. According to reconstructive theories of memory, ordinary memory is prone to error. Errors in remembering can be broken down into *errors of omission,* in which information is

left out of a memory report, and *errors of commission,* in which inaccurate information is added to a memory report. Errors of commission are more typically referred to as *false memories* or *memory illusions.* Reconstructive theories of memory generally hold that errors of omission and errors of commission are related to one another. In fact, according to reconstructive theories of memory, errors of commission occur because reconstructive processes are used to fill in gaps in our memory reports.

History of the Concept of Reconstructive Memory

Pioneering work on the development of reconstructive theories of memory was conducted by Bartlett and described in his classic volume entitled *Remembering.* According to Bartlett, remembering involves an active attempt to make sense out of the historical past—what Bartlett referred to as an "effort after meaning." Bartlett studied the memories of English participants by asking them to repeatedly attempt to recall an unfamiliar folktale called *The War of the Ghosts.* Bartlett found that as participants attempted to recall the event, their recall was systematically distorted by their world knowledge. In particular, with repeated recall attempts, the unfamiliar folktale was recalled in an increasingly conventional manner. Details that were difficult to integrate with the participants' world knowledge tended to drop out. Details consistent with world knowledge tended to be added. Unfamiliar words were replaced with more familiar words. Bartlett concluded that memory does not simply passively record or retrieve facts. Instead, memory combines fact and interpretation in a reconstructive way such that the two become indistinguishable.

In his pioneering text *Cognitive Psychology,* Neisser offered the analogy of a paleontologist reconstructing what a dinosaur must have looked like. According to Neisser's analogy, paleontologists begin their reconstruction based on fragments of bone found in the fossil record. Based on this partial fragmentary information, the paleontologist makes use of his or her knowledge of finds at other sites, anatomy and physiology of current animals, and so on, to make a best guess of what the animal must have looked like, how it must have lived, what it likely ate, and so on. This best guess can be seen as a reconstruction of the past. Similarly, reconstructive theories of memory argue that people make use of partial fragmentary information, world knowledge, inferential processes, and so on, to reconstruct a memory of the past event.

The Process of Memory Reconstruction

Event Details

According to most reconstructive theories of memory, the process of reconstructing a memory is based on a variety of different types of information. First, reconstruction relies on fragmentary pieces of information from the event itself. If one were to witness a bank robbery, details from that event would be stored in episodic memory. Over time, these details would become increasingly less accessible following the exponential forgetting curve first described by Hermann Ebbinghaus. Some time later, the witness would be interviewed about the bank robbery. Although many of the details would be inaccessible, the witness would probably be able to retrieve some key pieces of information that made a special impression on him or her.

Schemas and Scripts

The stored details of the event provide partial evidence on which witnesses can base their memory reconstruction. However, this record of details from the event is likely to be incomplete. To help reconstruct the memory, witnesses would also likely rely on their prior knowledge about bank robberies in general. Memory psychologists have proposed that this type of prior knowledge is stored in long-term memory in the form of *schemas* and *scripts.* A schema is a general term we have for knowledge structures that represent typical instances of categories. Scripts are knowledge structures that represent the typical sequence in which a stereotypical event unfolds. For instance, a witness to a bank robbery likely has a schema representing the layout of a typical bank. They know that banks usually have offices or cubicles where loan officers, new account managers, and the like work. They know that banks typically have guards. They know that banks typically have tellers who work behind a counter. They know that banks typically have safes. This organized body of knowledge is thought to be stored in a "bank schema" that resides in memory. A witness to a bank robbery also likely has a bank robbery script, which includes information about the typical

sequence of actions in a bank robbery. For example, a bank robbery script may include information like the robbers take out weapons, they disarm the guards, they demand money, the tellers provide them with money, the robbers make their escape, and so forth.

Schemas and scripts are thought to guide our understanding of events as they unfold and guide our recall of events as they are being remembered. Reconstructive theories of remembering suggest that schemas and scripts have two effects on our ability to remember events. They make actions that are inconsistent with the schema especially easy to remember because these actions require extra processing at the time of study to reconcile them with the schema. Schemas can also lead to false memories because they are used to fill in gaps in our memory for the event. If you cannot remember what happened in an event, the schema provides the *default value* you should expect.

In one classic study of the role of scripts on memory, participants were presented with a story about a young woman. Some of the participants were told that the story was about Helen Keller. Other participants were told that the story was about someone else. Participants who heard that the story was about Helen Keller falsely remembered facts from the story that were consistent with their world knowledge about Helen Keller (e.g., a book was written about her life). Other research has shown that participants are especially likely to correctly recall information that violates their expectations. For instance, when reading a story about a restaurant, one may remember unexpected events—such as the waiter spilling water—especially well.

Recently, researchers have shown that similar effects occur in forensically relevant settings. In one recent study, participants were shown a videotape of a bank robbery. The video included consistent and inconsistent schema, and irrelevant actions. Consistent with prior research on reconstructive memory, participants falsely recalled many details that were consistent with the robbery schema. In addition, the researchers found that participants used their bank robbery schema to interpret ambiguous information in the video.

Postevent Information

Reconstructive theories of memory also claim that people rely on information obtained after the event to reconstruct their past. Information obtained after an event is known as *postevent information.* For instance, if one were to witness a bank robbery and then later saw a news report about the robbery, details from the news report may become incorporated into one's memory for the event. Classic work on the role of postevent information was conducted by Loftus in the 1970s. In one study, participants watched a videotape of an auto accident. Some participants were asked to estimate how fast the cars were going when they "collided." Other participants were asked to estimate how fast the cars were going when they "smashed" into each other. When tested 1 week later, participants who had been asked the "smashed" version of the question were more likely to remember seeing broken glass, when in fact no broken glass had been shown in the film.

The mechanisms by which postevent information influence memory became a subject of debate in the 1980s. Loftus proposed a theory whereby postevent information overwrites memory for the original information in storage. Other researchers argued that postevent information does not overwrite memory for the original event but rather interferes with the retrieval of the original event. Still other researchers argued that postevent information only influences memory reports in those participants who would not have remembered the detail in the first place. Later attempts to understand the influence of postevent information conceptualized it as an error in source memory. In other words, participants remember the information but have difficulty determining whether that information is from the original event or the postevent information (e.g., was it from the bank robbery or from the newspaper account?).

Work on postevent information has been extended in a wide variety of forensically important settings. Some research has examined the role of the interviewer in moderating the effects of postevent information. Social psychologists have shown that witnesses tend to discount postevent information when it is presented by a noncredible witness and to accept postevent information when it is presented by a credible witness. Also, in the 1980s, considerable research began to examine the role of postevent information in children. After some initial controversy, researchers reached a consensus that preschool-age children are more likely to be influenced by postevent information than are older children or adults. During this same time period, researchers came up with a number of clever research designs to examine children's false memories in contexts with considerable ecological validity. For instance, researchers conducted a number of studies of children's memories for stressful events by embedding postevent information experiments into children's visits to their pediatrician.

The postevent information paradigm was further extended to examine adult memories for childhood events implanted by suggestion. The first of these studies involved implanting a childhood memory of being lost in a shopping mall in college students. Later researchers extended these findings using what has been termed the *familial informant false narrative procedure.* In this procedure, family members first complete a questionnaire about events from the participant's childhood. Later, participants are interviewed about actual childhood events obtained from the cooperating family members and one invented childhood event (e.g., spilling punch on the parents of the bride at a family wedding). Participants are asked to repeatedly think about or imagine these invented events. Research has shown that false memories for childhood events can be created in 20% to 40% of participants using this technique.

Self-Serving Memories

In addition to fragmentary information from the event itself, prior knowledge in the form of scripts and schemas, and postevent information, some theories of reconstructive memory also assume that self-concept can influence how events are reconstructed. According to these theories, one's self-concept can distort how events are remembered. One intriguing case study compared John Dean's testimony at the House Watergate Hearings with taped transcripts of White House meetings involving Dean, Richard Nixon, H. R. Haldeman, and other White House officials. The study revealed that Dean's memory appeared to show systematic distortions that tended to exaggerate his own role in those meetings. Thus, Dean's memory showed a kind of self-serving bias. Later research on autobiographical memory showed that people's memories could be distorted by their current self-concept.

Current Trends and Forensic Implications

Reconstructive theories of long-term memory provide a powerful way of understanding important forensic issues such as how witnesses remember crimes and accidents, how adults remember childhood experiences, how children remember events, and even how jurors remember evidence. These theories stand in sharp contrast to reproductive theories of memory, which view memory as more like a videotape recorder. Research on reconstructive memories currently emphasizes the subjective experience of memories produced by reconstructive processes, whether true and false memories can be distinguished, how errors of commission can be avoided, and the individual differences that influence the use of reconstructive processes.

James Michael Lampinen
and Jeffrey S. Neuschatz

See also Children's Testimony; Eyewitness Memory; False Memories; Postevent Information and Eyewitness Memory; Source Monitoring and Eyewitness Memory

Further Readings

Bartlett, F. (1932). *Remembering.* Cambridge, UK: Cambridge University Press.

Graesser, A. C., Woll, S. B., Kowalski, D. J., & Smith, D. A. (1980). Memory for typical and atypical actions in scripted activities. *Journal of Experimental Psychology: Human Learning and Memory, 6,* 503–515.

Hyman, I. E., Husband, T. F., & Billings, J. F. (1995). False memories of childhood experiences. *Applied Cognitive Psychology, 9,* 181–197.

Loftus, E. F. (1979). The malleability of human memory: Information introduced after we view an incident can transform memory. *American Scientist, 67,* 312–320.

Neisser, U. (1967). *Cognitive psychology.* New York: Appleton-Century-Crofts.

Reid Technique for Interrogations

Law enforcement personnel use a variety of procedures to elicit confessions from suspects. The Reid Technique uses psychological methods to elicit confessions from those who are believed to be guilty, without the need to resort to physical force to extract a confession. The technique, initially developed in the 1940s and 1950s, was first published in 1942 by Fred Inbau and was called "Lie Detection and Criminal Interrogation." The technique has evolved over the years into what is now known as the Reid Technique. The nine-step process for effective interrogation has been used in police-training programs nationally. The Reid Technique or similar methods are routinely used

by law enforcement in structuring interrogation. Unfortunately, the Reid Technique is sometimes misapplied by law enforcement. Another problem is that the underlying theories behind the Reid Technique have not been empirically validated. The Reid Technique also has the potential to produce false or inaccurate confessions.

Assumptions Underlying the Reid Technique

The Reid Technique makes a distinction between an *interview* and an *interrogation.* These two terms are often used interchangeably as if they refer to the same process. An interview is ostensibly conducted when an officer does not have a lot of evidence to implicate the suspect. It is used to get evidence that may or may not establish guilt. An interview is not accusatory and may be conducted relatively early during a police investigation. An interview can also be conducted in a variety of environments (e.g., home, office, back of a police car), not necessarily at a police station. The interview can be free-flowing and relatively unstructured. The investigator should take written notes throughout the entire interview process.

According to the Reid Technique, an interrogation should be used only for suspects whom the police are reasonably certain committed the offense. The tone of the interrogation is accusatory because it is presumed that guilty individuals are not likely to make incriminating statements unless law enforcement is certain of their guilt. The interrogation involves actively persuading the suspect to admit his or her guilt. The interrogation takes place in a controlled environment. The officer does not take notes until the suspect has told the truth about his or her involvement with the crime, and the defendant is fully committed to that position.

The assumption behind interrogation procedures, according to the Reid Technique, is that most criminal suspects are reluctant to confess because they are ashamed of what they have done. Also, they fear the legal consequences associated with a confession. With most interrogation practices, according to the Reid Technique, it is believed that a certain amount of pressure, deception, persuasion, and manipulation is needed for the truth to be revealed. The U.S. Supreme Court has recognized that all custodial interrogations are, to a certain extent, inherently coercive because of the power and control inherent in law enforcement.

The Reid Technique assumes that guilty individuals experience greater nervousness than innocent individuals when questioned by law enforcement. It also assumes that the anxiety of innocent people diminishes as the interrogation progresses, while the opposite holds true for the guilty party. Both the innocent individual and the guilty individual may display anger directed toward law enforcement during the interrogation. Guilty feigned anger and real innocent anger look almost the same. Yet unlike the anger from the innocent party, it is presumed that the guilty party has difficulty maintaining that anger over time. There is no research to support any of those suppositions.

The Reid Technique proposes three distinctly different channels through which people communicate: the verbal channel (word choice and arrangement of words to send a message), the paralinguistic channel (characteristics of speech falling outside the spoken word), and the nonverbal channel (posture, arm and leg movements, eye contact, and facial expressions). A behavioral analysis approach is recommended by the Reid Technique to help assess behaviors associated with telling the truth and telling lies. Although mental health professionals routinely observe many aspects of both verbal and nonverbal behavior in assessing psychological functioning, these specially trained professionals are not human lie detectors and are unable to tell by a subject's verbal or nonverbal behavior (such as a defensive-type posture while sitting) whether a particular statement is the truth or a lie. Nevertheless, investigators using the Reid Technique claim to be able to analyze verbal, paralinguistic, and nonverbal behavior to determine whether a suspect is telling the truth. Critics argue that the technique is based on unfounded assumptions.

These assumptions have not been subject to scientific scrutiny and may result in law enforcement personnel making erroneous assumptions regarding a suspect's guilt, based on how that suspect sits in his or her seat, the tone of voice the suspect uses, and how denials are worded.

The Nine-Step Process

The Reid Technique involves a nine-step process. The first step, *direct positive confrontation,* involves directly confronting the suspect with a statement that it is known that he or she committed the crime. Often, the police lie and describe nonexistent evidence that points to the suspect as the offender.

The second step, *theme development,* is the step in which the police present a hypothesis about the reason for which the suspect committed the crime. This theme minimizes the moral implications of the alleged offense or allows a suspect to save face by having a morally acceptable excuse for committing the crime. While the Reid Technique states that in no situation is an officer to state that punishment will be lessened by admitting to guilt, in fact, quite often, the officer states just that. If the suspect becomes emotional, the interrogator displays an understanding and sympathetic demeanor toward the suspect. If the suspect does not become emotional and the interrogator does not detect remorse about the offense, various other techniques are used, such as attempting to catch the suspect in a lie, playing one co-offender against another, or behaving more confrontationally such as by stating that there is no point in denying involvement in the crime because all the evidence points toward guilt.

The third step, *handling denials,* involves interrupting a suspect's denials of guilt. The fourth step, *overcoming objections,* involves rejecting a suspect's excuses or explanations. Once the guilty suspect feels that objections are not getting him or her anywhere, he or she becomes quiet and shows signs of withdrawal from active participation. When the suspect becomes withdrawn, the interrogator acts quickly so as to not lose the psychological advantage. In the fifth step, *procurement and retention of the suspect's attention,* the interrogator reduces physical and psychological space between himself and the suspect to get the suspect's full attention. This prevents the suspect from emotionally withdrawing or tuning out from the remainder of the interrogation.

The sixth step, *handling the suspect's passive mood,* is a continuation of the fifth step. The police continue to get into the theme of the crime, expressing both sympathy and understanding of the suspect and emphasizing the need for the suspect to tell the truth. When encouraging the suspect to tell the truth, the interrogator might emphasize "the sake of everyone concerned," "the stress on the victim's family," or "decency and honor."

The seventh step, *presenting an alternative question,* takes place when the interrogator gives two possible alternatives for why the crime was committed. Both alternatives are incriminating but one is presented as face-saving, more acceptable, or more morally blameless than the other. Although proponents of the Reid Technique adamantly state that at no time should an officer state that the morally acceptable option will be less severely punished, many suspects believe that the more morally justified explanation will indeed meet with more lenient treatment.

The eighth step, *having the suspect orally relate various details of the offense,* involves a one-on-one interrogation with no other officers in the room. It is for the purpose of getting the suspect to give a detailed account of the crime that would establish legal guilt. The ninth and final step, *converting the oral statement to a written statement,* is done as quickly as possible after the eighth step. Sometimes, the confession will be videotaped, audiotaped, or recorded by a stenographer rather than written by the suspect or interrogator.

Use of the Reid Technique With Innocent Suspects

Although Fred Inbau and his coauthors stress that the Reid Technique should not be used unless law enforcement is certain the confession is being extracted from a guilty subject, often, this technique or others like it are used on innocent suspects. The police may erroneously believe that a suspect is guilty because of faulty police work or bad evidence, or because a suspect engages in suspicious behavior during the initial interview. For example, there are many reasons why a suspect may lie about details to the police even if he or she is innocent. The suspect may have information that he would like to remain hidden (e.g., drug use or an extramarital affair). An innocent suspect may appear overly nervous because of past experiences with law enforcement or because of the intrinsically anxiety-provoking situation of being accused of a crime.

Police interrogation tactics and techniques, particularly with highly suggestible and/or compliant suspects, may produce false confessions. Also, the interrogation tactics may produce statements from the suspect that, although incriminating him or her in some aspect of the crime, may also exaggerate the actual involvement or criminality of the offense.

Unfortunately, very few jurisdictions require law enforcement to record all interactions with the suspect—from the first encounter following an offense to the completion of a memorialized confession. Often, there are discrepancies in the accounting of what transpired. The defendant has one version, but the police have a different version.

Expert Testimony About Interrogation Techniques and Confessions

Even if the confession has previously been determined to be admissible, there is case law to support expert testimony about interrogation techniques that heighten the risk of false, retracted, or distorted confessions. This expert testimony can focus on individual characteristics of a defendant such as psychological vulnerabilities (e.g., low intelligence), interrogative suggestibility, and compliance. The expert testimony can also describe the methods used by law enforcement to extract confessions and how such methods may increase or decrease the reliability of the statements obtained. It can also focus on the interaction between defendant characteristics and the interrogation methods employed by law enforcement.

The Reid Technique and similar methods have been deemed legally permissible interrogation procedures. Although law enforcement and proponents of this methodology attest to its effectiveness in producing confessions in guilty suspects, many mental health professionals specializing in this field believe that these methods increase the likelihood of false confessions with certain types of suspects. A confession, or self-incriminating statement to law enforcement, carries great weight with the jury. There is disagreement in the field as to what percentage of defendants actually produces false confessions. In fact, most people realize that no scientific estimates can be presently made. It is currently impossible to accurately assess the number of false confessions or the percentage of confessions that are false. Nevertheless, false confessions do occur and there are individuals who are at a higher risk for producing false confessions when encountering the Reid Technique.

I. Bruce Frumkin

See also Behavior Analysis Interview; Competency to Confess; False Confessions; Wrongful Conviction

Further Readings

Gudjonsson, G. (2003). *The psychology of interrogations and confessions: A handbook.* West Sussex, UK: Wiley.

Inbau, F., Reid, J., Buckley, J., & Jayne, B. (2001). *Criminal interrogations and confessions* (4th ed.). Gaithersburg, MD: Aspen.

Kassin, S., & Gudjonsson, G. (2004). The psychology of confessions: A review of the literature and issues. *Psychological Science in the Public Interest, 5,* 31–67.

Leo, R. A. (1996). Inside the interrogation room. *Journal of Criminal Law and Criminology, 86,* 266–303.

Religion and the Death Penalty

Religion has the ability to affect death penalty trials in numerous ways. The most studied include the effects of jurors' religiosity and religious appeals used by lawyers during trial. Religion also affects judges' decisions. Although the study of how religion affects legal decision making is still in its infancy, religion has the potential to affect voir dire, trial presentation, and trial outcomes.

Use of Religion in Voir Dire

Before a trial begins, lawyers have the opportunity to exclude a set number of potential jurors who they believe will not favor their client. Lawyers often exclude potential jurors on the basis of personal characteristics such as religious beliefs or affiliation. For example, lawyers have excluded potential jurors because they were Jewish, Islamic, Jehovah's Witnesses, Catholic, or Pentecostal. Other potential jurors have been excluded because they had strong religious beliefs, had acted as a missionary, or had served as a pastor.

State courts are divided on whether the exclusion of potential jurors based on religion is legally permissible. Some state courts have held that lawyers can exclude potential jurors based on any religious variable, while others have determined that lawyers cannot exclude a potential juror for any factor related to religion. Still other courts have created rules that govern the exclusion of jurors. For instance, the court in *United States v. DeJesus* (2003) stated that it was permissible to exclude a juror because of his or her degree of religiosity (e.g., how often the juror prayed) but not because of his or her religious affiliation. The Indiana Supreme Court in *Highler v. State* (2006) held that lawyers cannot exclude a juror because of religious affiliation but that it is permissible to exclude a juror because his or her occupation is religious in nature. The U.S. Supreme Court had the chance to settle the controversy but declined to do so (*Davis v. Minnesota,* 1994). Thus, state courts can generally develop their own rules.

Because few states prohibit using religious factors to exclude potential jurors, most lawyers are able to do so. Psychologists can provide information about how religious variables may affect jurors' decisions, although the research has been sparse and sometimes contradictory. Conflicting findings likely represent the strong relative influence of individual case facts, the type of trial (e.g., capital or noncapital trial), and different measurements of religious variables.

Studies have investigated the relationships between religion and guilt verdicts, sentencing verdicts, and punishment in nontrial settings. Early research shows that jurors who believe in a divine plan and life after death tend to be more likely to find a defendant guilty. Other research has found that individuals who believe in a punitive God or could be categorized as religiously moderate or fundamental/conservative were more punitive. Religious affiliation may influence attitudes toward punishment, as a few studies have found that Protestants are more supportive of the death penalty than Catholics; other studies have found Catholics to be more punitive than Jews. Several studies have found a positive relationship between punitiveness and a belief in a literal interpretation of the Bible. Religious fundamentalism has sometimes been linked to punitiveness and support for the death penalty. Evangelist individuals (i.e., those who actively encourage others to accept Jesus) in one study were less likely to support the death penalty, though other studies have failed to replicate the finding. Devotionalism (i.e., the amount of time one spends in religious activities) has also produced mixed findings.

A more current study found that individuals who support the death penalty were more likely to be Protestant, have fundamentalist beliefs, believe in a literal interpretation of the Bible, believe that God supports the death penalty, believe that God requires the death penalty for murderers, and believe that their own religious groups support the death penalty. All these relationships except literal interpretism also existed among jurors who were death qualified. A mock jury simulation revealed that various religious factors influenced sentencing verdicts. Specifically, a death penalty verdict was related to high scores on the fundamentalism scale, belief in a literal biblical interpretation, belief that God requires the death penalty for murderers, and a belief that one's religious group supports the death penalty. Although research has sometimes produced conflicting results, many individuals do rely on their religious beliefs when making decisions, including death-penalty-sentencing decisions.

Use of Religion by Lawyers During Trial

Both prosecutors and defense attorneys have presented religious appeals and testimony about a defendant's religiosity to influence capital jurors' sentencing decisions. Appeals typically are presented in the closing arguments of the sentencing phase; testimony and evidence can come from a variety of sources, including pastors and relatives. Some courts have objected to these uses of religion (especially appeals), determining that religion improperly influences jurors' decisions.

Prosecutors have used several types of appeals during trial. First, attorneys have quoted biblical passages that support retribution, such as the "an eye for an eye and a tooth for a tooth" passage and the "Whoso sheddeth man's blood, by man shall his blood be shed" passage. Prosecutors in child murder cases have quoted the passage, "It were better for him that a millstone were hanged about his neck and he were cast into the sea, than that he should offend one of these little ones." Such appeals communicate that a person who murders should also be put to death.

Second, prosecutors have told jurors that God has given them the authority to make the life-and-death decisions. Other attorneys have claimed that the state legislature, the prosecutor, or the court is acting under God's authority. Such an instruction implies that God supports, or at least does not object to, the jury giving the defendant the death penalty.

Third, prosecutors have made comparisons between the defendant and biblical characters such as Judas Iscariot and the devil. Attorneys also tell biblical stories of Cain and Abel, David and Goliath, and the Apostle Peter. These stories provide recognizable metaphors for jurors to use in their decisions.

Defense attorneys have also used a variety of religious appeals to persuade jurors. For example, they have quoted biblical passages such as "Do not take revenge, my friends, but leave room for God's wrath, for it is written: 'It is mine to avenge; I will repay,' says the Lord" or argued generally that life-and-death decisions belong to God, not to man.

Defense attorneys have countered the prosecution's use of the "eye for an eye" argument by presenting quotes from Jesus that advocate "turning the other cheek." Such appeals promote forgiveness rather than retribution. They have also argued for the importance of forgiveness by telling biblical stories such as the one in the book of John about the woman who is caught

committing adultery and is about to be stoned to death. Jesus tells her would-be executioners that only a man who is without sin should throw a stone. After freeing the woman, Jesus forgives her. The purpose of telling the story is to illustrate that no one is without sin, and thus, no one should condemn another person to death. Because Jesus stopped an execution in favor of mercy and forgiveness, jurors should do the same. Another biblical story involves the crucifixion of Jesus. The attorney tells the jury that Jesus asked God to "forgive them for they know not what they do." Thus, jurors are told that they should forgive the defendant, just as Jesus forgave the people who were killing him.

Finally, defense attorneys have presented evidence of the defendant's religiosity in an attempt to evoke jurors' mercy. For example, a lawyer may tell the jury that the defendant deserves mercy because he is a Christian or has converted to Christianity while in prison. The defendant may present evidence or testimony that establishes that he has formed a prison Bible study, has written Christian books, or spends much time in prayer.

Courts have issued a variety of opinions concerning whether it is permissible for attorneys to use religion during trial. Generally, defendant can present evidence of their character that would convince a jury that they do not deserve the death penalty. Thus, evidence of a religious conversion would typically be allowed.

There has been much more controversy over religious appeals by prosecutors and defense attorneys. Some courts have forbidden all religious appeals, while others have provided guidelines for determining what kinds of appeals are allowable—for instance, excluding religious appeals that are excessive, are not related to the character of the defendant, prejudice jurors, or prevent a trial. Still other courts have allowed all appeals. Such courts have determined that appeals are appropriate because they are merely part of lawyers' theatrics.

Courts have forbidden religious appeals for a variety of reasons. Some courts have determined that such appeals violate the Eighth Amendment prohibition on cruel and unusual punishment. In a death-penalty-sentencing trial, a defendant is allowed to provide evidence of mitigating factors (i.e., evidence that the defendant does not deserve the death penalty). Biblical appeals allegedly do not allow jurors to consider mitigating factors; for instance, the "eye for an eye" command instructs jurors to give murderers the death penalty and does not provide jurors with any reasons to deviate from this biblical principle. Courts have rejected defense appeals as well. Some courts have found defense appeals to be improper because they suggest that jurors deviate from the state law. For instance, a lawyer tells jurors that God forbids them from giving a death sentence, while state law allows a jury to sentence a man to death.

Only a few studies have investigated the effects of religious appeals and testimony. In general, research indicates that appeals used by the prosecution are ineffective. That is, biblical quotes do not encourage jurors to give death sentences. Defense appeals used in one study were influential; however, they actually had the opposite effect from what was intended. Specifically, a defense attorney's biblical appeal led jurors to be more likely to give a death sentence. On the other hand, the study found that evidence of a religious conversion led jurors to be less punitive. Evidence that the defendant has always been a Christian has either backfired or had no effect.

Use of Religion in Deliberation

In several recent capital trials, jurors have used a Bible during deliberation. Jurors in at least one trial admitted looking up passages such as the "eye for an eye" passage before sentencing the defendant to death. While judges have generally declared the practice impermissible, it is difficult to completely remove religion from the deliberation room. Even without a Bible, jurors can cite scripture from memory or privately rely on their religious convictions during deliberations. The effects of religion in deliberation have not been studied.

Use of Religion by Judges

Judges can also rely on religion in their decisions. They may be persuaded by their religious beliefs when deciding whether to uphold or reverse a death sentence. They may also allow religious factors to determine whether a lawyer has misused religion in a specific trial. Very little research has been conducted on this issue, although one study found that evangelical judges were more likely to uphold a death sentence than their counterparts. This finding opposes another study that found that evangelical individuals were less punitive.

In sum, religion can affect a death penalty trial in various ways, though these effects remain largely unstudied.

Monica K. Miller

See also American Bar Association Resolution on Mental Disability and the Death Penalty; Death Penalty; Juveniles and the Death Penalty; Mental Illness and the Death Penalty; Mental Retardation and the Death Penalty; Racial Bias and the Death Penalty

Further Readings

Davis v. Minnesota, 511 U.S. 1115 (1994).
Highler v. State, 854 N.E.2d 823 (Ind. 2006).
Miller, M. K., & Bornstein, B. H. (2005). Religious appeals in closing arguments: Impermissible input or benign banter? *Law and Psychology Review, 29,* 29–61.
Miller, M. K., & Bornstein, B. H. (2006). The use of religion in death penalty sentencing trials. *Law and Human Behavior, 30,* 675–684.
Miller, M. K., & Hayward, R. D. (2007, June). Religious characteristics and the death penalty [Electronic version]. *Law and Human Behavior.* Retrieved from http://www.springerlink.com/content/x130348n56755747/?p=4c4a7ef7ab624386926e76a8a17cd1d5&pi=13
Simson, G. J., & Garvey, S. P. (2001). Knockin' on heaven's door: Rethinking the role of religion in death penalty cases. *Cornell Law Review, 86,* 1090–1130.
United States v. DeJesus, 347 F.3d 500 (3rd Cir. 2003).
Young, R. L. (1992). Religious orientation, race and support for the death penalty. *Journal for the Scientific Study of Religion, 31,* 76–88.

Repeated Recall

Eyewitnesses to a crime or other incident often recall that event dozens of times while waiting for a trial that may take place months or even years later. These recall episodes are often in response to questioning by arresting officers, police detectives, district attorneys, friends, other witnesses, private investigators, and defense attorneys, among others. Even in the absence of direct questioning, witnesses often recall what they have seen on their own, sometimes to prepare themselves for testimony at trial and other times simply because the event was frightening, disturbing, or otherwise vivid. The effects of such repeated recall on eyewitness accuracy and confidence are complex. Although repeated recall can occasionally yield new information, it may also cause memory distortions due to postevent misinformation effects, imagination inflation, increases in witness confidence, and retrieval-induced forgetting.

Generally speaking, repeated recall helps strengthen memory associations and can make the practiced information easier to retrieve in the future. In some circumstances, repeated recall can even lead to hypermnesia, which is the recall of additional information that was not recalled initially. Hypermnesia is most likely to occur when the repeated recall involves multiple retrieval cues. One prominent method of interviewing witnesses—the *cognitive interview*—is designed to elicit as much information as possible by encouraging witnesses to recall an event from multiple perspectives. If administered properly, the cognitive interview can yield increases in the total amount of information as compared with straightforward questioning.

Given that repeated recall can help strengthen memory associations and may even lead to the production of additional information, one would think that an eyewitness should recall the target event as often as possible. However, recalling information repeatedly is not without potential costs; repeated recall can actually alter a witness's memory of the target event.

One well-known side effect of repeated recall is the *postevent misinformation effect.* When a witness is exposed to inconsistent or misleading information that is embedded in questions posed to that witness, the misleading postevent information can impair later memory reports of the original target event. For example, if a witness is asked how fast the car was going when it went through the stop sign (when in fact the car went through a yield sign), that witness is more likely to report later on that there was a stop sign than is a witness who was not exposed to the misleading information. The effects of postevent misinformation are especially strong when the witness is exposed to the misinformation multiple times.

A related phenomenon is *imagination inflation.* When someone repeatedly recalls an imagined event that did not actually occur, eventually she or he will come to believe that the event really did occur, often with great confidence. As is the case with postevent misinformation, the magnitude of the imagination inflation effect generally increases with multiple imaginings (i.e., with repeated recall).

There are other equally troublesome side effects of repeated recall that can occur even in the absence of misleading information or imagined events. For example, repeated questioning of eyewitnesses can lead to *increases in witness confidence* without corresponding changes in witness accuracy. This effect

occurs independent of the content of the questions; in fact, just asking a witness to think repeatedly about an event can lead to later increases in witness confidence. Such increases in confidence are problematic because trial jurors place a great deal of weight on witness confidence when judging the accuracy of a witness's testimony.

Repeated recall of portions of an event can lead to *retrieval-induced forgetting.* Many studies in the cognitive literature, some using eyewitness memory paradigms, have demonstrated that the act of recalling certain information about an event can actually impair a person's performance on a future memory task for other previously unretrieved items. That is, repeated questioning about some details of an event (e.g., the male robber in a bank heist) may make it more difficult for the witness to recall other details about the robbery later on (e.g., the female robber who was waiting outside). Because interviews of eyewitnesses conducted by the police, investigators, and attorneys often constitute incomplete retrieval tasks, repeated questioning of witnesses can lead to retrieval-induced forgetting that may impair recall later at trial.

Finally, it should be noted that young witnesses, particularly children, are generally *more suggestible* than adult witnesses, and they are especially susceptible to all the effects of repeated recall discussed here. In addition, some studies have shown that children will change their answers to questions that are asked multiple times, simply because they assume that their original answers must have been wrong.

John S. Shaw III

See also Cognitive Interview; Eyewitness Memory; Postevent Information and Eyewitness Memory

Further Readings

MacLeod, M. (2002). Retrieval-induced forgetting in eyewitness memory: Forgetting as a consequence of remembering. *Applied Cognitive Psychology, 16,* 135–149.

Shaw, J. S., III, & McClure, K. A. (1996). Repeated postevent questioning can lead to elevated levels of eyewitness confidence. *Law and Human Behavior, 20,* 629–653.

Zaragoza, M. S., & Mitchell, K. J. (1996). Repeated exposure to suggestion and the creation of false memories. *Psychological Science, 7,* 294–300.

Reporting Crimes and Victimization

Almost all crimes become known to the police because citizens, usually victims, report them. In this role as gatekeeper, victims weigh their concerns about injustice, their own security, and the security of the community against the costs of reporting the crime, which may include a belief that the police are unlikely to arrest the offender or return stolen property and the notion that involvement in the criminal justice process is time-consuming and possibly humiliating. Typically, victims are more likely to report more serious crimes. The information and advice that victims solicit and receive from others are, often, also important. Just as in the case of victims, bystanders' decisions to report criminal events are frequently subject to the social influence of others.

In the United States, there are more than 23 million crimes annually—more than 18 million property crimes and more than 5 million violent crimes. Since 1993, rates of crime have generally been declining, in part due to changing demographics (i.e., fewer people in the most crime-prone ages) but also due to the decline in the use of some drugs and to improved law enforcement practices. Although victims are stereotyped as being disproportionately female, White, and older, in fact, there is an overlap between offenders and victims, such that both offenders and victims are disproportionately male, Black, and young. Males are more likely to be victimized by a stranger, whereas females are more likely to be victimized by someone they know.

Absolute Reporting Rates

Reporting is generally considered by psychologists to be a type of help-seeking behavior. Most victims of crime seek help from others, although, depending on the crime, most do not call the police. Typically, victims seek help from family and friends, and some may also seek help from mental health professionals.

Less than half of all crime is reported to the police—about 47% of violent crimes and about 40% of property crimes. The biggest single predictor of whether a crime will be reported is the severity of the offense. About 60% of aggravated assaults, about 40% of simple assaults, about 55% of burglaries, about 80% of motor vehicle thefts, and about 30% of thefts are reported to the police. More generally, reporting is more likely for

violent rather than property crimes, for completed than attempted crimes, for crimes in which the victim suffered more serious injury, for crimes that involved greater loss of property, and for crimes that involved a weapon.

Attitudes toward the police and the criminal justice system are generally not strong predictors of the decision to report or not to report a crime, although there is some evidence that satisfaction with how the police acted in prior cases is related to the reporting of subsequent victimizations. Moreover, although demographic characteristics are not strong predictors of reporting, there are small but consistent findings that females are more likely than males to report, especially violent crimes, and that older individuals are more likely than younger individuals to report them.

In general, crimes against strangers are more likely to be reported to the police than crimes against nonstrangers. Several reasons might account for this difference, including fear of retaliation from the known offender, greater difficulty in determining whether the event really was a crime, a belief that the victim might be seen as partially responsible for the crime, and a belief that events occurring between nonstrangers, particularly intimates, are private matters.

Since the early 1990s, the rates of reported crime have generally been increasing, most markedly with regard to the reporting of sexual assault. This increase in the reporting of sexual assault is the result, in part, of statutory changes that make it easier for victims to report (e.g., victim shield laws that protect victims' identity in the media) and for district attorneys to prosecute these cases (e.g., the elimination of the need for corroborating evidence beyond the victim's statement).

More generally, victims might be more likely to report because of the increasing concern for victims since the establishment of the President's Task Force on Victims of Crime in 1982. This report resulted in statutes or constitutional amendments in all 50 states that give victims the right to testify at criminal sentencing and to be notified about other stages of the criminal justice process (e.g., plea bargaining, parole hearings). Other victim-related legislation includes making restitution mandatory, making offenders pay fines that go to a fund that provides compensation to victims, establishing victim-witness-services offices (generally within the district attorney's office) that give aid to victims, and providing funding for agencies that specifically support victims of sexual assault and domestic violence.

Reasons for Reporting or Not Reporting

According to the National Crime Victimization Survey, a continuing survey of about 75,000 nationally representative individuals who are interviewed biannually, the most common reasons for reporting crimes are to stop or prevent the specific reported crime, to recover property, to prevent further crimes by the offender against the victim, to prevent crime by the offender against anyone, and because the event was a crime. The most common reasons for not reporting a crime are because it was reported to someone else, because it was a private or personal matter, and because the offender was unsuccessful. These reasons suggest that victims use a cost-benefit analysis to determine whether to report the crime.

Process of Reporting

If a crime is to be reported to the police, then, based on a model by Martin Greenberg and Barry Ruback, the victim must label the event a crime, determine that it is serious enough to report, and then decide that reporting the crime to the police is the appropriate action to take. In terms of the first stage—labeling the event a crime—in most cases, the process is relatively straightforward. That is, the person determines whether the event matches his or her definition of what constitutes a crime (although the victim's definition may or may not be the same as the legal definition of the crime). In some cases, the labeling process is more complex. For example, with property crime, individuals might decide that they had lost or misplaced an item rather than that the item had been stolen. For violent crimes, the issue is generally not whether the act occurred but whether the violent act is considered to be a crime. For example, a wife who suffers a physical beating from her husband may not define the event as a crime if she is part of a culture that thinks it is appropriate for men to beat their wives.

After the victim determines that an event is a crime, he or she must determine the seriousness of the crime. This determination of seriousness, which is important because it is related to the amount of distress and arousal the victim experiences, is based on how unfairly treated and on how vulnerable to future crime the victim feels. These two judgments are related to the magnitude of the physical, material, and psychological harms the victim experienced, the magnitude of the harms that the victim could have experienced, and the

degree to which the crime was unexpected. Greater harm, greater potential harm, and greater unexpectedness lead to higher ratings of seriousness and to more arousal and distress.

After determining the seriousness of the crime, the victim must then decide what to do. Victims have four options. First, they can seek a private solution, such as seeking compensation from or retaliating against the offender if he or she is known or, in some cases, from third parties who may have been negligent in failing to take actions that would have prevented the crime from occurring. Second, victims can cognitively reevaluate the situation, by either reconsidering whether the event really was a crime or by reevaluating its seriousness. The most common form of cognitive reevaluation is for victims to blame themselves for the crime, at least in part. Third, victims may report the crime to the police based on their judgment after their weighing of the costs and benefits that reporting is likely to reduce their distress from being unfairly treated and being vulnerable to future victimizations. Finally, some victims might choose to do nothing, in the belief that nothing can reduce the injustice and make them feel safe.

Importance of Social Influence

Studies in the 1970s designed to determine why there was such a long delay before the police arrived at a crime scene came to the conclusion that the delay was due not to the police taking a long time but to victims talking to relatives, friends, and strangers before calling the police. These discussions with others make sense in that, for most people, being the victim of a crime is an unusual event and victims are likely to turn to others for help in understanding and coping with the crime.

According to social comparison theory, individuals are likely to rely on others for information and advice concerning perceptions and judgments that have no objective standard. That reliance on others is particularly likely when the individuals are aroused (as in an emergency situation) and are unsure of what to do. Consistent with this theory, crime victims often talk with others, generally friends and relatives, before deciding whether or not to call the police. And interview studies with rape, burglary, robbery, and theft victims indicate that these others are likely to give victims advice.

These other individuals can influence victims' judgments about whether an event is a crime, how serious the crime is, and whether the crime should be reported. Their influence comes from providing victims with information about the crime and the criminal justice system, from applying normative pressure concerning what they (and the group that they belong to) believe to be appropriate, and from providing support (or sometimes nonsupport) in the form of sympathy, emotional support, and tangible help. Furthermore, experimental research by Martin Greenberg and Barry Ruback indicates that victims are likely to follow that advice, even if it comes from a stranger. Their experimental research found that victims would be especially likely to call the police if the bystander gave specific advice to call the police (rather than diffuse advice to do something), was physically present when the call to the police was made, and offered to be of help in the future.

Investigations of norms among several ethnic groups in the United States suggests that victims are more likely to be advised to call the police if they are female, if they are older, and if they have not been drinking. Females are more likely than males to advise calling the police. In addition, research across countries suggests that the closer the relationship between the offender and the victim, the less likely people are to advise reporting.

Bystander Reporting

In most cases, it is the victim who reports the crime to the police. However, bystanders sometimes report, and work by Bibb Latane and John Darley indicated that the more the number of bystanders present the less likely any one of them is to report the crime. According to their research, the presence of others can affect whether an individual bystander notices the incident, interprets it as an emergency, assumes personal responsibility, and then reports the event to the police. The presence of others can lead to *pluralistic ignorance,* if for example, everyone believes that someone else has already reported the crime, and to *diffusion of responsibility,* if people realize that they have some blame for not reporting but that this blame is shared by everyone else who also did not report. Bystanders are often reluctant to report because of a fear of looking foolish. Also, bystanders may be reluctant to report crimes involving domestic situations because of their belief that personal relationships should be kept private.

For most crimes, bystanders who do not report are not subject to legal sanction. The one exception is for crimes of child abuse. All states mandate that when, in the course of their employment or professional practice,

certain individuals (e.g., physicians, nurses, school teachers, mental health professionals) come across what they believe to be child abuse, they must report the abuse to the proper authorities. Despite the fact that failing to report can lead to criminal penalties, many individuals who are required to report, including therapists, do not do so. Their decision not to report is often based on the fact that most cases do not involve serious abuse, and such cases, if reported, are unlikely to result in prosecution. Thus, reporting the abuse is likely to lead to a lengthy and expensive legal process that will probably result in some action to encourage the family to seek treatment. If the family were already in therapy, mental health professionals may judge that reporting produces no positive outcomes. Moreover, because reporting violates confidentiality, undermines the therapeutic relationship, and is intrusive and likely damaging to the family, mental health professionals are likely to believe that reporting is, on balance, not worthwhile. Thus, many clinicians have, at some time, chosen not to report suspected child abuse.

R. Barry Ruback

See also Child Sexual Abuse; Intimate Partner Violence; Public Opinion About Crime; Victim Impact Statements; Victim Participation in the Criminal Justice System

Further Readings

Greenberg, M. S., & Ruback, R. B. (1992). *After the crime: Victim decision making.* New York: Plenum.

Latane, B., & Darley, J. (1970). *The unresponsive bystander: Why doesn't he help?* New York: Appleton-Century-Crofts.

Ruback, R. B., & Thompson, M. A. (2001). *Social and psychological consequences of violent victimization.* Thousand Oaks, CA: Sage.

Repressed and Recovered Memories

While one cannot deny that repressed and recovered memories have had an effect on individuals, their families, and our legal system, little credible evidence exists for massive repression. Moreover, most claims of repression and recovered memories have alternative explanations such as ordinary forgetting or exposure to suggestive situations. This entry examines issues relating to claims of repressed and recovered memories, the role of these claims in the legal system, research that bears on these claims, and alternative explanations for what might appear to be repressed and recovered memories.

At the end of the 19th century, Sigmund Freud popularized the term *repression* to describe a mechanism by which horrifically traumatic events are pushed into some inaccessible corner of the unconscious. Later, they may return to consciousness. The process is thought to involve something other than ordinary forgetting and remembering, and is sometimes called massive repression or robust repression. Since Freud's day, the term "repression" has had a nebulous meaning for many in the field of psychology, often being used interchangeably with dissociation and traumatic amnesia and subject to great controversy. Some have suggested that repression has never been proven to exist. Because of the controversy, some writers now refer to an umbrella term *recovered memories*—memory experiences that someone is conscious of after not thinking about them for a long time. This experience happens commonly and need not be controversial unless one assumes it involves more than ordinary forgetting and remembering.

The topic of repressed and recovered memories has been a hotly debated issue within the mental health profession for almost two decades. Although there is no credible scientific support for massive repression, many individuals who claim to have recovered repressed memories of childhood abuse have subsequently pressed those claims in civil and criminal courtrooms. Most of the repressed and recovered memory reports involve claims of childhood sexual abuse (CSA). Some have involved claims of recovered memories of murders and satanic ritual abuse. Many claims of recovered CSA memories have been made by individuals accusing family members, former neighbors, or other family friends. Often, but not always, these memories are recovered in individual or group psychotherapy.

Surge in Recovered Memories and Their Effects

Media Contribution

During the late 1980s and early 1990s numerous individuals claimed to have recovered memories of CSA. During this period, accusations of CSA and satanic ritual abuse escalated and peaked in the 2-year

period of 1991 to 1992; since that peak, the number of accusations has steadily declined. Many recovered memory cases appeared in the media, which may have contributed to the surge in repressed memories that were recovered in therapists' offices throughout North America. As a result of media coverage of an unusual murder case, repressed memories were brought into the public eye.

In a landmark case that went to trial in 1990, George Franklin was accused of a murder that occurred more than 20 years earlier. The victim, 8-year-old Susan Nason, was a friend of Franklin's daughter, Eileen. Eileen was 8 at the time of the murder; however, it was she who provided the only evidence against her father. Eileen claimed that she had repressed the memory of witnessing her father murder Susan, a repression that lasted for 20 years. When her "memory" returned in the late 1980s, she brought these allegations to the police. George Franklin was found guilty of murder based solely on Eileen's testimony of her recovered memory. It was the first time that a U.S. citizen had been tried and convicted of a murder on the basis of a recovered memory.

Around this time, *The Courage to Heal,* a self-help book by Ellen Bass and Laura Davis, was written to assist victims of CSA. Even in the absence of memory, the purported victim was encouraged to recover memories of abuse and to confront alleged molesters. Critics of *The Courage to Heal* contended that it caused widespread harm to many innocent people—both the alleged perpetrators and the accusers whose lives may have been negatively affected by false revelations. Bass and Davis have no formal training in psychiatry or psychology, and some critics have argued that their book encourages the recovery of memories that may not be true. Given that their book has sold more than 800,000 copies, *The Courage to Heal,* some felt, contributed greatly to the surge in the number of recovered memory cases by encouraging people to embrace their recovered memories.

Statute of Limitations

Concurrently, the legal implications of recovered CSA memories were propelled into the limelight particularly in the United States. In 1989, Washington State became the first state to toll the statute of limitations for repressed memory cases. People with newly recovered memories of abuse had 3 years from the time of remembering to sue their parents, other relatives, or any alleged molesters. Many states followed, and thousands of lawsuits were filed.

Most provisions applicable to victims of CSA fall into the categories of *minority tolling* and *delayed discovery doctrine.* A tolling doctrine is a rule that postpones the date from which a statutory period begins. In the case of minority tolling, it is a statute that might run 3 years from when the child turns 18, the legal age of majority. This is in recognition of the problem that some children may not feel secure enough to confront abusers while still in childhood.

The delayed discovery doctrine has historically been used in different types of cases, for example, in cases of medical malpractice. To give a medical example, the statute of discovery would be extended for a patient who undergoes surgery and only much later realizes that subsequent abdominal pain is due to the doctor failing to remove a sponge during surgery. Such a patient's statute of limitations to sue for medical malpractice begins to accrue at the time the sponge is determined to be the cause of the abdominal pain. Those in support of applying the delayed discovery doctrine in recovered memory cases purport that such a medical malpractice claim is analogous to an individual who alleges recovery of CSA memories, in that the source of their pain would be realized when the memories are recovered. Such an individual would have some number of years (say, 3) from the date on which they assert that the memory was recovered in which to pursue legal action.

As a result of the tolling of the statute of limitations in repressed memory cases, a large number of victims began to sue their alleged abusers for compensation. But these were not the only ways in which repressed memories entered the courtroom. In an ironic twist, a few of those accused of CSA began to sue their accusers' therapists for planting false memories of childhood abuse. A somewhat larger group who also sued call themselves "Retractors."

False Memory Syndrome and Retractors

There have been a number of adverse effects of recovered memory therapy, especially when there has been no history of sexual abuse. Devastating effects can occur, for example, when a daughter accuses her father of child abuse. Many such accusations have resulted in litigation that often forces other family members to choose sides, causing great strain and often separation within the family.

Another adverse effect is the development of new symptoms unrelated to the primary concern for which the patient went to the therapist in the first place. These symptoms include false beliefs and memories of having been abused—a syndrome now referred to as *false memory syndrome.* These symptoms may take the form of flashbacks, which include detailed memories and even hallucinations and delusions of the abuse. Thus, the patient believes that she has specific recollections of abuse that may not have occurred.

The False Memory Syndrome Foundation was formed in 1992 by a group of families and professionals who saw the need for an organization to determine and prevent the spread of false memory syndrome and support and attempt to reconcile families who were torn apart by claims of repressed CSA. In recent years, there have been a number of CSA accusers who have reestablished family relationships and acknowledged that their accusations were false. These "retractors" typically blame their therapists for suggesting to them that they were victims of CSA and for encouraging memory recovery that led to the false memories of abuse.

In 1997, a remarkable legal case was settled in which a retractor sued her therapist. Ms. Burgus, a patient of Dr. Braun's, originally sought treatment for postpartum depression but was diagnosed as having multiple personalities. Dr. Braun believed that her symptoms resulted from sexual and ritual abuse including cannibalism and torture; in other words, the purported sexual and ritual abuse was what led her to be diagnosed with having multiple personalities. Although Ms. Burgus had no recollection of the sexual and ritual abuse, Dr. Braun encouraged her to try and remember these instances of abuse through hypnosis. Ms. Burgus eventually realized that these allegations were not true and subsequently retracted her previous abuse accusation. She sued her former therapists, including Dr. Braun and the hospital, for negligence, breach of the standard of care for uncritical acceptance of a clinical diagnosis, and the use of hypnotic techniques without first advising her of the risks involved. The lawsuit was settled for $10.6 million.

Research in the Field of Repressed and Recovered Memories

Research on repressed and recovered memories has primarily involved women victims of CSA. There are three primary resources of information in the extant field: retrospective studies, prospective studies, and case histories. Retrospective studies rely on individuals whose initial disclosure of abuse happens years after the supposed abuse took place. Prospective studies use cases documented by social workers or the police to establish abuse, while case histories consist of data collected from an individual.

In one of the first retrospective studies, more than half of the participants (mostly women who were referred to the study by their therapists) stated that they did not remember their first incident of sexual abuse at some point in the past. Compared with those who remembered the abuse continuously, individuals who reported a lapse in memory also reported that they were abused at a very young age. Regrettably, it is difficult to construe this research as evidence of massive repression in CSA victims, because the main question posed to participants was complex and the answers uninterpretable. In another retrospective study, researchers tried to probe what people meant when they claimed to have forgotten abuse at some point in the past. In a large sample of people who were questioned about their sexual, physical, or emotional abuse, more than a quarter reported some form of abuse. Of the participants who claimed to have forgotten their memories of abuse, just less than half also claimed that they had avoided thinking about the instances of abuse. The researcher noted that lack of continuous memory for an event does not necessarily constitute repression and suggested that therapists should proceed with caution when dealing with patients who claim to have recovered memories of abuse.

Retrospective studies rely on an individual's self-report of sexual abuse at a much later date. Such studies are not ideally designed because the initial disclosure and subsequent recovered memories of abuse cannot be verified and, therefore, may be inaccurate or altogether false. Prospective studies, on the other hand, rely on documentation of CSA at the time of the incident (e.g., by police report). Individuals are later contacted to see what they can remember.

In one often-cited prospective study conducted by the sociologist Linda Meyer Williams, 38% of participants failed to report documented abuse when interviewed 17 years after the reported abuse occurred. Williams found that the younger a participant was at the time of the documentation, the less likely she was to report the specific incident. Some of these cases may be accounted for by a phenomenon known as childhood amnesia, which is discussed in the following section. Critics of the study also point out that just because a woman didn't report the abuse did not mean she did not

remember it; perhaps she simply did not want to tell the interviewers about it. Also complicating the picture, a more recent prospective study showed that only 8% of people with documented abuse failed to report it to interviewers much later.

Case Histories

Perhaps the least reliable research from which to draw generalizable results is the single case history. An example of a case history in the field of repressed and recovered memories is the case of Jane Doe. When Jane Doe was 6 years old, she was the subject of an intense custody battle and, therefore, underwent psychological evaluation to determine who should retain custody of her. A psychiatrist videotaped a particularly emotional session in which Jane accused her mother of sexually abusing her. After the psychiatrist concluded that Jane was abused by her mother, the mother was forced to relinquish custody of Jane and all visitations.

Years later, the psychiatrist-evaluator captured on video Jane first not remembering and then remembering abuse by her mother. This case was put forth as proof of repression; however, it is questionable as to whether it was truly evidence of repression. Subsequent investigation of Jane's case history revealed new important information that had been left out of the original account. The later investigation revealed that Jane had discussed the alleged abuse many times between the time of the first videotaped session and when she claimed to have recovered the memories of abuse, casting doubt on the case history's support for the concept of total repression. Additionally, documentation and interviews raised significant doubt that the sexual abuse of Jane by her mother had ever occurred in the first place. Thus, it is necessary to be skeptical of case histories when attempting to use their findings to make generalizations about repressed memories.

Alternative Explanations for Repression

Many scholars believe that virtually no good evidence for repression exists. There are several other possibilities where these richly detailed memory reports may have come from. The reports could reflect true memories that have simply been forgotten by normal memory processes and are triggered by a retrieval cue. They could, of course, reflect out-and-out lies. Another explanation is that these memories are the result of therapists' suggestions and other activities that planted false beliefs.

True Memories

In any given case in which a person reports recovering a memory, the statement could be an accurate reflection of the individual's experience; however, it may be an instance of ordinary forgetting. For example, an adult who was abused as a child may not think about the abuse for a given period of time. In this case, ordinary forgetting would occur, and the person may forget the abuse altogether until a trigger reminds him or her of the abuse. This is not a case of repression; rather, it is a case of ordinary forgetting.

False Memories

In most cases, it is not possible to tell a true memory from a false one without independent corroboration. There are a few situations, however, where we can say with some confidence that the memory report is probably false. Some individuals have claimed to remember abuse that allegedly occurred to them before the age of 2 years—even as early as 6 months in some case reports. But as adults, we do not have concrete and reliable episodic memories for events that occurred in the first couple of years of our lives—a phenomenon known as childhood amnesia. Some adults' earliest childhood memories are even later. Thus, these very early "memories" are almost certainly false.

One must still consider the instances where individuals claim to recover memories for events that occurred after the offset of childhood amnesia. Research on human suggestibility and the malleability of memory has revealed that individuals are susceptible to forming false memories and believing them to be true. In research where rich false memories have been planted, a significant minority of subjects have been led through a suggestion to believe they had experiences like being lost in a shopping mall or being attacked by a vicious animal. These studies have shown that people are highly susceptible to embracing false memories as their own. Once planted, the individual can report the false event with a great deal of detail, confidence, and even emotion.

Nicci Bowman Fowler, Kally J. Nelson, and Elizabeth F. Loftus

See also False Memories; Forced Confabulation; Hypnosis and Eyewitness Memory; Reconstructive Memory; Repeated Recall; Test of Memory Malingering (TOMM)

Further Readings

Briere, J., & Conte, J. R. (1993). Self-reported amnesia for abuse in adults molested as children. *Journal of Traumatic Stress, 6,* 21–31.

Goodman, G. S., Ghetti, S., Quas, J. A., Edelstein, R. S., Alexander, K. W., Redlich, A. D., et al. (2003). A prospective study of memory for child sexual abuse: New findings relevant to the repressed-memory controversy. *Psychological Science, 14,* 113–118.

Holmes, D. S. (1994). Is there evidence for repression? Doubtful. *Harvard Mental Health Letter, 10*(12), 4–6.

Loftus, E. F., & Guyer, M. J. (2002). Who abused Jane Doe? The hazards of the single case history (Part 1). *Skeptical Inquirer, 26*(3), 24–32.

Loftus, E. F., & Guyer, M. J. (2002). Who abused Jane Doe? The hazards of the single case history (Part 2). *Skeptical Inquirer, 26*(4), 37–40, 44.

Loftus, E. F., & Ketcham, K. (1994). *The myth of repressed memory.* New York: St. Martin's Press.

Melchert, T. P. (1996). Childhood memory and a history of different forms of abuse. *Professional Psychology: Research and Practice, 27,* 438–446.

Pope, H. G., Jr., & Hudson, J. I. (1995). Can individuals "repress" memories of childhood sexual abuse? An examination of the evidence. *Psychiatric Annals, 25,* 715–719.

Williams, L. M. (1994). Recall of childhood trauma: A prospective study of women's memories of child sexual abuse. *Journal of Consulting and Clinical Psychology, 62,* 1167–1176.

Response Latency in Eyewitness Identification

An important issue for the police and courts is the extent to which an eyewitness's decision about a lineup can be trusted as accurate. Consequently, psychologists have searched for variables associated with the witness's decision that help distinguish correct from incorrect decisions. One such variable is response latency (or response speed). Response latency is measured as the time elapsed from the witness's first view of a lineup or photo array to their indication of a decision. A consistent relationship has been identified between the response latency and accuracy of positive identifications, but not of lineup rejections. Thus, fast identifications are more likely than slow identifications to be correct, while rapid and ponderous lineup rejections are equally likely to be accurate.

The rationale behind the investigation of response latency as a marker of accuracy is that witnesses who have a good memory of the offender should be able to determine whether any of the lineup members match their memory more rapidly than witnesses with a poor memory. Furthermore, response latency is compelling as a potential marker of accuracy for two reasons. First, unlike other potential markers of identification accuracy (e.g., confidence or self-reported decision strategy), response latency is a direct product of the identification task. Consequently, it is objectively measurable and not subject to the same influences as self-report measures. Second, response latency is correlated with other markers of accuracy (e.g., faster responses tend to be made with more confidence) without being identical to them. Thus, the combination of response latency and confidence may discriminate correct from incorrect decisions more effectively than either marker alone.

Although it has not been the focus of an overwhelming amount of research attention, investigations of response latency in eyewitness identification and face recognition have produced very consistent results. Specifically, a relationship is consistently observed between the response latency of positive identifications and the accuracy of those identifications, with the likely accuracy of an identification declining as the response latency increases. In contrast, studies equally consistently find no evidence for a relationship between the response latency of lineup rejections (i.e., responses that the offender is not present in the lineup) and the accuracy of those rejections. Interestingly, this pattern of a significant relationship with accuracy for choosers (i.e., positive identifications), but not nonchoosers (i.e., lineup rejections), parallels the findings regarding the confidence-accuracy relationship in face recognition and eyewitness identification.

Despite the consistency of the relationship between the speed and accuracy of positive identifications, this knowledge does not necessarily translate into a practically useful discrimination tool. For example, is a witness who takes 30 seconds to identify the suspect from a six-person photo array fast, and therefore likely to be correct, or slow, and likely to be incorrect? Researchers have attempted to address this challenge in two major ways. One involved the direct manipulation of response latency. However, attempts to produce high

accuracy rates by forcing participants to make a fast identification were unsuccessful. Thus, it appears that the relatively short latency of accurate witnesses is the result, not the cause, of the decisions processes that produce accurate decisions. The other involved the suggested use of a specific time (i.e., 10–12 seconds) as the cutoff for distinguishing fast (i.e., reported in less than 10–12 seconds), and consequently accurate identifications, from slow (i.e., reported after more than 10–12 seconds) identifications, which were less likely to be correct. Despite the apparent early success of this rigid rule, subsequent studies demonstrated that the boundary between fast and slow decisions is not constant but varies from situation to situation as a result of changes in variables such as the target and lineup, the nominal size of (i.e., the number of members in) the photo array, and the retention interval between viewing the offender and attempting to make an identification from the lineup. The demonstrated instability of the border that separates fast from other identifications rules out the practical use of a universal response latency boundary to discriminate identifications with a high probability of being correct. However, subsequent analyses using this type of static response latency boundary (i.e., 10 seconds) in combination with a confidence criterion (e.g., identifications made with 90% or 100% confidence) have shown some promise. Although few decisions met both the response latency and confidence criteria, those decisions observed a very high accuracy rate across a number of stimuli and viewing conditions. Consequently, the most encouraging use for response latency appears to be in combination with other markers of identification accuracy—most notably confidence.

Response latency is often inappropriately referred to as decision latency (or decision speed). Although this may seem a pedantic, semantic distinction it underscores an important point about the measurement and use of response latency in the eyewitness identification domain. Specifically, an eyewitness, particularly a conscientious eyewitness, may not make a response immediately on arriving at a decision. For example, the attention of one witness with an excellent memory for the offender may be drawn to a specific lineup member as soon as he or she sets eyes on a photo array, and the witness could feel certain that the perpetrator has been found. However, to ensure that they have not made a mistake, these conscientious witnesses may continue to carefully examine each of the other lineup members before identifying the lineup member to whom their attention was initially drawn as the offender. In contrast, the attention of another witness with a relatively impoverished memory may not be drawn to any specific member of the lineup. Consequently, that witness may conduct a careful and deliberate examination of the lineup before making and indicating their identification decision. In other words, the observed response latency may be affected by factors other than the amount of time it took the witness to arrive at a decision (e.g., their conscientiousness or their confidence in their ability to make the correct decision).

At present, despite the consistent relationship between latency and identification accuracy, these findings do not lead to any practically useful methods for reliably discriminating correct from incorrect decisions, but the combined use of response latency with confidence judgments appears to be a potentially fruitful area of investigation.

Nathan Weber and Neil Brewer

See also Confidence in Identifications; Popout Effect in Eyewitness Identification

Further Readings

Brewer, N., Caon, A., Todd, C., & Weber, N. (2006). Eyewitness identification accuracy and response latency. *Law and Human Behavior, 30,* 31–50.

Dunning, D., & Perretta, S. (2002). Automaticity and eyewitness accuracy: A 10- to 12-s rule for distinguishing accurate from inaccurate positive identifications. *Journal of Applied Psychology, 87,* 951–962.

Sporer, S. L. (1993). Eyewitness identification accuracy, confidence, and decision times in simultaneous and sequential lineups. *Journal of Applied Psychology, 78,* 22–33.

Weber, N., Brewer, N., Wells, G. L., Semmler, C., & Keast, A. (2004). Eyewitness identification and response latency: The unruly 10–12 s rule. *Journal of Experimental Psychology: Applied, 10,* 139–147.

Retention Interval and Eyewitness Memory

Retention interval refers to the amount of time that elapses between the end of a witness's encounter with a perpetrator and any subsequent testing of the witness's memory for that encounter. Testing of a witness's memory for a perpetrator's identity is obviously important whenever the prosecution seeks to prove that the

perpetrator and the defendant are indeed the same person. When eyewitness testimony is provided, the trier of fact must decide whether the testimony is accurate. Unless the trier of fact believes that human memory operates with the fidelity of a video camera, he or she will need to estimate the strength of the witness's memory at the time of his or her memory being tested. To increase the precision of the estimate, the trier of fact needs three pieces of information: An estimate of the original strength of the witness's memory representation of the perpetrator's face, the length of the retention interval, and the nature of the *forgetting function.* The forgetting function is the curve that describes the strength of the memory trace over the course of the retention interval.

Inasmuch as the trier of fact ordinarily has access to a relatively precise measure of the length of the retention interval, with both the time of the incident in question and the time of the memory test being well established, the problematic pieces of information are an estimate of the original strength of the witness's representation of the perpetrator and knowledge of the course of the forgetting function during the retention interval. Let us first consider what is known about the nature of the forgetting function. Researchers interested in how memory for the human face is affected by the retention interval have conducted several dozen published studies wherein they have assessed memory accuracy after two or more different retention intervals. Assessments of the average effect size for the retention interval (measured in standard score units) taken across all these published studies have revealed that, statistically speaking, one can safely conclude that memory traces of human faces encountered but once previously will be weaker at longer retention intervals than at briefer ones. However, simply knowing that memory for unfamiliar faces is less accurate at longer retention intervals does not specify the time course of the forgetting function. The trier of fact would like to know just how rapidly memory strength declines for an unfamiliar face.

Published surveys of the opinions of psychologists who qualify as experts in the science underlying the psychology of testimony have shown that more than 80% of them believe that the nature of the forgetting function for the human face follows the same form as that of the forgetting function first described by the early experimental psychologist, Hermann Ebbinghaus, and reproduced in introductory psychology texts. That is, the experts believe that the forgetting curve declines rapidly right after viewing of a perpetrator's face and then levels off over time. It turns out that when theoretical forgetting functions are fit to retention interval data from studies wherein three or more retention intervals were tested, theoretical functions that fit the data very well describe a forgetting function that is mathematically quite similar to that of Ebbinghaus.

Given that there are theoretical forgetting functions that make relatively accurate predictions regarding the memory accuracy of the typical witness in a laboratory or field experiment, memory accuracy at any particular retention interval, it should not be surprising that one can "work backward" from the earliest tested retention interval to make a prediction as to what the original strength of the witness's memory representation was. When this estimate is translated into a proportion correct measure of accuracy, one then has a reasonable estimate as to the maximum level of accuracy expected for the typical witness under the conditions prevailing in the experiment—or in more realistic situations, to the extent that conditions are the same as in the experiment in question. The expectation is that memory accuracy will only decline from this level at forensically typical retention intervals. Interestingly, the retention interval most frequently encountered by the British police has been reported as 1 month. One theoretical forgetting function that fits empirical data well makes the prediction that the strength of the memory trace for an unfamiliar face at a 1-month retention interval, depending on a number of factors, would likely be in the range of 40% to 60% of its original memory strength.

Researchers have identified a number of factors that affect initial memory strength and, therefore, the amount of strength remaining after any retention interval. Longer exposures to an unfamiliar face, better lighting, and greater facial distinctiveness (as compared with the typical face) have all been shown to increase initial memory strength. Estimates of witness memory accuracy when tested with a lineup or photo spread have also been shown to be a function of how distinctive (or similar) the unfamiliar target face is relative to the other faces presented. A high degree of similarity will produce a lower estimate. Events occurring during the retention interval can also seriously affect witness memory accuracy. For instance, exposure to mug shots before the ultimate memory test, followed by a memory test that includes one of the faces from the mug shots, increases the probability of erroneously selecting the face seen in the mug shots rather than at the crime scene.

Kenneth Allan Deffenbacher

See also Expert Psychological Testimony on Eyewitness Identification; Exposure Time and Eyewitness Memory; Eyewitness Memory; Mug Shots

Further Readings

Deffenbacher, K. A. (1986). On the memorability of the human face. In H. D. Ellis, M. A. Jeeves, F. Newcombe, & A. Young (Eds.), *Aspects of face processing* (pp. 61–70). Dordrecht, The Netherlands: Martinus Nijhoff.

Deffenbacher, K. A. (1996). Updating the scientific validity of three key estimator variables in eyewitness testimony. In D. Herrmann, C. McEvoy, C. Herzog, P. Hertel, & M. K. Johnson (Eds.), *Basic and applied memory research: Vol. 1. Theory in context* (pp. 421–438). Mahwah, NJ: Lawrence Erlbaum.

Wixted, J. T., & Ebbesen, E. B. (1991). On the form of forgetting. *Psychological Science, 2,* 409–415.

Return-to-Work Evaluations

A worker may be required to leave the workplace because of the experience of an extreme stressor on the job, disability, discipline, or concern about threat. That same worker may wish to return to the job, raising questions about whether the worker may effectively resume functioning. This entry deals with several kinds of evaluations conducted by forensic psychologists to determine if a worker is fit to return to the job. The first, the fitness-for-duty evaluation (FFDE), is a specialized evaluation that occurs in safety-related or "high-risk" jobs such as fire fighting, police work, or security. The second, the return-to-work evaluation (RTE), occurs in more general situations in which the worker has been removed from the job because of disability.

Fitness for Duty in High-Risk Occupations

High-risk occupations, such as police or security work, have much less tolerance for emotional or behavioral dysfunction than other positions. In situations in which the worker's very life, the lives of others, or the security of the nation depend on the worker being fully functional, the anxiety disorder or impulse control problem that would cause some problems in an office job or trade, effectively disables the worker. This heightened standard requires that the employer take greater care when making decisions about returning the worker to the job.

In high-risk occupations, two kinds of concerns would prompt an FFDE. The first is when there is a reason to believe that the worker may pose a significant danger to himself or others. Concerns about the worker's ability to function safely may arise from a number of sources, which must usually be directly observed or derive from credible third-party information. For example, a police officer may have demonstrated poor judgment or impulse control on the job and used excessive force in detaining or arresting a suspect. Or a security guard may have failed to intervene when an unidentified individual entered the secure area of an airport. These behaviors may result in disciplinary action such as suspension or consideration of permanently removing the officer from duty.

The second concern focuses on whether the worker may have symptoms of a mental or substance abuse disorder that would significantly interfere with the worker's ability to perform essential job functions. Of course, this focus is not mutually exclusive from the first, in that a mental illness or substance abuse problem may very well underlie a safety-related issue. For example, a police officer who is dependent on alcohol may arrive on the job in a hung-over condition, which would result in impaired alertness and reduced effectiveness in a dangerous situation.

IACP Guidelines

The International Association of Chiefs of Police (IACP) Police Psychological Services Section ratified the *Psychological Fitness-for-Duty Evaluation Guidelines* in 2004. These constitute widely accepted considerations and procedures for these evaluations. These guidelines lay out the qualifications for examiners and remind the examiner that the client in an FFDE is the employer, not the employee. In addition, the guidelines indicate that the evaluator should be properly qualified and should obtain sufficient background information concerning the employee's relevant work history and the issues that raised the question of fitness for duty. The examiner must obtain proper informed consent and written authorization to release the findings from the evaluation to the referring agency. The guidelines also include recommendations for the elements of the evaluation and the structure and content of the evaluation report. For professionals conducting FFDEs with police officers, the IACP guidelines are usually the best guidance, and adherence to them may be required by the referring agency.

FFDE Procedures

Prior to the evaluation, the psychologist should request information concerning the evaluee from the referral source. Particularly, the referral should include the officer's work history, including details concerning prior incidents of concern. These may not be exactly like those prompting the evaluation and should be put into context by balance of the officer's personnel file, which may reveal positive aspects of the worker's past performance. If the officer has been in treatment, these records are invaluable and may be a basis for the psychologist's later discussions with the therapist. Medical records are essential as they may reveal treatment by the officer's primary care physician. The incident reports surrounding the incident or incidents of concern are critical reading. If it is an officer-involved shooting, the evaluating psychologist should attend to details concerning the observations of other officers or of the department's internal investigation.

The psychologist should also have a clear idea of the duties of the officer and the skills necessary to perform those duties. Consultation with the agency's human relations department or commanding officer should help in putting together this listing. If possible, the duties should be prioritized so that the psychologist would have an idea of which of the skills to be assessed are most critical to the performance of the officer's job.

Although informed consent is necessary for any forensic evaluation, in the case of an FFDE, thorough informed consent is essential. In this case, the officer must understand that the agency is the psychologist's client. Although it is commonly the case that forensic psychologists evaluate individuals who are not their clients, in this case, the interests of the officer and the interests of the agency may diverge sharply. The evaluation may have one of four outcomes for the officer: fit for duty; fit for duty with mandatory treatment; temporarily unfit for duty with mandatory treatment; or permanently unfit for duty. The officer should be presented with these four options at the onset of the evaluation so that he or she fully understands the gravity of the assessment.

The officer should be informed of the parameters of confidentiality. In most cases, the evaluation report is closely held within the referring agency. However, depending on the agency's policies, it is often the case that the officer himself or herself may never see the evaluation report. The informed consent procedure should include the officer signing a release to allow the evaluator to release the results of the evaluation to the referring agency. In some cases in which the officer's union is involved, it may be appropriate to forward the written consent and releases of information to the officer prior to the date of the evaluation so that the officer may confer with the union representative or counsel before signing them.

Psychological testing is required for these evaluations. The use of the Minnesota Multiphasic Personality–2 (MMPI–2) test with workers in high-risk occupations is well documented in the literature and provides a basis for comparing the examinee with other individuals. Some testing services offer specific scoring and reports for this population. The Personality Assessment Inventory (PAI) test also has personnel-oriented report formats. If the issue raised in the referral has to do with failures of attention and concentration, a full cognitive battery, including the Weschsler Adult Intelligence Scale–III test, may be appropriate. Specialized testing that has been standardized on populations of police officers, such as the Hilson or Inwald Scales, may also be appropriate.

A face-to-face interview is essential. This interview should cover the officer's family history, school history, and work history. A legal history, including driving violations and domestic violence, should be obtained. A medical history, including any hospitalizations or broken bones is part of this interview. Mental health issues, such as prior counseling or psychiatric hospitalizations, should be covered. Another critical issue is substance abuse history, focusing most often on alcohol (as officers are prohibited from using illegal drugs). Prescription drug use may be an issue, especially if the FFDE is prompted by a physical injury, perhaps from an on-duty auto accident or shooting.

Collateral interviews are critical for most forensic evaluations, but in FFDEs, they are essential. The officer's current immediate supervisor should be among those interviewed. Past supervisors are also important to determine if the behavioral problems prompting the evaluation antedated the incident that necessitated the FFDE. Discussions with the officer's spouse or a critical other are also important as this person may provide additional information about the problems that led up to the incident. The officer's past or current therapists are also important collateral sources and may provide information concerning the officer's participation in therapy and the degree to which therapeutic efforts proved fruitful.

The evaluation report should include a listing of the data relied on for the evaluation. The officer's history should include information critical to the agency's understanding of the officer's path to the current state of affairs, including no more of the officer's personal history than necessary to achieve this goal. The report should include a clear statement of the officer's current status, complete with ongoing symptoms and problems. The officer's status should be discussed in light of the critical aspects of the officer's current position. For example, if the officer has become paranoid, it may no longer be appropriate for him or her to evaluate the performance of subordinates. If the officer has developed a generalized anxiety disorder, it may be inappropriate for the officer to serve "on the street," where critical minute-to-minute decisions must be made.

A clear statement of the officer's fitness for duty status in light of the four alternatives listed above is essential. This should be followed with recommendations for the next step in the process. If the recommendations include modified duty, the nature and extent of the job modifications should be outlined. If the recommendations include counseling, the kind and duration of that treatment should be specified. If the recommendation is that the officer is unfit for duty, the report should include a discussion of how the departure from duty should be accomplished. In particular circumstances in which the officer is a danger to himself or others, the report should include procedures to minimize the probability of harm to either the officer or others. This may include a recommendation for an extended period of medical leave while the officer receives both treatment and a paycheck. Such periods allow for the "cooling down" of the officer's condition to reduce the probability of a dangerous outcome.

As has been noted in one of the recommended readings, particular attention should be paid to situations of officer-involved shootings. Both shooting another person or witnessing the shooting of a fellow officer are rated as being among the most traumatic experiences that an officer may have while on duty. As in other cases of trauma, the range of responses of affected individuals varies widely. A good understanding of posttraumatic stress disorder and its particular manifestations among workers in high-risk occupations is necessary so as not to unduly burden an officer who is doing well with months of treatment or of allowing an officer who is brittle but "looking good" to return to work prematurely.

Return-to-Work Evaluations

Although most FFDEs are RTEs, not all RTEs involve workers in high-risk occupations. In almost any work setting, a worker may develop a mental illness or substance abuse problem that results in temporary disability. In many cases, it makes sense for the employer to get the employee back to work as soon as possible. If the position requires extensive training or if the employee is a long-time incumbent in the position, the employer has a significant financial investment in the employee. Likewise, the employee has an investment in the job and the relationships and income that come from it.

RTEs are carried out very much in the same way as FFDEs. The psychologist must have an understanding of the worker's duties and work setting. A clear history of the events that led up to the worker leaving the workplace must be developed, both from the employer's perspective and from the history of the worker. Informed consent is also essential in this setting, including the worker knowing whether a copy of the report will be made available. Testing may be used as appropriate, although for most other occupations specialized test reports are usually not available. The report should include the same elements, with a well-developed recommendation section.

RTEs may often be conducted with individuals with chronic illnesses, such as a major depressive disorder or a substance dependence disorder, which would eliminate a security or police officer from consideration for employment. Because of considerations of the Americans with Disabilities Act, employers may be required to provide reasonable accommodation for these chronic conditions. An RTE may be part of this process and may include recommendations for specific accommodations for the worker to be able to function in the workplace.

Conclusion

Both FFDEs and RTEs assess the worker's fit with the job duties and job setting. In the case of workers in high-risk occupations, the FFDE often occurs at a critical juncture in the officer's career. For the RTE, this may also be the case, but it may also occur in situations with more chronic illnesses or recurring problems than would be tolerated in high-risk jobs.

The psychologist should be aware that the ramifications of an FFDE are serious. An officer who has demonstrated a history of problems on the job is going to be returned to duty, a situation that may place not

only the officer but his or her fellow officers and members of the public in danger. This makes essential the performance of these evaluations within the highest professional standards.

William E. Foote

See also Americans with Disabilities Act (ADA)

Further Readings

Borum, R., Super, J., & Rand, M. (2003). Forensic assessment for high-risk occupations. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 133–147). Hoboken, NJ: Wiley.

Foote, W. E. (2003). Forensic evaluation in Americans with Disabilities Act cases. In A. D. Goldstein & I. B. Weiner (Eds.), *Comprehensive handbook of forensic psychology: Vol. 11. Forensic psychology.* New York: Wiley.

IACP Police Psychological Services Section. (2004). *Psychological fitness-for-duty evaluation guidelines.* Los Angeles: Author. Retrieved April 15, 2007, from http://www.theiacp.org/div_sec_com/sections/PsychologicalFitnessforDutyEvaluation.pdf

Risk Assessment Approaches

Violence risk assessment is relevant to the field of law and psychology because it occurs at numerous junctures in the legal system, and it is one of the key areas of research and clinical practice in forensic psychology. This entry reviews two primary approaches to risk assessment: unstructured and structured. The former approach, sometimes also called clinical prediction or judgment, imposes no rules on the decision-making process, whereas the latter approach does. Two primary approaches to structured risk assessment include (1) actuarial and (2) structured professional judgment (SPJ). Although both structured approaches impose rules in terms of which risk factors are considered and defined, actuarial risk assessment uses an algorithm to combine risk factors into a final decision, whereas SPJ does not. This entry will describe these approaches, along with their attendant strengths and weaknesses.

The Relevance and Context of Risk Assessment

Risk assessment informs decisions about future violence. In numerous legal and clinical practice areas, such decisions are required by statute, professional ethics, or common law. For instance, in most jurisdictions, a person must pose, inter alia, a risk of harm to others (or to self) to be involuntarily civilly committed. The release of prisoners from institutional to community placement is typically contingent on whether they constitute an undue risk to public safety. Risk assessment is the basis for decision making in these situations. Depending on jurisdiction in the United States, psychologists and other mental health professionals have common law and ethical duties to protect third parties from the violence posed by their patients. Correspondingly, risk assessment is used to determine whether a sexual offender will be subjected to postsentence involuntary commitment under sexual predator laws. Analogous "indeterminate sentencing" provisions exist in non-U.S. jurisdictions as well, for example, Canada and the United Kingdom. As such, risk assessment plays a pivotal role in balancing public safety with constitutionally protected rights and freedoms such as liberty.

Approaches to Risk Assessment

Contemporary approaches to risk assessment have been heavily influenced by Paul Meehl's distinction between actuarial and clinical prediction. The former refers to decision-making procedures that involve the formal combination of variables or pieces of information, by way of equations or other algorithmic processes, to reach a decision. The latter is defined by a lack of such rules. In contemporary risk assessment, approaches may be generally classified as structured and unstructured. As described below, unstructured risk assessment is, in essence, the clinical prediction to which Paul Meehl referred. Structured risk assessment includes actuarial prediction as well as a more recent approach termed *structured professional judgment.*

Unstructured Risk Assessment

Conventionally, *unstructured clinical judgment* is the most common approach to appraising an individual's risk for violence. By definition, it is based primarily on professional opinion, intuition, and clinical experience. Assessors have absolute discretion in terms of selecting risk factors to consider, how to conceptualize them, how to synthesize case material, and how to interpret this information to render decisions. As such, this method is inherently informal and subjective. Although clinical judgment is a routine and necessary component within many clinical decision-making contexts, the defining

feature of clinical judgment *in terms of prediction* is the lack of rules to integrate case information. Although this permits flexibility, ostensible widespread applicability, and relevance to the individual patient, there are numerous problems with this approach.

First, because of the lack of rules, critics contend that the technique generally lacks consistency because independent clinicians may focus on dissimilar sources of information and subsequently form disparate conclusions (low interrater reliability). Second, clinicians may or may not attend to variables that actually relate to violent behavior (low content validity). Third, either failing to attend to important risk factors, attending to irrelevant variables, or giving improper weight to risk factors, will inevitably decrease the accuracy of decisions (low predictive validity). Fourth, detractors argue that unaided clinical decision making precludes transparency of decision making, which is essential in a legal forum (low legal helpfulness). Other factors leading to low (or at least inconsistent) accuracy include susceptibility to decisional biases and heuristics, failure to consider base rate information, failure to integrate situational information, and a lack of specificity about the criterion variable. Research bears these weaknesses out: The accuracy of unstructured risk assessment has been shown (a) to vary considerably across different clinicians and (b) though predictive of violence, to be less strongly related to violence than more systematic approaches.

Structured Risk Assessment

In response to the shortcomings of the unstructured clinical approach and the disquieting implications these held for important legal decisions, researchers started to investigate structured approaches. Contemporary structured risk assessment approaches share common features such as (a) inclusion of a fixed set of risk factors, (b) operational definitions of risk factors, (c) scoring or coding procedures for risk factors, and (d) direction for how to integrate risk factors to reach a final decision about risk. As described below, however, there are important differences between the two primary approaches to structured risk assessment.

Actuarial Prediction

The first structured approach that was investigated was *actuarial prediction.* Technically, a prediction approach is said to be actuarial when it uses formal rules to combine variables or risk factors to make a decision. This process, therefore, involves the formal application of a predetermined set of explicit and formulaic decision rules to make a decision about the likelihood of violence. The actuarial approach has been described as algorithmic, mechanical, well specified, and completely reproducible. An associated, though not defining, feature of actuarial prediction is the use of empirical item selection; that is, the variables that comprise risk factors on an actuarial risk assessment measure are often selected because they demonstrated statistical associations with violence in one (or, more rarely, two or more) specific construction or calibration sample. Another associated feature of actuarial prediction is that the risk factors that are derived empirically are typically weighted according to the strength of association with violence observed in the construction sample(s).

The primary argument in support of actuarial prediction techniques is that they facilitate interrater reliability and predictive validity, especially in comparison with unstructured approaches. Because actuarial procedures use explicit rules for combining risk factors, they yield the same decision regardless of who uses them (high interrater reliability), and given the presence of the same risk factors across cases, they yield the same outcome. Furthermore, they are transparent (reviewable and accountable). Many actuarial prediction techniques are statistically optimized because they weigh variables according to their relationship with violence. Hence, *at least in the samples in which they were developed,* they tend to have high predictive validity in comparison with unstructured approaches.

There is general agreement that the actuarial approach to risk assessment yields higher predictive accuracy than does the unstructured approach when the two are compared for group-based (nomothetic) predictions within the same sample. Perhaps the best evidence of this stems from a meta-analysis of 136 studies conducted by William Grove and colleagues that directly compared actuarial prediction with unstructured clinical prediction. Actuarial prediction was more accurate than clinical prediction in approximately one-third to half of the studies. In approximately half the studies, there was no difference in predictive accuracy. In a small minority of studies, unstructured clinical prediction was more accurate. On average, actuarial prediction was more accurate than clinical prediction by an approximately 10% increase in hit rate.

Despite the important advantages of enhanced interrater reliability and predictive validity that actuarial prediction possesses, commentators have noted several

weaknesses. Perhaps most important, the predictive properties of actuarial models tend to be optimized within the sample of development, with no guarantee that these properties will apply to novel settings or samples (generalizability). For this reason, the precise numerical probability estimates, or bright-line classification cut scores, that tend to be used in actuarial prediction are in crucial need of cross-validation and replication prior to use.

Second, some actuarial techniques may have limited clinical applicability, in that decision makers may be concerned about violence in a context (e.g., imminent violence) that is incongruent with existing actuarial protocols constructed with a specific set of conditions (e.g., a long-term follow-up period). Third, actuarial approaches tend to ignore low base rate factors that failed to enter nomothetically derived statistical equations because of their rarity or their case-specific nature, even if they may be important in individual cases. Under the strictest actuarial approaches, any extraneous information not contained on the instrument cannot be considered. Fourth, some actuarial models have been criticized for not being helpful in terms of risk management, treatment, or risk reduction more broadly because they tend to focus on static risk factors as opposed to dynamic (changeable) risk factors that may be better suited to treatment efforts.

Structured Professional Judgment

To contend with these weaknesses, a more recently developed risk assessment approach, termed structured professional judgment, has been forwarded. Like most actuarial approaches, the SPJ approach specifies a fixed set of operationally defined risk factors with explicit coding procedures. The purpose of this structure is to facilitate both interrater reliability and comprehensive domain coverage, or content validity. It has three primary differences compared with most actuarial approaches. First, SPJ approaches use logical or rational item selection as opposed to empirical item selection procedures to select risk factors. This process involves extensive consultation of the scientific and professional literature to select risk factors with broad support across contexts. In theory, this approach fosters generalizability as well as comprehensiveness of the set of risk factors.

Second, SPJ approaches do not require algorithmic combinations of risk factors to derive risk estimates, and hence they are not actuarial. There are four primary reasons why SPJ approaches do not adopt algorithmic item combinatory procedures. (1) Such procedures are susceptible to degradation of predictive accuracy across contexts, meaning that a cutoff score in one sample cannot be assumed to apply to another context. (2) While combination rules promote consistency, they may do so at the expense of individual relevance; that is, certain risk factors will be more relevant for one person's violent risk than for another's risk, and a risk assessment process should be able to account for this differential individual relevance. (3) Decisions based on fixed algorithmic procedures presume that the future is fixed as well; if circumstances change, the actuarial estimate may be invalid. (4) There may be cases with only a few risk factors present, but their salience compels a conclusion of high risk.

SPJ approaches attempt to optimize the relevance of nomothetically derived risk factors to the individual—which, whether for legal or clinical purposes, is the level of decision making. Final decisions of low, moderate, or high risk are formed by decision makers after consideration of the number and relevance of risk factors present in the case and the intensity and urgency of any necessary intervention or management strategies to mitigate risk. The SPJ model does not provide estimated numerical probability levels of future violence for the individual case, because it is assumed that it is not actually possible to do so given the problems with lack of stability of such procedures, as reviewed above. Furthermore, actuarially derived numerical probability estimates are *group-based estimates* (i.e., 53 of 100 persons in X risk group were violent); their applicability to what *an individual who was not in this group* might do in future is tenuous.

Critics of the SPJ approach have argued that it lowers reliability and validity through the allowance of discretion at the variable integration phase of decision making. Though this is a controversial aspect of SPJ, research to date suggests that the reliability and predictive validity of the SPJ approach are at least comparable with the reliability and predictive validity of the actuarial approach—and in some studies, exceed them.

Researchers continue to study the strengths and limits of both actuarial and SPJ approaches to risk assessment. Both have promise, and both have limitations. The field would benefit from research on how to increase individual relevance, treatment relevance, and cross-validated generalizability of actuarial procedures. In terms of SPJ research, questions in need of research include whether additional structure can be

added to the final decision without introducing the problems associated with actuarial decision making.

Jennifer A. A. Lavoie
and Kevin S. Douglas

See also Classification of Violence Risk (COVR); Danger Assessment Instrument (DA); HCR–20 for Violence Risk Assessment; Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Risk-Sophistication-Treatment Inventory (RSTI); Sex Offender Needs Assessment Rating (SONAR); Sex Offender Risk Appraisal Guide (SORAG); Sexual Violence Risk–20 (SVR–20); Short-Term Assessment of Risk and Treatability (START); STATIC–99 and STATIC–2002 Instruments; Structured Assessment of Violence Risk in Youth (SAVRY); Violence Risk Appraisal Guide (VRAG)

Further Readings

Douglas, K. S., & Kropp, P. R. (2002). A prevention-based paradigm for violence risk assessment: Clinical and research applications. *Criminal Justice and Behavior, 29,* 617–658.

Grove, W. M., Zald, D. H., Lebow, B. S., Snitz, B. E., & Nelson, C. (2000). Clinical versus mechanical prediction: A meta-analysis. *Psychological Assessment, 12,* 19–30.

Meehl, P. E. (1954). *Clinical versus statistical prediction.* Minneapolis: University of Minnesota Press.

Monahan, J., Steadman, H. J., Silver, E., Appelbaum, P. S., Robbins, P. C., Mulvey, E. P., et al. (2001). *Rethinking risk assessment: The MacArthur study of mental disorder and violence.* New York: Oxford University Press.

Risk-Sophistication-Treatment Inventory (RSTI)

The Risk-Sophistication-Treatment Inventory (RSTI) is a semistructured interview and rating scale that is designed to help clinicians assess Risk for Dangerousness, Sophistication-Maturity, and Treatment Amenability as well as treatment needs. The RSTI demonstrates reliability and validity and can assist mental health professionals with the assessment and development of treatment plans for juveniles in forensic settings.

Description

Each of the three scales (Risk for Dangerousness, Sophistication-Maturity, and Treatment Amenability) of the RSTI contains 15 items that represent both static and dynamic factors. Additionally, each scale of the RSTI consists of three clusters, thus providing psychological information on nine subconcepts. Specifically, the Risk for Dangerousness Scale consists of Violent and Aggressive Tendencies, Planned and Extensive Criminality, and Psychopathic Features clusters. The Maturity Scale is composed of Autonomy, Cognitive Capacities, and Emotional Maturity clusters and allows for the assessment of whether youths are using their maturity prosocially or antisocially. The Treatment Amenability Scale consists of the Psychopathology—Degree and Type, Responsibility and Motivation to Change, and Consideration and Tolerance of Others clusters. These clusters are dynamic, although some types of psychopathology might be more difficult to treat than others.

The RSTI materials include the Professional Manual, the Semi-Structured Interview Booklet, and the Rating Form and are available from Psychological Assessment Resources. The professional manual describes the reliability and validity of the instrument and includes case studies that provide examples of appropriate scoring and interpretation of the results. The interview booklet provides guidance for obtaining background, clinical, and historical information and a sample of the juvenile's behavioral and psychological functioning. Optional probes are provided throughout the interview to garner further information if needed. The rating form enables the clinician to score the items by reviewing and synthesizing information from collateral sources. Each item is rated on a 3-point scale reflecting the extent to which the individual demonstrates the specific characteristic (0 = *absence of the characteristic/ability,* 1 = *subclinical/moderate,* 2 = *presence of the characteristic/ability*).

Development

The RSTI was developed according to conventional scale construction procedures and involved three primary steps. First, item generation entailed an extensive search for items in case law and psychological literature. Descriptions of juveniles and their families were drawn from relevant statutes pertaining to transfer criteria, appellate cases (both successful and unsuccessful), and research (both psychological studies and law reviews) related to the primary constructs and transfer decisions.

The second step involved two separate prototypical analyses. Clinical child and adolescent psychologists were asked to rate the items they considered to

be central to Dangerousness, Sophistication-Maturity, and Treatment Amenability. Forensic diplomates were asked to provide ratings of juveniles they had evaluated who had subsequently been transferred to adult criminal courts. Next, National Council of Juvenile and Family Court judges were asked to rate core characteristics for the three loosely defined concepts. Prototypical items for each of the constructs aligned across the raters, indicating that there was general agreement regarding the central components of Risk for Dangerousness, Sophistication-Maturity, and Treatment Amenability.

Structure of the RSTI

Exploratory and confirmatory factor analytic (CFA) procedures were used to examine the structure of the prototypical ratings. CFA results formed the basis for the development of the RSTI scales. Assignment of items to scales relied heavily on consideration of prototypical ratings and factor structures. Items with low prototypical ratings were not included on scales, even though they might have loaded on a factor. For example, reckless and hyperactive characteristics were loaded on the dangerousness factor but were excluded because they received low prototypical ratings and produced inadequate model-fit indices in the CFA.

Internal Consistency and Reliability

Alpha coefficients for the three RSTI factors range from .78 to .83. Intraclass correlations for the RSTI scales range from .74 to .94, indicating good interrater reliability across types of raters and scoring methods. Comparing interview-based RSTI ratings between clinicians and trained graduate student raters resulted in slightly higher reliability, ranging from .81 to .94, indicating that interviews may increase the reliability of ratings.

Validity

Several studies have reported evidence for the RSTI's concurrent validity using other measures of psychological constructs to which the RSTI constructs should be related. The RSTI Risk for Dangerousness Scale correlated positively with Conduct Disorder, Violent Conduct Disorder, Psychopathic Traits, and both Reactive and Total Aggression. The Treatment Amenability Scale was associated with older ages of onset of conduct disorder and negatively associated with conduct disorder symptoms.

Criterion validity of the Treatment Amenability Scale was examined by testing the association between file-based RSTI ratings and later treatment compliance and other criteria among male juveniles at a juvenile treatment center. The scale was associated with positive interactions with staff and maintenance of appropriate boundaries, both of which are important to the therapeutic relationship. The Dangerousness Scale was negatively associated with maintenance of appropriate boundaries, and the Maturity Scale was associated with excellent classroom behavior. Criterion validity was assessed in two studies of retrospective outcomes among youths facing transfer to adult court. Relative to youths not transferred to adult court, transferred youths received, on average, significantly higher dangerousness and maturity scores and lower treatment scores.

Application

The RSTI manual is available from Psychological Assessment Resources. The RSTI is copyrighted and can be purchased as a kit, which includes a manual, 25 structured interview booklets, and 25 rating scales. Mental health professionals with experience in juvenile justice settings can administer the RSTI. The RSTI can be administered in court evaluation units, detention centers, and by consulting clinicians in outpatient settings. The RSTI can be used in evaluations related to recommendations for general disposition decisions, commitment and transfer to adult court and reverse transfer hearings, treatment recommendations, and most important, development of individualized treatment plans.

Randall T. Salekin

See also Juvenile Offenders; Juvenile Offenders, Risk Factors; Risk Assessment Approaches

Further Readings

Leistico, A. R., & Salekin, R. T. (2003). Testing the reliability and validity of the Risk, Sophistication-Maturity, and Treatment Amenability–Inventory (RST–I): An assessment tool for juvenile offenders. *International Journal of Forensic Mental Health, 2,* 101–117.

Salekin, R. T. (2002). Psychopathy and therapeutic pessimism: Clinical lore or clinical reality. *Clinical Psychology Review, 22,* 79–122.

Salekin, R. T. (2004). *Risk-Sophistication-Treatment–Inventory (RST–i): Professional manual.* Lutz, FL: Psychological Assessment Resources.

Salekin, R. T., & Grimes, R. (2008). Clinical evaluations of juvenile offenders facing transfer to adult court. In R. Jackson (Ed.), *Learning forensic assessments.* New York: Routledge.

Rogers Criminal Responsibility Assessment Scales (R–CRAS)

The Rogers Criminal Responsibility Assessment Scales (R–CRAS) is a structured decision model for quantifying relevant psychological variables that are salient for the retrospective evaluation of insanity. The R–CRAS was validated to address specifically the American Law Institute (ALI) insanity standard that requires an assessment of a defendant's cognitive and volitional impairment at the time of the alleged offense. In addition to the ALI standard, the R–CRAS provides clinical data relevant to the M'Naghten insanity standard and the Michigan-based guilty but mentally ill (GBMI) standard.

The R–CRAS decision process combines an appraisal of general diagnostic categories with an assessment of cognitive and behavioral (i.e., volitional) abilities at the time of the offense. Three rationally constructed scales evaluate diagnostic issues: (1) Patient Reliability, which includes malingering or involuntary interference with accurate recall; (2) Organicity, which addresses the likely effects of brain damage or mental retardation; and (3) Psychiatric Disorders, which examines the effects of key Axis I symptoms. Two scales address legally relevant impairment: (1) Cognitive Control, which evaluates impairment in verbal abilities, awareness of the criminal behavior, and capacity for planning; and (2) Behavioral Control, which considers level and focus of criminal activity, as well as the defendant's capacity to control criminal behavior and engage in responsible behavior. Finally, the GBMI items address general domains of impairment that are not specific to criminal behavior.

Description and Development

The R–CRAS was developed by a study group of five experienced forensic psychologists and psychiatrists who reached consensual agreement for the inclusion of core psychological and situational variables relevant to insanity. This operationalization of the ALI standard requires forensic experts to make a series of professional judgments based on anchored ratings. These ratings provided descriptions of impairment for each level that typically ranged from "none" and "slight" to "moderate," "severe," and sometimes "extreme."

The primary standardization sample was drawn from two well-established outpatient forensic centers: the Isaac Ray Center in Chicago and the Court Diagnostic and Treatment Center in Toledo. Using eight forensic psychologists and eight forensic psychiatrists, R–CRAS data were collected on a total of 157 insanity evaluations with test-retest reliability on 76 cases. A secondary sample of 103 insanity referrals was collected from two inpatient and two outpatient forensic facilities.

Reliability

The reliability of the R–CRAS is challenging to establish, given the retrospective nature of insanity evaluations. As a rigorous test of its reliability, the R–CRAS was administered by independent evaluators on separate occasions with an average interval of 2.7 weeks. For individual variables, the mean reliability coefficient was .58, which is very acceptable given the rigorousness of the retrospective test-retest design.

One critical issue is the reliability of the ALI decision model to demonstrate the reproducibility of R–CRAS decision variables by independent experts at separate times. Average agreement between experts was very high with values ranging from 85% to 100% (M = 91%). Kappa coefficients were generally excellent with an average of .81. Because kappas are affected by low base rates, the kappa for malingering was modest (.48) despite the high level of agreement (85%). For the final decision regarding insanity, the agreement between independent experts was almost perfect (97%; k = .94).

Validity

The R–CRAS used Loevinger's model of construct validation, which is conceptualized in terms of substantive, structural, and external validities. The development of the R–CRAS addressed substantive validity in its selection and operationalization of key variables relevant to insanity. The structural validity used a formulation of insanity that could be tested as a series of hypotheses. In comparison with sane defendants, clinically evaluated insane defendants would manifest (a) a relative absence of malingering, (b) greater psychological impairment (i.e., organicity and mental disorders), and (c) greater impairment (i.e., cognitive and volitional). Marked differences were observed in the predicted direction. For

example, very large effect sizes were found for the role of hallucinations (Cohen's $d = 1.80$) and delusions (Cohen's $d = 3.15$) in criminal behavior. Discriminant analyses were also used to demonstrate differentiating patterns between sane and insane defendants on calibration and cross-validation samples. As evidence of external validity, R–CRAS decisions were compared with legal outcomes. The primary samples yielded high concordance rates that were nearly identical—88.5% for the Isaac Ray Center and 88.1% for the Court Diagnostic and Treatment Center.

Forensic Applications

The R–CRAS is the only well-validated decision model for the assessment of criminal responsibility. Its model requires forensic psychologists and psychiatrists to quantify key variables related to the severity of Axis I symptoms and elements of criminal behavior. This model appears to be generalizable to defendants with different sociodemographic (e.g., gender, race, age, and education), criminal (e.g., prior arrests and delinquency), and clinical (e.g., prior diagnoses and hospitalizations) variables.

Forensic psychologists may prefer to use the R–CRAS for insanity evaluations as a structured guide rather than a formal test. This use appears warranted, especially in jurisdictions that do not use the ALI insanity standard. For GBMI consultations, the Michigan-based R–CRAS criteria are used in many jurisdictions. However, forensic clinicians should carefully check its relevance to their particular jurisdiction. Finally, experts are likely to be divided on whether to render conclusory opinions with insanity cases. Forensic psychologists avoiding conclusory opinions should use the final decision point for sanity as simply advisory and not document it in their forensic reports.

Richard Rogers

See also Criminal Responsibility, Assessment of; Criminal Responsibility, Defenses and Standards; Forensic Assessment; Insanity Defense, Juries and

Further Readings

Grisso, T. (2003). *Evaluating competencies: Forensic assessments and instruments.* New York: Kluwer.

Rogers, R. (1984). *Rogers criminal responsibility assessment scales (R–CRAS) and test manual.* Odessa, FL: Psychological Assessment Resources.

Rogers, R., & Sewell, K. W. (1999). The R–CRAS and insanity evaluations: A re-examination of construct validity. *Behavioral Sciences and the Law, 17,* 181–194.

Rogers, R., & Shuman, D. W. (2000). *Conducting insanity evaluations* (2nd ed.). New York: Guilford Press.

S

Scientific Jury Selection

Scientific jury selection (SJS) is the use of a survey to decide which jurors to favor in a trial. Prior to the 1970s, jury selection was done by attorneys based on their hunches. The new quantitative method was welcomed enthusiastically by trial attorneys. Social scientists were more reserved. SJS led to the employment of social scientists as trial consultants. This entry describes traditional jury selection as conducted by attorneys, reviews the origin of SJS, presents an example of a 2003 survey used in Florida to implement SJS, and examines evidence on the utility of SJS.

Voir dire is the process at the beginning of a trial when prospective jurors, called *venirepersons,* are examined verbally to determine their fitness for service as jurors in a particular trial. An unlimited number of venirepersons can be excused *for cause*—that is, found unfit by the trial judge for reasons of incompetence or prejudice. Venirepersons are also excused *peremptorily,* that is, by the attorneys without stated reason. The rules for using peremptory excusals vary by jurisdiction and preferences of trial judges. Judges differ widely in the questions they ask or allow the attorneys to ask. Some judges allow venirepersons to complete trial-specific questionnaires constructed by the attorneys. The information about venirepersons available to the attorneys varies greatly, given the court's voir dire practice. Nevertheless, in U.S. courts, the parties (prosecution, plaintiff, and defendant) have a right to a certain number of peremptory excusals. These peremptory excusals are determined and used during the jury selection process.

Traditional Attorney-Conducted Jury Selection

How do attorneys evaluate venirepersons and decide whom to favor or oppose? Lawyers are sometimes influenced by the published preferences of famous colleagues—the idols of the tribe. These famous trial lawyers have published preferences mainly based on ethnic, religious, gender, and occupational stereotypes that may often conflict with each other. These stereotypes were formed long ago and have no application to modern jurors or cases. Many attorneys hold other stereotypes that may have some limited value, for example, that nurses are unsympathetic to pain and suffering or that people who use newspaper coupons give stingy monetary awards. In addition, a trial attorney's experience with a particular type of juror may result in prejudice for or against such jurors in future trials. Attorneys also evaluate venirepersons on the basis of "vibes"—their impression of the venireperson's nonverbal behavior and deportment. Generally, the attorney has a limited profile of good and bad jurors derived from advice from other attorneys, prejudices, speculation, and experience.

Origin of Scientific Jury Selection

In the 1972 Harrisburg Seven trial of Vietnam War resisters, Jay Schulman and colleagues decided to evaluate venirepersons on the basis of a survey. Schulman surveyed 840 respondents in the trial venue, recording diverse attitudes possibly related to juror view of war resisters. Respondents indicated what they thought of various antiwar activities, which historical figures they

admired, their level of trust in government and the establishment, and many demographic features such as age, sex, education, occupation, media preference, and residence. Demographic variables were then statistically correlated with attitudes suggesting support for the government and the Vietnam War. Schulman reported that respondent sex, education, religion, and media preference distinguished "good" from "bad" jurors. In principle, jurors at the trial who had features that were bad (male, better educated, Protestant, attended to local media) would be excused peremptorily. Despite the apparently scientific approach, it is clear from Schulman's article that the Harrisburg Seven jury was chosen by a mishmash of survey findings and old-fashioned practice (including informant information on certain venirepersons; speculation about how a given juror was likely to relate to other jurors; speculation on racism; and deliberation among the multiple lawyers, social scientists, and defendants about the desirability of prospective jurors).

If it is unclear how SJS was employed in the Harrisburg Seven trial, it was abundantly clear to the litigation profession that a promising new tool was available to assist in jury selection. While Schulman's academic colleagues continued pro bono work on political trials, some of his followers formed the National Jury Project in 1975. In 1979, in the wake of success in the MCI/ATT antitrust case, Donald Vinson founded Litigation Sciences. In 1987, he founded Decision Quest, which was employed by prosecutor Marcia Clark in the 1995 trial of O. J. Simpson. Today, trial consultation is a billion-dollar enterprise, with practitioners in all metropolitan areas.

An SJS Survey

The following survey was conducted in 2003 in preparation for a trial with charges of vehicular homicide while driving under the influence of alcohol, a felony punishable by as much as 50 years in a Florida state prison. The sample in this SJS survey consisted of 211 Miami-Dade county residents whose sex, age, family income, marital status, education, and race/ethnicity closely paralleled those of registered voters, from among whom state court venirepersons are subpoenaed. These people's responses should be similar to those of people who show up for duty at this trial.

The survey begins with the case summary, a one-page description of the most essential features of the case, to wit, that an elderly lady was hit and killed by a speeding BMW. The driver failed to stop. A witness with a cell phone described the driver as a black or dark-skinned male. A police BOLO (be on the outlook for) broadcast this description. The police found the abandoned, damaged car within 20 minutes at a distance of 1.5 miles from the accident. About 1 hour after the accident, the police went to the apartment of the registered owner of the car, who lived 8 miles away. He was a light-skinned White man who was wearing his bathrobe. He had been in bed and in the shower and appeared intoxicated. There were glass shards in his robe and in the shower. He admitted having been out drinking all night at two gay bars. He claimed his car was parked below in the garage. When it was not found there, he agreed with the police that it must have been stolen. He was interrogated at the police station and continued to deny guilt. He claimed to have blacked out in a bar and to be unable to remember anything thereafter. His blood alcohol level 4 hours after the accident was 0.17, far above the legal limit. At that point he was arrested. The summary concludes with a statement of a defendant's right to be presumed innocent and stresses that the entire burden of proving guilt rests with the prosecution.

The summary is followed by a 9-point verdict scale asking the respondent to indicate the likelihood of guilt based on what he or she knows. This verdict scale is repeated after each separate additional fact introduced in the second section. A final verdict scale comes after the respondent has heard the case summary and all eight additional facts. This is the most important measure of the verdict.

The second section of the survey records the respondent's verdict after hearing specific critical facts. These verdicts determine trial themes and are the most important information in an SJS survey. They tell the attorney which facts fly and which crash, what to leave in the argument at a trial, and what to leave out. It is no simple matter to know which evidence and which themes to emphasize in a trial.

Recall that respondents indicated verdicts after hearing eight specific bits of evidence or argument. In terms of the prosecution's case, respondents did not increase their guilt ratings on the basis of evidence stressing that the defendant's car was involved or that he was out drinking all night without an alibi. However, evidence that the glass spray pattern in the damaged auto proved that no one other than a driver was in the car at the time of the accident resulted in a sharp increase in guilt ratings. These findings identify the critical defense problem that must be successfully addressed.

Two defense themes proved most helpful. First, the police BOLO identified the driver as a dark-skinned

male. Second, sloppy police work such as failing to fingerprint the steering wheel led to lower guilt ratings. The defense was on notice to focus on these points and ignore certain other evidence such as a doctor's testimony that the defendant had no memory of postblackout events under hypnosis.

The third section of the survey consists of open-ended items answered in the respondent's own words. Respondents are asked for the best reasons for convicting and acquitting, and for any suggestions they might have. The responses confirmed that the best reasons for acquittal were the legal ground rules favoring the defendant, sloppy police work, and the BOLO. Responses to free-response questions often produce useful articulations. These can be used to make a point in argument.

The fourth section consists of opinion items. Respondents used rating scales to indicate their opinions about alcohol and driving, sloppy police work, eyewitness accuracy, and conventionality. The results indicated that opinions about convicting when the police work has been sloppy, not convicting on strong suspicion but only on proof, and concern about irresponsibility and sexual immorality predicted the verdict. The defense would focus on these opinions in voir dire.

Experience has shown that demographic predictors emphasized in the original SJS research are usually less predictive of the verdict than are experiences and/or opinions. Nevertheless, as in the current case, they are sometimes predictive. This is extremely helpful when court procedure limits voir dire as in the federal courts. The current study indicates Cuban Whites reach verdicts similar to those of married jurors, jurors with lower incomes and less education, male jurors, and jurors who never drink even moderate amounts of alcohol when driving. These characteristics are associated with conviction.

In the current case, the survey has distinguished critical and less significant evidential issues. Nine opinion and demographic predictors have been identified. In juror selection, venirepersons with more of these features will be favored for defense peremptory excusals.

The disposition of this case is instructive in evaluating the utility of SJS. Preparation for jury selection is only one aspect of trial outcome and usually far from the most important. In this case, as noted, the defense knew from the survey that the police BOLO indicating that the driver was a dark-skinned male was crucial to introducing doubt that the fair-skinned defendant was driving the car. The prosecution argued that the BOLO was in error because the eyewitness in fact told the police that it was the car that was black. Unfortunately for the defense, the judge disallowed mention of the BOLO. Faced with 50 years in prison if convicted, the defendant agreed to plead guilty and serve 12 years in prison. In this case, SJS succeeded in identifying crucial evidence and juror features predictive of the verdict.

Utility of SJS

Informed opinion differs, but most academic reviewers are skeptical that SJS improves attorney-conducted jury selection. Eight traditional published studies of the statistical utility of SJS indicate that on average only 11% of the factors that determine a juror's verdict are explained by SJS opinion and demographic predictors. This is, however, better than it may sound as it suggests an improvement of 17% in the accurate prediction of a venireperson's verdict. If, for the sake of argument, we assume that attorney jury selection is no better than guesswork—50% accurate (it is unknown but probably better on average)—then SJS improves this to 67% accurate prediction. Eleven (nine unpublished) additional SJS studies at Florida International University in recent years suggest that verdict prediction accuracy can be further improved (up to 76% accuracy). SJS is of no value if the evidence makes conviction inevitable. SJS is more frequently used in civil trials, where the evidence is more likely to be balanced. Finally, it must be recognized that the survey must capture the essence of the evidence to be presented at the trial as well as case-relevant opinions, which are known to predict juror verdicts better than demographic characteristics or general attitudes do.

Gary Moran

See also Jury Questionnaires; Jury Selection; Trial Consulting; Voir Dire

Further Readings

Kovera, M. B., Dickinson, J. J., & Cutler, B. L. (2003). Voir dire and jury selection: Practical issues, research findings, and directions for future research. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 161–175). New York: Wiley.

Lieberman, J. D., & Sales, B. D. (2007). *Scientific jury selection.* Washington, DC: American Psychological Association.

Sentencing Decisions

The sentencing decision is typically the last court decision made in a case. This decision has attracted the most attention from researchers studying legal decision making. After being convicted of a crime, a defendant may be sentenced to, for example, imprisonment, a community penalty, fine, restitution or compensation, or probation. A sentence may have one or more goals, including to deter, rehabilitate, and incapacitate the offender. Crimes may have maximum and minimum penalties attached to them. However, in between these penalties, sentencers have discretion as to the sentence they pass. Efforts have been made to curb this discretion through the introduction of sentencing guidelines. Past research on sentencing has largely been conducted in the American and English criminal justice systems. Researchers have aimed to describe and explain sentencing practice. They have found that guidelines do not necessarily reduce sentencing disparity. Sentencing decisions are associated with earlier decisions in a case. In addition, sentencers may be influenced by myriad individual-level factors such as offender, victim, and case characteristics as well as higher-level factors related to the sentencer, court, and area or jurisdiction.

Sentencing Theory and Policy

Once a defendant has been convicted of a crime, he or she will be sentenced. This sentencing decision is typically made by a judge or magistrate (depending on the sentencing court). Several sentencing options are available to sentencers; common ones include incarceration (prison or jail), community sentences, fine, restitution or compensation, and probation. Of these, incarceration is usually the most severe sentence, although some crimes carry the death penalty in some jurisdictions. Defendants convicted of more than one crime may be given consecutive or concurrent sentences. Sentencing statistics indicate trends in sentencing such that the relative use of different options changes over time, largely in response to changes in sentencing policy or public opinion.

A sentence may be justified on one or more of several theoretical grounds. In their simplest forms, desert or retributive theories propose that those who commit crimes deserve punishment and should receive sentences proportionate to the seriousness of the crime. Deterrence theories state that a sentencing should aim to deter specific people, or people in general, from committing crimes and that doing so requires that a sentence be certain and severe. Rehabilitative approaches also suggest that a sentence should aim to prevent further reoffending but hold that this should be done by means of treatment. The incapacitative approach advocates that a sentence should aim to protect the public by detaining persistent or dangerous offenders. Finally, restorative and reparative theories state that sentences should aim to repair the harm done by crime and encourage social integration.

Research on public opinions of sentencing has found that support for the purposes of punishment varies by the nature and seriousness of the offense. Nevertheless, studies have consistently reported that people perceive sentencing policies and practices as being too lenient. In fact, public opinion has been a driving force behind several sentencing policies such as the "three strikes" policy in the United States. However, evidence also suggests that the public may be ill informed or misinformed about current sentencing policy and practice as well as crime rates. Studies indicate that the public are less likely to favor imprisonment when they are made aware of the range of sentencing options available, and they support alternatives to imprisonment under certain circumstances.

Most offenses have fixed maximum penalties assigned to them, usually in the form of a length of incarceration or fine amount, and some offenses also have mandatory minimum sentences. In addition, the sentencing options may differ for offense type. Finally, sentencing options may differ for adults and youths (juveniles and young offenders). Despite this, the sentencer is afforded considerable discretion in the sentence passed. When making a sentencing decision, sentencers are expected to use legal factors such as the nature and seriousness of the offense and the defendant's criminal history. The sentencer is also obliged to take into account any aggravating factors, such as the vulnerability of the victim, whether the victim was racially/religiously targeted, the offender's leading role in the offense, his or her profit from the offense, as well as mitigating factors, such as whether the offender was provoked, the offender's minor role in the offense, and his or her acceptance of responsibility or show of remorse. Finally, sentencers may also have access to sentencing recommendations provided by a probation officer in what is called a presentence report.

Sentencing guidelines have been introduced in some jurisdictions to focus sentencers' attention on

legal factors and to promote predictability, consistency, transparency, and accountability in sentencing. For example, in the United States, since the 1980s, there have been both state and federal guidelines that employ a grid structure. State guidelines vary in their use of the axes of criminal history and offense seriousness, as well as the sentence ranges proposed. Some guidelines are advisory/optional (voluntary), and others are legally mandated (presumptive); some are based on past sentencing practices, while others offer a new sentencing goal or philosophy. In the English system, optional sentencing guidelines are being produced for all criminal courts since 2004. Although these guidelines are much less structured than in the United States, they are informed by public consultation and data on the effectiveness of sentences in reducing re-offending, as well as the financial cost of different sentences. However, commentators are pessimistic about the extent to which objectivity in sentencing can be achieved by the English guidelines. Research evaluating guidelines in the American system suggests that while successful in reducing extralegal disparity in sentencing in some jurisdictions, the guidelines have sharply increased such disparity in other jurisdictions.

Research Describing and Explaining Sentencing Practice

Much of the past research has investigated sentencing decisions in the American and English criminal justice systems. Studies have been conducted by psychologists, sociologists, criminologists, and legal scholars using methodologies such as experiments involving sentencers being presented with simulated cases, interview and questionnaire surveys of sentencers, analyses of sentenced case records and sentencing statistics, and analyses of sentencing policies. Researchers have examined both sentencing decisions generally as well as the choice of specific sentencing options. They have documented the influence of legal and extralegal factors on sentencing, variations in sentencing practice across areas or jurisdictions, and disparities in the sentences passed on subgroups of defendants.

Sentencers are often required to give reasons for their sentencing decisions. The reasons given in court or in self-report studies typically do not concur with the findings of research that is based on an analysis of sentencing behavior.

Evidence from studies of sentencing behavior suggests that sentencing decisions are associated with earlier decisions made in a case such as the bail-setting decision and the defendant's plea. In particular, defendants who were denied bail or remanded in custody are more likely to receive a custodial sentence than those who are given bail, after controlling for some legally relevant variables such as offense type. Furthermore, sentencing discounts may be given to those defendants who plead guilty. Some of the relations between the sentencing decision and earlier decisions are supported by policies such as the guilty plea discounts in the English system and plea agreements in the American federal system. However, the association between the bail-setting decision and the sentencing decision are not mandated by sentencing policy.

Studies have examined the extent to which sentencers may be influenced by myriad individual-level factors such as offender, victim, and case characteristics as well as higher-level factors related to the sentencer, court, and area or jurisdiction. With regard to individual-level factors, there is evidence that in addition to legally proscribed factors, sentencers may use extralegal factors such as the race or ethnicity and gender of the defendant. In particular, Black defendants have been reported to be treated more punitively than White defendants, and females have been shown to be treated more leniently than their male counterparts, even after controlling for the defendant's offense and criminal history. However, there may be other legally relevant case variables that covary with these extralegal factors that also need to be controlled, and the impact of extralegal factors on sentencing may also be partly accounted for by the impact of these factors at earlier stages of the criminal justice process such as at the bail-setting stage.

With regard to higher-level factors, criminological research in America shows that the decision to incarcerate as well as the length of incarceration can be predicted by sentencer characteristics, such as age, and court and area factors, such as court size, availability of custodial spaces, and proportion of ethnic population. For instance, minority judges have been found to be more lenient than their White counterparts. Sentences have been found to be more severe in small courts than in large courts. The availability of custodial spaces has been found to increase the likelihood of incarceration. In some areas, it has been found that as the proportion of the population belonging to an ethnic minority increases, so does the length of incarceration. Criminological research

in the English system similarly reports that, for offenses of similar levels of seriousness or for similar types of offenders, sentences appear to vary by area, court type, and sentencer. Here, sentences given in the Crown court tend to be more severe than those given by the magistrates' (lower) court for similar offenses, and sentences by professional judges tend to be more severe than those given by lay judges (magistrates).

Although psychologists have generally not studied the impact of higher-level variables on sentencing decisions, they have demonstrated how the personal characteristics of the sentencer, such as his or her attitudes and experience, may influence the sentencing decision. Psychological research has also pointed to the types of heuristic decision-making strategies that sentencers may use.

More recently, criminologists such as Brian Johnson have begun to argue for the importance of studying sentencing decisions using multilevel theories. These allow the researcher to simultaneously examine the relative (direct) impact of individual- and higher-level factors on sentencing decisions and to measure the interactive effects of individual- and higher-level factors. Therefore, theories of sentencing can better consider how sentencers are influenced by the individual offender, case, or victim and how sentencing behavior is affected by the characteristics of the sentencer and his or her environment such as court or area.

Mandeep K. Dhami

See also Bail-Setting Decisions; Death Penalty; Parole Decisions; Plea Bargaining; Probation Decisions; Public Opinion About Sentencing and Incarceration; Sentencing Diversion Programs

Further Readings

Albonetti, C. A. (1997). Sentencing under the federal sentencing guidelines: Effects of defendant characteristics, guilty pleas, and departures on sentence outcomes for drug offenses. *Law and Society Review, 31,* 789–822.

Daly, K., & Bordt, R. L. (1995). Sex effects and sentencing: An analysis of the statistical literature. *Justice Quarterly, 12,* 141–175.

Mitchell, O. (2005). A meta-analysis of race and sentencing research: Explaining the inconsistencies. *Journal of Quantitative Criminology, 21,* 439–466.

Roberts, J. V., & Hough, M. (2005). *Understanding public attitudes to criminal justice.* Berkshire, UK: Open University Press.

Johnson, B. (2006). The multilevel context of criminal sentencing: Integrating judge- and county-level influences. *Criminology, 44,* 259–298.

Von Hirsch, A., & Ashworth, A. (Eds.). (1998). *Principled sentencing* (2nd ed.). Oxford, UK: Hart.

Sentencing Diversion Programs

Sentencing diversion programs are formal, institutionalized programs for people with mental illness that were created to reduce the volume of and frequency with which this population is involved in the criminal justice system as defendants. Their primary purpose is to divert persons with mental illness (PMIs) from the criminal justice system (including jail and prison) into community, outpatient mental health, and substance abuse treatment. Diversion, which can occur at any point in the criminal justice process (from prearrest to postconviction), has several defining features. These features include sharing a common goal of reducing recidivism rates of PMIs, relying on a therapeutic jurisprudence model, having predefined target populations, using a carrot-and-stick approach to achieve compliance, maintaining collaborations across multiple systems of care, and sometimes mandating treatment. Preliminary research on the effectiveness of the programs is equivocal but promising, in that diversion can improve the lives of PMIs involved in the criminal justice system.

The Purpose of Diversion Programs

Diversion has always been an informal option for the police and prosecutors, but the development of formalized programs is relatively recent. Diversion is an attempt to stem the tide of PMIs who enter the criminal justice system. An estimated 900,000 persons with serious mental illness are booked into U.S. jails annually. (Serious mental illness is typically defined as having a schizo-spectrum, bipolar, or major depressive disorder.) Approximately 10% to 15% of jail and prison inmates have a serious mental illness compared with about 3% of the general population. Moreover, PMIs who are involved in the justice system tend to have repeated, "revolving-door" contact with law enforcement and the courts. It has been said that U.S. jails and prisons have become de facto mental health institutions. Because of

the volume of PMIs involved in the criminal justice system and the associated problems (e.g., behavioral problems while incarcerated, access to medication), formal diversion programs have been developed to help reduce the number and frequency with which PMIs pass through the criminal justice system. Typically, diversion programs are premised on the notion that PMIs who access and engage in community treatment will be less likely to have police contact and less likely to be charged with crimes, thereby reducing the repeated cycling.

Timing of Diversion

There are two main forms of diversion programs: prebooking (or prearrest) and postbooking (including mental health courts). Although diversion can occur at any point along the criminal justice continuum, including probation and parole, one goal of diversion is to identify potential participants as early as possible. The timing of diversion, however, can depend on awareness of the mental illness and of the diversion program itself. For example, an inmate may not be recognized as having a mental illness (or as being a suitable candidate for the program) until after several months of pretrial detainment. Additionally, in larger urban communities, many criminal justice personnel with whom the PMI interacts may not even know a diversion program exists in their locale.

The timing of the referral and whether the program is pre- or postbooking also influence the diversion process itself. Specifically, prebooking programs divert the PMI from being arrested and charged and, thus, from criminal justice involvement entirely. That is, for PMIs involved in prebooking diversion programs, law enforcement has used their discretion to not arrest them. Currently, there are an estimated 120 prebooking diversion programs. A growing form of prebooking diversion programs are crisis intervention teams (CITs). The CIT model is primarily concerned with de-escalating crisis situations between police officers and PMIs in the field, but it also involves making informed decisions about when to arrest PMIs rather than taking them to treatment settings.

Postbooking diversion occurs after the person has been charged. Two critical points for this type of diversion to occur are when making decisions concerning pretrial release and deferring prosecution. Usually, the decision to release a defendant occurs soon after the arrest. If the arraignment judge is aware that the person has been accepted into a diversion program that is partially responsible for community supervision, the judge may be more inclined to release the person from jail. Similarly, when the prosecutor is deciding whether to go forward with a case, knowing that the defendant is involved in a diversion program, and is thus likely to be getting treatment and supervision, can affect that decision. To date, there are approximately 150 postbooking U.S. diversion programs that are not mental health courts.

Mental health courts, while a form of postbooking diversion, are distinct. Mental health courts are criminal courts with typically one judge presiding. Clients are supervised by the judge (in periodic status review hearings) and in the community by mental health and/or criminal justice professionals. Often, communities that have instituted successful drug courts will form mental health courts as well. The courts are part of a growing field of specialty courts, which include domestic violence, DUI, and even teen smoking cessation courts. The first two mental health courts were formed in 1997. In 2006, there were more than 130 U.S. mental health courts.

Features of Diversion Programs

Diversion programs are most often created by individual communities and thus meet the needs of that specific jurisdiction. As such, diversion programs can appear quite distinct from one another, especially when examined at a micro level. However, at a macro level, there are several shared and defining aspects of diversion programs.

Common Goal

Diversion programs have the shared goal of reducing the frequency with which PMIs become justice involved. They also aspire to linking their clients with community treatment services and, quite often, with other services such as vocational training, housing, and accessing government funds. Generally, diversion personnel are concerned with what is in the best interests of their clients, and many programs are paternalistic in their nature.

Therapeutic Jurisprudence

Therapeutic jurisprudence is defined as an outlook that views the law as a system for social change (either in a therapeutic or nontherapeutic direction). Diversion programs strive to improve the lives of their participants. The programs, particularly mental health courts,

are also less adversarial and less formal than traditional criminal court processing. In mental health courts, often, defendants can approach and speak to judges directly, and sometimes clients and judges will hug. Most programs are also lenient, have realistic expectations, and understand that the population they are serving is prone to relapse and instability. For example, if a client in a mental health court misses a scheduled court hearing, the immediate response is not to issue a bench warrant but rather to use a gradated list of sanctions that increase in intensity as noncompliance increases. Expulsion from the program and incarceration, while possible, are usually the last resorts. Finally, diversion program clients tend to report high levels of procedural justice, in that they feel they have a "voice," are respected, and heard.

Target Populations

Diversion programs set criteria for who is allowed entry into the program. Mental health screening and assessment procedures are important components necessary to diversion. Most programs have both clinical and criminal eligibility criteria. Clinical criteria can be specific or broad and can include, for example, accepting only persons diagnosed with Axis I (*Diagnostic and Statistical Manual of Mental Disorders,* fourth edition [*DSM-IV*]) disorders or requiring a link between the commission of the crime and the person's mental health problem. Criminal criteria can include limiting the program to misdemeanants or requiring victims' assent to be involved. For the most part, diversion programs exclude violent felons for public safety reasons. Finally, some communities have developed women-only diversion programs, recognizing that male and female defendants with mental illness have different treatment needs (such as trauma-based services) and routes to recovery.

Carrot-and-Stick Approach

All diversion programs offer some end benefit, whether it be avoiding an arrest, avoiding a jail or prison sentence, and/or having the charges dropped or reduced. However, in exchange for not being charged or sentenced, the person agrees to go to mental health and substance abuse treatment in the community, to take prescribed medications, and sometimes to attend periodical status review hearings before a judge. If the person is not compliant on a repeated basis, the charges or sentences that were held in abeyance can be instated. Alternatively, some programs require participants to plead guilty and only after successful completion reduce the original charges (e.g., from a felony to a misdemeanor) or expunge the conviction from their criminal record. Thus, like drug courts, diversion programs use this carrot-and-stick approach to induce cooperation and compliance. As mentioned above, this is generally not done in a coercive manner but rather with an eye toward the person's best interest.

Cross-System Collaborations

Almost by definition, diversion programs need to involve professionals from the criminal justice and mental health systems who work collaboratively. Very often, a group of key stakeholders in the community come together to form the program. These stakeholders can include a judge, state and/or county mental health and substance use officials, attorneys, pretrial service personnel, correction officers, advocates for mental illness, and the police. Elements identified as being essential to the success of diversion programs are (a) ongoing and active cross-systems collaboration, (b) written memorandums of understanding between the systems, (c) strong leadership, and (d) a "boundary spanner." A boundary spanner is a staff member who bridges across the mental health, criminal justice, and substance abuse systems and who serves to coordinate cross-systems collaborations.

Mandated Community Treatment

Many, but not all, diversion programs can be considered a form of mandated community treatment, in that they require the person to go to treatment and to take prescribed medications and will impose consequences when the person is nonadherent. Typically, prebooking diversion does not mandate treatment or have long-term follow through with divertees. In contrast, mental health courts, while voluntary to enroll, exemplify the concept of mandated community treatment.

Effectiveness of Diversion Programs

In regard to the effectiveness of diversion, preliminary research has shown mixed but promising results. On one hand, there is research demonstrating that diversion programs can be successful in achieving their goals of reducing recidivism and linking clients with treatment. For example, a research study examining nine pre- and postbooking diversion programs found that in comparison with a group of similar but nondiverted individuals,

divertees spent more days in the community than in jail, received a higher number of treatment services, and showed improved mental health symptoms. On the other hand, the same study also showed that divertees had higher rates of emergency room usage and hospitalizations, and a similar number of new arrests compared with nondivertees. Additionally, a study on clients from one mental health court found reductions in the number of arrests and increases in the number of treatment services used, but no change in mental health symptoms over the course of court participation.

Studies have also shown that there are individual characteristics that influence whether diversion is successful. That is, diversion is not a "cure-all" that works equally well for every participant. The exact characteristics (such as gender, criminal charges, diagnosis) that lend themselves toward success are still being explored. Major research studies of all forms of diversion programs are now underway.

Future of Diversion Programs

In the years to come, diversion programs are likely to continue to proliferate. President George W. Bush's New Freedom Commission on Mental Health recommended the wide adoption of these programs, and the federal government has provided millions of dollars in financial support to create new, and sustain existent, programs. The number of persons with serious mental illness involved in the criminal justice system is a significant and complex problem. Diversion can play an integral role in the solution to this problem.

Allison D. Redlich

See also Drug Courts; Mandated Community Treatment; Mental Health Courts; Police Interaction With Mentally Ill Individuals; Therapeutic Jurisprudence

Further Readings

Broner, N., Lattimore, P., Cowell, A. J., & Schlenger, W. E. (2004). Effects of diversion on adults with co-occurring substance abuse and mental illness: Outcomes from a national multi-site study. *Behavioral Sciences and the Law, 22,* 519–541.

Council of State Governments. (2002, June). *Criminal Justice/Mental Health Consensus Project.* New York: Author. Retrieved from http://consensusproject.org/the_report

Redlich, A. D., Steadman, H. J., Monahan, J., Petrila, J., & Griffin, P. (2005). The second generation of mental health courts. *Psychology, Public Policy, and Law, 11,* 527–538.

Reuland, M. (2005). *A guide to implementing police-based diversion programs for people with mental illness.* Delmar, NY: National GAINS Technical Assistance and Policy Analysis Center for Jail Diversion.

Steadman, H. J., Cocozza, J. J, & Veysey, B. M. (1999). Comparing outcomes for diverted and non-diverted jail detainees with mental illness. *Law and Human Behavior, 23,* 615–627.

Serial Killers

People are fascinated by violent crime, and serial murder may be the most fascinating crime of all. Books, newspapers, television shows, and movies recount the destructive paths of those who kill repeatedly. Many of these accounts leave the impression that serial killers are distinct from other types of criminals and from the public at large. However, current knowledge on serial killers is based almost exclusively on a small number of case studies and a handful of moderately sized archival investigations. Thus, our current level of knowledge on serial murder is, at best, sketchy, and this knowledge may not stand up to more rigorous empirical testing. This entry reviews the definition of serial killing, demographics of serial murder, results of research on serial killers and their motivations, and typologies that have been used to classify serial killers.

Definition

Serial murder is defined by three key elements: number, time, and motivation. Most murderers have only one victim; serial killers, by definition, have multiple victims. The minimum number of victims listed in various definitions of serial murder proposed in recent years range from 2 to 10, with a modal value of 3. The time element in serial murder is designed to distinguish serial killers from mass murderers and spree killers. Whereas mass murderers have multiple victims in a single episode and spree killers have multiple victims in several separate but related episodes, in neither case is there an emotional cooling off period between murders. In contrast, in serial murder, there is a cooling off period of several days, weeks, months, or years. Finally, to differentiate serial killers from professional hit men, political terrorists, and military combatants, most definitions of serial murder omit individuals who kill exclusively for financial, political, or military gain.

Demographics

Men are responsible for the vast majority of crimes committed worldwide. An even greater percentage of men engage in serial murder. The ratio of male to female criminals, including those who commit single-incident homicides, is 9:1; the ratio of males to females who commit serial murder is somewhere in the neighborhood of 19:1. Although rare, female serial killers do exist and are more likely to work in pairs than male serial killers. In the United States, as many Blacks as Whites commit single-incident murder; the ratio of White to Black serial killers, on the other hand, is 5:1, which is roughly comparable with each group's representation in the general population. Single-incident murders are normally committed by individuals in their early to mid-20s, while the initial murder in a series is normally committed by an individual in his or her late 20s to early 30s.

The victims of serial murder are just as likely to differ from the victims of single-incident homicide as the perpetrators of serial murder differ from the perpetrators of single-incident homicide. Young adults are the most common targets of serial murder, but victims could be anywhere from their early childhood to late adulthood. Some serial killers prefer male victims, others prefer female victims, and still others have no gender preference. According to recent estimates, females are more likely to be victimized by a serial killer than males, a pattern that runs counter to what has traditionally been observed in single-incident homicide, where male victims predominate. There are also single-serial differences in the victim-perpetrator relationship. Whereas the victims of single-incident murder are often family members, friends, and acquaintances, the victims of serial murder are nearly always strangers.

Research on Serial Murder

The research that has been conducted on serial murder has been largely descriptive in nature. Most serial killers work alone, although in 10% to 37% of cases serial killers work in pairs. When serial killers operate as a pair, one member ordinarily assumes the dominant role while the other member assumes the submissive role. Serial killers generally select their victims, and the victims they find most appealing are those that seem preoccupied, distracted, or vulnerable and those whose disappearance would be least likely to be noticed. Hence, single women, transients, runaway teenagers, and prostitutes are prime targets for serial murder. With respect to the method of murder, serial killers prefer to strangle, stab, or beat their victims rather than shoot them (the staple of single-incident murder). It has been speculated that "hands-on" murder techniques such as strangulation, stabbing, and beating offer the serial killer greater personal control over the victim than killing from a distance. Once the crime has been committed, the serial killer is more likely than the single-incident killer to try and deceive law enforcement by burying the body, moving the body to another location, or altering the crime scene.

There is no single psychological or personality profile that all serial killers fit, but there are certain characteristics that have been observed on a fairly regular basis in serial killers. First, serial killers are more likely to have a history of criminal involvement, often in the form of petty criminality, than a history of psychiatric treatment. Second, some serial killers exhibit tell-tale signs of a psychopathic personality. In several small-scale studies, approximately half the serial killers satisfied criteria for psychopathy as measured by Hare's Psychopathy Checklist. This may explain why some serial killers are adept at disarming their victims without coercion and avoiding apprehension for an average of 4 to 5 years. Third, many serial killers have a rich fantasy life capable of fueling their appetite for murder, with or without the aid of additional facilitative conditions such as pornography and alcohol or drugs. Objects the serial killer collects from the crime scene or takes from the victim, commonly called trophies, not only help the killer relive the murder but can also trigger future killings. Several studies indicate that it is not unusual for an individual to entertain murder fantasies for several years before acting on them.

Motivation of Serial Killers

Research on the motivation behind serial homicide is complicated by the fact that motivation is often used to define serial murder and distinguish it from other categories of multiple murder (i.e., political terrorism, organized crime, military combat). It has traditionally been assumed that serial murder is driven by sexual motives, and in more than half of the serial killers interviewed, a clear sexual motive has been identified. Furthermore, in comparison with the emotional and social issues that frequently motivate single-incident homicide, serial

homicide is more often motivated by sexual fantasies and desires. Having said this, the relationship between serial murder and sexual motivation may be an artifact of how serial murder is defined. Future researchers must consequently avoid confounding the criteria used to define serial murder (i.e., motivation) with the presumed motivation for serial murder by defining serial murder using variables other than sexual motivation.

Whether sexual motivation is an artifact of how serial murder is defined, nearly half of the serial killers who have been interviewed deny that there was a strong sexual component to their crimes. A small portion (4–5%) of serial murders appear to be motivated by psychosis, and slightly more are motivated by a strong profit motive. Revenge, on the other hand, may be a more powerful motive for serial murder than either psychosis or profit. There is preliminary evidence, for instance, that some serial killers target victims who display characteristics symbolic of a group or person they despise. Ted Bundy targeted young women with long dark hair parted down the middle because these were prominent features of a woman who had spurned him years earlier. John Wayne Gacy preyed on young males as a way, perhaps, of venting hatred toward his own homosexuality. An even stronger motive for serial murder is the power a person can derive from taking control of another person's life. Forcing a stranger to submit to their every demand and then killing the person with their bare hands, a knife, or a piece of rope can be highly reinforcing to a serial killer.

Typologies

Several typologies have been advanced in an effort to classify serial killers into discrete categories. One of the more popular typologies, the organized/disorganized typology, was developed at the FBI's Behavioral Science Unit in Quantico, Virginia. The organized serial killer is said to be of average to above-average intelligence, with good social skills, and a reasonably stable employment history. The murders enacted by an organized serial killer are usually well planned and typically involve the use of a weapon. Such individuals are said to leave an organized crime scene. A disorganized serial killer, on the other hand, possesses below average intelligence, weak impulse control, and poor social skills, leading to an unplanned attack that often results in a disorganized crime scene. The organized/disorganized typology was developed and validated on a group of 36 serial killers and other offenders who volunteered to be interviewed by the FBI. Recent empirical research has failed to support the organized/disorganized dichotomy, showing instead that most serial killers are organized and that they vary along a continuum of increased organization rather than splitting off into two groups.

Another popular typology of serial murder was proposed by Holmes and DeBurger. This typology consists of four categories: (1) visionary type; (2) mission-oriented type; (3) hedonistic type, which is broken down further into the lust killer, the thrill killer, and the creature-comfort killer; and (4) power/control type. Separate descriptions and motives are listed for each category in the typology. For instance, the visionary type is alleged to be motivated by delusions and hallucinations, is opportunistic in selecting victims, and leaves a messy crime scene, whereas the hedonistic type is motivated by personal enjoyment, pleasure, or gain, carefully selects victims based on predetermined criteria, and generally leaves a tidy crime scene. The problem with the Holmes and DeBurger typology is that because the four types are so poorly defined and the boundaries that separate them so indistinct, there is a high degree of overlap between types—a fatal flaw in any typology. Furthermore, there is no empirical support for the typology either as an effective shorthand in describing serial homicide or as a mechanism for predicting future behavior.

Future Research

Serial murder is a rare event, thereby making it difficult to research. At present, nearly all of what we know about serial murder is based on a few case studies conducted on individuals who agreed to be interviewed by law enforcement and a handful of archival studies using information gleaned from newspapers, police files, and court documents. Consequently, there is a need for more empirical research on serial murder. First, a generally accepted definition of serial murder must be found so that it can serve as the standard for future research on serial homicide. The use of divergent definitions of serial murder and confounding definitions with variables (e.g., motivation) have thus far hindered progress in the field. Second, theoretical models, such as Hickey's Trauma-Control Model, need to be created, tested, and refined. A good theory could reap tremendous benefits by advancing research and practice in the field. Third, alternatives to the traditional serial killer typologies need to be found. One such alternative is the

instrumental-affective dimensional approach in which instrumental and affective motives for serial murder are allowed to coexist. Finally, more research needs to be devoted to prediction—not just as a way of narrowing down the field of suspects in a series of seemingly related murders but also as a way of understanding the factors that lead to serial murder and how some of these features can be ameliorated, altered, or changed.

Glenn D. Walters

See also Profiling; Psychopathy

Further Readings

Beasley, J. O. (2004). Serial murder in America: Case studies of seven offenders. *Behavioral Sciences and the Law, 22,* 395–414.

Canter, D. V., Alison, L. J., Alison, E., & Wentink, N. (2004). The organized/disorganized typology of serial murder: Myth or model? *Psychology, Policy, and Law, 10,* 293–320.

Hare, R. D. (2003). *The Psychopathy Checklist–Revised* (2nd ed.). Toronto, ON, Canada: Multi-Health Systems.

Hickey, E. W. (2002). *Serial murderers and their victims* (3rd ed.). Belmont, CA: Wadsworth.

Holmes, R. M., & DeBurger, J. (1988). *Serial murder.* Beverly Hills, CA: Sage.

Kraemer, G. W., Lord, W. D., & Heilbrun, K. (2004). Comparing single and serial homicide offenses. *Behavioral Sciences and the Law, 22,* 325–343.

Sex Offender Assessment

Although clinical psychological assessment is generally expected to be specific to particular interventions with demonstrated efficacy, there is insufficient empirical evidence on which to prescribe clinical assessment practice with sex offenders. The best strategy is to examine interventions that target personal and circumstantial characteristics empirically related to commission of sex offenses or to recidivism among sex offenders. The most reliable and robust empirical differences between sex offenders and other people pertain to sexual preferences. The best available assessments of the risk of recidivism are provided by actuarial systems that include indicators of deviant sexual preferences and of persistent antisociality across the life course. The Hare Psychopathy Checklist is the best available measure of such antisociality. Equivocal evidence supports the use of some assessments of specific attitudes and symptoms. This entry discusses the psychological assessment of men who have sexually assaulted women and children; much of the discussion also applies to assessment of adolescent male sex offenders.

Forensic Psychological Practice With Sex Offenders

At the time of this writing (early 2007), crucial lacunae affect clinical practice with sex offenders. Despite several decades of research, there are no generally accepted scientific explanations for sex offending. There is also no empirically conclusive evidence about what specific interventions, if any, reduce the likelihood of subsequent offending among sex offenders. Regarding psychological treatment, the most authoritative and comprehensive meta-analysis concluded in 2002 that the available evidence *suggested* that some psychological therapies were effective, but a firm conclusion could not be drawn. A glaring problem highlighted by meta-analyses is the absence of useful data pertaining to which specific changes in psychological or clinical constructs induced by therapy were responsible for reductions in recidivism (if indeed any had occurred). The intervening 5 years has seen no improvement. Most of the experts' efforts over the past several years appear to have been devoted to debating, with no evident resolution, whether existing evidence convincingly demonstrated treatment effects. Although novel therapies were recommended and tried, no new effects of sex offender treatment were demonstrated. Consequently, forensic psychologists planning interventions are not in a strong empirical position to know what clinical constructs ought to be assessed for sex offenders. The most appropriate course for psychologists in such circumstances is to implement interventions that specifically target those ostensibly changeable characteristics that distinguish men who commit sex offenses from those who do not or that distinguish those sex offenders who recidivate from those who do not. The intensity of intervention (including supervision and, in the very highest risk cases, incapacitation) should be related to the measured risk of recidivism. Assessment would generally then give greatest priority to assessing this risk of recidivism and the measurement of those constructs selected for intervention.

Some historical and sociodemographic variables are clearly related to offenders' status as sex offenders or to sex offenders' risk of recidivism but will mostly be

addressed in the later section on risk assessment because their unchangeable nature means they are unlikely to form the basis of clinical psychological intervention (e.g., past sex offending history, past history of other criminal conduct, having experienced abuse, neglect, or abandonment as a child, etc.). Similarly, recent research has strongly suggested that various neurophysiological and neuroanatomical measures are related to sexual offending against children, but again, it would currently be unclear what could be done about such problems in clinical intervention, and therefore, they would be expected to have lower priority in typical clinical assessment with sex offenders. Conversely, other psychological constructs, especially intellectual ability as one example, do not distinguish sex offenders and are very unlikely to be a target for intervention but would usually be assessed because they are probably relevant to program assignment and design. Acute symptoms of psychosis might be another rarer example in this category.

What are the psychological characteristics that distinguish sex offenders from other men or are related to recidivism among sex offenders? There is no doubt that the two most important domains are sexual preferences and life-course-persistent antisociality; these are discussed at greater length in the next two sections. Several other variables are clearly relevant, especially the age and sex of victims and the victim–offender relationship. Sex offenders who target males and adults represent greater than average risk, while those who have targeted only children in their own families represent lower than average risk. Thus, thorough investigation of such details pertaining to all victims, involving collateral sources is probably essential. Although not specific to sex offending, it is probable that assessment for substance abuse problems is relevant to clinical services with all sex offenders. Evidence supports efforts by forensic psychologists supervising sex offenders under conditional release to assess fluctuations in hostility, anger, and noncompliance, and to monitor (via direct observation and collateral reports) access to potential victims.

Much more equivocal evidence relates to the assessment of several other domains including attitudes, beliefs, and symptoms. In this category are assessments of specific justifications and excuses for sexually coercive behavior (e.g., endorsing the idea that victims deserve or enjoy being sexually assaulted) or attitudes supporting generally exploitative and selfish conduct. Similarly, lack of social competence and clinically significant depression have been reported to be relevant in some studies but disconfirmed by others. Polygraphy has been recommended as an adjunct assessment for sex offenders, but evidence to support its use is sparse and equivocal. Some clinical constructs can, on the basis of available evidence, be ruled out as worthwhile assessment concerns among sex offenders. Based on available evidence, self-esteem, anxiety, specific victim empathy, loneliness, denial, and insight would be difficult to support as targets for assessment and intervention among sex offenders. Novel theories about the causes of sex offending might imply new approaches to intervention that would, in turn, imply new ways of assessing these constructs or the measurement of psychological characteristics not yet entertained among sex offenders. Such novel interventions could be ethically attempted as a test of such novel explanations but only in the context of a rigorous outcome evaluation. Comprehensive discussions of the psychometric and other properties of the many formal assessment tools for these characteristics as well as advice about sources of information and interviewing tactics are provided in the recommended readings and related entries.

Assessment of Sexual Preferences

The only assessment shown to reliably distinguish sex offenders from other men (especially offenders without sex offenses) and also to predict recidivism among adjudicated sex offenders is phallometrically evaluated sexual preferences. Phallometry is the measurement of penile tumescence in response to controlled stimuli. Research clearly shows that, on average, men who have sexually assaulted prepubescent children exhibit relatively greater erectile responses to stimuli that sexually depict children (versus adult stimuli) compared with men without such sexual histories. Such "pedophilic" sexual test results are also related to the likelihood of recidivism among such sex offenders. Similarly, several meta-analyses have demonstrated that men who have committed coercive sexual assaults against women exhibit relatively greater erectile response to depictions of rape and violence (vs. depictions of consensual sex) compared with men without such sexual histories, and there is evidence that such test results are related to recidivism. Although the theoretical meaning of these robust and reliable relationships pertaining to sexual preferences has not been fully settled, it seems inescapable that the scientific explanation of sex offending will at least partly depend on them.

There are no fully standardized phallometric assessment packages, but several procedural, instrumentation, and interpretation issues have been worked out. Most important, validity is enhanced with relative measurement—for example, comparing each man's greatest mean response to a prepubescent child category with his response to his largest adult category or comparing his largest response to a violent category with his mean response to consenting sex. Responses to a single stimulus or category are much less informative. Validity is also improved by having multiple stimuli in each category, using ipsative scoring to remove between-subject variability in overall response magnitude, using stimuli in which the brutality of the deviant sexual behavior is emphasized, and including sexually neutral stimuli to aid in the detection of attempts at dissimulation. Validated stimuli include still pictures and aural stories; video materials have not been shown to be valid in forensic assessment. Other strategies to detect and foil faking have also been reported. Phallometry is probably more specific than sensitive—a deviant result is more informative than a nondeviant profile. There have been reports of low test-retest reliability for phallometric testing, but the well-established discriminate and predictive validity implies that test-retest is probably an inappropriate index of reliability for this form of assessment. Comprehensive discussions of the best ways to conduct phallometric measurement for research and clinical evaluation have been provided elsewhere (see the Further Readings and related entries).

Obviously, phallometric assessment requires specialized techniques and might not be suitable in all forensic practice with sex offenders. In nonclinical populations, self-reported sexual preferences can be valid, but self-report is unlikely to be trusted in most forensic work. There is evidence that a simple count of relevant characteristics of past sexual victims (a male victim, multiple child victims, a victim under the age of 12, and an unrelated victim) is closely related to pedophilic sexual preferences. Of course, by definition, such a measure, though a valid index of preferences, cannot detect changes in such interests. Also, there is no parallel index for sexual interest in coercive and violent sex directed toward adults.

Researchers have attempted a variety of other cognitive-behavioral techniques to detect deviant sexual interests. For example, a picture of a naked person in a man's most sexually preferred category causes maximal interference (compared with pictures from nonpreferred categories) in some speeded concurrent mental tasks. As another example, when men can control how long they look at pictures, covertly recorded viewing times have also been found to be related to sexual preferences—for example, heterosexual men spend the most time viewing pictures of adult women. Some of these latter measures are still in the development stages, while others have been marketed to forensic clinicians. However, the empirical basis to support their ability to detect sexual interest in children is scant in the context of forensic assessment, and there are no data to support their use to detect interest in the sexual coercion of adults or in the assessment of sex offenders' risk of recidivism.

Risk Assessment Among Sex Offenders

Many forensic psychologists take on the task of assessing the risk of recidivism represented by sex offenders. Much of this work occurs under the aegis of statutes mandating preventative detention for "sexually violent persons," "dangerous offenders," or "dangerous people with severe personality disorders" in various English-speaking jurisdictions. This form of assessment is frequently undertaken outside any other clinical responsibility to provide psychological interventions or services. In this context, the assessment of recidivism risk among sex offenders has been controversial, with some commentators saying that psychologists' participation is unethical. This condemnation has been partly based on the inaccurate assertion that sex offenders are generally very unlikely to recidivate. In fact, the best long-term data indicate that approximately 40% of adult male sex offenders released from secure custody will be apprehended for subsequent sexually violent crime. Most forensic psychologists would probably espouse the view that assessing the risk of sex offenders can be ethically conducted as long as psychologists' practice is in accord with the best available empirical evidence. In that regard, and in contrast with the scientifically less fruitful field of sex offender therapy, there has been clear recent progress in empirically based risk assessment among sex offenders.

This recent empirical progress has occurred in the context of a much larger literature on assessment, in general establishing (beyond any responsible debate) the superiority of actuarial assessment over informal, intuitive, subjective methods. The latter approach occurs when the assessor makes the decision about what information to select, combine, and process. In contrast, the

actuarial method eliminates human judgment about the selection of relevant assessment information and about how to combine that information—assessment results depend only on empirically measured relationships between data and the outcome of interest. Several well-validated and replicated actuarial assessments have been developed for use among adjudicated adult sex offenders—men in custody for sexual assaults against women or children. Consequently, psychologists could not defend failing to use such a tool in assessing the risk of recidivism for such sex offenders.

A few psychologists have claimed that instructing clinicians to insert an idiosyncratically determined amount of unaided clinical intuition at the end of the assessment process confers an advantage in predictive accuracy, and they have promulgated nonactuarial schemes for doing so with sex offenders. This promulgation was accompanied by no evidence in support of these claims. The few studies that have since examined these claims among sex offenders show little evidence overall of an improvement due to the addition of unaided clinical intuition, which rather appears to worsen assessment reliability when applied to offenders in general. Because of the overwhelming evidence against the use of unaided clinical intuition in general and the ready availability of actuarial systems for sex offenders, use of such schemes could not be recommended. It should be noted that no actuarial systems have been developed specifically for juvenile sex offenders. However, some of the samples on which the existing actuarial assessments are based included sex offenders who were adolescents at the time of their referral offenses, even though they were adults when followed up. Structured schemes for juvenile sex offenders have been published with some evidence of predictive accuracy.

The available actuarial assessments for sex offender recidivism are moderately to highly intercorrelated, meaning that they do not rank order sex offenders identically. Some of this apparent disagreement is due to differences in the operational definition of recidivism. That is, some researchers have designed actuarial systems to predict only those recidivistic sex offenses labeled as such on police rap sheets. This research strategy is known to miss some officially detected sex offenses, especially the most serious ones (i.e., those involving homicide). It is clear, nevertheless, that the predictive accuracy of all these actuarial systems derives principally from two domains. The first of these was discussed earlier—deviant sexual preferences assessed phallometrically or as indicated by aspects of sex offenders' offending history (prior sex offenses, multiple sexual victim categories, unrelated and stranger victims, clinical evidence of other paraphilias, etc.).

The second and even more powerfully predictive domain is life-course-persistent antisociality. The best single measure of this for forensic practice is the Hare Psychopathy Checklist (PCL–R), which is an item in some of the available actuarial systems for sex offenders. Other characteristics (some of which are also evaluated in the PCL–R) indicative of this crucial forensic risk assessment construct are a history of criminal and violent offending; parents' criminality and substance abuse; early age of onset for sexually aggressive, violent, and criminal conduct; aggression and antisocial behavior as a child; disrupted and disturbed family background; failure on prior conditional release; substance abuse; antisocial friends and associates; poor employment stability; hostile and selfish attitudes; quitting or being ejected from sex offender treatment; and meeting the diagnostic criteria for conduct disorder or antisocial personality disorder. Considerable clinical skill is required to assess some of these, but the manner of the assessment and the combination of individual measures should be determined entirely by an actuarial system. Note that these constructs are somewhat redundant, so that an optimal actuarial system need only capture some of them. Instructions on the scoring and interpretation of actuarial risk assessment systems for sex offenders are provided in the recommended readings or suggested related entries.

Conclusions

The sex offenders of greatest forensic concern are those men who sexually assault children and those who engage in sexually coercive offenses against women. There is no accepted scientific explanation of these criminal behaviors and no useful data on specifically what personal or circumstantial changes caused by intervention affect the likelihood of such behavior. As a result, forensic clinicians can rely on very little empirical data to guide assessment when designing treatment. Nevertheless, sufficient evidence exists to show that greatest priority in clinical assessment should be given to comprehensive information on the age, sex, and relationship to all victims; substance abuse; access to potential victims; deviant sexual preferences; and various measures indicative of life-course-persistent antisociality (especially the Hare PCL–R). Available actuarial

systems are the most appropriate way to select and combine individual assessment findings to make decisions about sex offenders' risk of recidivism.

Grant T. Harris and Marnie E. Rice

See also Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); Pedophilia; Psychopathy; Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Sex Offender Risk Appraisal Guide (SORAG); STATIC–99 and STATIC–2002 Instruments; Violence Risk Appraisal Guide (VRAG)

Further Readings

Harris, G. T., & Rice, M. E. (1996). The science in phallometric testing of male sexual interest. *Current Directions in Psychological Science, 5,* 156–160.

Harris, G. T., Rice, M. E., Quinsey, V. L., Chaplin, T. C., & Earls, C. (1992). Maximizing the discriminant validity of phallometric assessment. *Psychological Assessment, 4,* 502–511.

Lalumière, M. L., Harris, G. T., Quinsey, V. L., & Rice, M. E. (2005). *The causes of rape: Understanding individual differences in the male propensity for sexual aggression.* Washington, DC: American Psychological Association.

Prescott, D. S. (2004). Emerging strategies for risk assessment of sexually abusive youth: Theory, controversy, and practice. *Journal of Child Sexual Abuse, 13,* 83–105.

Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (2006). *Violent offenders: Appraising and managing risk* (2nd ed.). Washington, DC: American Psychological Association.

Quinsey, V. L., & Lalumière, M. (2001). *Assessment of sexual offenders against children* (2nd ed.). Thousand Oaks, CA: Sage.

Rice, M. E., Harris, G. T., Lang, C., & Cormier, C. A. (2006). Violent sex offenses: How are they best measured from official records? *Law and Human Behavior, 30,* 525–541.

Sex Offender Civil Commitment

During the past 15 years, sex offender civil commitment laws have emerged that require some dangerous sex offenders to receive involuntary treatment in a secure facility after their criminal incarceration. Following an assessment of risk, sex offenders who are considered likely to re-offend are entitled to a trial with a judge or jury, where evidence of their dangerousness is presented. If they are found to meet statutory criteria for civil commitment, they are detained, with yearly evaluations, until they are considered no longer dangerous to the community. Sexually violent predator (SVP) statutes seek to prevent the recurrence of sexual victimization by incapacitating potentially violent and dangerous sexual offenders. Though it is well established that a proportion of sex offenders are dangerous and likely to re-offend, the effectiveness of civil commitment in preventing re-offense has yet to be empirically determined.

Background

The first of these new SVP commitment laws was passed in Washington state in 1990 after a convicted sex offender who was recently released from prison abducted and brutally sodomized a 7-year-old boy. Washington's Community Protection Act of 1990 increased penalties for sex crimes and created stricter supervision for sexual offenders. It also contained the "Sexually Violent Predator Statute," the nation's first law allowing for the civil commitment of SVPs following their criminal incarceration.

Currently, 17 states have passed sex offender civil commitment statutes (Arizona, California, Florida, Illinois, Iowa, Kansas, Massachusetts, Minnesota, Missouri, New Jersey, North Dakota, Pennsylvania, South Carolina, Texas, Virginia, Washington, and Wisconsin). Texas allows outpatient commitment only, where offenders are treated in an intensely supervised program in the community, and Pennsylvania allows commitment only for juvenile sex offenders who are likely to go on to commit sex crimes as adults.

Sex Offender Civil Commitment Criteria

The constitutionality of sex offender civil commitment was upheld by the U.S. Supreme Court in the 1997 ruling in *Kansas v. Hendricks.* The Court ruled that states must require that a sex offender exhibit both a mental abnormality and a likelihood to re-offend in order to be committed. A second Supreme Court ruling, in the 2002 case of *Kansas v. Crane,* established that some degree of inability for a sex offender to control his or her behavior must also exist. This concept is called "volitional impairment" and implies "difficulty if not impossibility" in controlling one's behavior.

To meet criteria to be civilly committed, a convicted sex offender must display (a) a mental abnormality or personality disorder predisposing him to commit sexually violent offenses and (b) a likelihood of future sexual violence. The mental abnormality is generally

diagnosed as a disorder listed in the *Diagnostic and Statistical Manual of Mental Disorders,* fourth edition, text revision (*DSM-IV-TR*). Because the disorder must "predispose" the offender to sexually re-offend, sex offenders who meet criteria typically display a paraphilia (e.g., pedophilia) or personality disorder (e.g., antisocial personality). The likelihood of future sexual violence is usually determined through the use of actuarial risk assessment instruments, which estimate the probability of re-offense by using a formula incorporating risk factors statistically associated with recidivism. The most commonly used instrument for this purpose is the STATIC–99.

Determination of whether a sex offender meets criteria for civil commitment is a multistep process. In most states, the first step is a record review of sex offenders due to be released from prison. The screening identifies inmates who display a multitude of risk factors for sexual re-offense. These individuals are then referred for a more thorough face-to-face evaluation and risk assessment by a psychologist or psychiatrist. If the individual is found to meet the statutory criteria for commitment, a trial is held in which the state and the offender present evidence that is heard by a judge or a jury. Most states use a legal threshold of "more likely than not" to quantify re-offense risk. If found by the trier of fact to be an SVP, the individual is confined indefinitely for treatment in a secure facility, usually with yearly evaluations, until his risk to re-offend has diminished sufficiently to be returned to the community.

States differ somewhat in their implementation of sex offender civil commitment criteria. For instance, California requires that individuals evaluated for commitment have two or more sex crime arrests, while Florida allows commitment proceedings for any offender with a past conviction for a sexual crime—even if the sexual crime is not the offense for which the inmate is currently incarcerated. Other states, such as Illinois, Pennsylvania, Washington, and Wisconsin, allow juveniles to be considered for commitment. New Jersey requires a "pattern of repetitive, compulsive behavior" and Minnesota requires a "psychopathic personality," while other states require a history of "predatory behavior." Though the vast majority of civilly committed sex offenders are male, most states allow females to be considered for commitment.

Nationally, it is estimated that approximately 5% to 12% of sex offender inmates are referred for civil commitment proceedings. Child molesters account for the majority of individuals committed under SVP statutes (approximately 51% to 76%), with the remainder being rapists. Most state laws appear to exclude from their definitions those offenders who have had only incestuous victims or those who have not had physical contact with a victim (e.g., exhibitionists).

Mad or Bad?

The goals of sex offender civil commitment statutes have sparked controversy and debate among mental health professionals and legal scholars. Although the civil commitment of SVPs implies rehabilitation, some argue that punishment, isolation, and incapacitation are its primary purposes. Others question whether sex offender civil commitment criteria conform to the traditional concept of mental illness as established by courts to justify psychiatric civil commitment. The "mad or bad?" debate argues that if sex offenders are truly mentally ill, they should have qualified for an insanity defense or traditional psychiatric commitment in lieu of criminal sentencing. If sex offenders are responsible moral agents and were, therefore, appropriately tried and punished through the criminal justice system, then culpability and mental or volitional impairment should be mutually exclusive.

Jill S. Levenson

See also Sex Offender Assessment; Sex Offender Recidivism; Sex Offender Treatment; Sex Offender Typologies

Further Readings

Kansas v. Crane, 534 U.S. 407 (2002).

Kansas v. Hendricks, 521 U.S. 346 (1997).

Levenson, J. S. (2004). Sexual predator civil commitment: A comparison of selected and released offenders. *International Journal of Offender Therapy and Comparative Criminology, 48*(6), 638–648.

Levenson, J. S., & Morin, J. W. (2006). Factors predicting selection of sexual offenders for civil commitment. *International Journal of Offender Therapy and Comparative Criminology, 50*(6), 609–629.

Sex Offender Community Notification (Megan's Laws)

Sexual assault is a serious social problem of great concern. The U.S. Department of Health and Human Services estimates that approximately 100,000 cases

of child sexual abuse are substantiated each year. In addition, according to the 2005 National Crime Victimization survey, there were nearly 192,000 victims of rape, attempted rape, or sexual assault. In an effort to prevent sex crimes, community notification laws (also known as Megan's Laws) allow information about convicted sex offenders to be disseminated to the public. Distribution of this information occurs through various means, including Internet registries, community meetings, media announcements, and distribution of flyers. The goal of community notification is to prevent sexual assault by warning potential victims that a convicted sex offender lives in the vicinity. Thus far, research has been limited in demonstrating the effectiveness of community notification in preventing sex crimes, in general, or sex offense recidivism more specifically. There is research to suggest that the collateral consequences of notification interfere with community reintegration for many sex offenders.

History and Development of Notification Laws

The Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act was passed by the U.S. Congress in 1994. This federal statute mandated that all 50 states pass laws requiring sex offenders to report their addresses to local law enforcement agencies. The police are required to maintain a registry of convicted sex offenders' current whereabouts. The law was named for an 11-year-old Minnesota boy who was abducted and remains missing to this day. The purpose of sex offender registration is to assist law enforcement agencies to track where sex offenders are located and to aid in the investigation of sex crimes by identifying a potential pool of suspects.

In 1996, the Wetterling Act was amended by adding a provision allowing states to distribute sex offender registry information to the public. This amendment is often referred to as Megan's Law, and was named for a 7-year-old New Jersey child who was murdered by a previously convicted sex offender. The purpose of community notification is to provide information about sex offenders living in the community so that parents and other concerned citizens can take steps to protect themselves.

About half of the states classify sex offenders according to risk levels and use more aggressive notification to warn of sex offenders who are assessed to pose the greatest threat to public safety. Other states use broad community notification, publishing information about all sex offenders without an assessment of risk. Community notification methods vary in each state, but media releases, door-to-door warnings, flyers, community meetings, and Internet access are the most common strategies.

The Wetterling Act was again modified under the PROTECT amendment in 2003 to require states to post information about convicted sex offenders on public Internet registries. The Adam Walsh Act, passed in July 2006, increased the amount of information that can be disclosed on public registries, created more stringent registration requirements for offenders, and provided further guidelines for the development and activation of a national sex offender registry by which information from various states can by integrated into one database.

Sex offender registration and community notification initially began as distinct social policies with different goals. Registration was intended to be a tool to assist law enforcement agents to track sexual criminals and apprehend potential suspects. The purpose of notification was to increase public awareness and provide communities with information to help them avoid contact with sex offenders and thus prevent victimization. Over the past decade, however, Internet-based registries have led registration and notification to become nearly interchangeable.

The constitutionality of community notification statutes has been challenged. In 2003, the U.S. Supreme Court ruled that a Connecticut statute was constitutional, allowing sex offenders to be placed on an Internet registry without first holding a hearing to determine their danger to the community. In an Alaska case, the U.S. Supreme Court ruled that registration and notification of sex offenders whose crimes were committed prior to the passage of the laws did not constitute ex post facto punishment.

Effectiveness of Community Notification

Community notification is a very popular social policy. However, little research has investigated the success of registration and community notification in reducing sex crime rates or preventing recidivism. One of the first studies of community notification was conducted by the Washington State Institute for Public Policy in 1995. No significant differences were found in the rearrest rates of high-risk sex offenders who were subject to community notification and those who were not. In Iowa, no significant differences were found in the

reconviction rates of registered and unregistered sex offenders. About 3% of registered sex offenders were convicted of a new sex crime after 4 years, compared with the 3.5% recidivism rate of unregistered sex offenders. In Wisconsin, it was found that high-risk sex offenders exposed to aggressive community notification actually had higher rates of recidivism (19%) than those about whom little information was publicly disclosed (12%). A multistate study examining the effect of registration and notification laws in 10 states found no systematic reduction in sex crime rates after registration and notification laws were passed. A more recent study conducted in Washington state did find substantial reductions in sex offense recidivism. However, it is unclear whether the changes can be directly attributed to notification or whether they are a result of more stringent sentencing and probation policies.

Unintended Consequences of Community Notification

Community notification laws have been criticized as creating unforeseen negative consequences for victims, communities, and offenders. For instance, victims may be discouraged from reporting sexual abuse, especially if the perpetrator is a family member, because of the potential for the crime to be publicly disclosed. Broad notification that disseminates information about all sex offenders regardless of risk may dilute the community's ability to determine who is truly dangerous if all offenders are similarly publicized. Finally, the high costs of community notification may take away funding from victims' treatment, protective services, and foster care programs.

A small but growing body of research has begun to investigate the experiences of sex offenders and the impact of notification on their community reintegration. Research in several states has found that community notification often leads to harassment, vigilantism, and migration for sex offenders. Sex offenders report that public disclosure interferes with their ability to secure housing and employment. Some scholars have speculated that public registries may not be advantageous to a goal of preventing recidivism, because they create obstacles to successful community reentry by limiting education and employment opportunities and by creating social environments marked by shame, loneliness, instability, and psychosocial stress.

The practical, legal, and social consequences of crime may be more severe for sex offenders than for other criminals. Obstacles such as maintaining housing and employment, social stigma, a sense of vulnerability, and relationship problems are recognized as factors that can facilitate recidivism. Criminological research has indicated that employment, positive social bonds, and stability increase the likelihood of successful reintegration for criminal offenders. Social policies that ostracize and disrupt the stability of sex offenders may increase their risk and, therefore, may not be in the best interests of public safety. States that assess risk and reserve more aggressive notification for high-risk offenders may minimize potential unintended negative consequences for lower-risk offenders, with little probability of compromising community safety.

Although each state prohibits harassment or violence toward registered sex offenders, community notification has been known to lead to vigilantism. Though extreme vigilante violence appears to be relatively rare, cases of arson, shootings, hangings, and severe property damage have been documented. Murders of registered sex offenders by vigilantes have occurred in Maine, Washington, and New Hampshire. A survey of sex offenders in Florida found that one third reported being threatened or harassed, 21% suffered property damage, and 5% said they had been physically assaulted or injured. In Kentucky, 16% of male sex offenders and 15% of female sex offenders said that they had been physically attacked. In Indiana and Connecticut, about 20% of sex offenders reported that they had experienced harassment, threats, or property damage, and 10% had been assaulted.

The accuracy of Internet registries has been criticized by the media. The validity of registries can affect their ability to protect the public. In 2003, the *Boston Herald* reported that the whereabouts of 49% of registered sex offenders in Massachusetts were unknown. Research regarding the accuracy of Kentucky's sex offender registry revealed that about one quarter of registered addresses might be incorrect. Newspapers in Florida reported that nearly half of the sex offenders on the state's Internet registry were incarcerated, dead, or missing.

Recidivism, Risk Assessment, and Community Notification Practices

Community notification is a very popular social policy, largely because of the belief that sex offenders have alarmingly high recidivism rates. In actuality, sex offense recidivism is lower than commonly believed. Studies by the U.S. Department of Justice and the Canadian governments suggest that 5% to 14% of sex

offenders are re-arrested for new sex crimes within a 3- to 6-year follow-up period. Longer follow-up studies have found that after 15 years, the vast majority (about three quarters) of convicted sex offenders had *not* been re-arrested for a new sex crime. All these studies involved very large sample sizes ranging from about 4,700 to 29,000 subjects.

There is also a widespread belief that sex offenders do not respond to psychological therapies. Early studies were unable to demonstrate that treatment reduced recidivism. However, more recent research indicates that contemporary cognitive-behavioral sex offender treatment can reduce recidivism by about 40%. A more recent meta-analysis found that 10% of sex offenders who received treatment were re-arrested for new sex crimes, while 17% of untreated sex offenders re-offended. This was a statistically significant difference. A recent experimental design was unable to detect general differences in recidivism between treated and untreated groups but did find that those sex offenders who successfully completed the treatment goals were re-arrested at significantly lower rates than those who did not.

Though most sex offenders do not re-offend sexually over time, and many do not meet the criteria for a paraphilia disorder as defined by the *Diagnostic and Statistical Manual of Mental Disorders,* fourth edition (*DSM-IV*), some subgroups of sex offenders are dangerous and likely to re-offend. Research consistently suggests that pedophiles who molest boys are at highest risk to re-offend and have the largest number of victims. Rapists of adult women are also among those sex offenders most likely to re-offend, and they are also more likely than other types of sex offenders to use weapons and physically injure their victims. Incestuous offenders consistently have the lowest recidivism rates. At the same time, research has found that many sex offenders have committed more sex crimes than those for which they have been arrested. So, official recidivism rates are likely to underestimate true offense rates. Also, some sex offenders abuse multiple types of victims (i.e., adults and children, or both boys and girls), and official documents may not fully reflect an offender's patterns and risk factors.

Those challenges notwithstanding, great progress has been made in the ability to assess risk for future sexual violence and estimate the likelihood that a sex offender will commit a new sex crime in the future. Researchers have identified factors statistically associated with recidivism and have combined those factors into risk assessment instruments. In general, the more risk factors a person displays, the more likely he or she is to re-offend. Risk factors most highly correlated with sex offense recidivism include sexual attraction to children, sexual deviance in general, previous arrests and charges for both sexual and nonsexual offenses, male victims, extrafamilial victims, stranger victims, variety of offending behavior, intimacy deficits, noncontact offenses, and age under 25.

Some states use this knowledge of risk factors to assess the likelihood of recidivism and classify sex offenders into categories (i.e., high, low, and moderate risk) for community notification purposes. States that use risk assessment often provide a different amount of information to the public depending on the danger an offender poses to the community. For example, high-risk offenders (for instance, a child molester who victimized multiple prepubescent boys in a cub scout troop) might have their address, photo, and information about their crimes displayed on a public Internet registry, while lower-risk offenders might be subjected to less aggressive community notification. Using risk classification systems benefits states in several ways. They are a more efficient use of resources because more aggressive notification procedures are reserved only for higher-risk individuals. They also allow the public to better identify who poses the most severe threat to women and children in the community. Broad notification policies, on the other hand, weaken citizens' ability to tell who is truly dangerous, use vast resources to warn communities about sex offenders who may pose very little risk, and can interfere with successful community reentry.

Recent federal policies (i.e., the 2006 Adam Walsh Act) have enhanced registration and notification requirements, so it is likely that community notification will become more inclusive. There is a need for continued research to investigate the effectiveness of community notification in preventing sexual assault.

Jill S. Levenson

See also Child Sexual Abuse; Sex Offender Assessment; Sex Offender Recidivism; Sex Offender Treatment; Sex Offender Typologies

Further Readings

Hanson, R. K., & Morton-Bourgon, K. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology, 73*(6), 1154–1163.

Levenson, J. S., & D'Amora, D. (2007). Social policies designed to prevent sexual violence: The emperor's new clothes? *Criminal Justice Policy Review, 18,* 168–199.

Levenson, J. S., & Cotter, L. P. (2005). The effect of Megan's Law on sex offender reintegration. *Journal of Contemporary Criminal Justice, 21*(1), 49–66.

Sample, L. L., & Bray, T. M. (2003). Are sex offenders dangerous? *Criminology and Public Policy, 3*(1), 59–82.

Zevitz, R. G. (2006). Sex offender community notification: Its role in recidivism and offender reintegration. *Criminal Justice Studies, 19*(2), 193–208.

Sex Offender Needs Assessment Rating (SONAR)

Now primarily of historical interest, the Sex Offender Needs Assessment Rating (SONAR) was the first focused attempt to assess change in sexual offenders based on dynamic risk factors. Dynamic risk factors are personal skill deficits, predilections, and learned behaviors correlated with sexual recidivism that can be changed through a process of "effortful intervention" (i.e., treatment or supervision). It was theorized that if such intervention reduced these risk-relevant factors, there would be a concomitant reduction in the likelihood that the offender would recidivate with another sexual crime. The SONAR demonstrated adequate internal consistency and a moderate ability to differentiate sexual recidivists from nonrecidivists (r = .43; ROC [receiver operating characteristic] area of .74).

As the 1990s drew to a close, the profession was making ever increasing use of actuarial risk assessments for sexual and violent offenders. The debate about the utility of such measures and their ability to reliably rank offenders according to risk of re-offense had, for the most part, been decided in favor of actuarial assessment. General acceptance of actuarial assessment grew as a number of tools (Violence Risk Appraisal Guide [VRAG], Sex Offender Risk Appraisal Guide [SORAG], Rapid Risk Assessment for Sexual Offense Recidivism [RRASOR], Minnesota Sex Offender Screening Tool–Revised [MnSOST–R], STATIC–99) gained acceptance in the courts and were used in most jurisdictions. However, those assessing risk in actual sexual offenders had no reliable technology for assessing change in risk status subsequent to treatment or other intervention. Actuarial measures, listed above, are based almost totally on the assessment of historical, nonchangeable (static) factors that are insensitive to clinical change. There had been previous attempts to measure dynamic or "changeable" factors, most notably in Don Andrews and Jim Bonta's LSI–R; but prior to SONAR, there were no focused attempts to delineate changeable risk factors for individual types of crimes such as sexual crimes or violent crimes.

Using a group of 409 sexual offenders on community supervision, the SONAR authors assessed by both file review and interview of the supervising community parole or probation officer the antecedents of sexual recidivism in a group of Canadian sexual offenders from nine Canadian provinces. Half of these sexual offenders had sexually recidivated while on community supervision, and half had not sexually recidivated while on community supervision. The sample was also roughly divided into equal numbers of incest offenders, child molesters, and rapists. Offenders were matched on offense history, type of index victim, and jurisdiction; nonrecidivists had an average of 24 months of supervision in the community, while recidivists had, on the whole, re-offended within 15 months. The interview and the file review sought data on 128 individual items from within 22 risk-relevant domains.

Comparison of these two groups of sexual offenders on this number of risk-relevant factors revealed a subset of those factors that were seen to change for the worse in the recidivistic group during the period of community supervision. Often, deterioration in the assessed areas of functioning preceded a sexual re-offense. These factors were divisible into two categories, each of which had an attending temporal association. Labeled *Stable* factors, the following five risk-relevant factors—intimacy deficits, social influences, antisocial attitudes, sexual self-regulation, and general self-regulation—seemed to be amenable to clinical intervention or treatment but on an intermediate term. These behavioral influences were seen as more "stable" in the personality and requiring sustained effort to change. The other four factors seemed to change on a much faster basis and to be a reaction to rapidly changing environmental stresses, conditions, or events. Labeled *Acute* risk factors, substance abuse, negative mood, anger/hostility, and opportunities for victim access were seen as transient conditions that would only last hours or days. As such, these factors were seen as more strongly related to predicting the arrival of imminent re-offense. Statistical analysis provided a scale, showing moderate predictive accuracy, that was able to assess ongoing changes in risk in sexual offenders.

An important limitation of the study flows from this data having been collected retrospectively, with everyone involved knowing, a priori, the recidivism/nonrecidivism status of the offender. In addition, the same sample was used both to develop the instrument and to test it. The potential for retrospective recall bias, the retrospective nature of the study, and the lack of cross-validation called urgently for a truly prospective study of dynamic risk factors in sexual offenders.

Karl Hanson and Andrew Harris responded to these shortcomings, splitting the SONAR into two parts, manualizing the assessment, and expanding on the first 5 items of the SONAR to form the STABLE–2000 and the final 4 items of the SONAR to form the ACUTE–2000. The STABLE–2000 and ACUTE–2000 were subsequently tested in a truly prospective study using more than 1,000 sexual offenders on community supervision. Both tests showed predictive ability above that available to static assessment alone. That study led to the development of two new tests with even better predictive validity: the STABLE–2007 and the ACUTE–2007. These two measures have demonstrated predictive validity beyond that available to static assessment alone and beyond that of the SONAR and the STABLE–2000/ACUTE–2000 packages. The authors do not support or recommend the use of the SONAR but recommend the STABLE–2007 and ACUTE–2007, both available from the authors, for assessing dynamic changes in risk in sexual offenders.

Andrew J. R. Harris

See also Minnesota Sex Offender Screening Tool–Revised (MnSOST–R); Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Risk Assessment Approaches; Sex Offender Risk Appraisal Guide (SORAG); STATIC–99 and STATIC–2002 Instruments; Violence Risk Appraisal Guide (VRAG)

Further Readings

Hanson, R. K., & Harris, A. J. R. (2001). A structured approach to evaluating change among sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 13*(2), 105–122.

Hanson, R. K., Harris, A. J. R., Scott, T.-L., & Helmus, L. (2007). *Assessing the risk of sexual offenders on community supervision: The Dynamic Supervision Project* (User report, Corrections research). Ottawa, ON, Canada: Public Safety Canada. Retrieved from http://www.ps-sp.gc.ca/res/cor/sum/cprs200709-en.asp

Sex Offender Recidivism

Sex offender recidivism refers to the commission of a subsequent offense by a sex offender on release. The base rates of sexual offending have been found to range anywhere from 4% to 71% across studies. Some research findings suggest that the risk of re-offending may differ according to the sex offender typology. Furthermore, there is some research that suggests that there are various static and dynamic risk variables that can increase the likelihood of re-offense. However, there has been a considerable amount of debate in the literature about how sex offender recidivism should be operationalized. These debates center on the definition of a subsequent re-offense, how to handle unreported crimes, and the duration of the follow-up period.

Sex Offender Recidivism

Although there have been numerous individual studies assessing recidivism rates of sex offenders, Hanson and his colleagues have conducted two seminal meta-analyses examining recidivism rates of sex offenders. In studying sex offender recidivism, meta-analyses are superior to individual studies as they can statistically combine results from several studies, thus increasing the generalizability of the findings.

Hanson and Bussière conducted a meta-analysis of 61 recidivism studies, which provided information on 28,972 sexual offenders. They found that, on average, the sexual recidivism rate was 13.4% after between 4 and 5 years. When they examined sexual recidivism by the type of sex offender, they found a recidivism rate of 18.9% for rapists and 12.7% for child molesters. When they examined recidivism rates for nonsexual violent recidivism, they found an overall recidivism rate of 12.2%, with child molesters re-offending at a rate of 9.9% and rapists at 22.1%. Finally, when they defined re-offending as any re-offense (sexual, violent nonsexual, or nonviolent nonsexual), Hanson and Bussière found an overall recidivism rate of 36.3%, with 36.9% for child molesters and 46.2% for rapists.

In 2005, Hanson and Bourgnon conducted another meta-analysis of 82 recidivism studies providing information on 29,450 sex offenders over an average of 5 to 6 years postrelease. This time they found an average sexual offense rate of 13.7%, a violent nonsexual re-offense rate of 14.3%, and a general (including sexual, violent nonsexual, or nonviolent nonsexual) re-offense rate of 36.2%.

Factors to Consider in Defining Sex Offender Recidivism

Factors such as the definition of recidivism, unreported sex crimes, and the length of follow-up can have an impact on the determination of recidivism rates.

The definition of what constitutes sexual recidivism is a hotly contested topic. While almost all researchers agree that recidivism should be defined as a subsequent offense, the nature of the re-offending has been contested. In some studies, recidivism is defined as a subsequent charge or arrest, while other studies specify that the subsequent charges or arrests must result in a conviction. Furthermore, some researchers argue that among sex offenders, recidivism should refer only to new sexually based crimes. However, other researchers define recidivism as any subsequent crime, regardless of its nature. Finally, some studies define recidivism as re-incarceration.

These differences in the operational definition of recidivism have serious implications when considering the prevalence of sex offender recidivism. For example, studies in which subsequent arrests were used as the criterion would result in higher recidivism rates because being arrested or charged with a crime does not always result in conviction. Operationalizing recidivism as subsequent re-incarceration makes the definition more narrow thus decreasing recidivism rates. However, some researchers would argue that sex offender recidivism should encompass reconviction only for sexually based crimes and not crimes that are nonsexual in nature. Finally, using subsequent re-incarceration as the criterion could also erroneously inflate recidivism statistics as many sex offenders have long periods of parole following the completion of their sentence, and they could be re-incarcerated for technical parole violations such as drinking alcohol or failing to meet with their parole officer. Therefore, it is very important when examining rates of sexual recidivism to determine how the researchers have operationalized recidivism.

Another issue to consider when examining rates of sexual recidivism is the number of sex crimes that go unreported or undetected. For example, it is estimated that only 32% (or 1 in 3) of sex crimes against individuals older than 12 are reported to the police. Polygraph studies of convicted sex offenders found that sex offenders had committed significantly more sexual offenses than they were charged or convicted of and that, on average, sex offenders had been committing crimes for 16 years before being caught. Furthermore, even if an offender is charged with a sex crime, it may be harder to prove, so they may plead to a lesser nonsex crime.

Finally, when conceptualizing sex offender recidivism, it is also important to examine the length of the follow-up period. While recidivism may be considered to be a lifelong occurrence, many studies use discrete periods of 5 or 10 years postrelease, while some studies have followed sex offenders for up to 25 years. However, the duration of postincarceration follow-up could also influence recidivism rates as it is inevitable that the longer the follow-up period, the more likely it is that a sex offender will re-offend.

Static and Dynamic Predictors of Sex Offender Recidivism

Factors predicting risk for recidivism among sex offenders can be separated into static and dynamic risk variables. Static risk variables are risk factors that are unchangeable, such as age or ethnicity, while dynamic risk variables are factors that are amenable to change with treatment, such as anger.

In their 1998 meta-analysis, Hanson and Bussière found several static variables that were related to sex offender recidivism. They categorized them into four broad domains encompassing criminal lifestyle, psychological maladjustment, sexual deviance, and treatment motivation. Of those general categories, they found that the strongest predictor of sexual recidivism was deviant sexual interest. Specifically, they found that offenders who had sexual interest in boys and those who had any other sort of deviant interest were more likely to re-offend sexually. Additionally, they found that offenders who were young (under the age of 25) and single (never having been in a long-term relationship) were more likely to re-offend. The risk for recidivism was also increased if the sex offender had a prior sexual offense, had victimized strangers, had an extrafamilial victim, started offending at an early age, had male victims, and had engaged in diverse sexual crimes. Finally, they found that offenders who had failed to complete treatment or those who were exhibitionists were more likely to have committed another sexual offense. These findings were used as the basis for the development of the STATIC–99, an actuarial risk assessment tool used to assess the risk for future sex offender recidivism.

In a subsequent meta-analysis of 82 recidivism studies, Hanson and Morton-Bourgnon found that sexual deviancy and antisocial orientation (composed of antisocial personality disorder, psychopathy, antisocial

traits, and a history of rule violation) were the best predictors of sexual recidivism.

Few studies have focused on dynamic factors related to recidivism. In their meta-analysis, Hanson and Morton-Bourgnon found several dynamic factors that were related to sexual recidivism, including sexual preoccupation and general self-regulation deficits. However, it should be noted that they found no relationship between factors that have been commonly assumed to be related to sexual re-offending and subsequent sexual recidivism, such as psychological distress, denial of sex crimes, victim empathy, and motivation for treatment.

Hanson and Harris conducted another study looking specifically at dynamic factors related to sexual recidivism. They examined sexual re-offending in a sample of 400 sex offenders for a period of 5 years following release. The researchers found that sex offenders who had committed new sex crimes were more likely to be unemployed, have substance use disorders, engage in deviant sexual activities, demonstrate low levels of remorse for the victim, and report a more chaotic and antisocial lifestyle than those who had not committed new sexual offenses.

Sex Offender Typologies and Recidivism

Some evidence suggests that the risk of sexual recidivism may differ by sex offender typology (category of sex offender). One study found that rates of sexual re-offense for incest offenders (those who offend against family members) ranged between 4% and 10%; rates of sexual recidivism for child molesters with female victims ranged between 10% and 29%; rates of sexual recidivism for child molesters with male victims ranged between 13% and 40%; rates of sexual recidivism for rapists ranged between 7% and 35%; and rates of sexual recidivism for exhibitionists (those who expose themselves in public) ranged between 41% and 71%.

Numerous studies have examined recidivism rates for rapists. Rates of sexual recidivism for rapists have ranged between 11% and 28% over 5 years. Researchers have postulated that these discrepancies in recidivism rates could be attributed to the fact that there are different types of rapists (such as those who are mentally disordered vs. those on probation) and the differential length of follow-up.

When studying recidivism rates among sex offenders who commit sexual offenses against children, researchers generally separate the sex offenders into three categories: (1) those who molest girls; (2) those who molest boys; and (3) those who molest family members (incest offenders). Generally, it has been found that child molesters who have same-sex victims are at risk of higher rates of re-offending than those who offend against children of a different sex. A study of mentally disordered child molesters who offended against boys found a recidivism rate of 30% over 5 years, compared with a 25% recidivism rate for child molesters who offended against girls and a recidivism rate of 6% for incest offenders. However, other studies have found no differences between recidivism rates for child molesters with male or female victims.

It should be noted that there have been some contradictory findings regarding sex offender typologies and risk for re-offending in the recidivism literature. Many studies, including Hanson and Bussière's meta-analysis, have found higher sexual recidivism rates for rapists compared with child molesters, with incest offenders having the lowest rate of re-offense of all categories of sex offenders. However, one study found that over a 25-year period, child molesters had a higher rate of re-offense than rapists (52% vs. 39%). In this study, recidivism was recorded as any new re-arrest that could inflate recidivism statistics. Another factor that should be considered when examining sex offender typologies and recidivism is that there is some evidence that sex offenders may not be stable in their victim choice, and there could be crossover (e.g., a child molester with male victims could offend against a female) in victim age and gender.

Elizabeth L. Jeglic

See also Sex Offender Assessment; Sex Offender Treatment; Sex Offender Typologies

Further Readings

Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology, 66*(2), 348–362.

Hanson, R. K., & Harris, A. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and Behavior, 27*(1), 6–35.

Hanson, R. K., & Morton-Bourgnon, K. E. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology, 73*(6), 1154–1163.

Marshall, W. L., & Barbaree, H. E. (1990). Outcomes of comprehensive cognitive-behavioral treatment programs.

In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and treatment of the offender* (pp. 363–385). New York: Plenum.

Prentky, R., Lee, A., Knight, R., & Cerce, D. (1997). Recidivism rates among child molesters and rapists: A methodological analysis. *Law and Human Behavior, 21,* 635–659.

Sex Offender Risk Appraisal Guide (SORAG)

The Sex Offender Risk Appraisal Guide (SORAG) is a 14-item actuarial scale designed to predict violent, including hands-on, sexual recidivism among men who have committed at least one previous hands-on sexual offense.

The items on the scale are the following:

1. Lived with both biological parents until age 16
2. Elementary school maladjustment
3. History of alcohol problems
4. Never been married at time of index offense
5. Criminal history score for nonviolent offenses
6. Criminal history score for violent offenses
7. Number of convictions for previous sexual offenses
8. History of sexual offenses only against girls below 14 years of age (negatively scored)
9. Failure on prior conditional release
10. Age at index offense (negatively scored)
11. Diagnosis of any personality disorder
12. Diagnosis of schizophrenia (negatively scored)
13. Phallometric test results indicating deviant sexual interests
14. Psychopathy Checklist (Revised) score

Each item is scored and then assigned a weight based on the relationship of that item to violent recidivism in the construction sample; the weights are then summed to obtain a total score. The score yields the percentile rank of the offender as compared with the construction sample and the estimated probability of violent recidivism based on a 7- and a 10-year period of opportunity to re-offend. The items can be scored from complete institutional files or from files and interviews (but note that external corroboration of offender self-report is important).

The initial construction sample used by Rice and Harris in 1997 comprised released child molesters and rapists who had been briefly assessed in a Canadian maximum security psychiatric hospital before transfer to corrections and offenders treated in the psychiatric institution. Outcome data were obtained from a variety of official sources, and criminal charges for violent or hands-on sexual crimes were the primary predicted outcome. Outcome data were collected by individuals blind to offenders' SORAG scores.

The SORAG is closely related to the Violence Risk Appraisal Guide (VRAG), an instrument designed to predict violent recidivism among serious offenders (not exclusively sex offenders), and it contains many of the same items. Accuracy of predicting recidivism is similar in the two instruments among sex offender samples, but the estimated probability of recidivism is higher for the SORAG (reflecting the fact that sex offender samples have higher violent and sexual recidivism rates than unselected samples).

Follow-up studies of sex offenders using the SORAG have examined variations in sample (correctional releasees, forensic psychiatric hospital releasees, offenders supervised in the community), jurisdiction (Canada, United States, Europe), and variations in average follow-up time. The SORAG has been robust to these variations, and SORAG scores are consistently linearly related to an offender's probability of violent recidivism. In replication studies, the accuracy of prediction as indexed by the area under the curve of the receiver operating characteristic or, equivalently, the common language effect size is about .75, meaning that 75% of randomly selected violent recidivists have higher SORAG scores than randomly chosen men who are not violent recidivists. Accuracy is degraded when recidivism is measured poorly, when data are missing for SORAG variables, and when the length of the follow-up period varies widely across offenders. In 2003, Harris and colleagues found that, under optimum conditions, an accuracy of about .85 can be achieved. Scores on the SORAG correlate with both the speed and severity of recidivistic offenses.

The SORAG has also been used to estimate the likelihood that an offender will recidivate with a specifically sexual offense, although these offenses are a subset of the violent offenses that the SORAG was designed to predict. In 2006, Rice, Harris, Lang, and Cormier found,

using actual behaviors involved in offending, that sexually motivated offenses are frequently labeled as violent (nonsexual) offenses in official police "rap sheet" records: For example, sexually motivated homicides were recorded as homicides. It was argued on the basis of these data that a tabulation of violent offenses corresponds more closely to the number of sexually motivated offenses than a tabulation of officially recorded sexual offenses. The prediction of violent offenses rather than sexual offenses appears on the basis of this work to better capture the intent of legislation dealing with the risk sex offenders present to society.

Descriptions of the items, scoring criteria, the method of derivation of the scale, and the results obtained with it in follow-up studies can be found in the 2006 book *Violent Offenders: Appraising and Managing Risk* (see Further Readings below). Updated information on the SORAG is maintained at www.mhcp-research.com/ragpage.htm.

Vernon L. Quinsey

See also Forensic Assessment; Violence Risk Appraisal Guide (VRAG); Violence Risk Assessment

Further Readings

Harris, G. T., Rice, M. E., Quinsey, V. L., Lalumière, M. L., Boer, D., & Lang, C. (2003). A multi-site comparison of actuarial risk instruments for sex offenders. *Psychological Assessment, 15,* 413–425.

Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. (2006). *Violent offenders: Appraising and managing risk* (2nd ed.). Washington, DC: American Psychological Association.

Rice, M. E., & Harris, G. T. (1997). Cross validation and extension of the Violence Risk Appraisal Guide for child molesters and rapists. *Law and Human Behavior, 21,* 231–241.

Rice, M. E., Harris, G. T., Lang, C., & Cormier, C. (2006). Violent sex offenses: How are they best measured from official records? *Law and Human Behavior, 30,* 525–541.

Sex Offender Treatment

Given the rising concern about the problem of sexual violence, increased attention has been given to the evaluation of existing treatment interventions and the exploration of new treatment models that aim to prevent or reduce future sexual violence. Because the rehabilitation of sex offenders might curb future sex offending and thus enhance overall public safety, the importance of research that examines the efficacy of sex offender treatment interventions cannot be overstated. To date, the majority of research has been directed at examining whether suitable treatment interventions exist, whether sex offenders are amenable to such treatment, and most important, whether such treatments "work."

Numerous treatment models have been used to rehabilitate sex offenders. While some forms of treatment were developed specifically for use with sex offender populations, most have been adopted from the larger class of treatment techniques developed for use with wide-ranging clinical populations. Moreover, while some of these sex-offender-specific treatment approaches have received at least modest empirical support, others have only limited support or have not yet been subject to any form of systematic evaluation. Indeed, because of the many difficulties in evaluating treatment outcome with this population, considerable work remains with regard to understanding what works for whom and whether this treatment success actually translates into reductions in recidivism.

Treatment Models

The cognitive-behavioral therapy (CBT) approach, which involves an integration of both cognitive and behavioral therapy techniques, has been adapted for use with sexual offenders. The central tenet of CBT is essentially that our thoughts, behaviors, and emotions interact with one another in a cyclical manner, such that changing thoughts about a situation or event might change subsequent behaviors that ultimately change our emotions. Purely cognitive interventions used with sex offenders include cognitive restructuring, which is aimed at challenging rationalizations, minimizations, or other offense-supportive beliefs involved in the initiation or maintenance of sexual offending behavior. For example, a therapist using a cognitive restructuring technique might challenge an offender's minimization that "no one was hurt," by having the offender examine the veracity of such belief.

Behavioral approaches have also been used in the treatment of aberrant sexual behaviors. Behavioral therapies are premised on the idea that deviancy is a learned behavior that can be unlearned. Thus, inappropriate (or deviant) sexual desire might be reduced if associated with negative consequences, while appropriate sexual

desire might be enhanced if paired with rewards or other positive consequences. Masturbatory satiation, for example, involves having an offender masturbate to deviant fantasies for an extended amount of time through the sexual refractory (i.e., postorgasm) period, with the idea that this unrewarded and perhaps aversive masturbatory experience will reduce or eliminate deviant arousal. Although procedures might vary, verbal satiation similarly aims to reduce deviant interest by having an offender repeat aloud deviant sexual fantasies during the postorgasm period. Aversion techniques similarly aim to reduce the deviant sexual response by pairing aversive stimuli (such as mild electric shock or foul odors) with deviant arousal. When the arousal is followed by a shock or other aversive stimuli, the resulting behavior (deviant arousal) is, again, expected to decrease. Just as behavioral strategies might be used to reduce deviant arousal, they are also used to reinforce or enhance "normal" sexual arousal. While there is some limited support for the use of these pure behavioral techniques, these approaches have generally fallen out of favor in preference of more integrative and comprehensive treatment interventions.

Cognitive-behavioral interventions thus combine elements of the pure cognitive and pure behavioral camps. Covert sensitization, for example, relies on the behavioral technique of pairing negative stimuli with deviant arousal, but instead of a physical stimulus uses an imaginal (or cognitive) negative stimulus. In a typical use of the technique, an offender might be asked to masturbate to a deviant fantasy, pairing with that fantasized act an imagined unpleasant negative consequence. For example, the offender might fantasize about committing a deviant offense but then interrupt that fantasy with a vivid and highly personalized negative consequence, such as the offender's wife discovering the act and reporting it to the police.

Relapse prevention (RP), a model adopted from the substance abuse literature, aims to help sex offenders identify the emotional and situational precursors to sex offending. In emphasizing the importance of cognitive states and decisional processes, RP often employs a CBT framework. RP operates under the assumption that by identifying the emotional or contextual states that precede offending, an offender can intervene in the cycle and prevent a recidivistic sexual offense from occurring. RP might typically incorporate a wide range of treatment components, such as anger management, social skills training, empathy enhancement, or the aforementioned CBT techniques. Indeed, the general focus is on giving offenders the skills to manage their offending behavior once they return to the community. Thus, offenders learn their "offense cycles" and are taught how to use this knowledge to recognize high-risk situations, with the aim of preventing relapse (or re-offense). Although RP is one of the most widely used models for treating sexual offenders, there have been mixed findings with regard to its utility in reducing sexual recidivism. More research is needed to examine whether there is sufficient empirical support for the continued use of this model.

Because evidence suggests that the suppression of sexual drive will reduce sexual offending, there is general support for a combined psychological and pharmacological approach to treating sexual deviancy. Such pharmacological treatment (at times referred to as "chemical castration") includes anti-androgens and hormonal agents that work to reduce sex drive, sexual arousal, and/or sexual fantasizing. These drug interventions, which diminish or alter testosterone levels, have been shown to be related to reduced rates of re-offending. Additionally, there has been support for the use of selective serotonin reuptake inhibitors (SSRIs) in reducing deviant sexual behavior. The class of SSRIs, which have generally been used in treating obsessive-compulsive tendencies, may have specific utility in reducing the intrusive or obsessive sexual thoughts often associated with sexual offending.

Finally, some mention of surgical castration deserves mention. Although rarely used, surgical castration involves the removal of the testes, which has the effect of reducing circulating levels of testosterone and thereby diminishing sexual drive. While some have expressed concern regarding the ethical merits of this form of intervention, surgical castration has been associated with reductions in sexual recidivism.

Risk, Need, and Responsivity

Some have maintained that treatment should be based on the principles of risk, need, and responsivity. Risk refers to the notion that treatment should be matched to the risk level (typically assessed through actuarially derived risk assessment tools such as the STATIC–99/STATIC–2002 or RRASOR) of the offender, with higher-intensity treatment services reserved for the highest risk offenders. The need principle distinguishes between criminogenic and noncriminogenic needs, with criminogenic needs referring to those factors that directly relate to recidivism, that is,

those factors that have a direct relevance to reducing re-offending. Noncriminogenic factors include treatment needs that do not directly relate to re-offense risk but that may improve the overall adjustment or quality of life of the offender, which may thereby indirectly reduce sexual recidivism. Finally, the responsivity principle maintains that treatment interventions should be delivered in a way that is compatible with the ability, treatment readiness, or cognitive capacity of the offender. The strength of this risk, need, and responsivity model lies in its consideration of the heterogeneity of sexual offending. Indeed, this model advocates for the use of differential treatment strategies for offenders with varied criminogenic and noncriminogenic needs, thus renouncing a "one size fits all" approach to treatment.

Does Treatment Work?

Despite the early notion in the sex offender academic community that "nothing works," recent research has been more optimistic with regard to the value of sex offender treatment. Indeed, recent evidence seems to suggest that there are small but important differences in the recidivism rates of offenders who do and do not receive sex-offender-specific treatment interventions. Indeed, researchers have found that sex offender treatment is effective in reducing both sexual and general recidivism.

A meta-analysis of sexual offender treatment outcome studies found that, on average, sex offenders who had completed treatment had a 12.3% sex offense recidivism rate compared with the 16.8% recidivism rate seen for offenders who did not complete treatment. In support of more recent (typically CBT) interventions, those who completed treatment demonstrated a sexual recidivism rate of 9.9%, while those who did not receive one of these newer interventions had a 17.4% recidivism rate. While more research may shed light on the particular strategies that work for particular types of offenders, one can reasonably conclude from the existing research that treatment does indeed reduce recidivism. Given this research evidence, some contend that effective treatment programs should target offenders who are deemed to be at highest risk to recidivate and, moreover, that best practices suggest that such programs must target the offender's criminogenic needs and be based on a combined CBT and psychopharmacological model.

Critics charge, however, that the overwhelming majority of sex offender treatment studies use too weak a methodology to draw any firm conclusions. As a result of practical constraints and the many impediments to implementing sound research methodologies in criminal justice or treatment settings, treatment outcome studies typically fail to use rigorous research designs that use, for example, random assignment or lengthy follow-up periods. Sex offenders typically cannot be randomly assigned to treatment or no-treatment groups in these settings. Instead, researchers tend to examine differences between treated and untreated groups where assignment has been based on need, resulting in a selection bias. That is, offenders selected for treatment are typically different in important respects—either being viewed as amenable to treatment or more dangerous and, therefore, more in need of treatment. Thus, the groups being compared differ in risk level or motivation or other important respects that affect conclusions. Unfortunately, researchers are seldom able to use rigorous, tightly controlled designs, because they must do this research in real-world settings that allow for less sophisticated methodologies.

Moreover, there is often divergence with regard to what sort of outcome should be measured. While some studies might consider outcome very narrowly to include only sexual reconvictions, other studies consider outcome much more broadly, including for example, any arrests (even for nonsexual offenses), probation violations, and/or informal reports of re-offense. Some attention has also been given to the measurement of in-treatment change. Indeed, some research has examined pre- and posttreatment scores on dynamic variables related to sexual recidivism. Thus, treatment providers or researchers might focus on changes in attitudes tolerant of sexual offending or intimacy deficits as a function of treatment interventions. More research is needed to establish the direct relationship between these within-treatment gains and actual reductions in recidivism.

In sum, while meta-analytic research has generally supported the value of treatment for sex offenders, the research studies on which these meta-analyses were based have typically employed suboptimal methodological designs. Despite this, the weight of the research does show some support for cognitive-behavioral and psychopharmacological interventions. Thus, while there is room for optimism, especially with regard to certain techniques, firm conclusions about the utility of sex offender treatment await further research.

Cynthia Calkins Mercado

See also Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Sex Offender Needs Assessment Rating (SONAR); Sex Offender Recidivism; Sex Offender Typologies; STATIC–99 and STATIC–2002 Instruments

Further Readings

Abracen, J., & Looman, J. (2004). Issues in the treatment of sexual offenders: Recent developments and directions for future research. *Aggression and Violent Behavior, 9,* 229–246.

Hanson, R. K., Gordon, A., Harris, A. J. R., Marques, J. K., Murphy, W., et al. (2002). First report of the collaborative outcome data project on the effectiveness of psychological treatment for sex offenders. *Sexual Abuse: A Journal of Research and Treatment, 14,* 169–194.

Marques, J. K. (1999). How to answer the question, "Does sex offender treatment work?" *Journal of Interpersonal Violence, 14,* 437–451.

Marshall, W. L., Fernandez, Y. M., Marshall, L. E., & Serran, G. A. (2006). *Sexual offender treatment: Controversial issues.* West Sussex, UK: Wiley.

Rice, M. E., & Harris, G. T. (2003). The size and sign of treatment effect in sex offender therapy. *Annals of the New York Academy of Sciences, 989,* 428–440.

Sex Offender Typologies

Sex offenders are a heterogeneous group. While there is no standardized system for the taxonomy of sex offenders, they are generally classified into various typologies based on their offense characteristics, motivations for offending, and likelihood of recidivism. Typologies are important in that they capture the characteristics of sex offenders, and they can be useful for treatment intervention and risk assessment. However, it should be noted that these typologies do not always coincide with criminal justice classifications of sex offenders. Sex offenders are generally separated into those that commit contact sex offenses and those that commit noncontact sex offenses. Contact sex offenders include child molesters, incest offenders, and rapists. Noncontact sex offenders include exhibitionists, voyeurs, and frotteurs.

Child Molesters

Child molesters are sex offenders whose victims include minors (under the age of 18). Child molesters can be further categorized by their sexual preferences. Those child molesters who are sexually attracted to children under the age of 13 (i.e., prepubescent children) are referred to as pedophiles, while child molesters whose sexual preference is for teenagers or those between the ages of 13 and 18, are considered hebophiles. However, it should be noted that neither pedophilia nor hebophilia are considered crimes, as they relate only to sexual interest and not to the commission of any sexual act.

Child molesters generally report attraction to children of a certain age that are not related to them. Some child molesters have only male victims, some only female victims, while other child molesters offend against both boys and girls. Child molesters who offend against boys have been found to have higher rates of recidivism.

Child molestation can involve a variety of inappropriate sexual activities and behaviors. These include undressing the child, exposing themselves to the child, masturbating in front of the child, or touching and fondling the child. They could also include more serious sexual offenses, including performing fellatio or cunnilingus on the child or penetrating the child's vagina, mouth, or anus with their fingers, foreign objects, or penis. Physical force, coercion, or threats may be used to compel the child into the sexual act.

To gain access to their victims, child molesters often engage in relationships with the child or with the adult guardians of the child. This is referred to as grooming behavior. The sex offender appears to be very interested in the child's needs to gain the child's affection and loyalty and the guardian's confidence so that the molestation will not be reported. Some child molesters may also use threats to prevent the children from reporting the abuse.

Child molesters often believe that their victims want to be involved in a sexual relationship. When a child responds positively to the grooming behavior, the child molester interprets this as the willing participation of the victim. As a result, the child molester can believe that the molestation is not damaging to the child. This is referred to as a cognitive distortion.

Incest Offenders

Incest offenders are sex offenders who offend against minors (children) who are related to them by blood. Additionally, offenders are also considered incest offenders if they abuse a child that they have quasiparental authority over, such as a stepfather or the boyfriend of the child's mother.

The most common form of incest is sexual contact between a father and daughter or a stepfather and stepdaughter. Perpetration of inappropriate sexual contact may occur only once, but more often, it takes place over several years. It is not uncommon for incest offenders to offend against several children in the same family. Unlike child molesters, the majority of incest offenders have female victims and their victims tend to be older. While they may start offending against a prepubescent child, the offending may continue after the child hits puberty.

Unlike a child molester, the incest offender is generally sexually attracted to adult females. Most incest offenders have had consensual, age-appropriate partners at some point in their lives. While by definition they would be considered pedophiles as they are engaging in sexual acts with a minor, they often view the victim as a surrogate for an age-appropriate partner. Incest offenders often only start abusing children as a way to cope with the stress they are experiencing. Stressors reported by incest offenders include dysfunctional relationships, sexual problems or dissatisfaction, and social isolation. Often alcohol and drugs are involved in the commission of the offense. However, once identified, incest offenders have the lowest rates of recidivism compared with other sex offenders.

Rapists

Rape is generally defined as forced sexual intercourse without consent against adult victims. Rape is a violent crime. Rapists engage in behaviors such as threats, hostility, and physical violence to overpower the victims and force them into sexual activity against their will. Rape does not always result in overt physical injury to the victim. Rapists' primary interests are self-gratification, dominance, and control. Unlike child molesters and incest offenders, rapists generally offend against the same victim only once. Rapists have been found to have high levels of deviant sexual arousal and impulsivity. Additionally, they are more criminalized than child molesters and incest offenders. Rapists who use violence in the perpetration of the rape and who have a history of violent behavior recidivate at higher rates than rapists who do not use physical violence in the commission of the crime.

In 1979, Nicholas Groth identified three different kinds of rapists: anger rapists, power rapists, and sadistic rapists. According to Groth, anger rapists are angry about a variety of issues in their lives and are unable to cope with them in a prosocial manner. While their anger may be directed at women, this is not always the case. Anger rapists tend to use excessive physical and verbal violence in the commission of the rape, thus leaving the victim battered and bruised. In addition, anger rapists may use weapons to hurt their victims. The offenses are generally not planned and are short in duration. The anger rapist tends to choose victims who are perceived to be vulnerable when the rapist becomes angry. It is believed that between 25% and 40% of all rapes are committed by anger rapists.

Groth describes power rapists as offenders who use power and control to dominate their victims. Contrary to anger rapists, power rapists tend to use the threat of violence, rather than violence, to force their victims into submission. While a power rapist may use a weapon in the commission of the rape, the weapon is used primarily to gain compliance from the victim. Victims of power rapists are often not physically harmed during the perpetration of the crime. These rapists seek out women who are both physically and emotionally vulnerable and who will require little force to be dominated. Groth estimates that the majority of all rapists fall into the power rapist category.

The third type of rapist is the sadistic rapist. According to Groth the sadistic rapist derives sexual gratification from the physical and psychological suffering of his or her victim and often engages in ritualized sexual behavior involving degradation and torture of the victim. Activities may range from restraint, beating, and punching, to stabbing, strangulation, torture, and murder. Sadistic rapists frequently have psychiatric difficulties that may have a direct relationship to the offense behavior. Sadistic rapists often continue offending until they are apprehended, and the severity of sadistic acts increases over time. It is estimated that only between 2% and 5% of all rapes are committed by a sadistic rapist. Due to the violent and sadistic nature of their attacks, sadistic rapists often receive long prison sentences.

Exhibitionism

Exhibitionism is the most common form of sexual offending behavior. The exhibitionist is typically a male, and the victim is usually a female. Exhibitionists derive sexual pleasure and arousal from the exposure of their genitals or entire naked body to unsuspecting

strangers. Exhibitionism is considered a paraphilia in the *Diagnostic and Statistical Manual of Mental Disorders,* text revision (*DSM-IV-TR*). On occasion, exhibitionists will masturbate while exposing themselves. While exhibitionism is sometimes considered a humorous topic, it often causes the victims a significant amount of fear and distress. Exhibitionists will rarely seek physical contact with their victims. Generally, they become aroused by the reaction of the victim. In other cases, the exhibitionist may fantasize that the victim becomes sexually aroused following the exposure. Exhibitionists frequently have high rates of recidivism. It is speculated that exhibitionism generally starts by the age of 18; however, very few arrests for exhibitionism are documented in adults over the age of 40.

Voyeurism

Voyeurism is the act of becoming sexually aroused by observing unsuspecting individuals who are naked, in the process of disrobing, or engaging in sexual activity. Voyeurism is considered a paraphilia in the *DSM-IV-TR.* Masturbation usually occurs during or shortly after voyeuristic activities. There is usually no relationship between the voyeur and the victim. Individuals who engage in voyeurism are often referred to as "Peeping Toms." In most cases, the voyeur observes the victim to become sexually aroused and does not desire any contact with the victim. However, on occasion, voyeurs suffer from delusional disorders and thus truly believe themselves to be in a relationship with the victim. In these cases, the voyeur could pose a danger to the victim.

Voyeurism generally begins before the age of 15 years and tends to be a chronic behavior. Many voyeurs have consensual age-appropriate relationships in addition to the voyeuristic behavior. However, in its extreme form, voyeurism constitutes the only form of sexual activity.

Frotteurism

Frotteurism involves touching and rubbing against a nonconsenting person to achieve sexual gratification. Frotteurism is considered a paraphilia in the *DSM-IV-TR.* The behavior usually takes place in crowded areas in which the frotteur can more easily escape arrest or detection (e.g., on busy sidewalks and on crowded trains or buses). Frotteurs are generally male, and their victims are usually female. During the assault, the frotteur generally rubs his genitals against the victim's thighs and buttocks or fondles the victim's genitalia or buttocks with his hands. Some frotteurs will grab a woman's breast as they are walking by. While engaging in frotteurism, the frotteur usually fantasizes that he is in a consensual sexual relationship with the victim. However, the frotteur recognizes that he must escape following the assault to avoid prosecution from the authorities. Some acts of frotteurism are very overt (such as grabbing a breast), while others are less so (rubbing against someone in a crowded shopping mall). Therefore, victims may not always be aware that they have been assaulted. Usually, this paraphilia begins by adolescence. Most frotteurs are between the ages of 15 and 25; however, frotteurism has also been noted in older, shy individuals.

Elizabeth L. Jeglic

See also Sex Offender Assessment; Sex Offender Recidivism; Sex Offender Treatment

Further Readings

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Groth, A. N. (1999). *Men who rape: The psychology of the offender.* New York: Plenum Press.

Knight, R. A., & Prentky, R. A. (1990). Classifying sex offenders: The development and corroboration of taxonomic models. In W. L. Marshall & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and treatment of the offenders* (pp. 23–52). New York: Plenum.

Sexual Harassment

Law and psychology scholars have studied judgments of sexual harassment for several decades and have reported a number of findings that add to and draw from the literatures in social, clinical, and industrial organizational psychology. This entry discusses some of the more important variables such as sex of the observer, complainant, and alleged harasser; organizational structure; and individual differences in observers, complainants, and alleged harassers. While not all psychological studies of sexual harassment follow the contours of

discrimination law, all the scientific literature eventually comes into contact with the law either as a starting point that shapes judgments of responsibility or as an ending point to address issues of discrimination. Therefore, it is helpful to organize the literature around the law.

Federal Sexual Harassment Law

Title VII of the Civil Rights Act of 1964 (amended in 1991) prohibits an employer from discriminating with respect to compensation, terms, conditions, or privileges of employment because of race, color, religion, sex, or national origin. With respect to sex, Title VII prohibits employers from exacting sexual contact in exchange for compensation or advancement (quid pro quo harassment) and from subjecting workers to abusive or hostile working environments because of their gender. In 1986, in *Meritor Savings Bank v. Vinson,* the U.S. Supreme Court upheld a liability finding against an employer who subjected a worker, because of her sex, to unwelcome misconduct that was "sufficiently severe or pervasive to alter the conditions of employment and create an abusive working environment." After the Court heard *Harris v. Forklift Systems, Inc.* in 1993, hostile work environments required subjective (the victim actually experienced abusive conduct) and objective tests (a reasonable person would have found the conduct abusive). More recently, in its 2001 term, the Supreme Court affirmed in *Clark County School District v. Breeden* limits for the "severe or pervasive" test, holding that a comment and a chuckle were insufficient to define a hostile work environment. However, going the other way (increasing Title VII protection), the Court prohibited intragender harassment: "Nothing in Title VII necessarily bars a claim of discrimination 'because of . . . sex' merely because the plaintiff and the defendant (or the person charged with acting on behalf of the defendant) are the same sex" in its holding in *Oncale v. Sundowner Offshore Services, Inc.* (1998). In recent times, the majority of cases brought to the Equal Employment Opportunity Commission and the courts are hostile work environment theories of liability. Psychologists find these cases most interesting to study as well.

To determine whether unwelcome social sexual conduct reaches the threshold of a hostile work environment, most courts adopt the reasonable person test, which according to *Rabidue v. Osceola Refining Co.* (1986) is "the perspective of a reasonable person's reaction to a similar environment under essentially like or similar circumstances." Other courts emphasize differences in how men and women view social sexual conduct. Specifically, in *Ellison v. Brady* (1991), the Ninth Circuit held that "a female plaintiff states a prima facie case of hostile environment when she alleges conduct which a reasonable woman would consider sufficiently severe or pervasive to alter the conditions of employment and create an abusive working environment." In *Fuller v. City of Oakland* (1995), the Ninth Circuit clarified this standard, holding that "whether the workplace is objectively hostile must be determined from the perspective of a reasonable person with the same fundamental characteristics" as those of the plaintiff. After the intragender holding in *Oncale,* the reasonable victim test looks to the background (e.g., gender, race, and age) of the complainant as well as the context of the conduct (e.g., persistence, status, and sexual orientation of the participants). Thus, the reasonable victim standard is a semisubjective test, which is concerned with whether a reasonable person with the same key attributes and in a situation similar to the complainant would find the offensive conduct sufficiently hostile to violate Title VII. While the issue of appropriate legal standard remains open today, after *Harris* there has been movement in most (but not all circuits) toward a more objective reasonable person test.

In *Burlington Northern v. White,* a recent 2006 case defining retaliatory action in hostile work environment sexual harassment, the Court reiterated that there are two types of hostile work environment claims. One type involves a tangible work action (e.g., hiring, firing, promoting, changing work assignments) in which defendants are strictly liable (if their supervisors were responsible for the tangible actions), and the second type creates abusive conditions through other conditions of employment (such as sexual comments, pornography in the work place, unwanted requests for dates). Interestingly, Justice Samuel Alito's dissenting opinion in *Burlington Northern* pointed out confusion about whether the reasonable person is an objective test (ignoring plaintiff attributes) or a subjective test that takes into consideration the complainant's individual characteristics (i.e., age, gender, race, family relations). Justice Alito's opinion in *Burlington* suggests that the issue of objective versus subjective standard may soon become an important concern in this area of jurisprudence. There is need for more work that examines the power of the reasonable victim test to sensitize workers to gender, racial, and sexual orientation differences. Knowledge about how legal standards influence workers' judgments should be of interest to social scientists,

lawyers, legislators, and judges as they grapple with sexual harassment in a multicultural workforce populated with large numbers of members of both sexes.

Psychological Research on Sexual Harassment

Despite a plethora of empirical research efforts, few theories explain the production of sexually harassing conduct or the evaluation of sexual harassment allegations at work. With regard to the production of sexually harassing conduct, Barabara Gutek proposed and successfully tested sex-role spillover theory as one of the earliest models of workplace misconduct resulting from gender-based interactions. Data collected in a telephone survey of Los Angeles workers supported a tendency for male workers to invoke sex-based stereotypes, which sometimes produced inappropriate sexual conduct, especially in male-dominated occupations and work groups. In male-dominated settings, gender became highly salient and activated social stereotypes that were inappropriate guides for workplace conduct. Later tests of the theory have not been as successful. Other researchers presented vignettes of ambiguous incidents and found that participants rated the behaviors more harassing when they occurred in *integrated* or *nontraditional* occupations. Sex-role spillover theory has successfully explained how workers label only some forms of harassment and only with certain stereotypes of women workers. Thus, the literature supports a role for gender distributions (i.e., the ratio of men to women in the workplace) in explaining harassment, but the exact form of that relationship is not at all clear.

Focusing on the situational side of the workplace, Louise Fitzgerald and colleagues theorized that sexual harassment is a function of both gender distribution and the extent to which the organization communicates tolerance of harassment. In one study examining women in a large West Coast utility company, these researchers report that workers who perceived the organizational climate to be tolerant of harassment and who participated in nontraditional gender occupations reported higher levels of harassment, job dissatisfaction, and psychological distress. Data from another organizational survey suggested that women who self-report harassment and those who experience behavior that others find harassing suffer from similar psychological harms.

Relying on traditional social psychological theory, John Pryor and his group posited that sexual harassment is the joint product of situation *and* person variables. In one study, they found that men who scored high on the Likelihood to Sexually Harass Scale (LSH) overestimated the co-occurrence of words *power* and *sex* on a paired-associates memory test. Other studies using subliminal primes found evidence for an automatic power and sex link in high LSH men. In still other research, men high in LSH and men primed with sexist ads, such as those seen on television, asked sexist questions of a female confederate during an ostensible job interview. Together, these studies showed how stimuli commonly encountered by workers can trigger uncontrollable cognitive responses in some men that produce harassing behavior.

Gender Differences

One area in which a great deal of psychological research exists concerns judgment differences between men and women in cases of alleged harassment. With few exceptions, experiments, field studies, and surveys show consistent gender differences in judgments of harassment against women, with women using broader definitions and being more likely to label specific incidents as harassing. To explain the extant gender effects, one group of researchers presented scenarios to evaluators and produced a path analysis in which hostile sexism, observer self-referencing, and complainant credibility explained gender effects in harassment judgments. However, others found gender effects on harassment tolerance and on harassment judgments even after they controlled for hostile sexism.

Despite these findings, some authors have questioned the size and consistency of gender effects, and one meta-analysis of 83 investigations found significant but small effects for gender. Richard Wiener and colleagues suggested that the severity of the unwelcome conduct might explain the seemingly small effects. Researchers using experimental (scenario) methods with undergraduate participants reported that women rated ambiguous conduct more harassing, but perceived severe and benign instances similarly to men, while others surveying workers found gender effects with ambiguous, but not with severe or innocuous cases. A subsequent meta-analysis completed in 2001 took type and severity of harassment into account and found a moderately large overall gender effect (i.e., women found a broader range of behaviors harassing) and even stronger gender effects in studies using moderately severe hostile work environments. Furthermore, when Wiener and colleagues presented evaluators scenarios based on *Ellison v. Brady* and *Rabidue v. Osceola Refining Co.* and two video

reenactments, women found more evidence of legally defined harassment.

With regard to intragender harassment, early work found that male workers experience at least as many potentially sexual harassing behaviors from other men as from women, but reacted less negatively to encounters with women. Furthermore, one study reported that men experience cross-gender social sexual conduct at work as seductive but same-gender behavior as harassing. Expanding on this work, Margaret Stockdale and colleagues showed that male-on-male harassment results, in part, from men's motivation to enforce strict gender role norms on less masculine men. Data from a 1995 Armed Forces survey showed intragender harassment occurred mostly among men who treat other men harshly. That is, these male workers reject other men as too feminine and do not approach them sexually. While others have begun to study intragender harassment, the influence of sexual orientation of men in intragender cases remains largely untested.

Following up on their earlier work, Margaret Stockdale and colleagues presented approach and rejection scenarios in which males experienced unwanted sexual attention from women or other men. In the rejection scenarios only, female as compared with male observers rated higher sexual harassment using their own personal definitions of harassment. These results supported Richard Wiener and colleagues' self-referencing hypothesis that people use themselves as reference points to judge the abusiveness of harassment complaints. Other research using vignette studies found that subjective ratings of how evaluators would perceive the egregious conduct if they were the object of the unwanted behavior explained the effects of observer gender. There is also support in the literature for self-referencing in another scenario study in which women (compared with men) found more evidence of male-on-male harassment.

Unlike the gender literature, a smaller and much less organized literature attests to the importance of cultural factors. Most interestingly, one cross-cultural scenario study involving eight nations conducted by Janet Sigal and colleagues found participants from individualist countries (e.g., the United States and Germany) were less likely than those from collectivist countries (e.g., Taiwan and the Philippines) to find a professor "guilty" of sexually harassing a female student. Other research manipulated a litigant race in a mock jury study of sexual harassment to find jurors (especially White males) more sympathetic to litigants of their own race.

While several studies have examined race and ethnicity as factors that qualify the way in which workers experience sexual and ethnic harassment, the results of those investigations are inconsistent, sometimes supporting conditional findings and sometimes not supporting the effects of these qualifying factors. Louise Fitzgerald and colleagues empirically developed and successfully tested an organizational model to explore the effects of race and ethnicity as explanations for outcomes of sexual harassment. Others have also built empirical models to identify some of the correlates of gender that help explain its effect on harassment judgments. Approaching the problem from a theoretical perspective, Richard Wiener and colleagues offer a social cognitive model of liability decisions to account for gender, race, and sexual orientation effects.

Social Cognitive Model of Sexual Harassment Judgments

The social cognitive model tries to integrate the law and psychology in this area. According to this model, sexual harassment judgments emerge from a two-stage model, with a preliminary judgment based on well-rehearsed and easily retrievable rules of categorization (i.e., sexual assault is harassment, telling dirty jokes is not). The initial judgment compares the complained after conduct to existing standards of behavior. If the conduct exceeds an offensiveness threshold, people perceive it as harassment with little cognitive activity (e.g., quid pro quo harassment, assault, and rape). If the conduct falls below a minimum offensiveness, people perceive it as nonharassing, again with little cognitive activity (e.g., compliments and personal talk). If the conduct falls between these norms, or if the observer is motivated to engage in further efforts, then a second, deliberative process ensues.

The model anticipates a second stage that triggers self-referencing to analyze more carefully the complained after incident(s). Here, the effects of the gender, race, and sexual orientation of the observer, alleged harasser, and complainant come into play. Because of prior experiences in and out of work, men and women, as well as people with different racial/ethnic backgrounds, cultural backgrounds, and sexual orientations, use different standards to judge harassment complaints. Women, ethnic minorities, and homosexuals use a broader definition because their vulnerable positions in society make them more sensitive to the role of social underdogs.

This model and prior research argue that people informed of the law and motivated to do so will test the unwelcomeness, severity, and pervasiveness of the incident(s) to evaluate the accuracy of their initial harassment judgments. Observers use themselves as reference points to determine whether ambiguous social sexual conduct at work is unwelcome, severe, and/or pervasive. If the perceivers think that the unwelcome behavior would have seemed sufficiently pervasive or severe to themselves as targets, then they will conclude that it was harassing for the complainant, to the extent to which they perceive themselves to be similar to the complainant.

Findings from several studies by Richard Wiener and colleagues support the two-stage approach. In one study, 50 male and 50 female workers completed semi-structured interviews with card sorting and rating tasks. The resulting mental concept maps showed that women evaluated male harassers with attributes (i.e., intimidation, arrogance, and popularity) related to the harassers' power and social aptitude, but men evaluated male harassers around the dimensions of responsibility and psychological adjustment attributes (i.e., strength, confidence, and being a bully). Women grouped female victims along dimensions of blameworthiness and assertiveness, relying heavily on security, upward mobility, and gullibility as victim attributes. Men used attributes of attractiveness, shyness, and anger to differentiate between helpless and blameful victims who were sexually aggressive or physically alluring. Statistical analyses (logistic regression) produced accurate gender classification for 86% of the sample using these attributes.

In another study, this research team presented videotapes of equal employment opportunity officers interviewing ostensible workers based on *Rabidue v. Osceola Refining Co.* and *Ellison v. Brady* fact patterns. Two hundred full-time workers applied either the reasonable person or reasonable woman legal standard and rated the complained after conduct on unwelcomeness, severity, pervasiveness, and harassment likelihood. The main effect for gender was significant across cases. However, self-referencing questions that asked respondents how they would have perceived the conduct had they been the complainant completely explained the gender effects. Several additional studies replicated the gender and self-referencing findings. In other results, participants who applied the reasonable person (as opposed to the reasonable woman) standard and those high (as opposed to low) in hostile sexism found less evidence of sexual harassment, regardless of gender or case. Most notably, use of the reasonable person legal standard offset the effects of hostile sexism so that the difference in harassment judgments between high and low hostile sexists disappeared under the reasonable woman standard.

In more recent efforts, this research team presented respondents with two scenarios (videotaped reenactments of *Rabidue v. Osceola Refining Co.* and *Faragher v. City of Boca Raton,* 1998), which depicted independent cross-gender allegations. A female complainant in the first set of allegations displayed aggressive, submissive, mixed, or neutral conduct. Most interestingly, perceptions of complainant aggressiveness in the priming sequence lowered likelihood of harassment judgments in the target sequence. The fact that hostile attitudes toward women triggered by one sequence of behavior influenced harassment judgments of later new facts supports the automatic internal standard component of the social cognitive model. Finally, hostile and benevolent sexism influenced judgments under the reasonable person but not under the reasonable woman standard. Current efforts are under way to examine the implications of the two-stage model for judgments that men and women make when males accuse other males of harassment in multicultural workplace scenarios. These efforts are looking more closely at the effects of ethnicity and sexual orientation as precursors to sexual harassment and other forms of discrimination in the workplace, schools, and housing markets. The extension of the social cognitive model of discrimination in these settings is important in our increasingly multicultural work, education, and living environments.

Richard L. Wiener

See also Sexual Harassment, Jury Evaluation of

Further Readings

Burlington Northern v. White, No. 05-529 (U.S. S. Ct. June 22, 2006).

Clark County School District v. Breeden, 532 U.S. 268 (2001).

Ellison v. Brady, 924 F.2d 872 (9th Cir. 1991).

Faragher v. City of Boca Raton, 524 U.S. 775 (1998).

Fitzgerald, L., Drasgow, F., Hulin, C., Gelfand, M., & Magley, V. (1997). Antecedents and consequences of sexual harassment in organizations: A test of an integrated model. *Journal of Applied Psychology, 82,* 578–589.

Fuller v. City of Oakland, 47 F.3d 1522 (9th Cir. 1995).
Harris v. Forklift Systems, Inc., 114 S. Ct. 367 (1993).
Meritor Savings Bank v. Vinson, 477 U.S. 57 (1986).
Oncale v. Sundowner Offshore Services, 523 U.S. 75 (1998).
Rabidue v. Osceola Refining Co., 805 F.2d 611 (6th Cir. 1986).
Wiener, R. L., & Hurt, L. E. (2000). How do people evaluate social-sexual conduct: A psycholegal model. *Journal of Applied Psychology, 85,* 75–85.
Wiener, R. L., Winter, R., Rogers, M., & Arnot, L. (2004). The effects of prior workplace behavior on subsequent sexual harassment judgments. *Law and Human Behavior, 28,* 47–67.

Sexual Harassment, Jury Evaluation of

Research examining juror decisions in sexual harassment has generally found a relationship between juror gender and liability decisions, in that women are more likely than men to consider sociosexual behavior sexual harassment. This relationship is mediated by several variables, including attitudes of hostile sexism, juror self-referencing, juror ratings of the credibility of the plaintiff, and the story constructed by the juror. Using a "reasonable woman" standard as opposed to a "reasonable person" standard has not been successful in attenuating the gender gap in decision making in sexual harassment cases. However, some research suggests that expert testimony addressing these issues may help jurors make better decisions. Expert testimony addressing the "abuse excuse" has been suggested by some experts as a defense strategy, but researchers have demonstrated that this defense is not only flawed but also ineffective with jurors. Some research suggests that jurors may need an expert to testify about the harms experienced by targets of sexual harassment because they underestimated those harms. In addition, researchers have begun to examine how jurors award damages in sexual harassment cases, and a preliminary study has demonstrated that they award compensatory damages incorrectly but are correct in their allocation of punitive damages.

Sexual harassment in the workplace is a serious legal problem that has only gained attention in the legal arena in the past few decades. There are two types of sexual harassment that are actionable in the U.S. legal arena: (1) quid pro quo sexual harassment, that is, behavior in which an employee directly threatens a subordinate employee with a sexual request that the subordinate must comply with to maintain employment, and (2) sexual harassment caused by a hostile work environment (HWE), that is, unwelcome behavior from any employee that is gender-based and that is severe and pervasive enough to negatively affect the victim's working environment. Research investigating juror decisions in sexual harassment cases has focused on how jurors perceive different types of sexual harassment and has examined several different factors that affect jurors' decisions in sexual harassment cases (e.g., juror gender, the legal standard used, the use of expert testimony). Researchers have also begun to examine how jurors award damages in sexual harassment cases.

Gender Effects on Juror Decisions in Sexual Harassment Cases

Research on jurors' decisions in sexual harassment cases has consistently demonstrated that women are more likely than men to perceive more types of sociosexual behavior in the workplace as sexually harassing. This effect has been consistent across several levels of ecological validity (e.g., participants acting as jurors, participants judging workplace scenarios), types of stimuli (e.g., written summaries of workplace situations, videotaped trials), and participant types (e.g., students, community members) and has been confirmed by two meta-analyses. In addition, researchers have found that the magnitude of the gender difference is moderated by the type of harassment perceived. Specifically, men and women make similar judgments about cases of clear-cut sexual harassment (e.g., quid pro quo, sexual coercion), but women are more likely than men to make judgments in favor of the plaintiff in cases in which the behavior is more ambiguous (e.g., HWE sexual harassment).

Mediating Variables in the Relationship Between Gender and Verdict

Researchers have also examined mediating variables in the relationship between gender and verdict in sexual harassment cases. Several studies have shown a mediating effect of juror self-referencing (i.e., jurors imagining how they would have acted or what they would have done in the same situation) on the relationship between juror gender and verdict. In these studies, women were

more likely than men to self-reference and, therefore, were more likely to find for the plaintiff. Research expanding on this relationship found that attitudes of hostile sexism mediated the relationship between gender and self-referencing, in that men were more likely than women to hold attitudes of hostile sexism, and therefore, men were less likely to self-reference than women. In addition, those jurors who were higher in self-referencing (typically women) also rated the plaintiff's credibility higher than those who were low in self-referencing; those who rated the plaintiff's credibility higher were more likely than those who rated the plaintiff's credibility lower to render a judgment in favor of the plaintiff.

Further research replicated and extended this model to show that the content of expert testimony may affect jurors' tendencies to self-reference. In this study, self-referencing was a significant mediator for jurors who heard traditional forms of expert testimony but not a significant mediator for jurors who heard expert testimony from a traditional plaintiff expert and a defense expert who included information about the plaintiff's history of childhood sexual abuse (CSA) as a possible cause of the harassment. Thus, jurors were most able to relate to the plaintiff who had no history of CSA rather than to the plaintiff with a history of CSA and, therefore, only self-referenced in those conditions with no claims of prior CSA.

Other researchers used the story model for juror decision making as a basis for explaining jurors' decisions in sexual harassment cases and accounting for the gender difference in juror decisions. These researchers showed that the story endorsed by the jurors (either proplaintiff or prodefense) mediated the relationship between juror gender and juror decisions. Women were more likely to endorse a proplaintiff story than men (who were more likely to endorse a prodefense story), and therefore, women were more likely than men to render a verdict for the plaintiff.

The Effect of Legal Standard on Juror Decisions

To find an employer liable for HWE sexual harassment, jurors are instructed that not only must the plaintiff show that she experienced discrimination based on gender, but she must also show that the behavior must have been so severe and pervasive that a reasonable person would believe that the conditions of employment were altered or that the working environment was hostile. This reasonable person standard is reflective of the unique nature of sexual harassment compared with most other tort claims—namely, that it involves a subjective component. Because of the gender differences in perceptions of sexual harassments, some courts have adopted a "reasonable woman" standard instead of the reasonable person standard traditionally used in sexual harassment cases.

The thought behind using a reasonable woman standard is that men and women differ in their perceptions of sexual harassment, so the decision maker should adopt the perspective of the victim (who is most likely a woman) when deciding whether the behavior in question is sexual harassment. Despite these good intentions, researchers have found little to no effect of legal standard on juror decisions in sexual harassment cases. Researchers have conducted several studies, varying in ecological validity and with different types of participants and have found little to no evidence that using a reasonable woman standard as opposed to a reasonable person standard diminishes the gender effect. It is possible that using the reasonable woman standard is ineffective in attenuating the gender gap in juror decisions because jurors may not notice the difference in standard. Scholars have also postulated that jurors may not understand the differences between a "reasonable person" and a "reasonable woman" or may ignore the reasonable woman standard in their decision making.

The Effect of Expert Testimony on Juror Decisions

Experts have suggested that perhaps expert testimony addressing the differences between the reasonable woman and reasonable person standards and/or expert testimony addressing gender differences in juror decision making about what behavior constitutes sexual harassment may help reduce the gender gap in decision making in sexual harassment cases. Some research suggests that this may be a successful strategy. In one study, researchers examined the effect of expert social framework testimony, addressing the effects of gender stereotyping on juror judgments. The expert testimony did not affect women's judgments, but men were more likely to find for the plaintiff in conditions with expert testimony than in conditions without expert testimony. The gender gap was not completely eliminated, but this research shows the potential of expert testimony to aid juror decisions.

In addition to using expert testimony to help jurors make good decisions in sexual harassment trials, some researchers have suggested that experts should examine plaintiffs in sexual harassment cases for evidence of prior sexual abuse (which these experts have suggested may have caused the sexual harassment), termed the *abuse excuse.* Most scholars have rejected this hypothesis, demonstrating that it is based on flawed logic and is fundamentally false according to the empirical literature in the area. In addition to its flawed basis, testimony based on the abuse excuse does not have the expected effect on juror judgments in sexual harassment cases. In one study, jurors were less likely to find in favor of the defense if an expert testified using the abuse excuse argument compared with if the defense expert testified more traditionally (with an opposing expert) or did not testify at all.

Jurors' Common Understanding of the Consequences of Sexual Harassment

Some experts have argued that plaintiffs should claim ordinary or garden variety damages (e.g., sadness, loss of enjoyment) rather than claiming injuries in sexual harassment cases (e.g., Posttraumatic Stress Disorder), so that the plaintiff's mental health does not become a subject of controversy. Claiming an injury could result in a compelled mental health examination by a defense expert. However, claiming garden variety damages assumes that jurors have a general understanding of the harms experienced by targets of sexual harassment. Research comparing jurors' and experts' perceptions of the harms experienced by sexual harassment targets in several different workplace scenarios suggests that jurors consistently underestimate the amount of harm experienced by targets in both sexual harassment scenarios and other stressful workplace situations. Thus, such litigation strategies may be more detrimental than helpful to the plaintiff's case.

Damage Award Decisions

If the defendant is found liable for sexual harassment, victims of sexual harassment may also recover both compensatory damages (designed to restore the victim to the state prior to the injury) and punitive damages (designed to punish the defendant for behavior that was particularly egregious and deter others from acting similarly). Thus, in addition to determining liability, the jury is also given the task of determining damages. Generally, jurors award damages appropriately in civil cases. However, given the difference between the psychological nature of the harm in sexual harassment cases and the physical harm alleged in most other civil cases, there may be a discrepancy in how jurors award damages, and researchers have just begun to investigate juror allocation of damages in sexual harassment cases. In one study, researchers demonstrated that jurors inappropriately awarded compensatory damages in a sexual harassment case, confusing harassment severity with pain and suffering. However, jurors did correctly award punitive damages as a function of the behavior of the organization. In addition, juror gender did not have an effect on damage award amounts, counter to the robust gender effect found in liability decisions.

Lora M. Levett

See also Damage Awards; Sexual Harassment; Story Model for Juror Decision Making

Further Readings

Blumenthal, J. A. (1998). The reasonable woman standard: A meta-analytic review of gender differences in perceptions of sexual harassment. *Law and Human Behavior, 22*(1), 33–57.

Gutek, B. A., O'Connor, M. A., Melancon, R., Stockdale, M. S., Geer, T. M., & Done, R. S. (1999). The utility of the reasonable woman legal standard in hostile work environment sexual harassment cases: A multimethod, multistudy examination. *Psychology, Public Policy and Law, 5,* 596–629.

Kovera, M. B., & Cass, S. A. (2002). Compelled mental health examinations, liability decisions, and damage awards in sexual harassment cases: Issues for jury research. *Psychology, Public Policy and Law, 8*(1), 96–114.

O'Connor, M., Gutek, B. A., Stockdale, M., Geer, T. M., & Melancon, R. (2004). Explaining sexual harassment judgments: Looking beyond gender of the rater. *Law and Human Behavior, 28*(1), 69–95.

Rotundo, M., Nguyen, D. H., & Sackett, P. R. (2001). A meta-analytic review of gender differences in perceptions of sexual harassment. *Journal of Applied Psychology, 86,* 914–922.

Wiener, R. L., & Gutek, B. A. (1999). Advances in sexual harassment research, theory and policy. *Psychology, Public Policy, and the Law, 5,* 507–518.

Sexual Violence Risk–20 (SVR–20)

The Sexual Violence Risk–20 (SVR–20) is a set of structured professional judgment guidelines for conducting sexual violence risk assessments in criminal and civil forensic contexts. The SVR–20 is not a quantitative test that yields norm-referenced or criterion-referenced scores. Rather, it was developed as an aide mémoire to help systematize the risk assessment of individuals who (allegedly) have committed an act of sexual violence. More important, the concept of risk assessed by SVR–20 is not limited to likelihood of a new offense, as is commonly the case in actuarial (i.e., statistically based) tests. Other aspects of risk, such as level of victim harm, victim specificity, frequency, imminence, and likelihood are also addressable by this instrument.

Development

The SVR–20 comprises 20 items or factors considered to be minimally comprehensive in a sexual violence risk assessment. These items were gleaned from a systematic review of the scientific and professional literature in the area of sexual violence, sex offender recidivism, and sexual offender treatment. The guidelines for assessment and treatment of sexual offenders proposed by many different jurisdictions were also examined. The 20 factors selected for inclusion in the SVR–20 are divided into three domains: Psychosocial Adjustment, Sexual Offenses, and Future Plans.

The Psychosocial Adjustment section comprises factors that are primarily historical in nature but also relate to current functioning. These factors include sexual deviation, victimization as a child, psychopathy, major mental illness, substance use problems, suicidal/homicidal ideation, relationship problems, employment problems, past nonsexual violent offenses, past nonviolent offenses, and past supervision failures. Clearly, some of these factors are more stable than others (e.g., past offenses), and some of these factors are more related to current functioning (e.g., substance use problems).

The Sexual Offenses section comprises items that are all related to the person's historical and current sexual offenses. These factors include high-density sex offenses, multiple (types of) sex offenses, physical harm to victim(s) in sex offenses, use of weapons or threats of death in sex offenses, escalation in frequency or severity of sex offenses, extreme minimization or denial of sex offenses, and attitudes that support or condone sex offenses.

The Future Plans section comprises 2 items: lacks realistic plans and negative attitude toward intervention.

The assessor may also include "other considerations" unique to the individual case that are considered to be important to the determination of risk.

Administration

Administration of the SVR–20 begins with a gathering of relevant information. The manual contains recommendations concerning what information to gather and how to gather it. Evaluators then rate the lifetime presence of the 20 standard risk factors as well as any case-specific risk factors identified. A brief definition of each risk factor is included in the manual. Next, evaluators rate recent change in the risk factors to identify whether there has been any increase or decrease over time in the risks associated with each. After rating the presence of individual risk factors, evaluators make an overall judgment of risk that is meant to reflect the level of intervention required to manage risk in the case. For example, people are judged to be "low risk" when evaluators believe they require minimal intervention (e.g., monitoring), "moderate risk" when evaluators believe they require enhanced intervention (e.g., a high-intensity sex offender treatment group, frequent reporting to a probation officer), and "high risk" when evaluators believe the person requires urgent or extreme intervention (e.g., incapacitation, supervised residence, emergency treatment).

Critique

Content Validity. The SVR–20 has been criticized because its items vary greatly in terms of the extent to which they are associated with the probability of recidivistic sexual violence, according to meta-analytic research. For example, factors such as high-density sexual offenses, sexual deviation, and attitudes supportive of offending are reasonably well established as predictors of recidivism in sexual offenders, whereas physical harm to victim(s), extreme minimization or denial, and negative attitude toward treatment are not. But the latter factors were included because they can be very important in

helping professionals to assess aspects of risk other than likelihood (i.e., nature, severity, imminence, frequency) as well as to develop risk management strategies.

Interrater Reliability. Research indicates that judgments regarding the lifetime presence of risk factors and overall risk can be made with good interrater reliability. The interrater reliability of judgments regarding recent change has not been evaluated.

Predictive Validity. Research has provided good support for the use of the SVR–20 in sexual violence risk assessment. Individual studies and meta-analyses have demonstrated that the SVR–20 predicts sexually violent recidivism about as well as, and in some cases better than, commonly used actuarial tests. In studies that compared evaluators' overall judgments of risk with simple linear combinations of risk factors, typically, overall judgments have better predictive validity.

Recommendations

In the authors' experience, most assessors find that the inclusion of a locally normed actuarial risk assessment test alongside the SVR–20 allows for a more comprehensive appraisal of risk, and we support this practice. There is no convergence of opinion as to what is the best practice in this area; however, it is clear to most clinicians that the use of a single instrument is not necessarily the best manner in which to protect the public from future offending and that a more comprehensive and conservative approach is warranted.

Douglas P. Boer and Stephen D. Hart

See also Forensic Assessment; Hare Psychopathy Checklist–Revised (2nd edition) (PCL–R); Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Risk Assessment Approaches; Sex Offender Needs Assessment Rating (SONAR); Sex Offender Risk Appraisal Guide (SORAG); STATIC–99 and STATIC–2002 Instruments

Further Readings

Boer, D. P. (2006). Sexual offender risk assessment strategies: Is there a convergence of opinion yet? *Sexual Offender Treatment, 1,* 1–4.

Boer, D. P., Hart, S. D., Kropp, P. R., & Webster, C. D. (1997). *Manual for the Sexual Violence Risk–20: Professional guidelines for assessing risk of sexual violence.* Vancouver, Canada: The Mental Health, Law, and Policy Institute, Simon Fraser University.

Short-Term Assessment of Risk and Treatability (START)

The Short-Term Assessment of Risk and Treatability (START) is a concise clinical guide for the dynamic assessment of short-term (i.e., weeks to months) risk for violence (to self and others) and treatability. START guides the assessor toward an integrated, balanced opinion to evaluate the client's risk across seven domains: violence to others, suicide, self-harm, self-neglect, unauthorized absence, substance use, and risk of being victimized. This structured professional guide is intended to inform clinical interventions and index therapeutic improvements or relapses.

START represents a refinement in the risk assessment field, in that it comprises dynamic variables that are responsive to treatment and management efforts and because each of the 20 items is scored both as a vulnerability and as a strength, from 0 (no evident risk or strength) to 2 (high risk or strength). It also allows for the recording of historical and case-specific factors. Once the 20 items are coded, the assessor completes a summary judgment of risk (low, moderate, or high) on the seven domains (i.e., violence to others, suicide, etc.); other client-specific risks may also be added. A potentially useful aspect of START is that it facilitates the identification, recording, and communication of individually determined "critical" vulnerability items, "key" strengths, and "signature risks" (i.e., early but reliable, unique, and invariant signals of impending relapse and elevation in risk) deemed to be especially relevant to the particular client's functioning, responsivity to treatment, and the likelihood of adverse outcomes.

START is devoted to the systematic assessment of the strengths and vulnerabilities of the individual client with the ultimate goal of enhancing mental health functioning and preventing adverse events. It is intended to assist in day-to-day monitoring, treatment planning, and risk communication. Repeated administrations are a convenient method of tracking changes in mental health status, vulnerabilities, strengths, and violence potential (against self/others). START is anticipated to be an effective means of reducing the cycling of mentally disordered persons through the civil psychiatric and criminal justice systems. It was developed for use with adults with mental, personality, and substance-related disorders, with relevance to correctional, civil, and forensic clients in the community and institutional settings. This new scheme is particularly applicable to

forensic assessments requiring a consideration of violence risk. Where possible, START should be completed by multidisciplinary treatment teams.

Reliability

The interrater reliability of START has been assessed across multiple mental health disciplines. The interrater reliability for three assessor professions using the intraclass correlation coefficient was ICC2 = .87, $p = .001$. The internal consistency (Cronbach's alpha) of the total START scores for diverse raters is also good ($\alpha = .87$) and is relatively consistent across disciplines: psychiatrists ($\alpha = .80$), case managers ($\alpha = .88$), and social workers ($\alpha = .92$). Item homogeneity measured using the mean interitem correlation exceeds .20, generally agreed to reflect a unidimensional scale.

Validity

Content validity of START is demonstrated by the measure emerging from a perceived need by frontline mental health professionals. The items and content reflect the collaboration of a multidisciplinary group of researchers and mental health professionals. It grew out of repeated consultation with multiple treatment teams and reflects a comprehensive consideration of existing risk assessment devices and the literature. Professionals report that the items are easily applied to their clients' circumstances, that START provides a comprehensive risk summary, and that signature risk signs are useful when evaluating their patients. It is also noteworthy that assessors identify more strengths than vulnerabilities in their clients, suggesting that the inclusion of strengths in START is an important advance over previous instruments.

Construct validity has been demonstrated by prospectively examining the relationship between START item scores and Review Board hearing outcomes; results indicate a weak positive relationship. Further evidence of convergent validity has been demonstrated through an examination of START scores by ward security levels in a forensic psychiatric hospital. Findings demonstrated significantly lower total scores among patients in open units than among patients in closed and locked units ($F = 15.64$, $p < .001$). Patients in open units were also found to have lower risk scores and higher strength scores than patients in closed and locked units.

Predictive validity has been examined in prospective research, which demonstrates a moderate association between START total scores and future self-harm, aggression against others, and attempted unauthorized leave, as measured by a modified Overt Aggression Scale (e.g., physical aggression $r_{pb} = .23$, $p < .001$; $AUC = .65$, $CI = .57$-$.72$, $p < .001$). There is substantial overlap between the risk domains evaluated on START. For instance, patients who aggress against others are also significantly more likely to engage in self-harm ($\varphi = .37$). These findings suggest that joint assessment and treatment of these diverse needs is appropriate.

Future Research

Research examining the hierarchical organization and construct validity of START, as well as its utility for monitoring progress and planning for effective interventions, is needed. Prospective studies demonstrating START's capacity to measure change in offenders, forensic, and civil psychiatric patients are required, as are projects to demonstrate whether that change is reflected in decreased future risk. In particular, future research should examine to what extent START's dynamic variables add incremental validity to established static (more or less unchanging) risk markers and for what time frames static versus dynamic variables are most relevant. START research should focus on comparing and contrasting the importance of considering clients' strengths in combination with their vulnerabilities and the relevance of those variables for predicting and reducing risk. START has been translated into several languages, though a pressing need remains for studies demonstrating its utility in English- and non-English-speaking populations and across cultures and settings.

Tonia L. Nicholls, Christopher Webster, Johann Brink, and Mary-Lou Martin

See also Forensic Assessment; HCR–20 for Violence Risk Assessment

Further Readings

Webster, C. D., Martin, M. L., Brink, J., Nicholls, T. L., & Middleton, C. (2004). *Manual for the Short-Term Assessment of Risk and Treatability (START)* (Version 1.0, Consultation ed.). Hamilton, ON, Canada:

St. Joseph's Healthcare/Port Coquitlam, British Columbia, Canada: Forensic Psychiatric Services Commission.
Webster, C. D., Nicholls, T. L., Martin, M. L., Desmarais, S. L., & Brink, J. (2006). Short-Term Assessment of Risk and Treatability (START): The case for a new violence risk structured professional judgment scheme. *Behavioral Sciences and the Law, 24,* 747–766.

SHOWUPS

Showups are an identification technique in which a single individual, the suspect, is presented in a one-on-one confrontation with the victim or other witness of a crime. The witness is asked to indicate whether the suspect is or is not the perpetrator. Showup identifications are very common and even favored by the police as an investigative procedure. They are considered inherently suggestive because the witness views only one person and the identification requires only the assent of the witness. This entry describes the criteria used to justify the use of showups, compares the outcomes of showups and lineups, and reviews some of the dangers presented by the use of showups.

Although showup identifications may be viewed with disfavor by the courts, they are not per se considered violations of due process if there was an overriding need in light of the totality of circumstances. Showups may be justified when an immediate identification would facilitate an ongoing police investigation, a quick exoneration of the innocent could be made, the identification is completed in close proximity in time and place to the scene of the crime, and the witness's memory is strongest or in its freshest state.

Whether a crime scene showup is unduly suggestive and results in a misidentification is a mixed question of law and fact. If the prosecution can prove by clear and convincing evidence that the showup identification was reliable enough to be probative despite some suggestiveness, the witness's identification is admissible. Any suggestiveness in the process would go to the weight of the identification, not its admissibility. In contrast, if the defense can prove that the showup procedure was unduly and unnecessarily suggestive, the identification evidence based on an unfairly conducted showup would be suppressed.

Judges typically consider the following factors in determining whether pretrial suggestiveness unduly influenced the identification trial testimony of an eyewitness: (a) the opportunity of the witness to view the perpetrator at the time of the crime, (b) the witness's degree of attention at the time of the crime, (c) the accuracy of the witness's prior description of the perpetrator, (d) the level of certainty demonstrated at the time of the identification, and (e) the lapse of time between the crime and the identification procedure. Scientific research has shown, however, that only the opportunity to observe and the length of the retention interval are related to accuracy of identification. Most eyewitness researchers agree that the use of showups in contrast to many-person lineups increases the risk of misidentification, and the evidence in support of this conclusion is generally reliable.

It has been argued that showups, in principle, are less fair than lineups because they fail to protect the innocent suspect. That is, showups cannot distribute the probability of identification of an innocent suspect across lineup fillers, and thus, they increase the risk of an identification error. Also, it is assumed that showup procedures are high-pressure situations in which witnesses are encouraged to make an identification or situations that force witnesses to make an identification. Because a showup involves the single presentation of a suspect, it is hypothesized that a witness's decision is based on an absolute judgment in which the suspect is compared with his or her memory of the perpetrator. Viewing the showup may be similar to viewing the first person in a sequential lineup, where the witness must make an absolute judgment based on individual presentations of the suspect and a number of fillers. In contrast, simultaneously presented lineups of a suspect and fillers involve witnesses making relative judgments of who in the lineup most closely resembles the perpetrator. Sequential lineups have been shown to increase correct rejections of innocent suspects without significantly affecting the accuracy of identification (hit) rate compared with simultaneously presented lineups of a suspect and fillers. Thus, in theory, showups may be beneficial if they increase correct rejections; however, they may be dangerous if they fail to protect an innocent suspect from false identifications. Furthermore, if the procedure is suggestive, there will be increased pressure to choose, thereby generating an increase in both correct and incorrect selections.

Meta-analytic comparisons of showup and lineup presentations reveal that showups generate lower choosing rates than lineups. This suggests that witnesses may be more cautious with their identification in a showup situation. Unlike actual cases where the presence of the guilty suspect cannot be controlled, meta-analysis comparisons indicate that the correct identification (hit) rate is very similar in both conditions (approximately 46%)

when the target is present; correct rejection rates are significantly higher in showups when the target is absent; false identifications in target-absent conditions are about the same (16%); however, errors in target-absent lineups are spread across fillers rather than focused on the innocent suspect in a showup; and false identifications are particularly high in showups when the innocent suspect resembles the perpetrator, for example, when they wear similar clothing.

No significant differences in identification have been found between live and photographic showups. Witnesses are likely to be equally confident in showup identifications in their correct choices of guilty suspects and false selections of innocent suspects. Innocent suspects are at significantly less risk in being falsely identified in lineups than in showups, especially after 2- and 24-hour retention intervals. Comparisons of showups and lineups for voice identifications, either from tape-recordings presented in the field or over the telephone, indicate that lineups are significantly superior to showups in minimizing false identifications of a suspect who sounds very similar to the perpetrator.

Research on the effect of alcohol on identification from showups reveals that blood alcohol level is not related to accuracy of identification (hits) when the guilty suspect is present in the confrontation. However, if an innocent suspect is present, the higher the blood alcohol level, the greater the number of false identifications.

Dan Yarmey

See also Confidence in Identifications; Identification Tests, Best Practices in; Lineup Size and Bias; Simultaneous and Sequential Lineup Presentation; Voice Recognition

Further Readings

Steblay, N., Dysart, J., Fulero, S., & Lindsay, R. C. L. (2003). Eyewitness accuracy rates in police showup and lineup presentations: A meta-analytic comparison. *Law and Human Behavior, 27,* 523–540.

Yarmey, A. D., Yarmey, M. J., & Yarmey, A. L. (1996). Accuracy of eyewitness identifications in showups and lineups. *Law and Human Behavior, 20,* 459–477.

Simultaneous and Sequential Lineup Presentation

Simultaneous and sequential presentation refers to two styles of presenting a police lineup to witnesses of a crime. Research shows that patterns in identification decisions differ between these presentation styles. This entry reviews the components of each presentation method and the advantages and disadvantages of their use and mentions some unresolved issues.

Some crimes involve perpetrators who are strangers to the victims and to eyewitnesses. When a suspect is identified by a police investigator, the investigator may ask the witness to view that suspect in a lineup or photo array containing the suspect and others who are known to be innocent (referred to as *fillers, foils,* or *distracters*). Four outcomes are possible: The witness can select the suspect, select a filler, respond that the suspect is not in the lineup, or give a response of "don't know." Obviously, the accuracy of selections and rejections of suspects depends on whether the suspect is actually guilty.

Simultaneous presentation of a lineup involves showing a witness all the members of a lineup at once. Thus, witnesses decide whether the criminal is present while looking at the entire lineup. Traditionally, police investigators have used simultaneous lineup presentation.

Research suggests that simultaneous presentation encourages witnesses to choose the person in the lineup who looks most like the perpetrator. This comparative approach is referred to as a "relative judgment strategy." If the guilty person is in the lineup, using relative judgments should lead to correct identification. However, evidence can lead police officers to suspect an innocent person. In some portion of these occasions, the innocent suspect will look more like the criminal than other lineup members. This would make it likely that the innocent suspect would be chosen by witnesses using the relative judgment strategy. As evidence mounted that many innocent people were selected from lineups, the use of a relative judgment strategy was posited as a possible explanation for the frequency of such errors. One way to increase the accuracy of eyewitness decisions was to develop a lineup technique that decreased the likelihood that witnesses would use a relative judgment strategy when viewing the lineup.

Sequential presentation of lineups was proposed as a means to elicit fewer false selections than simultaneous lineups by reducing reliance on relative judgments. In its original formulation, sequential presentation involved the following five principles. First, each lineup member is individually shown to the witness. This discourages comparisons among lineup members and encourages witnesses to compare each lineup member only with his or her memory for the criminal (often referred to as an absolute judgment). Second, lineup

members are shown only once, discouraging comparisons between lineup members because individual lineup members cannot be viewed repeatedly. Third, witnesses are unaware of how many lineup members they will be shown. This is designed to prevent witnesses from feeling pressure to choose as they get closer to the end of the lineup. Fourth, witnesses are not permitted to change a decision once it has been made. Finally, the person showing the lineup to the witness should not know which lineup member is the suspect (double-blind testing), so that witnesses are not prompted or cued (intentionally or otherwise) to choose suspects for reasons other than recognizing them.

There is no doubt that the sequential lineup achieved its primary purpose. Sequential lineups consistently led to fewer false selections than simultaneous lineups. The effect of using sequential lineups on correct selections is less clear. Early studies reported little or no decline in correct selection rates. The pattern of large decreases in false-positive choices combined with relatively small losses of correct selections in comparison with simultaneous lineups has been termed the "sequential superiority effect." Later research produced mixed results with regard to correct selections, and meta-analyses support the conclusion that a real but smaller decrease occurs for correct selections than for false selections.

Several issues remain to be resolved concerning simultaneous versus sequential lineup presentation. The reason for the difference in correct selection rates has been attributed to a criterion shift, a multiple-choice selection strategy (relative judgment), and guessing. Both in the laboratory and in the police station, there is variance in the sequential procedure. Not all features of the sequential lineup have been used in every study or in the field. Sometimes witnesses are permitted to see all lineup members before making a decision. For example, in England, the mandated procedure for the police using a sequential lineup is to have witnesses go through the lineup at least twice before making their decisions known. Not all studies mask the size of the lineup. Practices vary in terms of whether the lineup is terminated after a selection is made. To date, there are insufficient data to determine the degree to which these methodological issues are crucial to the size or existence of the full "sequential superiority effect." What is clear is that simultaneous presentation, the traditional technique for presenting a police lineup, is not ideal because of high false-positive selection rates. Sequential lineups lead to dramatically fewer false selections than simultaneous lineups but also lead to somewhat fewer correct selections.

Jamal K. Mansour, Jennifer L. Beaudry, Michelle I. Bertrand, and R. C. L. Lindsay

See also Double-Blind Lineup Administration; Eyewitness Memory; Identification Tests, Best Practices in; Instructions to the Witness; Lineup Size and Bias

Further Readings

Lindsay, R. C. L., & Wells, G. L. (1985). Improving eyewitness identification from lineups: Simultaneous versus sequential lineup presentations. *Journal of Applied Psychology, 70,* 556–564.

Steblay, N., Dysart, J., Fulero, S., & Lindsay, R. C. L. (2001). Eyewitness accuracy rates in sequential and simultaneous lineup presentations: A meta-analytic comparison. *Law and Human Behavior, 25,* 459–473.

Source Monitoring and Eyewitness Memory

The source monitoring (SM) framework is an evolving set of ideas developed by Marcia Johnson and her collaborators regarding the cognitive processes by which individuals attribute mental events (thoughts, images, feelings) to particular origins (e.g., memory, perception, creativity, etc.). Most of the research motivated by the SM framework has had to do with how people identify the specific sources of mental events that they experience as episodic memories (e.g., how a witness differentiates between memories of a crime vs. memories of a cowitness's descriptions of that crime). "Source" is a multidimensional construct that includes (a) the environmental context in which a past event occurred (e.g., Did *X* happen at work or at home?), (b) an event's temporal context (e.g., Did *X* happen yesterday or last week? Before or after *Y?* In the morning, midday, or evening? Summer or fall?), (c) the agents involved in an event (e.g., Who said *X?*), and (d) the sensory modalities and media through which the event was encountered (e.g., Did I read the book or see the film? Did I see a knife or only hear mention of a knife?). People quite often experience difficulty in remembering the sources of their recollections. Moreover, they sometimes misremember aspects of a

source. As briefly summarized at the end of this entry, such SM failures are thought to play central roles in a variety of false-memory phenomena.

The core assumption underlying the SM framework is that memories do not include abstract tags or labels that identify their origins; rather, accessed memory information is said to be attributed to particular sources of past experience on the basis of its quantitative and qualitative characteristics. That is, the idea is that source is inferred from the content of the accessed memory information.

According to the SM framework, dimensions of source are recognized in the course of recollecting a past event much as dimensions of source are recognized in ongoing perceptual experience. When you answer the phone and your friend Yuji says hello, you immediately recognize the voice as Yuji's even though the sensory signal includes no abstract label designating the speaker's identity. Cognitive processing of the acoustic properties of the signal interacts with memory, cuing a wealth of information that enables you to recognize the speaker. Likewise, when you recollect something Yuji told you yesterday, the memory records of hearing that utterance likely do not include any abstract symbols naming the speaker (unless you happened to reflect about Yuji's name as you listened to the utterance), but they may include information about the sound of his voice and/or his appearance, the semantic content of the statement, information pertaining to the environmental and temporal context, and so on, all of which can serve as bases for identifying the speaker of the remembered utterance as Yuji.

Just as source attributions in ongoing experience are usually made quickly and without conscious reflection, so too are most memory attributions. But just as a bad cell phone connection can make it difficult to identify a friend's voice, weak or incomplete memory records may provide insufficient information to specify various aspects of a memory's source. When this occurs, the rememberer may make conscious, strategic efforts to retrieve more information and/or make deliberative inferences about the source of the recollection.

Even if fairly rich and detailed memory information about a past event is accessed, if two or more sources characteristically give rise to memory records highly similar to those accessed, the rememberer may be uncertain as to which of them gave rise to that recollection or may mistake a memory from one source as a memory from the other. Here again, the analogy to perception holds; if Don's voice is very similar to Yuji's, then you may mistake one for the other on the phone or when recalling their utterances. Such source-similarity effects are not limited to perceptual similarity; SM errors are also likely if the semantic content of a remembered event from source X is characteristic of the semantic content from source Y. If Don and Yuji are both psychologists who study eyewitness memory, for example, that may make it difficult to remember which of them made a particular comment on that topic.

Yet another parallel with perception is that SM judgments can be biased and distorted by expectations. Rememberers may, for example, be biased to attribute a recollection of a politically conservative utterance to a person who (they know) tends to say such things. As another example, people show systematic biases in the attributions they make when they mistakenly recognize a new foil (*foil* refers to an innocent person in a police lineup) on a memory test as an item presented earlier in the experiment. If the acquisition phase of the experiment involved participants reading some words aloud and listening to the experimenter say others, for example, then when participants falsely recognize a new test word as one presented in the study phase, they are likely to attribute that word to the experimenter rather than to themselves. This "it had to be you effect" presumably arises because participants expect memories of words the experimenter had said to be weaker and less detailed than memories of words they themselves had said; because "memories" of new words are likely to be weak and vague, participants tend to attribute them to the source of weaker memories.

SM confusions are thought to be involved in a wide range of memory errors and memory illusions. Early studies by Sir Frederick Bartlett, for example, demonstrated that individuals' knowledge and beliefs can bias and distort their reconstructions of past episodes. Bartlett's ideas were extensively explored and elaborated during the 1970s and 1980s by researchers studying various schema- and script-based memory errors. From an SM perspective, knowledge and beliefs provide a rich source of thoughts and images coming to mind during efforts to recollect past events and hence being mistakenly attributed to memory. Similarly, the last decade yielded a torrent of research on "false memories" for nonstudied words that are highly associated with studied words, and these errors too can be described as SM failures. Additionally, there is a large body of literature demonstrating that misleading suggestions regarding details in a witnessed event can lead

individuals to believe that they remember witnessing things that they really only read or heard about. These ideas are also relevant to the controversy regarding cases in which adults report "recovered memories" of childhood sexual abuse. Cryptomnesia (aka unconscious plagiarism), in contrast, is the opposite sort of SM confusion; here, individuals experience thoughts that arise from episodic memories of another's ideas as newly minted ideas of their own. These and other memory errors provide insight into the often unconscious inferential processes by which people attribute mental events to sources.

D. Stephen Lindsay

See also Detection of Deception: Reality Monitoring; Eyewitness Memory; False Memories; Forced Confabulation; Postevent Information and Eyewitness Memory; Reconstructive Memory; Repressed and Recovered Memories

Further Readings

Johnson, M. K. (2006). Memory and reality. *American Psychologist, 61,* 760–771.

Lindsay, D. S. (in press). Source monitoring. In H. L. Roediger III (Ed.), *Learning and memory—A comprehensive reference: Cognitive psychology.* Oxford, UK: Elsevier.

Spousal Assault Risk Assessment (SARA)

Given the increasing number of spousal assaulters coming before the justice system, there is a growing need for risk assessment instruments to assist in making appropriate decisions at various stages of the proceedings. The Spousal Assault Risk Assessment (SARA) guide is a manual that presents a set of recommendations for the assessment of spousal assault risk and includes a checklist of risk factors. Adequate reliability and validity for judgments concerning violence risk with adult male offenders has been established; however, there is a continuing need for further research with the SARA to advance knowledge and practice.

The SARA is a structured professional approach to risk assessment that bridges the gap between unstructured clinical judgment and actuarial approaches. Its purpose is to guide and enhance professional judgments about risk, not to provide absolute measures of risk using cutoff scores. It is composed of 20 items that were selected based on a review of empirical research and relevant legal and clinical issues. These items are both static and dynamic in nature. The first 10 items are associated with risk for general violence and include three criminal history factors and 7 factors assessing psychosocial adjustment of the offender. The next 10 items are directly associated with the offender's history of spousal violence and include 7 factors that relate to the offenders past assaultive behavior and 3 items that relate specifically to the current offense. Additional case-specific factors may also be considered.

Each of the 20 items is coded on a 3-point scale (0 = *absent,* 1 = *subthreshold,* 2 = *present*), according to detailed criteria. Each item is then evaluated as to whether it should be considered a critical item, defined as those items which, given the specific circumstances of the case, are considered sufficient on their own to compel the evaluator to conclude that the individual poses an imminent risk of harm. After evaluating the presence of each item, and assessing critical items, the evaluator makes a final risk rating of low, moderate, or high. As indicated above, there is no cutoff score for identifying those individuals considered as low, moderate, or high risk. Rather, these ratings are based on a review of the available information and represent the professional opinion of the evaluator.

Assessment procedures for completing the SARA make use of multiple sources of information and use multiple methods. A thorough assessment will include comprehensive interviews with the offender and victim; standardized measures of physical and emotional abuse and drug and alcohol abuse; a review of collateral records, which should include police reports, victim's statements, and a criminal record; and other psychological tests or procedures. After the SARA is completed using the procedures noted above, overall risk ratings should be communicated in a clear manner with justification accompanying each opinion. Any limitations on the opinions should be included in a report of the findings. Additionally, risk management strategies should be discussed as they relate to the underlying risk factors present for the offender.

Although there is a paucity of research examining the SARA, the available evidence suggests that the SARA has demonstrated adequate reliability and validity for judgments concerning violence risk with adult male offenders. Structural analyses of the risk factors

have yielded moderate levels of internal consistency and item homogeneity. Interrater reliability has been found to be high for judgments regarding the presence of individual risk factors and good for overall summary risk ratings. Research conducted by the instrument's authors showed that SARA ratings yielded good convergent and discriminant validity when compared with other measures of risk for general and violent criminality, and good concurrent validity when scores were compared with another domestic violence instrument.

Evidence of predictive validity with respect to future violence is only modest at present; however, this may be accounted for, in part, by the risk management and violence prevention applications of the instrument. Data concerning the SARA's ability to discriminate between spousal assaulters who re-offend and those who do not re-offend have been mixed. In some samples, SARA total scores have discriminated between recidivistic and nonrecidivistic spousal assaulters but have failed to distinguish between the groups in others. Current evidence supports the predictive validity of several individual items, and the SARA total score has demonstrated a modest, statistically significant improvement in predicting spousal violence over chance. However, some research has shown that the SARA does not add incrementally to the prediction of wife assault recidivism after controlling for alcohol abuse, severe psychological problems, and childhood abuse or neglect. It should be noted that SARA items were selected on the basis of their established association with interpersonal violence in the empirical literature.

Much of the published literature on the SARA has used offender interviews and file review data to make risk judgments, and it is difficult to ascertain the nature and depth of the information included in these ratings. It is possible that the full assessment procedures described earlier and recommended in the SARA manual have not been followed; this could include failure to conduct victim interviews or use standardized measures. As a result, the generalizability of these research studies to general clinical practice may be limited. Future research incorporating these multiple sources of information may prove informative. While prospective research on the SARA is also needed to further advance the use of this instrument in forensic decision making, additional research is required to evaluate the effectiveness of this risk assessment approach in preventing violence.

Karen E. Whittemore and Kaitlyn McLachlan

See also Risk Assessment Approaches; Violence Risk Assessment

Further Readings

Kropp, P. R., & Hart, S. D. (2000). The spousal assault risk assessment (SARA) guide: Reliability and validity in adult male offenders. *Law and Human Behavior, 24,* 101–118.

Kropp, P. R., Hart, S. D., Webster, C. W., & Eaves, D. (1995). *Manual for the Spousal Assault Risk Assessment Guide* (2nd ed.). Vancouver, British Columbia, Canada: B.C. Institute on Family Violence.

Kropp, P. R., Hart, S. D., Webster, C. W., & Eaves, D. (1998). *Spousal Assault Risk Assessment: User's guide.* Toronto, ON, Canada: Multi-Health Systems.

Whittemore, K. E., & Kropp, P. R. (2002). Spousal assault risk assessment: A guide for clinicians. *Journal of Forensic Psychology Practice, 2*(2), 53–64.

STABLE–2007 and ACUTE–2007 Instruments

Sexual offenders do great societal damage that causes justifiable public concern. Over the past 10 years, psychology has developed the ability to reliably classify male sexual offenders as low, moderate, and high risk for sexual recidivism (Minnesota Sex Offender Screening Tool–Revised, Risk Matrix–2000, Rapid Risk Assessment for Sexual Offense Recidivism, and STATIC–99) based on historical, static, nonchangeable risk factors. The "static" structure of these tests effectively precludes their ability to measure changes in risk. The STABLE–2007 and the ACUTE–2007 instruments are specialized tools designed to assess and track changes in risk status over time by assessing changeable "dynamic" risk factors. "Stable" dynamic risk factors are personal skill deficits, predilections, and learned behaviors that correlate with sexual recidivism but that can be changed through a process of "effortful intervention" (i.e., treatment or supervision). Should such intervention take place in such a way as to reduce these risk-relevant factors, there would be a concomitant reduction in the likelihood of sexual recidivism. "Acute" dynamic risk factors are highly transient conditions that only last hours or days. These factors are rapidly changing environmental and intrapersonal stresses, conditions, or events that have been shown by previous research to be related to

imminent sexual re-offense. These instruments should be used to inform correctional managers as to how much risk they are managing, inform decisions on levels of community treatment and supervision, and estimate changes in risk status pre- and posttreatment or other interventions.

In the late 1990s, Karl Hanson and Andrew Harris began to investigate the relationship between sexual recidivism and dynamic, changeable, risk factors that correlated with sexual recidivism. This work produced the Sex Offender Needs Assessment Rating (SONAR) assessment, which demonstrated adequate internal consistency and a moderate ability to differentiate sexual recidivists from nonrecidivists. Extending this work, Hanson and Harris broke the SONAR into two parts, creating a stable measure of dynamic risk, STABLE–2000 (16 items), and an acute measure of dynamic risk, ACUTE–2000 (8 items).

To test these new instruments, Hanson and Harris instituted a prospective study, the Dynamic Supervision Project, involving every Canadian province and territory and the states of Alaska and Iowa in a robust test of risk assessment methodologies. A total of 156 parole and probation officers completed repeated three-level (static, stable, and acute) risk assessments on 997 sexual offenders across 16 jurisdictions. All the probation and parole officers scoring risk of re-offense for these community-based sexual offenders were trained in sexual offender risk assessment by attending a 2-day training that focused on scoring actual case examples. Sexual, violent, and "other" recidivism information was gathered from official criminal histories after a median of 41 months of follow-up. Results showed that both STABLE–2000 and ACUTE–2000 added predictive validity above that demonstrated by STATIC–99 alone. The sexual recidivism rate for this widely disparate group of community-based sexual offenders was 7.6% after 3 years (n = 790). Empirically based changes in scoring were recommended, and this research led to the development of two improved dynamic risk measures, the STABLE–2007 and ACUTE–2007 instruments.

STABLE–2007 assesses 13 stable risk factors that have been shown to correlate with sexual recidivism: significant social influences, capacity for relationship stability, emotional identification with children, hostility toward women, general social rejection, lack of concern for others, impulsivity, poor problem-solving skills, negative emotionality, sex drive and preoccupations, sex as coping, deviant sexual preference, and cooperation with supervision. Each of these 13 items are scored on a 3-point scale (0 = *no problem evident,* 1 = *some problem evident,* and 2 = *significant problem evident*) for a total of 26 possible points. Emotional identification with children is not scored for those offenders who do not have a child victim, and the scale is subsequently scored out of 24 points for that group. The offender's STATIC–99 score is then combined with his STABLE–2007 score to produce percentage estimates of sexual recidivism, sexual recidivism plus sexual breaches, violent recidivism, any criminal recidivism (breaches excluded), and any criminal recidivism including breaches at 1, 2, 3, and 4 years.

ACUTE–2007 assesses seven acute, rapidly changing risk factors that correlate with sexual recidivism. In this scale, there are two factors. The first factor predicts sexual and violent re-offending and uses the following four risk factors: victim access, hostility, sexual preoccupation, and rejection of supervision. The second factor predicts general criminal recidivism using the aforementioned four factors plus emotional collapse, collapse of social supports, and substance abuse for a total of seven items. Each of these seven items is scored on a 4-point scale (0 = *no problem evident,* 1 = *some problem evident,* 2 = *significant problem evident,* and IN = *intervene now*) for a total of 14 possible points. An "Intervene Now" score calls for immediate intervention to prevent imminent re-offense or supervision catastrophes such as suicide. Once ACUTE–2007 has been scored, this outcome is combined with the offender's STATIC–99/STABLE–2007 score to estimate an overall risk priority. The offender is nominally classified as a low, moderate, or high risk for sexual and violent recidivism and as a low, moderate, or high risk for general criminal recidivism. Appropriate, empirically based risk ratios can then be applied to determine intervention priority.

The STABLE–2007 and the ACUTE–2007 instruments are easier to score than their predecessors, and combinations of the STATIC–99 and STABLE–2007 instruments produced receiver operating characteristic (ROC) curve values for sexual re-offense commonly in the 0.76 range. When used by "conscientious" officers, the STATIC–99/STABLE–2007 combined scores produced an ROC for sexual re-offense of 0.84 and 0.80 for violent recidivism. STABLE–2007 and ACUTE–2007 assessments were found to add predictive power above and beyond that available to assessments of static risk alone.

This study provides further evidence that trained community supervision officers can reliably score valid

and useful sex offender risk assessments. Results of this nature, even taking into account the need for replication and cross-validation, suggest significant policy and practice implications for the community supervision of sexual offenders. The STABLE–2007 and the ACUTE–2007 instruments have demonstrated predictive validity beyond that of the SONAR and the STABLE–2000/ACUTE–2000 packages. STABLE–2007 and ACUTE 2007 are available free of charge from the authors. The authors no longer support or recommend the use of SONAR, STABLE–2000, or ACUTE–2000 but recommend STABLE–2007 and ACUTE–2007 for assessing dynamic changes in risk for sexual offenders.

Andrew J. R. Harris

See also Minnesota Sex Offender Screening Tool–Revised (MnSOST–R); Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Risk Assessment Approaches; Sex Offender Needs Assessment Rating (SONAR); Sex Offender Risk Appraisal Guide (SORAG); STATIC–99 and STATIC–2002 Instruments; Violence Risk Appraisal Guide (VRAG)

Further Readings

Hanson, R. K., Harris, A. J. R., Scott, T.-L., & Helmus, L. (2007). *Assessing the risk of sexual offenders on community supervision: The Dynamic Supervision Project* (User report, Corrections research). Ottawa, ON, Canada: Public Safety Canada. Retrieved from http://www.ps-sp.gc.ca/res/cor/sum/cprs200709-en.asp

Stalking

While the legal definition of stalking varies across jurisdictions, behaviorally, it is generally considered to comprise any of a wide range of repeated acts that either threaten the victim, are intended to cause fear or harm, cause distress, or are otherwise unwanted by the victim. Before the proscription of stalking into criminal law, instances of stalking were sometimes addressed by other criminal laws (such as threats) or by the mental health system. Most of the initial research into stalking was conducted with stalkers who had come into contact with the mental health system. As stalking was criminalized, research extended to include the experiences and feelings of stalking victims as well as the examination of a broader range of stalkers. Additional research has included the manner in which the community perceives stalking behaviors, the factors influencing the occurrence of stalking and stalking violence, and effective strategies for treating stalkers.

Stalking as a Criminal Act

Although stalking may appear to be a new phenomenon, stalking behaviors have existed in some form for hundreds of years. It is only in the last 17 years the behaviors that constitute stalking have been recognized as criminal. Before its criminalization, instances of stalking brought to official attention were often dealt with by mental health professionals. In 1990, the first stalking legislation was instituted in California. A number of cases in which celebrities were stalked, and in some cases killed, by obsessed fans are surmised to have provoked the first law in California. However, stalking came to be recognized as occurring in a range of circumstances, including intimate relationships. Subsequently, all other American states introduced stalking laws (or laws proscribing harassment). Stalking laws have also been instituted in other countries such as England and Australia as well as in many Western European countries. Nevertheless, some stalkers are ultimately managed within the mental health system.

The Mental Health System and Stalking

Before stalking was recognized as criminal, the official response to those who committed stalking was to address their behavior within the mental health system. Some of the first studies of stalking examined stalkers who came into contact with this system. Such research has produced a number of different classifications or typologies of stalkers aimed at guiding approaches for treating the stalker. An example of a classification system used to categorize stalkers and their behaviors is that devised by Paul Mullen and colleagues. Stalkers are classified as rejected (the stalker engages in actions against the victim at the end of a relationship), intimacy seeking (the stalker tries to establish a romantic relationship with the victim), socially incompetent suitors (the stalker tries to establish a connection with the victim but their lack of social skills ultimately leads to their rejection), resentful (the stalker feels the victim has wronged them and wants the victim to feel afraid), and predatory (the stalker revels in the power they have over the person and may sexually assault the victim).

Use of this system may permit predictions regarding the likely course of stalking and may lead to suggestions for treatment. However, most typologies are yet to be empirically supported across a sufficient number of studies; therefore, there is a need for ongoing research in this area.

Definitions of Stalking

When stalking was criminalized, legal definitions of the behaviors that constituted stalking had to be devised. Previously, legal remedies could be used only when the stalker had escalated to violence against the victim, which left many stalking victims without legal recourse. The behaviors and requirements encompassed in legal definitions of stalking vary across jurisdictions. The key elements of the California stalking legislation are that stalking behaviors are engaged in, that a threat is made to the victim, and that the stalker intends to pursue the victim. Other stalking laws only possess one or some of these elements. One common element to definitions of stalking though is that stalking is a course of conduct engaged in over a period of time. This course of conduct is one that is unwanted by the victim. Definitions vary in how often stalking behaviors must be engaged in and which behaviors must be displayed. Also, there are differences in whether the stalker needs to have intended to cause some type of harm to the victim and whether a reasonable person would experience fear or some other type of harm.

Clinical definitions of stalking (or *obsessional harassment,* as is it also known in this field) tend to focus on the repeated nature of the stalking behavior and the fact that it is unwanted and causes distress to the victim. The element of intent to cause fear or harm is generally absent in such definitions. Therefore, there is dissimilarity between some legal and clinical definitions of stalking. This has led to the development of various methods to reduce the problematic behaviors displayed by stalkers. The disparity has also led to research interest in areas such as profiles of stalkers and victims, community perceptions, risk factors, and effectiveness of treatment approaches.

Stalkers

The demographic profile of a stalker is very different from the typical offender profile. Stalkers are generally much older than the typical offender and score higher on intelligence measures than the average offender. Stalkers are usually known to the victim, with a large percentage being current or former partners of the victim. This is in contrast to the often popular perception that victims of stalking are more likely to be pursued by strangers. Stalkers are also overwhelmingly male, which was demonstrated in a survey by Patricia Tjaden and colleagues of 16,000 respondents in the United States, with around 5% of these respondents having been stalked. They reported that approximately 90% of victims in the sample had been stalked by a male.

Victims of Stalking

While men are more likely to be the perpetrators of stalking, women are more likely to be the victims. In the survey by Patricia Tjaden and colleagues, it was found that approximately 80% of the victims were female. This survey also noted that approximately 8% of women had at some stage been stalked, with 2% of men having being stalked during their lifetime. A significant proportion of stalking victims are young adults, with the majority under 30 years.

Other studies conducted with stalking victims have investigated the impact of stalking. These consequences have included psychiatric symptoms, as victims have been known to develop a number of different disorders, such as depression and anxiety, after being stalked. There may also be an impact on victims' social lives, as stalking victims may be less likely to leave home as they are fearful for their safety. Another impact of stalking may be economic, as the victim may have to take time off work to attend medical or psychiatric services or to attend court hearings. Because of injuries suffered during the stalking period, their functioning at work may also be impaired.

Community Perceptions of Stalking

In addition to research with victims, studies have been conducted into how the community perceives stalking. If the community perceives stalking in a manner different from the conception embodied in the legislation, then police resources may be misused, with stalking incidents reported that do not fit legislative requirements. Such a disparity might also lead to genuine victims not having recourse to legal action as they are not considered stalking victims according to legislation. Thus, research into community perceptions of stalking may prove useful for examining the potential effectiveness of legislation and for suggesting changes to stalking laws.

Some vignette research into community perceptions has found that strangers are more likely to be perceived as stalkers, whereas other research has discovered that ex-partners are more likely to be identified as stalkers. Research has demonstrated that community members are more likely to perceive a situation as stalking when the stalker intends to harm or invoke fear in the victim. Also, when stalkers relentlessly engage in behaviors against their victims, the situation is more likely to be construed as stalking. Unless a low level of repetitive behavior is engaged in, intent to harm the victim is not an important requirement for behaviors to be classified as stalking. Some research has also identified that women are more likely to label certain behaviors as stalking and be more frightened than men who judge the same behaviors. The research reveals that men and women may seek legal assistance under different circumstances.

Risk Factors for Stalking

In addition to research on the characteristics of stalkers and stalking victims, another important area of research has been the examination of factors that increase the likelihood that a person will engage in stalking. Stalking is more likely to occur if there has been a previous intimate relationship between the victim and the stalker. Certain psychological and social traits of the stalker can also increase the likelihood that the person will stalk, such as having a personality disorder or possessing few social contacts. Such contacts can have an impact on the cessation of stalking as these social contacts can convey disapproval of the stalker's actions to the stalker, which may influence his future decisions to stalk. It is important for researchers to continue to investigate the factors that influence stalkers to persist in pursuing their victims, as these influencing factors might be altered to reduce the prevalence of stalking.

Violence as an Outcome of Stalking

In some cases, stalkers may escalate to violence against their victims. This violence can have a great impact on the victim and can lead to permanent damage or even death. Some research indicates that stalkers who escalate to violent acts have previous criminal convictions, whereas other research has revealed that having a previous criminal history has no relationship with engaging in stalking behaviors. There are some risk factors, however, that appear to consistently indicate that violence may be a likely outcome. Threats appear to be a precursor to violence in some cases. Some mental illnesses may also lend a person to engaging in violent stalking behaviors, although a psychotic stalker is less likely to engage in violence than a nonpsychotic stalker. The prior relationship between the stalker and the victim can also have an impact on the risk of stalking violence. The presence of a previous intimate relationship is more likely to lead to violence being committed against the victim compared with when the victim is a stranger to the stalker. If the victim's partner had engaged in substance abuse, this could also likely lead to violence. There needs to be more research conducted in this area to determine what risk factors are the most predictive of a stalker becoming violent.

Treatment of Stalkers

Further research is also required to determine the effectiveness of different methods of mental health treatment for stalkers. It must be noted that there is no treatment regime specifically for stalking, as stalking can be related to a number of mental disorders but itself is not a disorder. Furthermore, not all stalking is related to mental health problems. Thus, it may be difficult to determine the most effective type of treatment or management for stalkers. Despite these issues, some treatment methods have been found to be effective, such as attempting to rectify the disorder underlying the stalking behaviors or concentrating on the behaviors themselves. The victim may also undertake actions, such as legal measures, to attempt to arrest the stalking behaviors.

Nicola Cheyne and Susan Dennison

See also Intimate Partner Violence; Public Opinion About Crime; Risk Assessment Approaches; Violence Risk Assessment

Further Readings

Dennison, S. M., & Thomson, D. M. (2005). Criticisms and plaudits for stalking laws? What psycholegal research tells us about proscribing stalking. *Psychology, Public Policy and Law, 11*(3), 384–406.

Rosenfeld, B. (2004). Violence risk factors in stalking and obsessional harassment: A review and preliminary meta-analysis. *Criminal Justice and Behavior, 31*(1), 9–36.

Spitzberg, B. H., & Cupach, W. R. (2007). The state of the art of stalking: Taking stock of the emerging literature. *Aggression and Violent Behavior, 12*(1), 64–86.

Tjaden, P., & Thoennes, N. (1998). *Stalking in America: Findings from the National Violence Against Women Survey.* Washington, DC: National Institute of Justice, Centers for Disease Control and Prevention.

Stanford Prison Experiment

The Stanford Prison Experiment (SPE) has become a classic in the social sciences for its dramatic demonstration of the power of situational processes over individual dispositions of its participants. It pitted a powerful set of situational variables, which together comprised what is worse in the psychological experience of imprisonment, against the will to resist by a group of normal, healthy young men playing roles of prisoners or guards.

The SPE was conducted in 1971 by a group of Stanford research psychologists, led by Professor Phillip Zimbardo, and two of Zimbardo's graduate students, Curtis Banks and Craig Haney. The experiment was designed to control for the individual personality variables that were often used at that time to explain behavior in prison and other institutional settings. That is, the researchers in the SPE neutralized the explanatory argument that pathological traits alone could account for extreme and abusive behavior by (a) selecting a group of participants who were psychologically healthy and who had scored in the normal range of the numerous personality variables that they measured and selected for, and (b) assigning participants to either the role of prisoner or guard on a completely random basis. The behavior that resulted when these otherwise healthy, normal participants were placed in the extreme environment of a simulated prison would have to be explained largely if not entirely on the basis of the characteristics of the social setting or situation in which they had been placed.

The setting itself was designed to be as similar to an actual prison as possible. Constructed in the basement of the Psychology Department at Stanford University, the "Stanford County Prison" had barred doors on the small rooms that served as cells, cots on which the prisoners slept, a hallway area that was converted to a prison "yard" where group activities were conducted, and a small closet that served as a short-term "solitary confinement" cell that could be used for disciplining unruly prisoners. The prisoners wore uniforms that were designed to de-emphasize their individuality and underscore their powerlessness. Guards, on the other hand, donned military-like garb, complete with reflecting sunglasses and nightsticks. These guards generated a set of rules and regulations that in many ways resembled those in operation in actual prisons, and prisoners were expected to comply with their orders. However, guards were instructed not to resort to physical force to gain prisoner compliance.

Despite the lack of any legal mandate for the "incarceration" of the prisoners and despite the fact that both groups were told that they had been randomly assigned to their roles (so that, e.g., guards knew that prisoners had done nothing to "deserve" their degraded prisoner status), the behavior that ensued was remarkably similar to behavior that takes place inside actual prisons and surprisingly extreme in intensity and effect. Thus, initial prisoner resistance and rebellion was met forcibly by guards, who quickly struggled to regain their power and then proceeded to escalate their mistreatment of prisoners throughout the study at the slightest sign of affront or disobedience. In some instances, the guards conspired to physically mistreat prisoners outside the presence of the experimenters and to leave prisoners in the solitary confinement cell beyond the 1-hour limit that the researchers had set.

Conversely, prisoners resisted the guards' orders at first but then succumbed to their superior power and control. Some prisoners had serious emotional breakdowns in the course of the study and had to be released; others became compliant and conforming, rarely if ever challenging the "authority" of the guards. Despite the fact that the researchers could not keep the prisoners in the study against their will (and they had been informed at the outset of the study of their legal right to leave), as the study proceeded, they "petitioned" the prison "administrators" for permission to be "paroled" or returned passively to their cells when their requests were denied. By the end of the study, they had disintegrated as a group. The guards, on the other hand, solidified and intensified their control. Although some of the guards were more extreme and inventive in the degradation they inflicted on the prisoners, and others were more passive and less involved, none of the guards intervened to restrain the behavior of their more abusive colleagues. Although the study was designed to last for two full weeks, the extreme nature of the behavior that occurred led the researchers to terminate it after only 6 days.

Controversial from the outset, and widely discussed and cited since it was conducted, the study has come to stand in psychology and related disciplines as a

demonstration of the power of situations—especially extreme institutional settings such as prisons—to shape and control the behavior of the persons placed inside them. Its results give lie to the notion that extreme social behavior can only—or even mostly—be explained by the extreme characteristics of persons who engage in it. The SPE counsels us to look instead to the characteristics of the settings or situations in which the behavior occurs. It also stands as a challenge to what might be termed the "presumption of institutional rationality"—that is, the tendency to assume that institutions operate on the basis of an inherent rationality that should be accepted rather than questioned. Instead, the SPE (itself the most "irrational" of prisons, in the sense that the guards had no legal authority over the prisoners, who in turn, had committed no crimes that warranted their punishment) suggests that a kind of "psycho-logic" may operate in these settings, which controls role-bound behavior, whether or not that behavior actually furthers legitimate goals.

A recent detailed chronology of the events that transpired in the SPE from initial city police arrests through final termination is provided in Zimbardo's book, *The Lucifer Effect: Understanding How Good People Turn Bad.* The story unfolds in the present tense, first-person narrative for 8 chapters, with subsequent chapters discussing the ethics of such research, presenting its various data sources, and then setting that study in a broader context of other social science research that also demonstrates the power of social situations to influence or dominate individual behavior (additional information is available at www.luciferEffect.com). All original data and forms have been stored at the archives of the History of American Psychology in Akron, Ohio.

Craig Haney and
Philip G. Zimbardo

See also Juvenile Boot Camps; Prison Overcrowding; Supermax Prisons

Further Readings

Haney, C. (1999). Reflections on the Stanford Prison Experiment: Genesis, Transformations, Consequences ("The SPE and the Analysis of Institutions"). In T. Blass (Ed.), *Obedience to authority: Current perspectives on the Milgram paradigm* (pp. 221–237). Hillsdale, NJ: Lawrence Erlbaum.

Haney, C. (2006). *Reforming punishment: Psychological limits to the pains of imprisonment.* Washington, DC: American Psychological Association Books.

Haney, C., Banks, C., & Zimbardo, P. (1973). Interpersonal dynamics in a simulated prison. *International Journal of Criminology and Penology,* 1, 69–97.

Haney, C., & Zimbardo, P. (1977). The socialization into criminality: On becoming a prisoner and a guard. In J. Tapp & F. Levine (Eds.), *Law, justice, and the individual in society: Psychological and legal issues* (pp. 198–223). New York: Holt, Rinehart, and Winston.

Haney, C., & Zimbardo, P. (1998). The past and future of U.S. prison policy: Twenty-five years after the Stanford prison experiment. *American Psychologist, 53,* 709–727.

Zimbardo, P. (2007). *The Lucifer effect: Understanding how good people turn bad.* New York: Random House.

Statement Validity Assessment (SVA)

Statement Validity Assessment (SVA) is a tool designed to determine the credibility of child witnesses' testimonies in trials for sexual offenses. SVA assessments are accepted as evidence in some North American courts and in criminal courts in several West European countries. The tool originated in Sweden and Germany and consists of four stages. Much of the SVA research is concerned with the ability of Criteria-Based Content Analysis (CBCA), one of the four SVA stages, to discriminate between truth tellers and liars. The Validity Checklist, another stage of the SVA procedure, has also attracted attention from researchers.

That a technique has been developed to verify whether a child has been sexually abused is not surprising. It is often difficult to determine the facts in an allegation of sexual abuse, since often there is no medical or physical evidence. Frequently, the alleged victim and the defendant give contradictory testimony, and often, there are no independent witnesses to give an objective version of events. This makes the perceived credibility of the defendant and alleged victim important. The alleged victim is in a disadvantageous position if he or she is a child, as adults have a tendency to mistrust statements made by children.

SVA consists of four stages: (1) a case-file analysis; (2) a semistructured interview; (3) a CBCA that systematically assesses the quality of a statement; and (4) an evaluation of the CBCA outcome via a set of questions (Validity Checklist).

Case-File Analysis

The SVA procedure starts with the analysis of the case file. A case file should include information about the child witness (e.g., his or her age, cognitive abilities, relationship to the accused person); the nature of the event in question, and previous statements of the child and other parties involved. The case-file analysis gives the SVA expert insight into what may have happened and the issues that are disputed. The SVA analysis focuses on these disputed elements in the subsequent three stages.

A Semistructured Interview

The second stage of SVA is a semistructured interview where the child provides his or her own account of the allegation. Conducting a proper interview is never an easy task, but interviewing young children is particularly difficult because their descriptions of past events are notably incomplete. Therefore, interviewers routinely want more information than is initially provided, and they have to ask further, specific questions to learn more about an event. The danger interviewers face is that their questioning may become suggestive—that is, that the question suggests to the child what the answer should be and subsequently leads the child to providing that answer. Special interview techniques based on psychological principles have been designed to obtain as much information as possible from interviewees in a free narrative style, without inappropriate prompts or suggestions.

Criteria-Based Content Analysis

The interviews with the child are audiotaped and transcribed, and the transcripts are used for the third part of SVA: the CBCA. In this third part, SVA evaluators look for the presence in the transcripts of 19 criteria. The hypothesis is that truthful statements contain more of these criteria than do fabricated statements. Examples of these CBCA criteria are *unstructured production* (whether the information is not provided in a chronological time sequence), *contextual embeddings* (references to time and space: "He approached me for the first time in the garden during the summer holidays"), *descriptions of interactions* (statements that interlink at least two actors with each other: "The moment my mother came into the room, he stopped smiling"), and *reproduction of speech* (speech in its original form: "And then he asked: 'Is that your coat?'"). These criteria are more likely to occur in truthful statements than in fabricated statements because it is thought to be cognitively too difficult for liars to fabricate them. Other criteria are more likely to occur in truthful statements than in fabricated statements for motivational reasons. Truthful persons will not be as concerned with making a credible impression on the interviewer as deceivers, because truth tellers often believe that their honesty will shine through. Therefore, liars will be keener to try to construct a report that they believe will make a credible impression on others and will leave out information that, in their view, will damage their image of being a sincere person. As a result, a *truthful* statement is more likely to contain information that is *inconsistent* with people's stereotypes of truthfulness. Examples of these so-called "contrary-to-truthfulness-stereotype" criteria are *spontaneous corrections* (corrections made without prompting from the interviewer: "He wore a black jacket, no sorry, it was blue") and *raising doubts about one's own testimony* (anticipated objections against the veracity of one's own testimony: "I know this all sounds really odd").

The Validity Checklist

A CBCA evaluation itself is not sufficient to draw conclusions about the truthfulness of a statement, because CBCA scores may be affected by factors other than the veracity of the statement. For example, older children produce statements that typically contain more CBCA criteria than younger children, and statements are unlikely to contain many CBCA criteria if the interviewer did not give the child enough opportunity to tell the whole story. The fourth and final phase of the SVA method is to examine whether any of these alternative explanations might have affected the presence of the CBCA criteria in the transcripts. For this purpose a checklist, the Validity Checklist, has been compiled, which consists of 11 issues that are thought to possibly affect CBCA scores. By systematically addressing each of the issues addressed in the Validity Checklist, the evaluator explores and considers alternative interpretations of the CBCA outcomes. Each affirmative response that the evaluator gives to an issue raises a question about the validity of the CBCA outcome.

One issue mentioned in the Validity Checklist is *inappropriateness of affect.* This refers to whether the affect displayed by the child when being interviewed (usually via nonverbal behavior) is inappropriate for

the child's alleged experiences. For example, sexual offenses are emotionally disturbing and likely to upset victims. One could, therefore, usually expect a clear display of emotions from a truthful victim when being interviewed. Absence of these emotions may indicate that the story has been fabricated.

A second issue mentioned in the Validity Checklist is *appropriateness of language and knowledge.* This issue refers to whether the child's use of language and display of knowledge was beyond the normal capacity of a person of his or her age and beyond the scope of what the child may have learned from the incident. When this occurs, it may indicate the influence of other people in preparing the statement. For example, to obtain custody, a woman may encourage her child to falsely accuse her ex-husband of having had an abusive relationship with the child. In an attempt to make a convincing case, the woman may have prepared the statement together with the child and may have coached the child in what to say.

A third issue on the Validity Checklist is examining whether the child demonstrates any *susceptibility to suggestion* during the interview. Statements of suggestible children could be problematic to interpret because suggestible children may be inclined to provide information that confirms the interviewer's expectations but is, in fact, inaccurate.

Research and Evaluation

Despite the fact that SVA assessments are used as evidence in court in several countries, it is unclear how accurate these assessments are because no reliable data regarding the accuracy of SVA assessments in real-life cases are currently available. To examine the accuracy of SVA assessments in such cases, it is necessary to know what truly happened in the disputed event. Obtaining this so-called ground truth is difficult because it can only be determined via case facts, such as medical evidence or other evidence, which indisputably links, or does not link, the alleged perpetrator to the crime. Such case facts are often not present in sexual abuse cases.

Research has been carried out in the form of laboratory studies, but it has mainly been focused on the third phase of SVA: the accuracy of CBCA assessments. In those studies, either children, but more often undergraduate students, told the truth or lied for the sake of the experiment. Such studies showed similar results for adults and children. In alignment with the CBCA assumption, many CBCA criteria were more often present in truthful statements than in fabricated reports. Overall, 73% of the truths and 72% of the lies were correctly classified by using CBCA assessments. Whether this reflects the accuracy of CBCA assessments in real-life criminal investigations is unknown. Students or children who tell lies and truths in an experiment are different from children who tell truths and lies in criminal investigations, and the accuracy scores therefore do not necessarily reflect the accuracy scores in criminal investigations.

There are reasons to believe that applying the Validity Checklist is sometimes problematic. It is possible to question the justification of some of the issues listed on the Validity Checklist, for example, whether the child displayed an absence of affect or inappropriate affect during the interview. This issue implies that the notion of appropriate affect displayed by victims of sexual abuse exists, whereas it does not. That is, in interviews, some sexually abused victims express distress that is clearly visible to outsiders, whereas others appear numbed and cues of distress are not clearly visible. The communication styles represent a personality factor and are not related to deceit.

Some other issues, such as susceptibility to suggestion, are difficult to measure. To examine a child's susceptibility to suggestion, the interviewer is recommended to ask the witness a few leading questions at the end of the interview. Interviewers should only ask questions about irrelevant peripheral information, because asking questions about central information could damage the quality of the statement. Being allowed only to ask questions about peripheral information is problematic, as it may say little about the witness's suggestibility regarding core issues of his or her statement. Children show more resistance to suggestibility for central parts than for peripheral parts of an event.

It is difficult, if not impossible, to determine the exact impact that many issues have on CBCA scores. For example, in one study, SVA raters were instructed to take the age of the child into account when calculating CBCA scores. Nevertheless, several criteria positively correlated with age. In other words, even after being instructed to correct the CBCA scores for age, the results still showed age-related effects, with older children obtaining higher CBCA scores than younger children.

Given these difficulties in measuring the issues and in examining the exact impact of these issues on CBCA scores, it is clear that the Validity Checklist procedure is more subjective and less formalized than the CBCA

procedure. It is, therefore, not surprising that if two experts disagree about the truthfulness of a statement in a German criminal case, they are likely to disagree about the likely impact of Validity Checklist issues on that statement. One study revealed that Swedish experts sometimes use the Validity Checklist incorrectly, and this could be due to difficulties with applying it. First, although SVA experts sometimes highlight the influence of Validity Checklist issues on children's statements in general, they do not always discuss how these issues might influence the statement of the particular child they are asked to assess. Second, although experts sometimes indicate possible external influence on statements, they are inclined to rely on the CBCA outcome and tend to judge high-quality statements as truthful and low-quality statements as fabricated.

In sum, although SVA assessments are used as evidence in (criminal) courts to evaluate the veracity of child witnesses' testimonies in trials for sexual offenses, the accuracy of these assessments is unknown. However, research has shown that CBCA-trained evaluators make mistakes in classifying truth tellers and liars and that the use of the Validity Checklist is problematic for a variety of reasons.

Aldert Vrij

See also Children's Testimony; Child Sexual Abuse; Detection of Deception in Children; False Memories

Further Readings

Goodman, G. S., & Melinder, A. (2007). Child witness research and forensic interviews of young children: A review. *Legal and Criminological Psychology, 12,* 1–19.

Gumpert, C. H., & Lindblad, F. (1999). Expert testimony on child sexual abuse: A qualitative study of the Swedish approach to statement analysis. *Expert Evidence, 7,* 279–314.

Köhnken, G. (2004). Statement validity analysis and the "detection of the truth." In P. A. Granhag & L. A. Strömwall (Eds.), *Deception detection in forensic contexts* (pp. 41–63). Cambridge, UK: Cambridge University Press.

Steller, M., & Boychuk, T. (1992). Children as witnesses in sexual abuse cases: Investigative interview and assessment techniques. In H. Dent & R. Flin (Eds.), *Children as witnesses* (pp. 47–73). New York: Wiley.

Vrij, A. (2005). Criteria-based content analysis: A qualitative review of the first 37 studies. *Psychology, Public Policy, and Law, 11,* 3–41.

STATIC–99 and STATIC–2002 Instruments

The STATIC–99 and the STATIC–2002 are actuarial instruments that predict sex offender recidivism. They were designed to be widely applicable risk scales for the prediction of sexual recidivism that could be scored using commonly available file information from forensic settings such as prisons and forensic hospitals. Actuarial instruments for sex offender re-offense categorize sexual offenders into distinct risk levels such as low, moderate, and high risk to re-offend. Identifying the level of risk for sexual offenders improves the management of sexual offenders in the criminal justice system by allowing for appropriate level of supervision and treatment depending on risk level. Lower-risk sexual offenders may be placed on probation and participate in outpatient short-term treatment programs. A high degree of control supervision and intensive treatment can be allocated to sexual offenders identified as being higher risk to sexually re-offend. In more extreme cases, actuarial instruments can assist the evaluator in making decisions for the civil commitment of sexual offenders deemed to have a mental disorder that causes them to be too dangerous for release from custody and in need of inpatient treatment and custody.

The STATIC–99

The STATIC–99 was developed by R. Karl Hanson and David Thornton in 1999 to measure the prediction of violent and sexual recidivism. It is designed to be used for adult males who have already been charged with or convicted of at least one sexual offense against a child or a nonconsenting adult. The instrument is not appropriate for females or juvenile sexual offenders. The STATIC–99 is a combination of two existing actuarial scales for sexual recidivism: the Rapid Risk Assessment for Sex Offender Recidivism (RRASOR) and the Structured Anchored Clinical Judgment (SAC–J–MIN). As the name implies the scale contains only static risk factors, or historical risk factors, that have been found in research to predict sexual re-offense. The STATIC–99 was developed on three Canadian samples of sexual offenders from mental health and correctional facilities. Institut Philippe Pinel (n = 344) in Montreal provided long-term (1–3 years) treatment for sex offenders referred from both the mental health and correctional systems. Millbrook Correctional

Centre (n = 191) is a maximum security provincial correctional facility located in Ontario, Canada. The Oak Ridge Division of the Penetanguishene Mental Health Centre (n = 142) in Ontario is a maximum security mental health center. The STATIC–99 was subsequently cross-validated on 563 sex offenders released from Her Majesty's Prison Service (England and Wales) in 1979 and followed for 16 years.

The predictive validity of the instrument was measured by the receiver operating characteristic (ROC) curve. The STATIC–99 showed moderate predictive accuracy for both sexual recidivism (r = 0.33; ROC area = 0.71) and violent recidivism (r = 0.32; ROC area = 0.69).

The STATIC–99 includes 10 items that are scored as a 0 if not present and a 1 if present, except for the item prior sex offenses, which is scored 0 to 3. The items on the STATIC–99 include young age, single (ever lived with a lover for at least 2 years), index nonsexual violence (conviction), prior nonsexual violence (conviction), prior sex offenses, prior sentencing dates, any convictions for noncontact sex offenses, unrelated victims, stranger victims, and male victims. The score on the STATIC–99 can range from 0 to 12 and risk classifications include low, medium-low, medium-high, and high risk. Each risk level is associated with a probability of sexual re-offense for the study sample for 5, 10, and 15 years. Since the development of the STATIC–99, it has been repeatedly cross-validated in multiple jurisdictions and countries.

The STATIC–2002

In 2002, R. Karl Hanson and David Thornton revised the STATIC–99 in an effort to make the instrument simpler, more clinically applicable, and easier to score. The scale construction was designed to maximize the prediction of sexual recidivism. The selection of variables for the STATIC–2002 was guided by established research on factors that predict sexual recidivism as well as other empirically developed sex offender risk scales. The authors also included a number of exploratory variables that were supported by the constructs they were attempting to assess. Twenty-two individual variables with a simple bivariate relationship to sexual recidivism were organized into five content areas, including age at release, persistence of sex offending, deviant sexual interests, range of available victims, and general criminality. Multivariate analyses were used to determine whether the subscale added incrementally beyond the subscales already considered. Using Cox regression, each subscale was statistically weighted for its contribution to sexual recidivism.

The resulting scale was developed on a more diverse group of samples than the STATIC–99 and included two of the three developmental samples of the STATIC–99—Institut Philippe Pinel (n = 363) and Millbrook Correctional Centre (n = 186)—as well as three Canadian Federal Samples (n = 1229)—the California Sex Offender Treatment and Evaluation Project sample (n = 1137), the Special Sex Offender Sentencing Alternative (SSOSA) sample from Washington (n = 587), and the Manitoba Probation sample (n = 202). The STATIC–99/STATIC–2002 (ROC area = .71) showed levels of predictive accuracy for sexual recidivism similar to the STATIC–99 (ROC area = .69) for the prediction of sexual recidivism. The potential advantages of the STATIC–2002 over the STATIC–99 include improved prediction of violent recidivism over the STATIC–99, less variability than the STATIC–99 across settings, and more meaningful content areas when applied to clinical cases. Replication studies need to be conducted on large samples before it is possible to associate specific risk levels to specific ranges of scores as provided by the STATIC–99. The STATIC–2002 is a new instrument that needs to be replicated with independent data sets before it is appropriate for wide clinical use.

The items in the STATIC–2002 include the following: age at release; the persistence of sexual offending cluster with subsections including (a) prior sentencing occasions for sexual offenses, (b) arrests for sexual offenses as both an adult and a juvenile, and (c) rate of sexual offenses; the deviant sexual interests cluster with subsections including (a) any convictions for noncontact sexual offenses, (b) any male victims, and (c) two or more victims below the age of 12 with one victim unrelated; the relationship to victims of sexual offenses cluster including subsections (a) any unrelated victims and (b) any stranger victims; the general criminality cluster including subsections (a) any arrest/sentencing occasions, (b) any breach of conditional release, (c) years free prior to index offense, and (d) any prior conviction for nonsexual violence.

Amy Phenix

See also Minnesota Sex Offender Screening Tool–Revised (MnSOST–R); Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Risk Assessment Approaches; Sex Offender Risk Appraisal Guide (SORAG); Sexual Violence Risk–20 (SVR–20)

Further Readings

Hanson, R. K., & Thornton, D. (2000). STATIC–99: Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24,* 119–136.

Hanson, R. K., & Thornton, D. (2003). *Notes on the development of STATIC–2002. User Report 2003–01.* Ottawa, ON, Canada: Department of the Solicitor General of Canada.

Statistical Information, Impact on Juries

Statistical information is increasingly likely to be presented in court. It may appear in civil cases (e.g., percentages of men and women employees in a gender discrimination case) or criminal cases (e.g., the defendant's blood type matches that of a sample found at the crime scene and that blood type is found in only 20% of the population). Can jurors understand that information on their own, or must they rely on experts to explain its meaning? Even if jurors correctly understand statistical evidence, how do they combine that evidence with other, nonquantitative evidence?

In contrast to other areas of juror understanding (e.g., juror beliefs about factors affecting the accuracy of eyewitness identification), there is relatively little research directly answering these questions. Those studies can be broken into two broad categories. The first focuses primarily on understanding of the statistical evidence. The second asks how statistical evidence is combined with other nonstatistical evidence. Considered together, jurors have some difficulty understanding even a single piece of statistical evidence. That difficulty increases when faced with two pieces of statistical evidence. Jurors also tend to underuse statistical evidence, when compared with a Bayesian norm, even when provided with instructions on how to use such evidence. That underuse, however, conceals considerable variation.

Juror Understanding of Statistical Evidence

"Naked statistics" (sometimes referred to as *base rates*) are data that are true, regardless of what happened in a particular case. Mock jurors are not persuaded by naked statistics compared with mathematically equivalent evidence that is contingent on some ultimate fact (i.e., a fact essential to resolution of the case). For example, in the Blue Bus problem, a bus runs over a color-blind woman's dog. The defendant, Company A, owns 80% of the buses in the area, and all of Company A's buses are blue. Company B owns 20% of the buses, and its buses are gray. The color-blind woman cannot tell a blue bus from a gray bus, so she does not know which company's bus ran over her dog. She sues Company A on the theory that, because Company A owns 80% of the buses in the area, there is an 80% chance that a Company A bus killed her dog. In experiments, jurors in one condition hear that the defendant owns 80% of the buses in the area, while those in another condition hear an 80%-accurate weigh-station attendant's identification of the defendant bus company. Both sets of jurors believe it equally probable that the defendant's blue bus, rather than Company B's gray bus, killed the dog. But only jurors who heard the attendant's testimony are willing to find against the bus company. Jurors who simply heard the naked statistics (Company A owns 80% of the buses) do not find Company A responsible. Similarly, although learning that the defendant is responsible for 80% of the accidents in the county leads to high probability estimates that the defendant's bus killed the dog, jurors are unwilling to find the defendant responsible.

Most research has examined "nonnaked" statistical information—information in which one's belief about the ultimate fact (in the example above, whether or not a blue bus hit the dog) is linked to one's belief about the evidence (the weigh-station attendant's accuracy). Some research finds that the manner in which statistical information is presented may affect mock jurors' use of the information. For example, incidence rate information presented in the form of a conditional probability (there is only a 2% probability that the defendant's hair would match the perpetrator's if the defendant were innocent) may encourage some jurors to commit the prosecutor's fallacy. These jurors believe that there is a 98% chance that the defendant is guilty. If the same information is presented as a percentage and number (a 2% match in a city of 1,000,000 people, meaning 20,000 people share that characteristic), some others may commit the defense attorney's fallacy. They believe the evidence shows only a 1 in 20,000 chance that the defendant is the culprit. These errors may be more likely when an expert, rather than an attorney, offers the fallacious argument. An attorney who makes such an argument in the face of expert testimony (e.g., when the expert explains

Bayes's theorem) runs the risk of backlash; the defense attorney's fallacy combined with expert Bayesian instruction may increase guilty verdicts.

Even nonfallacious presentations of statistical evidence pose challenges for jurors, particularly when they are evaluating low-probability events. Compare DNA incidence rates presented as 0.1 out of 10,000, 1 out of 100,000, or 2 out of 200,000. Mathematically, these rates are identical, but psychologically, they differ; jurors are more likely to find for the defendant in the latter two cases. Why? The first, fractional incidence rate contains no cues that people other than the defendant might match the DNA. Each of the other rates contains at least one exemplar within it, which encourages jurors to think about other people who might match. This effect may rest in part on the size of a broader reference group; it is easier to generate exemplars with an incidence rate of 1 in 100,000 when considering a city of 500,000 people than when considering a town of 500.

Jurors' task becomes more difficult when they face both a random match probability (RMP) (e.g., there is a 1 in 1 million chance that the defendant's DNA sample would match that of the perpetrator if the defendant is innocent) and a laboratory error rate (LE) (e.g., the laboratory makes a mistake in 2 of every 100 cases). The probability that a match occurred due either to chance or to lab error is roughly 2 in 100. Yet jurors who hear the separate RMP and LE (as recommended by the National Research Council) convict the defendant as often as those who hear only the much more incriminating RMP.

Why do jurors fail in combining an RMP and an LE? Traditional explanations point to various logical or mathematical errors. Another explanation suggests that jurors' interpretation of statistical evidence necessarily reflects their expectancies about such data. Consider jurors who receive extremely small RMP estimates (1 in a billion) and comparatively large LE estimates (2 in 100), compared with those who receive comparatively large RMP estimates (2 in 100) and extremely small LE estimates (1 in a billion). Logical (e.g., we are more convinced by more vivid evidence, like 1 in a billion) or mathematical (e.g., we average probabilities) explanations for juror errors make identical predictions in the two cases. But instead, mock jurors are more likely to convict in the large RMP paired with small LE condition. Similarly, they are more likely to convict when presented with extremely small LE estimates and no RMP estimate than when presented with only an extremely small RMP estimate and no LE estimate. This difference may reflect jurors' preexisting expectancies that the likelihood of a random match is extremely small and that of laboratory error is relatively large.

Some forms of statistical evidence (e.g., bullet lead analysis) illustrate that jurors must consider not just the reliability of statistical evidence but also its diagnosticity (usefulness). The value of a forensic match (e.g., the defendant's DNA profile is the same as that of blood found at the crime scene) depends on reliability of the evidence (did the laboratory correctly perform the test?) and also its diagnosticity (could the match be a coincidence?). One study gave the same information about hit rate and false-positive rate to all jurors. It varied a third statistical piece of information: the diagnostic value of the evidence. Some jurors learned that all sample bullets taken from the defendant matched the composition of the murder bullet, while no bullets taken from a community sample matched (strong diagnostic evidence). Others learned that the matching rate for the defendant's bullets was the same as that for bullets taken from a community sample (worthless diagnostic evidence). Jurors who received the strong diagnostic evidence were more likely to believe the defendant guilty. However, this effect held only for mock jurors who were relatively confident in their ability to draw conclusions from numerical data. Jurors who were less confident did not differ across conditions. Furthermore, jurors who heard the worthless diagnostic evidence tended to give it some weight before they deliberated; deliberation eliminated the effect.

How Jurors Combine Statistical Evidence With Nonstatistical Evidence

How do jurors combine numerous pieces of evidence (not necessarily statistical) to make decisions? Both mathematical (e.g., probability theory) and explanation-based (e.g., story model) approaches have been proposed. Research specifically examining the use of statistical evidence has generally followed a mathematical approach and has compared jurors' probabilities (typically the probability that the defendant committed the crime) with probabilities calculated using Bayes's theorem.

Bayes's theorem prescribes how a decision maker should combine statistical evidence with prior evidence. Prior odds (the defendant's odds of guilt, based on all previously presented evidence) are multiplied by the likelihood ratio (the probability that the new

evidence would match the defendant if he or she is guilty, divided by the probability that the new evidence would match an innocent person). The product is the posterior odds. For example, after opening statements and eyewitness testimony, a juror might believe that there is a 25% chance that the defendant is guilty. The prior odds are 25:(100–25) = .33:1. If the defendant and the perpetrator share a blood type found in only 5% of the population, the likelihood ratio is 1:.05 = 20. The posterior odds, then, are .33:1 × 20 = 6.67:1. The probability of guilt is 6.67/(6.67 + 1) or .87. In short, for this juror, Bayes's theorem states that the probability of guilt should increase from .25 to .87.

Only a handful of studies have compared jurors' decisions with Bayesian norms, and the comparisons sometimes are difficult to make. Some studies have not asked for a prior probability, while others have requested beliefs that the evidence matched (instead of beliefs about guilt). Most have assumed that jurors accepted the statistical evidence at face value. Given these caveats, in general, jurors underuse statistical evidence, compared with a Bayesian norm. This general finding, however, masks underlying complexity. In many of these studies, the prior evidence, the statistical evidence, or both are relatively strong. In such cases, it is difficult to exceed Bayesian posterior probabilities (which are often .90 or greater). Also, there tends to be great variability in how jurors use the statistical evidence. That is, two jurors with identical prior probabilities may hear the same statistical evidence and arrive at very different posterior probabilities. These disparities may rest in part on differing expectancies about LEs (which typically have not been presented) or about other factors (e.g., potential investigator misconduct) affecting the value of the statistical evidence. But studies (reviewed above) of how jurors respond to statistical information by itself provide ample reason to suspect wide variation in jurors' understanding. For example, jurors who claim to be comfortable with mathematics are more likely to be affected by statistical information than those who express discomfort. To further complicate matters, at least one study has found that later, nonprobabilistic evidence leads to a reevaluation of the quantitative evidence presented earlier.

Does instruction help jurors combine the statistical evidence with nonstatistical evidence? Studies have provided simple instructions. Typically, they have included a statistician's testimony about how Bayes's theorem works. The expert displays a table or a graph showing some sample prior probabilities and, given the statistical evidence, corresponding posterior probabilities. These relatively unsophisticated means of instruction, generally, have not affected jurors' use of the evidence; jurors who receive the instruction come no closer to Bayesian norms than those who do not.

Brian C. Smith

See also Complex Evidence in Litigation; Expert Psychological Testimony; Jury Competence; Jury Deliberation; Story Model for Juror Decision Making

Further Readings

Koehler, J. J., & Macchi, L. (2004). Thinking about low-probability events: An exemplar-cuing theory. *Psychological Science, 15,* 540–546.

Levett, L. M., Danielsen, E. M., Kovera, M. B., & Cutler, B. L. (2005). The psychology of jury and juror decision making. In N. Brewer & K. D. Williams (Eds.), *Psychology and law: An empirical perspective* (pp. 365–406). New York: Guilford Press.

Niedermeier, K. E., Kerr, N. L., & Messe, L. A. (1999). Jurors' use of naked statistical evidence: Exploring bases and implications of the Wells effect. *Journal of Personality and Social Psychology, 76,* 533–542.

Schklar, J., & Diamond, S. S. (1999). Juror reactions to DNA evidence: Errors and expectancies. *Law and Human Behavior, 23,* 159–184.

"Stealing Thunder"

In the context of the courtroom, "stealing thunder" refers to revealing damaging information first so as to diffuse its impact. If damaging evidence is going to be brought out by one's adversary, an attorney may choose to reveal this information first to the judge and/or jury, thereby stealing the adversary's thunder. This entry describes research on the effectiveness of stealing thunder and also explores why stealing thunder works.

Trial lawyers have concerned themselves with several questions related to stealing thunder, and the answers are usually a matter of conjecture based on learned opinion and experience.

First, do attorneys use this tactic? The answer, based on interviews, informal surveys, trial advocacy books, and observations of courtroom trials, is that they do. In fact, stealing thunder appears to be used unquestioningly in criminal and civil trials, by defense, prosecution, and plaintiff's attorneys.

A second question might be, "Why do attorneys use it?" Again, based more on trial advocacy books and interviews than actual research (of which there appears to be none by trial lawyers themselves), the answer appears to be that it works for two reasons: (1) to give the appearance of honesty and being "up front" with the triers of fact and (2) to allow the attorney who steals thunder to frame the evidence in such a manner that it diminishes its importance. In other words, attorneys can put their own spin on the potentially damaging information.

A third question that attorneys may ask is, "What can be done to counteract the stealing thunder tactic?" Little or no information appears on this topic when reading trial advocacy books.

Note that none of the questions asks whether stealing thunder works. The empirical research started with this particular question.

Research Evidence

Effectiveness

Research has demonstrated that stealing thunder is an effective way to minimize or eliminate the impact of incriminating information in many legal contexts. Most legal experts are already aware of its benefits, even if they are not aware of the reasons why it works, and use it regularly in court.

In mock trial studies, researchers have found that attorneys can benefit by stealing thunder. The benefit is that stealing thunder diminishes the impact (usually measured by percentage of guilty verdicts or probability of guilt ratings) when compared with a "thunder" condition in which the attorney's adversary brings out the information as evidence. Sometimes, the tactic works so well that it brings verdicts to the same level as that with no thunder at all, but effectiveness is usually simply defined in terms of observing less damage than the comparable thunder condition.

Stealing thunder has been found to be successful with U.S. populations for criminal and civil trials and in Australia with criminal trials, suggesting that stealing thunder enjoys generality across trial type and across at least two (albeit Western) cultures. The timing of stealing thunder has not been shown to be pivotal; that is, it can occur at the beginning of the trial or later on, as long as it precedes the adversary's revelation. Also, the adversary does not need to reveal the damaging information at all for stealing thunder to work. There have been no differences between stealing thunder with and without the opposition's discussion of it. Finally, the "thunder" can range from something rather minor to something seemingly integral and damning. Thus far, there has been no research setting an upper limit on how damaging the thunder can be for it to be successfully stolen. In a mock court case involving homicide resulting from reckless driving, stealing thunder was effective at reducing the damaging information even when the defendant admitted to drinking alcohol and veering into the oncoming traffic lane.

It should also be noted that stealing thunder works in other nonlegal domains too, such as in politics (with mock voters and journalists) and interpersonal impression formation.

Counteracting the Stealing Thunder Tactic

So far, the only successful attempt to counteract the stealing thunder tactic is to, post hoc, reveal the tactic's use on the jury. If mock jurors were told during closing arguments that the other attorney manipulated their opinions through the use of the stealing thunder tactic, stealing the thunder no longer dissuaded them from its damaging implications.

Why Does Stealing Thunder Work?

Recent research suggests that there are several paths by which stealing thunder operates. First, in line with trial attorney intuition, research supports that the thunder stealer enjoys heightened impressions of honesty and credibility. The reasoning would go like this: If the attorney is willing to admit such damaging information without being forced into it, then surely the attorney can be trusted to present an objective and honest case.

Are attorneys also correct in assuming that stealing thunder works because it allows the revealer to put his or her own spin on the information, lessening its importance? To this question, the answer from available research is no; self-favorably framing the information is not necessary for it to be an effective tactic. It may help, but the available evidence is not even supportive of this notion. It appears that simply stating the incriminating information bluntly, without any spin or admonishment, is sufficient for the tactic to do its work on (mock) jurors. What apparently happens is that the mock jurors, without encouragement by the revealing attorney, put a diminishing spin on the information themselves when

the attorney does not. Here, the reasoning goes like this: What I just heard surprises me because it appears to hurt the attorney's case. But this doesn't make sense, so it must not really be all that bad after all. Thus, the research suggests that mock jurors work on the meaning of the "thunderous evidence," so that it is not so thunderous.

Thus, two very different processes appear to be involved, both of which assist in making stealing thunder an effective strategy. One is the relatively heuristic form of processing that involves simply the impression of truthfulness that then casts a positive glow on the attorney, the client, and the attorney's case. The other process is a rather effortful and creative process of twisting the negative information, such that it takes on a meaning that renders it harmless. This process, presumably, takes effort and thought.

Kipling D. Williams

See also Inadmissible Evidence, Impact on Juries; Jury Competence

Further Readings

Dolnik, L., Case, T. I., & Williams, K. D. (2003). Stealing thunder as a courtroom tactic revisited: Processes and boundaries. *Law and Human Behavior, 27,* 265–285.

Howard, M. V. A., Brewer, N., & Williams, K. D. (2006). How processing resources shape the influence of stealing thunder on mock-juror verdicts. *Psychiatry, Psychology and Law, 13,* 60–66.

Williams, K. D., Bourgeois, M., & Croyle, R. T. (1993). The effects of stealing thunder in criminal and civil trials. *Law and Human Behavior, 17,* 597–609.

Williams, K. D., & Dolnik, L. (2001). Revealing the worst first: Stealing thunder as a social influence strategy. In J. Forgas & K. D. Williams (Eds.), *Social influence processes: Direct and indirect influences* (pp. 213–231). New York: The Psychology Press. (See also V. Hale Starr interviewing Kipling D. Williams and Lara Dolnik in "Trial strategy—'Stealing Thunder': When it works and when it doesn't," *The Trial Lawyer, 23*(6), 425–429.)

Story Model for Juror Decision Making

To better explain how jurors make decisions in trial, psychologists have proposed a variety of decision-making models. Some research has examined the decision-making process at the jury level, but the majority of research has examined juror decision-making processes at the individual level. These models are typically grouped into two categories: explanation-based models and mathematical models. The story model is the most popular explanation-based model and was developed by Nancy Pennington and Reid Hastie. The story model rests on the assumption that jurors organize evidence they hear during trial in a narrative, storylike format. According to the story model, the process of decision making takes place in three steps: story construction, learning verdict alternatives, and rendering a verdict. The story model not only describes the process the juror undergoes when making a decision in a trial but claims that the story constructed by the juror ultimately determines the verdict chosen by the juror.

Story Construction

In a typical trial, the evidence is presented to jurors in a disconnected format over several days. Not only are witnesses often not presented in a logical, temporally relevant order, but the actual content of the witnesses' testimonies is also disconnected, in that witnesses are providing information in reaction to attorney questions rather than narrating the sequence of events. According to the story model, jurors play an *active* role during the trial by gathering the evidentiary information and organizing it into a comprehensive narrative with a causal structure, describing the sequence of events under question. That is, they actively place the evidence gathered at the trial into a "story" to account for what actually occurred. In constructing the story, they use three things: the evidence presented at trial (e.g., the information gained from witnesses), their personal knowledge of similar events (e.g., knowledge gained from personal experiences, media portrayals, or secondhand accounts of a particular crime), and their expectations for what makes a complete story (e.g., knowing that actions are usually preceded by intentions or goals).

In addition to describing how the jurors construct their stories, the story model describes the structure of those stories. Specifically, stories are made up of units called episodes. An episode is made up of a series of events that are paired with intentions or motivations to result in an action. Events, intentions, and motivations can be taken either from trial or from a juror's personal

knowledge. For example, an episode may consist of initiating events that led the defendant to a certain mental state, which then led the defendant to create goals or to have certain motivations, which then resulted in the defendant acting in a particular way. Jurors may get some of the information to complete the episode from trial evidence and may have to infer some of the episode elements based on their knowledge of the world. Episodes are hierarchically organized, in that each component of any given episode may be broken down into its own individual episode. The highest level episodes are the most important in explaining the actions that occurred; thus, the story model accounts for the weight jurors assign to different pieces of evidence.

One of the greatest strengths of the story model is that it accounts for jurors' unique experiences and indicates when they add those unique experiences and pieces of knowledge into the decision-making process. Witnesses do not often have the opportunity to explain why particular events happened or how they personally reacted to a particular sequence of events. So, jurors fill in those blanks with inferences based on their own personal knowledge of similar events. In addition, jurors' expectations about what makes a complete story are important to help them determine when important pieces of information are missing or when an inference about human behavior or how someone might act in a particular situation needs to be made. Jurors then can make this inference based on their personal knowledge. The story model accounts for differences in stories between jurors by accounting for the different world experiences and expectations jurors bring to the story construction process.

Certainty Principles

Three certainty principles govern whether a juror will find a particular story acceptable, and following acceptability, how much confidence a juror will have in a particular story. The first two—coverage and coherence—contribute to whether a story will be accepted and, if accepted, how much confidence the juror will have in the story. The third principle, uniqueness, contributes solely to the juror's confidence in the story.

Coverage refers to the amount of evidence accounted for by a particular story. The more coverage a story has, the more likely the juror is to deem the story acceptable and, if accepted, the more confidence the juror will have in that story. Conversely, the less evidence the story accounts for, the less likely it is to be accepted by jurors. If accepted, jurors are likely to have less confidence in the story compared with if the story had a high level of coverage. If a story has low coverage and, therefore, the juror has a low amount of confidence in the story, the juror would also have a low level of confidence in the final decision based on that story.

The second principle is coherence. A story's coherence is determined by a combination of three variables: consistency, plausibility, and completeness. To be consistent, a story must contain no internal contradictions or contradictions with pieces of evidence the juror believes are true. To be plausible, the story constructed must be similar to the juror's knowledge of what typically happens in these situations. That is, a story must not contradict the juror's knowledge about the world in general. Last, to be complete, the story must contain all the parts of what a juror believes makes up a story. The more consistent, plausible, and complete the story, the higher the coherence of the story. If a story is deemed coherent, the juror is more likely to think that the story is an acceptable account of the events in question and the more likely the juror is to be confident in the story.

The story model posits that jurors can construct more than one story, but one story usually emerges as the best explanation of events. However, what happens when jurors create more than one story and each of the stories is high in both coverage and coherence? According to the story model, this compromises the last certainty principle, the uniqueness of the story. If jurors construct more than one acceptable story, they are less likely to believe either story, and the confidence in both stories goes down.

Learning Verdict Options

In the second stage of the story model, jurors learn which verdict options are available to them. Generally, the different verdict options along with the definition of what constitutes each verdict option are given to the jurors in the judicial instructions at the end of the trial. The combination of this one-trial learning task with the difficulty of legal language makes this task difficult for jurors. In fact, research has demonstrated that jurors generally do not comprehend the majority of judicial instructions presented to them. In addition, jurors also have preconceived notions of what constitutes various crimes. Those preconceived notions, accurate or inaccurate, may interfere with jurors' understandings of the verdict options in the case.

Rendering a Verdict

In this last stage of the story model, jurors map their accepted story onto each of the verdict categories to determine which verdict category best matches the accepted story. This mapping sequence is intentional on the part of jurors and is difficult because they are mapping their accepted story onto unfamiliar, newly learned concepts. However, jurors are somewhat aided in this process by the structure of the verdict options. Typically, verdict options consist of elements that closely mimic the episodic structure that jurors used when creating the story. For example, the verdict definition of first-degree murder includes an element of identification (identifying the person who committed the crime), mental state (that person intentionally killed the victim), circumstances (the victim gave no provocation and the murder was premeditated), and actions (the killing was intentional and unlawful). These correspond to the elements that make up an episode in a story.

Once the jurors have chosen which verdict category best matches the story, jurors apply the judge's procedural instructions to make a decision in the case. For example, in a criminal case, if the best-fit verdict option exceeds the jurors' threshold for reasonable doubt on each of the elements of that verdict option, then the juror is likely to choose that verdict. If not, the juror does not choose that verdict option. If no match of verdict option and story exceeds this threshold, then the juror defaults to a verdict of not guilty. In addition, the goodness of fit, or the jurors' confidence in a verdict category-story match, will affect whether the juror is likely to choose that verdict. If the goodness of fit is low, the juror is less likely to be confident in that verdict than if the goodness of fit is high.

Research Investigating the Story Model

The initial study in the development of the story model was designed to provide a picture of how jurors processed evidence and established that jurors created narrative structures to explain and account for evidence. Further research demonstrated that the actual creation of the narrative was a spontaneous act of the juror and that the story is actually a mediator in the verdict decision. That is, jurors heard the evidence, created a story, and then the story caused the jurors to choose a particular verdict. Last, the researchers also conducted a study demonstrating that the story model was a more complete and accurate explanation of juror decisions compared with more traditional models of decision making. Other researchers have also applied the story model of juror decision making to successfully explain jurors' decisions in rape trials, civil cases, and sexual harassment cases.

In sum, the story model of juror decision making is an explanatory model of decision making that asserts that jurors actively create a narrative (in the form of multiple episodes) to organize trial evidence. In creating the story, jurors use evidence presented at trial and their own knowledge of both real-world events and the elements that make up a story. To determine whether a story is acceptable, jurors use the certainty principles of coverage and coherence. Coverage and coherence, combined with the story's uniqueness, also contribute to the juror's subsequent confidence in a story. The second stage of the story model is the stage in which jurors learn the verdict options available to them, and this happens during judicial instructions at the end the trial. Jurors' preconceived notions about certain crimes may also affect the way in which they perceive the verdict categories. In the last stage, jurors map their chosen stories onto the various verdict categories and apply the standard of proof given to them by the judge. If the match exceeds the standard of proof, then the juror chooses that verdict. If not, the juror defaults to a not-guilty verdict. Last, research has generally demonstrated support for the story model of juror decision making in a variety of cases.

Lora M. Levett

See also Juries and Judges' Instructions; Jury Deliberation; Pretrial Publicity, Impact on Juries; Sexual Harassment, Jury Evaluation of

Further Readings

Huntley, J. E., & Costanzo, M. (2003). Sexual harassment stories: Testing a story-mediated model of juror decision-making in civil litigation. *Law and Human Behavior, 27,* 29–51.

Olsen-Fulero, L., & Fulero, S. M. (1997). Commonsense rape judgments: An empathy-complexity theory of rape juror story making. *Psychology, Public Policy, and Law, 3,* 402–427.

Pennington, N., & Hastie, R. (1992). Explaining the evidence: Tests of the story model for juror decision making. *Journal of Personality and Social Psychology, 62,*189–206.

Pennington, N., & Hastie, R. (1993). The story model for juror decision making. In R. Hastie (Ed.), *Inside the juror: The psychology of juror decision making* (pp. 192–221). New York: Cambridge University Press.

Stress and Eyewitness Memory

Stress exerts complex effects on eyewitness memory. On the whole, it has a negative effect, but this can be quite variable depending on the level of stress and the aspect of the witnessed event that one is trying to remember. Stress operates similarly in affecting person recognition (i.e., lineup performance) and recall of event details.

The effects of stress on eyewitness memory and identification are of interest because of the fact that persons witnessing a crime, especially a violent crime, commonly (though not always) experience stress. "Stress" is itself a rather vague term that has been interpreted differently by various commentators, but generally, it can be taken to denote a negative emotional state associated with both physiological changes and a subjective set of cognitions. The physiological experience of stress is associated with increased arousal, marked by increases in heart rate, blood pressure, and muscle tone. The subjective experience typically includes some perception of threat and feelings of anxiety.

People often assume that a high level of emotion, positive or negative, will facilitate memory; however, it is also possible that intense emotion, especially the high level of stress associated with witnessing a crime, would lead to decrements in memory for details of the crime itself and for the ability to recognize the persons involved. Early studies investigating the effects of stress on memory yielded inconsistent findings. Some researchers found that accuracy suffered when witnesses were under stress, others found that it was unaffected, and a minority of researchers reported improvements in accuracy. This ambiguity can be explained, in part, by variations in the degree of stress. The Yerkes-Dodson law proposes that the relationship between arousal and performance can be plotted as an inverted U, where with moderate increases in arousal, performance is improved but with too much arousal performance declines. This theory was subscribed to by many researchers, and initially, it was thought to provide an explanation for the seemingly contradictory pattern of research findings. The studies that found improvements may have elicited an optimal level of stress or arousal, whereas those studies that had found decrements had exceeded that optimal level of stress. However, this explanation proved inadequate as the body of research grew because of the difficulty in comparing degrees of stress and also because of findings indicating that stress is not a unidimensional construct, as proposed by the Yerkes-Dodson law, but instead has multiple components (e.g., physiological, affective, cognitive, behavioral, etc.).

An alternative explanation is that with higher levels of emotional stress, the observer's attention becomes narrower and more focused. As a result, memory for central and closely attended-to details improves, while memory for more peripheral details declines. This distinction between central and peripheral details also helps explain some of the inconsistent findings, where stress sometimes helps but at other times impairs memory.

Research reviews and meta-analyses of the topic reveal that, taken as a whole, stress has more of a negative than a positive impact on eyewitness memory in terms of both identification of the perpetrator and recall of event details. Eyewitnesses in high-stress situations are less likely to be able to correctly identify a perpetrator from a lineup, and recall of details associated with the witnessed crime is less likely to be accurate. The type of lineup administered and the type of recall appear to moderate the effect of stress on accuracy. High-stress situations disproportionately affect eyewitness identification accuracy, such that the likelihood of an accurate identification is reduced when the target person (i.e., perpetrator) is present in the lineup, but the effect on target-absent lineups is negligible. In other words, when the target person is present in the lineup, witnesses are more likely to select someone other than the target (i.e., a foil—namely, an innocent person in a police lineup) or incorrectly report that the target is not present in the lineup, thus rejecting the lineup. In contrast, when the target is absent, the likelihood that a witness will correctly reject the lineup is virtually unaffected.

In eyewitness studies, witnesses are typically asked to report information in one of two ways: narrative or interrogative. With narrative or free recall, witnesses are asked to report what they recall and can choose what information to report. The interrogative type of recall requires a witness to answer specific questions about various details of the witnessed event. High-stress situations produce a greater decline in accuracy for interrogative recall than for narrative recall. One possible explanation for this difference is that with narrative recall, witnesses are free to choose what information to report and may opt not to report details of which they are not certain.

These findings extend partly to children as well. Child eyewitnesses perform worse when under stress, but it is unclear whether stress has a disproportionately negative effect on children. Stress effects can also be complicated by the presence of a particularly arousing, eye-catching aspect of the event, such as gore or a weapon. Research on stress and memory also suffers from methodological complications. There are limits to the amount of stress that one can ethically induce in an experimental situation, and even with highly arousing materials, research participants are usually not personally threatened by the witnessed event; that is, they are bystanders rather than victims or potential victims, which is likely to influence not only their stress level but also their behavior, degree of attention, and so forth. Some innovative research designs have attempted to overcome this limitation by studying victims/witnesses of real crimes or individuals undergoing stressful medical procedures.

In conclusion, it is hard to generalize about the effects of stress on eyewitness memory. The findings are somewhat mixed, and the explanation for stress effects on memory is far from clear, making generalization difficult. More research is necessary to resolve this uncertainty. However, it is clear that, overall, high levels of stress harm eyewitness memory in more ways than they help it.

Ani A. Aharonian and
Brian H. Bornstein

See also Children's Testimony; Lineup Size and Bias; Weapon Focus

Further Readings

Deffenbacher, K. A., Bornstein, B. H., Penrod, S. D., & McGorty, E. K. (2004). A meta-analytic review of the effects of high stress on eyewitness memory. *Law and Human Behavior, 28,* 687–706.

Peters, D. P. (1997). Stress, arousal, and children's eyewitness memory. In N. L. Stein, P. A. Ornstein, B. Tversky, & C. Brainerd (Eds.), *Memory for everyday and emotional events* (pp. 351–370). Mahwah, NJ: Lawrence Erlbaum.

Reisberg, D., & Heuer, F. (2006). The influence of emotion on memory in forensic settings. In M. Toglia, J. D. Read, D. F. Ross, & R. C. L. Lindsay (Eds.), *Handbook of eyewitness psychology: Vol. 1. Memory for events* (pp. 81–116). Mahwah, NJ: Lawrence Erlbaum.

Structured Assessment of Violence Risk in Youth (SAVRY)

The Structured Assessment of Violence Risk in Youth (SAVRY), developed by Randy Borum, Patrick Bartel, and Adelle Forth, is a risk assessment instrument designed to structure appraisals of violence risk and risk management plans for adolescents. Such assessments are routinely required by juvenile and criminal courts and at nearly every juncture of the juvenile justice system. In the SAVRY, one's risk for serious violence is viewed as the result of dynamic and reciprocal interplay between factors that increase and factors that decrease the likelihood of violence in the developing juvenile over time. Its central objective is to facilitate assessments that are systematic, empirically grounded, developmentally informed, treatment oriented, flexible, and practical.

The SAVRY is based on the "structured professional judgment" (SPJ) risk assessment framework, and is designed for use with adolescents between the approximate ages of 12 and 18 who have been detained or referred for an assessment of violence risk. Evaluators systematically assess predetermined risk factors that are empirically associated with violence, consider the applicability of each risk factor to a particular examinee, and classify each factor's severity. The ultimate determination of an examinee's overall level of violence risk is based on the examiner's professional judgment as informed by a systematic appraisal of relevant factors. In this way, the SPJ model draws on the strengths of both the clinical and actuarial (formula-driven) approaches to decision making and attempts to minimize their respective drawbacks.

The SAVRY protocol is composed of 6 items defining protective factors and 24 items defining risk factors. Items are coded on the basis of reliable, available information. Information should be obtained from multiple sources, including an interview with the youth and a review of records (e.g., police or probation reports and mental health and social service records). Risk items are divided into three categories: historical, individual, and social/contextual, and each is coded for severity according to a three-level coding structure (high, moderate, or low). Protective factors are coded as present or

absent. The coding form also includes a section for listing "additional risk factors" and "additional protective factors" because the SAVRY is not exhaustive in identifying all potential risk and protective factors for any given individual. If these additional factors are present, they should be documented and weighed in final decisions of risk.

Though the SAVRY is sufficiently flexible to accommodate varying styles of risk communication, the coding form prompts evaluators to make a final *summary risk rating* of low, moderate, or high. The ultimate risk rating is not based on cutting scores (SAVRY items are not assigned numeric values) or a specific formula. Evaluators exercise their professional judgment to determine the nature and degree of the juvenile's risk for violence after carefully weighing the relevant risk and protective factors.

Psychometric Properties

One of the primary indices used in SAVRY research (not in practice) is the "SAVRY Risk Total." This is calculated by transposing item ratings of *low, moderate,* and *high* to numerical values of 0, 1, and 2, respectively, and summing the values. The summary risk rating is similarly transposed for statistical analysis.

Reliability and Internal Consistency. The internal consistency (alpha coefficient) of the SAVRY Risk Total has been shown to fall in the range of .82 to .84. Interrater reliability for the SAVRY Risk Total has ranged between .74 and .97, with an unweighted average of .84. Interrater reliability coefficients for the Summary Risk Rating have ranged between .72 and .85, with an unweighted average of .78.

Validity. The concurrent validity of the SAVRY has been examined in relation to the Youth Level of Service/Case Management Inventory (YLS/CMI) and the Hare Psychopathy Checklist: Youth Version (PCL:YV). In the initial validation study, the SAVRY Risk Total correlated significantly with both instruments among offenders and in community samples (e.g., .89 with YLS/CMI and .78 with PCL:YV among offenders). The SAVRY protective domain was negatively correlated with both the other measures. Across five studies, correlations between the SAVRY Risk Total and the PCL:YV Total Score have ranged from .48 to .74, with an unweighted average of .67. Although the correlations are significant, indicating that the SAVRY shares variance with other measures, it also possesses independent predictive power.

With regard to criterion validity, studies have found significant correlations between SAVRY scores and various measures of violence in juvenile justice and high-risk community-dwelling populations. In the initial validation sample, SAVRY Total Risk scores were all significantly related to behavioral measures of institutional aggressive behavior (.40) and aggressive conduct disorder symptoms (.52). The SAVRY has also demonstrated incremental (criterion) validity (or predictive power) beyond the YLSI and the PCL:YV. Results of hierarchical regression analyses showed that adding the SAVRY improved the power of the YLSI and the PCL:YV in predicting both institutional aggressive behavior and serious aggressive conduct disorder symptoms. The SAVRY also accounted for a large proportion of the explained variance in each type of violence.

Using receiver operating characteristic (ROC) analysis, which measures predictive accuracy in terms of relative improvement over chance, we found that areas under the curve (AUCs) for the total score average about .74 to .80 across studies. Interestingly, the examiner judgments (summary risk rating), not made on the basis of any cutting score, consistently perform as well as, and often better than, the linear combination of the scores themselves. For example, using ROC analysis, an unpublished master's thesis at Simon Fraser University reported an AUC of .70 for the SAVRY total score, but the AUC for the SAVRY Summary Risk Rating was .89. This finding has been evident in research on other SPJ tools as well and provides some of the first empirical evidence that clinical judgments—properly structured and based on sound assessments—can achieve levels of accuracy that rival that of any other known predictors, while maintaining latitude for case-specific analysis.

Additional research is needed and is under way to clarify the SAVRY's applicability in different countries, across genders, and with various ethnic groups.

Randy Borum, Patrick Bartel, and Adelle Forth

See also Hare Psychopathy Checklist: Youth Version (PCL:YV); Juvenile Offenders, Risk Factors; Risk Assessment Approaches

Further Readings

Borum, R., Bartel, P., & Forth, A. (2006). *Manual for the Structured Assessment for Violence Risk in Youth (SAVRY).* Odessa, FL: Psychological Assessment Resources.

Borum, R., & Douglas, K. (2003). New directions in violence risk assessment. *Psychiatric Times, 20*(3), 102–103.

Borum, R., & Verhaagen, D. (2006). *A practical guide to assessing and managing violence risk in juveniles.* New York: Guilford Press.

Structured Interview of Reported Symptoms (SIRS)

The Structured Interview of Reported Symptoms (SIRS) is a fully structured interview that is designed to assess feigned mental disorders and related response styles. Each of its eight primary scales was constructed to evaluate well-established detection strategies for differentiating between malingered and genuine psychopathology. These primary scales consist of Rare Symptoms (RS), Symptom Combinations (SC), Improbable and Absurd Symptoms (IA), Blatant Symptoms (BL), Subtle Symptoms (SU), Selectivity of Symptoms (SEL), Severity of Symptoms (SEV), and Reported Versus Observed Symptoms (RO).

Description and Development

The initial development of the SIRS was based on an exhaustive review of potential detection strategies for feigned mental disorders. SIRS scales were developed based on the likely effectiveness of the underlying detection strategy and the adaptability of each strategy to interview-based assessments. Final item selection was based on independent judgments by eight experts in malingering and was subsequently refined to improve scale homogeneity. The SIRS is composed of 173 items that are organized by eight primary and five supplementary scales.

The original validation of the SIRS combined samples from multiple studies to form four groups: 100 inpatients and outpatients, 97 controls from community, correctional, and college settings, 170 simulators including coached and uncoached participants, and 36 likely malingerers from forensic settings. Subsequent validation research has included clinical and correctional samples with an additional 255 participants.

Reliability

Internal consistencies (alpha coefficients) for SIRS primary scales were excellent: They ranged from .77 to .92, with a mean alpha of .86. The reliability of individual scores was examined via standard errors of measurement (SEM). The SEMs were low for both clinical and control samples, indicating high reliability for individual scores. A central issue for the SIRS was its interrater reliability. These estimates were impressive, ranging from .89 to 1.00. The median reliability was .99, which represents almost perfect agreement.

Validity

SIRS validation relied on a combination of simulation designs and known-group comparisons. The simulation design capitalizes on internal validity in its use of analog research with clinical comparison samples. In contrast, known-group comparisons provide unmatched external validity in their use of individuals from actual clinical-forensic settings who were independently evaluated as malingering by established experts. For the assessment of malingering, convergent results from simulation and known-group studies provided the strongest evidence of SIRS validity.

A major focal point of the SIRS is its discriminant validity. The critical issue is whether each of the primary scales systematically differentiates between genuine and feigned psychopathology. Combining across studies, effect sizes can be computed for the critical distinctions (a) simulators versus clinical honest and (b) suspected malingerers versus clinical honest. For simulators, Cohen's *d*'s were very large: They ranged from 1.40 (SU) to 2.31 (RS) with an average *d* of 1.74. Cohen's *d*'s were also very large for suspected malingerers but showed less variability: 1.20 (IA) to 1.98 (SEL). The average effect size for malingerers was identical to that of simulators ($d = 1.74$). These combined data provide very strong evidence of discriminant validity.

Convergent validity was evaluated by comparing the SIRS with other measures of feigned mental disorders. The SIRS evidenced robust correlations with MMPI–2 validity scales. For example, the SIRS primary scales are strongly correlated with Scale F (*r*'s from .71 to .80). As also expected, they are negatively correlated with Scale K ($Mr = -.35$), a measure of defensiveness.

Construct validity was examined via discriminant analysis and factor analysis. A two-stage, stepwise discriminant analysis with a canonical correlation of

.79 demonstrated the usefulness of SIRS primary scales for the accurate differentiation of feigned from clinical honest profiles. A high level of accuracy was maintained across calibration and cross-validation samples. Recently, a confirmatory factor analysis yielded strong support for a two-factor model of the SIRS (i.e., spurious presentations and plausible presentations) that was theoretically relevant to the assessment of malingering.

Forensic Applications

The SIRS is widely accepted as one of the best-validated measures of feigned mental disorders in clinical and forensic settings. Its classification of malingering in forensic settings is highly accurate. These classifications are based on either (a) three or more primary scales in the probable feigning range or (b) one or more primary scales in the definite feigning range. The probable feigning range was established so that it would include most feigners (typically >75%) but very few genuine patients (<10%). By using the established criterion (>3 scales in the probable feigning range), very few genuine patients were misclassified as feigners (i.e., 2.1% at 3 scales; 0.0% at >4 scales). Scales in the definite feigning range are set very high to minimize false positives.

Research by other investigators generally confirms the accuracy of the SIRS and its low false-positive rates. Ongoing research suggests that the SIRS provides useful data for civil-forensic applications such as disability evaluations. As a caution, the initial data indicate that its cut scores may not be useful for a subset of inpatients with dissociative disorders and multiple traumas beginning before adulthood.

Future Directions

Research is currently under way for validating a Spanish-language SIRS. The SIRS was independently translated by three bilingual psychologists. The composite translation was back-translated by an independent bilingual psychologist; minor discrepancies were found for only 11.0% of the SIRS items. A revised Spanish SIRS was subjected to further translations and reviews. With the Spanish SIRS established, the comparability of the Spanish and English SIRS is currently being tested with bilingual Hispanic patients.

Richard Rogers

See also Forensic Assessment; Malingering

Further Readings

Rogers, R. (Ed.). (1997). *Clinical assessment of malingering and deception* (2nd ed.). New York: Guilford Press.

Rogers, R., Bagby, R. M., & Dickens, S. E. (1992). *Structured Interview of Reported Symptoms (SIRS) and professional manual.* Odessa, FL: Psychological Assessment Resources.

Rogers, R., Jackson, R. L., Sewell, K. W., & Salekin, K. L. (2005). Detection strategies for malingering: A confirmatory factor analysis of the SIRS. *Criminal Justice and Behavior, 32,* 511–525.

Rogers, R., & Shuman, D. W. (2005). *Fundamentals of forensic practice: Mental health and criminal law.* New York: Springer.

Substance Abuse and Intimate Partner Violence

Research indicates that substance abuse is a risk marker for intimate partner violence (IPV). This entry reviews the evidence for this association, possible explanations for it, and implications for theory and practice for professionals who work in this area.

Substance Abuse as a Risk Marker for IPV

Studies using a variety of passive-observational research designs have established that substance abuse is a risk indicator for IPV. For example, population-based studies as well as studies of clinic- or court-referred groups, have examined rates of substance abuse in people with and without a history of IPV victimization, IPV perpetration, or IPV recidivism (i.e., repeated IPV following an initial incident). According to narrative and meta-analytic reviews of these studies, the association between substance abuse and IPV is moderate or even moderate-to-large in magnitude. About 20% to 50% of all incidents of IPV occur when one or both partners have consumed and are under the influence of alcohol or illegal drugs. Substance abuse increases the odds of IPV perpetration or victimization by a factor of about 2 to 4. The association tends to be strongest when (a) the substances of abuse are alcohol, cocaine (in various forms), or heroin; (b) substance abuse is defined in terms of problematic patterns of use, rather than frequency of use or amount consumed; (c) IPV is defined

in terms of moderate or severe violence, rather than minor violence; and (d) substance abuse and IPV are defined in terms of a broad time frame (e.g., lifetime) rather than a narrow time frame (e.g., past year). The association does not appear to be influenced by the legal status of the intimate relationship (married vs. cohabiting vs. dating), the sexual orientation of the intimate partners (heterosexual vs. same sex), or the gender of the perpetrator and victim.

Explanations for the Association Between Substance Abuse and IPV

There are several possible explanations for the observed association between substance abuse and IPV. First, the association may be false—the result of perpetrators attempting to avoid moral and legal culpability by claiming that they were intoxicated at the time they committed IPV. But the substance abuse/IPV association is observed even in studies that relied solely on victims to provide information and even in studies where substance abuse was measured months or even years prior to the first occurrence of IPV.

Second, the association may be artifactual—the result of some third factor that is causally related to both substance abuse and IPV. Potential third factors could include mental disorder in the perpetrator (e.g., antisocial personality disorder or psychopathy) or severe conflict in the victim-perpetrator relationship (e.g., recent separation or divorce). But studies that attempted to control for potential third factors have found that they accounted for only a small part of the association.

Third, IPV may be a cause of (i.e., have a causal influence on) substance abuse. Longitudinal research supports this view, at least in part. People who experience IPV increase their use of alcohol or illegal drugs, which in turn leads to increased risk for (repeated) IPV.

Fourth, substance abuse may be a cause of IPV. The same longitudinal research that found that IPV increases substance abuse has also found that substance abuse increases risk for IPV, even when the substance abuse came months or years before the IPV. For example, substance abuse as a young adolescent predicts IPV as a young adult, and premarital substance abuse predicts IPV after marriage. In addition, treatment outcome research has found that reductions in substance abuse are associated with subsequent reductions in risk for IPV.

In summary, the association between substance abuse and IPV appears to be bidirectional in nature: Substance abuse is both a cause and a consequence of IPV. With respect to substance abuse as a cause of IPV, theory and research suggest that several direct or proximal and indirect or distal causal mechanisms may exist. Putative direct mechanisms focus on the psychopharmacological or psychological effects of substance abuse. Intoxication and withdrawal may impair cognitive functions, leading to reduced inhibitions against violence (e.g., underestimation of negative consequences, overestimation of positive consequences, failure to consider alternatives to violence) or misperception of social cues (e.g., misattribution of hostile intent in others). Putative indirect mechanisms focus on the destabilizing effects of substance abuse on social adjustment. For example, the short- and long-term consequences of substance abuse—such as problems with employment, finances, health, and family arguments about drinking patterns or the consequence of drinking on employment, finances, and relationships with family or friends—cause conflict between partners in intimate relationships, which in turn increases the risk that IPV will occur. Similarly, the consequence of substance abuse may impair one partner's ability to cope with conflictual or aggressive behavior by the other partner (through the use of strategies such as de-escalation, deterrence, or escape), thus increasing vulnerability to victimization and, ultimately, the risk that IPV will occur.

Implications for Research and Practice

It is clear that substance abuse is neither a necessary nor a sufficient causal factor for IPV but rather one of many contributory causal factors. Currently, researchers are trying to further understand the various causal mechanisms that may exist and how substance abuse interacts with other causal risk factors to cause IPV.

Professionals who work in the field of IPV need to be aware that substance abuse increases risk for IPV, and treating substance abuse mitigates risk. For these reasons, substance abuse is included as a risk factor in several IPV risk assessment procedures, including the Danger Assessment Instrument (DA) and the Spousal Assault Risk Assessment (SARA) Guide, and many intervention programs for perpetrators and victims of IPV focus in part on decreasing substance abuse. The challenge for professionals is to determine what role substance abuse plays (i.e., which causal mechanisms are relevant) in a given case and then deliver appropriate services.

Stephen D. Hart

See also Danger Assessment Instrument (DA); Intimate Partner Violence; Spousal Assault Risk Assessment (SARA); Substance Use Disorders

Further Readings

Klostermann, K. C., & Fals-Stewart, W. (2006). Intimate partner violence and alcohol use: Exploring the role of drinking in partner violence and its implications for intervention. *Aggression and Violent Behavior, 11,* 587–597.

Stith, S. M., & Smith, D. B., Penna, C. E., Ward, D. B., & Tritt, D. (2004). Intimate partner physical abuse perpetration and victimization risk factors: A meta-analytic review. *Aggression and Violent Behavior, 10,* 65–98.

Substance Abuse Treatment

A number of different methods are used to treat substance abuse. The most common method often used by treatment facilities is 12-step counseling, although little is known about its effectiveness. Treatment modalities include inpatient, day treatment, and outpatient care, usually followed by aftercare. Twelve Step Facilitation Therapy has been scientifically validated but is rarely adopted for use in 12-step treatment facilities. Motivational interviewing has been determined to be an effective means to motivate clients to seek therapy and change substance use and can be particularly effective with unmotivated clients. Numerous cognitive-behavioral therapies have been effective as interventions in substance use disorders. Relapse prevention therapy is the most widely used cognitive-behavioral approach. Twelve-step counseling, cognitive-behavioral therapy, therapeutic communities, and even *Vipassana* meditation have been used in jails and prisons to intervene in substance use disorders and recidivism.

Substance Abuse Treatment and the Criminal Justice System

Evidence exists that quality substance abuse treatment can lead to lower recidivism and relapse rates among substance users in the criminal justice system. In addition, court-ordered treatment has been found to be extremely cost-effective when compared with incarceration as an alternative. Many jurisdictions now have drug courts that generally offer treatment as an alternative to imprisonment, but the type of treatment available to participants varies widely across the country. Traffic courts often include mandated treatment courses for DUI offenders, but the evidence that these programs change drinking and driving behavior is inconsistent, perhaps because the content of these courses vary widely across jurisdictions. Treatment outcomes are often used by mental health courts, probation officers, and parole boards as evidence to determine the success of rehabilitation efforts.

Typical Care at Treatment Facilities

The prevailing model of treatment in the United States uses 12-step counseling (often referred to as the Minnesota Model). Although many of these programs have abstinence as a requirement for entry into the facility and as a goal for treatment, researchers find that many clients do not remain abstinent but will reduce their substance use. Although most treatment centers use a similar model, the quality and content of the 12-step counseling across treatment facilities is not consistent. In addition, the 12-step counseling provided by many treatment centers has not been tested under controlled conditions to determine if it is in fact effective.

Addiction counselors are certified by state boards. The process often requires documentation of counselor education in Minnesota Model principles and an examination of counseling skills by peers. Although some addiction counselors have undergraduate and graduate degrees, many states do not require these credentials for a counselor to be certified. Addiction counselors often have personal experiences in 12-step recovery.

Treatment Modalities

Treatment modalities vary. Treatment can be conducted in inpatient or outpatient settings. In the past, most treatment was provided in 28-day inpatient stays, until research showed that outpatient care is just as effective as inpatient care for most clients. Since those findings, the insurance industry has pushed the treatment toward a predominantly outpatient model. People with substance use disorders and co-occurring severe mental disorders (such a debilitating depression or psychoses) may benefit more from the structured environment of an inpatient stay. Day treatment also is available in some communities to provide structured treatment and care during business hours (clients return home during the evening). Many treatment facilities provide medical care, family programs, and sometimes nutrition and fitness programs. Counseling format varies between

individual sessions with a primary counselor to group sessions with peers and counselors. In addition to inpatient and outpatient services, treatment centers generally provide aftercare to provide ongoing support to clients who have completed treatment.

Support Groups

Treatment providers generally encourage support group participation as an adjunct to therapy. Support groups vary in terms of philosophies. Twelve-step groups operate under the assumption that substance use disorders are chronic incurable diseases that require a lifetime of working the 12 steps to facilitate abstinence. Other groups such as Rational Recovery understand substance use disorders as a problem of disordered thinking and behavior that can be changed permanently with aid of the group and the Rational Recovery Program (based on the work of Albert Ellis). Moderation Management is an example of a support group that works with individuals who do not necessarily have abstinence as a goal but, instead, want to reduce substance use. Each program seems to be successful for participants when program philosophies closely match the values and worldview of the participants.

Evidence-Based Treatment

Researchers have developed and tested a great variety of therapies that have proved effective as interventions in substance use disorders. To provide quality and consistent care for psychological disorders, including substance use, the therapy used has to have two characteristics. The first is demonstration that the treatment has worked better than nothing at all by comparing outcomes in a particular therapy with a no-therapy or care-as-usual control group. The second important characteristic is conducting therapy using a manual. Manualized therapy promotes adherence to the scientifically validated treatment protocol to prevent drift. The following sections review therapies that have been tested under controlled conditions or have manuals or guidelines available for use by physicians/therapists to provide best practices to clients.

Biopsychosocial Model

Research supports a biopsychosocial model for addictive behaviors. Successful models of treatment incorporate biological (physiological), psychological, and social (environmental) interventions to modify biopsychosocial processes associated with substance misuse. For example, physiological (biological) treatment methods typically involve pharmacological means. There is evidence that certain medications may be helpful to promote treatment success among clients with alcohol use disorders. Disulfiram (Antabuse) has been used as a disincentive to alcohol use among people at high risk for relapse but with mixed results. Disulfiram blocks metabolism of alcohol and causes clients to become violently ill when they drink, which sometimes persuades clients to remain abstinent when they are tempted to drink. However, clients have been known to drink when on disulfiram, and client compliance for taking the medication is a problem. Naltrexone and acamprosate have been shown in some studies to help reduce cravings and improve treatment outcomes. Methadone has been used as a safe substitute for heroin. For clients with co-occurring mental disorders, such as depression, bipolar disorders, and schizophrenia, psychiatric medications can help reduce substance use. Many clients believe that substance use helps with psychiatric symptoms. When prescribed medications function to control psychiatric symptoms, it may reduce the desire to self-medicate with illicit substances.

Psychological Therapies

Several types of psychological therapies have been found to be efficacious for the treatment of substance use disorders. Twelve Step Facilitation Therapy has been found to be efficacious in treating substance use disorders. This is a 12-session therapy that includes a manual to promote consistency in the delivery of the treatment. The therapy incorporates principles from 12-step programs (such as Alcoholics Anonymous and Narcotics Anonymous). Although Twelve Step Facilitation Therapy has been found to be an effective treatment under controlled conditions, many treatment centers across the country do not use this therapy, even though the manual is readily available from the National Institute of Alcohol Abuse and Alcoholism. Use of this therapy manual would likely increase quality and consistency of care in treatment centers dedicated to the 12-step model.

Cognitive-behavioral therapy, which involves the use of scientifically developed and tested cognitive and behavioral modification methods to change behavior, has been found to be an effective means to intervene in substance use disorders. Many psychologists use

cognitive-behavioral therapy in individual psychotherapy with clients who have substance use disorders. As its name would suggest, cognitive-behavioral therapy includes change strategies described subsequently that target cognitions and behavior chains associated with substance use patterns in clients.

Cognitive change strategies challenge and modify beliefs about substance use behavior. For example, beliefs about substance use influence motivation to change behavior, which in turn predicts whether a client will take steps to change behavior. Client motivation levels vary widely in treatment; so assuming that a client is ready to change is unreasonable. In addition, client motivation changes over time so that one minute he or she can appear committed and then uncommitted the next. Ambivalence about change is normal, especially early in therapy, and reflects the reality that clients are weighing beliefs about the pros of substance use against the cons. The Transtheoretical Stages of Change Model, a widely used model to understand addictive behavior change, indicates that commitment to change will occur when clients resolve their ambivalence in favor of resolve to take action.

Motivational interviewing and motivational enhancement therapy have been found to be very helpful to enhance motivation to change among clients. Motivational interviewing is a scientifically validated therapy that uses strategic methods to help clients to explore and resolve their ambivalence about continued substance use and that enhances motivation to change. Research has found that use of motivational interviewing can be very effective to encourage reductions in substance use and can be used effectively in conjunction with other therapies. Motivational enhancement therapy is a scientifically tested therapy conducted over four sessions and includes the use of motivational interviewing along with other change strategies. Motivational interviewing seems to be especially effective with clients uncommitted to therapy.

Other beliefs associated with substance use include expectancies and self-efficacy. Expectancies are beliefs that people have about the expected outcomes of substance use, and they have been found to be a good predictor of substance use pre- and posttreatment. The research suggests that interventions that increase negative expectancies and decrease positive expectancies may be helpful to improve treatment outcomes. Therapists use various cognitive strategies to accomplish this goal. Self-efficacy, or confidence and competence in being able to negotiate particular situations without substance use, is another consistent predictor of treatment outcome. Therapists teach, rehearse, and reinforce new skills to cope effectively with high-risk situations to establish competence and to develop confidence in appropriately using the skills to enhance self-efficacy so as to avoid substance use in those situations.

Several behavior modification strategies have been found to be effective to foster change. Aversion therapy pairs substance use with aversive agents to discourage the use of the substance. Typical methods are pairing the smell or taste of the substance with electric shock or an emetic agent to condition avoidance of substance use. Studies have found that aversion therapy can result in successful outcomes initially, but those posttreatment gains may be lost over the long term without concurrent use of relapse prevention (see below). Contingency management strategies have been used successfully to encourage positive outcomes in treatment. Contingency management modifies client behavior by providing incentives to successfully engage and complete targeted tasks in therapy. Incentives have been used to increase attendance and participation in sessions as well as promote reduction targets or cessation of substance use. However, contingency management is not widely used, perhaps because of the costs involved with incentive-based care.

Coping skills therapy has been supported by science as well. New skills are taught to aid clients to cope effectively and solve problems without the use of substances. Therapists may also teach anger management, daily life management, assertiveness training, and relaxation methods (including meditation) to increase the repertoire of skills available to clients. Relapse prevention methods developed in the cognitive-behavioral model have been shown to be highly successful to reduce the severity and duration of relapse events when they occur. Relapse prevention teaches clients that relapse is normative rather than a failure and can be used to identify and correct problems in posttreatment behavior. Relapse prevention also teaches substance refusal skills, develops and rehearses plans to cope with relapses, and uses cognitive and behavioral modifications previously mentioned in this section. In addition to one-on-one methods with clients, cognitive-behavioral interventions that target couples, family relationships, schools, and other peer groups have been associated with changes in substance use.

Arthur W. Blume

See also Drug Courts; Substance Use Disorders; Therapeutic Communities for Treatment of Substance Abuse

Further Readings

Blume, A. W. (2005). *Treating drug problems* (Treating Addictions Series, Vol. 1, R. H. Coombs & W. A. Howatt, Eds.). New York: Wiley.

Kadden, R., Carroll, K., Donovan, D., Cooney, N., Monti, P., Abrams, D., et al. (1999). *Cognitive-behavioral coping skills therapy manual* (Project MATCH Monograph Series, Vol. 3, M. E. Mattson, Ed.). Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.

Marlatt, G. A., & Donovan, D. M. (Eds.). (2005). *Relapse prevention: Maintenance strategies in the treatment of addictive behaviors* (2nd ed.). New York: Guilford Press.

Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing* (2nd ed.). New York: Guilford Press.

Nowinski, J., Baker, S., & Carroll, K. (1995). *Twelve Step Facilitation Therapy manual* (Project MATCH Monograph Series, Vol. 2, M. E. Mattson, Ed.). Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.

Substance Use Disorders

Substance use disorders are defined as the use of a substance that results in persistent and sometimes pervasive aversive consequences. Substance use disorders have profound economic and public health impacts in the United States. Researchers have identified important biological, psychological, and social factors that predict the development and resolution of substance use disorders. Biological processes related to substance use include physiological reactivity, changes, and adaptations. Psychological processes associated with substance use include conditioning, observational learning, beliefs about substance use, and emotions that cue substance use. Social relationships and environmental stressors also have been found to influence the course of substance use. Diagnostic criteria have been established to define severity and to specify the course of the disorder. Substance use disorders are thought by some to be chronic and progressive, but research on the natural course of these disorders disputes those beliefs.

Impact of Substance Use Disorders

The total costs of abuse of alcohol and abuse of other drugs including tobacco to the American economy has been estimated by the federal government to be more than $400 billion annually. The two most common substances of abuse are tobacco and alcohol. Conservative estimates indicate that about 20% of the population in the United States abuses tobacco, and between 8% and 13% of the population abuses alcohol. Men are more likely to abuse substances than women. Treatment often results in positive outcomes.

Substance abuse has been associated with the five leading causes of death in the United States in 2004: heart disease, cancers, strokes, chronic lower respiratory illnesses, and unintentional injuries. Some ethnic minority groups may be at high risk for substance use problems. For example, liver diseases often associated with alcohol abuse were the sixth leading cause of death for Hispanics and Native Americans. In contrast, liver diseases are not in the 10 leading causes of death for either Whites or Blacks. However, it is also worth noting that there is often wide variation in substance use within demographic groups. Interestingly, Native Americans also have the highest abstention rate from alcohol when compared with any other ethnic group.

In the United States, the recent trend is greater abuse of prescription medications and methamphetamines. Abuse of substances not traditionally classified as psychoactive, such as steroids and erectile dysfunction medications, has been commonly seen over the recent years. Although these substances often are not listed among traditional drugs of abuse, they can become problematic for users.

Substance abuse is strongly associated with legal consequences. In addition to violation of controlled substance statutes, substance abuse has been associated with domestic violence and other violent crimes such as suicide, property damage, vehicular offenses, and sexual perpetration. In the United States, crime-related costs of substance abuse have been projected to be around $100 billion annually, and conservative estimates have indicated that at least 1 million people have substance abuse problems. Substance abuse is also a major contributing factor to traffic and workplace accidents. Extreme substance-related toxicity can contribute to psychotic symptoms, although sometimes those symptoms preceded the substance use and were masked.

Biopsychosocial Model

Researchers use a biopsychosocial model to understand addictive processes. Biological processes that have been identified include physiological reactivity to the

ingestion of substances, physiological changes due to acute or chronic use of substances, and physiological adaptations to the level of exposure to the substances. Physiological reactivity occurs in response to the substance and results in metabolic changes in the body. Substances activate the pleasure-reward system in the brain, which often results in euphoria. Acute or chronic substance abuse can cause neurotoxicity and damage to vital organs. Commonly experienced cognitive impairments include difficulties with short-term and working memory; problems with executive cognitive functions related to decision making, problem solving, impulse control, and abstraction; and, in some cases, difficulties with balance and motor functions. Existing evidence suggests that some physiological changes are reversible, including cognitive impairment, after a period of abstinence.

Psychological processes include behavioral, cognitive, and emotional responses to substance use. Behavioral processes operate according to learning principles. Classical conditioning in substance abuse occurs when particular stimuli are paired or associated with substance use. In substance abuse research, these stimuli are often referred to as *cues* or *triggers.* Substance use may occur at an automatic level when cues trigger substance use so quickly that the individual may be momentarily unaware of actions. Common triggers or cues include places, situations, things, physical senses (sensations, sights, sounds, smells, and tastes), emotions, or events that become paired with substance use and may trigger cravings or desires to use.

Operant conditioning operates when substance use is reinforced or punished. Positive reinforcement is conceptualized as a consequence following a behavior that is rewarding or pleasurable and makes it likely that the behavior will be repeated. Substance use can have rewarding properties that positively reinforce the behaviors related to substance use. In addition, substance use can be negatively reinforced. Negative reinforcement occurs when an aversive consequence is lifted or withdrawn, which in effect reduces an aversive experience. Because the aversive consequence is withdrawn or reduced, it makes it more likely that the behavior will be repeated. An example of this process is when someone uses substances because it has reduced pain or discomfort previously (negatively reinforced) as opposed to using substances because it has caused euphoria in the past (positive reinforcement). An excellent and common example of substance use being negatively reinforced among users is when they described using substances to "self-medicate" symptoms. The behavior described as self-medication alludes to a history where the substance use may have caused aversive symptoms to subside. Research has demonstrated that punishment can effectively stop or reduce substance use over the short term but that for long-term changes to occur punishment must be followed by learning new behavior and having that reinforced.

Substance abuse is difficult to change because it is reinforced on a variable schedule. Since substances are sometimes reinforcing and sometimes not, the user cannot predict when substance use will be reinforcing and continues using substances in the hope that the next event will be reinforcing. Variable reinforcement is one process that contributes to the transition from recreational use to substance abuse.

Observational learning also is a powerful predictor of substance use. Youths and young adults are very much influenced by observing and then modeling the behaviors of significant others in their lives. Before adolescence, youths tend to model the substance use behavior of their parents. Researchers have noted that substance abuse tends to be intergenerational in family systems. The assumption for many years was that this intergeneration "transmission" of substance abuse must be genetic. However, recent research has identified that at least part of the intergenerational phenomenon in family systems appears to be learned behavior, principally from observing and modeling parents who misuse substances. As youths move into the teen years and early adulthood, peer groups tend to influence substance use more than parents. In addition, researchers have found that adolescents and young adults tend to overestimate the substance use of peers and at the same time underestimate their own substance use.

Cognitive factors related to addictive processes include expectancies about substance use, motivation to change, and self-efficacy. Expectancies are beliefs about the expected effects of substance use. Expectancies can develop through personal experience or observational learning. As an example of the latter, to sell their products advertisers of alcohol beverages often advertise that alcohol makes people sexy or socially attractive, beliefs that are assumed by youths who observe the advertisements. Positive expectancies refer to beliefs that substance use will provide a desirable outcome, whereas negative expectancies refer to beliefs that substance use will lead to an undesirable outcome. Positive expectancies have been found to predict continued and sometimes increased substance use, whereas negative expectancies have been linked to reductions.

Motivation to change determines whether a user will consider and ultimately change substance use.

Decisions to change often follow a process known as the decisional balance, where a user considers the pros and cons for change. Ambivalence is quite normal for someone contemplating change. If a user decides that the pros for change outweigh the cons, then she or he likely will be more committed to changing behavior and seeking help. Self-efficacy also has been found to predict substance abuse. *Self-efficacy* is a term from social learning theory that describes, in the case of substance abuse, whether a person has competence and confidence to negotiate a specific situation without use of substances. Lower self-efficacy in a situation predicts poorer substance use outcomes in that situation.

Cognitive impairment is of concern when a user has engaged in extreme or chronic substance abuse. Perceptual problems result from acute intoxication. One phenomenon, substance use myopia, refers to how cognitive processes become impaired as intoxication increases, literally narrowing a person's ability to see or accurately perceive events occurring around him or her. During substance use myopia, clients are vulnerable to impulsive, disinhibited, and risky behavior because perception of risk is impaired. As an example, substance-induced myopia leads to poor judgment, such as believing that it is safe to drive under the influence of substances.

Emotions and moods also have been associated with substance abuse. Many users report links between emotional events and substance use behavior, and relapses have been linked to extreme emotions (positive or negative). Users often use substances to manage emotions and moods but also report that substance use contributes to loss of emotional control. Research has established that chronic substance use may disrupt emotional expression and contribute to substance induced dysphoria.

Social and environmental factors linked to addictive processes may include relationship stressors and environmental stressors such as unemployment and poverty. Some researchers believe that a major function of substance misuse is in tension reduction. Changes in relationship interactions and environmental conditions have been linked to changes in substance use. Youths are especially vulnerable to changes in the environment and substance abuse in that age group can be influenced heavily (both positively and negatively) by such changes.

Diagnosis of Substance Use Disorders

Misuse of substances can be diagnosed by means of structured clinical interviews that assess for criteria specified by the American Psychiatric Association in the *Diagnostic and Statistical Manual of Mental Disorders,* fourth edition (*DSM-IV*). The most commonly used interviews are the Structured Clinical Interview for *DSM-IV* (SCID) and the Diagnostic Interview Schedule (DIS). Substance misuse is classified as either substance abuse or dependence for a single substance or for multiple substances. *DSM-IV* diagnostic categories also include "specifiers" that denote abuse with or without physiological dependence and "course specifiers" that define the course of the disorder, including early full remission, early partial remission, sustained full remission, sustained partial remission, on agonist therapy (such as methadone), or in a controlled environment (where access is restricted).

DSM-IV diagnoses conceptualize substance abuse as a chronic condition subject to periods of remission. However, researchers have found evidence that a subgroup of people diagnosed with alcohol dependence, for example, show evidence of controlled moderate drinking without problems later in life. In addition, other research shows that the course of substance abuse does not necessarily worsen with time nor do users need to hit the bottom to want help. Substance use diagnoses for adolescents have been found to be very unstable. Many adolescents meeting *DSM-IV* criteria for substance abuse or dependence experience a "maturing out" process as they age and go on to adult lives free of substance-related problems. Therefore, substance use diagnoses for adolescents should be interpreted with caution.

Arthur W. Blume

See also Substance Abuse Treatment; Therapeutic Communities for Treatment of Substance Abuse

Further Readings

DiClemente, C. C. (2003). *Addiction and change: How addictions develop and addicted people recover.* New York: Guilford Press.

Donovan, D. M., & Alan Marlatt, G. (Eds.). (2005). *Assessment of addictive behaviors* (2nd ed.). New York: Guilford Press.

McCrady, B. S., & Epstein, E. E. (Eds.). (1999). *Addictions: A comprehensive guidebook.* New York: Oxford University Press.

Miller, W. R., & Carroll, K. M. (2006). *Rethinking substance abuse: What the science shows, and what we should do about it.* New York: Guilford Press.

Suicide Assessment and Prevention in Prisons

Prisoner suicide assessment and prevention is an area of active research and clinical involvement. Indeed, it is an important component of the forensic psychologist's clinical responsibilities due to the disproportionately high incidence of prison suicide as compared with the general population. This high incidence is a consistent phenomenon across countries. In some countries, this translates into suicide being a major cause of death among prisoners. To address the topic of suicide assessment and prevention, first the research challenges in conducting prisoner suicide research and the relevant theory in conceptualizing the process of prisoner suicidality are briefly summarized. A review of relevant risk factors as evidenced by research are categorized into several domains and described. These domains include demographic factors, historical factors, criminality factors, and clinical factors. Following a review of risk factors, suicide prevention within the prison setting is summarized.

Research and Theory

In an effort to better understand and assess (i.e., predict) prisoner suicide, a large body of research has investigated the risk factors related to prisoner suicide. However, there are some intrinsic challenges in the prediction of suicide generally, and there are some methodological weaknesses in prisoner suicide research specifically. The major challenge in predicting suicide is that it is a relatively rare event (i.e., has a low base rate). Statistically, it is more difficult to predict a rare event than a frequent event. This creates significant challenges for researchers in designing good-quality predictive studies. For example, because suicide is a relatively infrequent event, a researcher would need to have a very large number of subjects at the beginning of a study for there to be a sufficient sample size of eventual suicides for analyses. For individual clinicians, this difficulty in predicting rare events creates the higher risk of false positives (i.e., predicting suicide where none occurs). False negatives (a suicide occurs when it was predicted that no suicide would occur) literally have life and death implications and represent what most clinicians and staff members want to avoid.

Some particular methodological weaknesses in prisoner suicide research include samples consisting of mixed populations of prisoners (e.g., remanded and sentenced prisoners), lack of control or comparison groups of nonsuicide or nonattempter prisoners, and reliance on descriptive studies, which generates difficulties in establishing a causal relationship between risk factors and outcome. Of note is that, in recent years, researchers have made efforts to address these methodological problems. There have been efforts to design more comparative studies, to use more sophisticated statistical analyses (e.g., logistic regression), and to even undertake matched control studies. This is a welcome shift in the research approach to prisoner suicide. Indeed, given the plethora of descriptive studies generated over the last 25 to 30 years, there are limitations in the value added by purely descriptive studies of prisoner suicide at this time. Designing more methodologically sound studies will more meaningfully build on current knowledge.

Overall, despite the challenges presented by researching prisoner suicidality, identifying relevant risk factors has facilitated the development of suicide assessment protocols and scales. Prior to reviewing relevant risk factors, it is important to note that, as useful as individual risk factors are, there has been a major contribution by researchers who have offered valuable conceptualizations of the suicidal process as one that occurs over time and is affected by multiple factors. In particular, Marti Heikkinen and colleagues have provided one of the most well-developed models. Their process model of suicide consists of risk factors, precipitating factors, vulnerability factors, and protective factors that contribute to the process of suicidality. In this model, the suicidal process is viewed as dynamic and affected by several categories of risk factors (i.e., biological, psychological, social, cultural). At the same time, the individual's vulnerability and protective factors affect risk. For instance, a prisoner who has difficulty in coping with various areas of his life will likely experience greater risk. A prisoner with a strong social support system would likely experience some protection against risk. Finally, the model includes precipitating factors such as stressors and external events that contribute to triggering suicidality (e.g., loss of support, negative decision regarding release).

Risk Factors

Research on prisoner suicidality reveals several domains of risk factors that are relevant to suicide assessment. These general domains include demographic factors, historical factors, criminality factors, and clinical factors.

Demographic Factors

During the last couple of decades, predominantly descriptive research has linked prisoner's age with suicidal risk. Generally, the research has suggested that younger age groups (e.g., approximately under the age of 30 years) are overrepresented in suicide completer samples. However, a couple of recent and more methodologically sound research studies have challenged this conclusion, suggesting that either no relationship exists or that older age (i.e., 40 years and above) is predictive of prisoner suicide. More research will be required to clarify predictive relationships between age and prisoner suicide. A relatively new result provided by one of these recent studies was identifying homelessness as a predictive factor. It is worth mentioning that many descriptive studies have examined marital status as a correlate of prisoner suicide. These results have been equivocal and not uniformly supported by the recent better-quality research.

Historical Factors

The research has been fairly convincing that both the presence of a psychiatric history (typically broadly defined in prisoner suicide research) and a history of substance abuse are connected to an increased risk of prisoner suicidality. Recent research using the matched control methodology and/or logistic regression analyses has supported these predictive relationships. Some research suggests that recent psychiatric contact or intervention may possess additional predictive power. Results from the larger body of suicide research have revealed the increased risk generated by a family history of suicide. In particular, a genetic component has been attributed as partly responsible for the relationship. Individuals with first-degree relatives (i.e., parents, siblings) who committed suicide are at greater risk for committing suicide. This risk becomes more elevated if the relative suffered from a mood disorder (i.e., depression, bipolar disorder). Given this research, it is important to consider this factor in assessing prisoner suicidality.

Criminality Factors

Several criminality factors are linked with greater risk of prisoner suicidality. These include sentence length, time served in sentence, security level, criminal history, and institutional adjustment. In terms of a prisoner's sentence length, generally prisoners with lengthier sentences are disproportionately represented among prisoner suicides. In particular, those prisoners with life or indefinite sentences may be at higher risk. The amount of time served in one's sentence is also linked to prisoner suicide but not as definitively as sentence length. Generally, prisoners who commit suicide do so earlier in their sentences (within approximately the first 2 years of being sentenced). A prisoner's security level appears to be relevant to suicidal risk. A limited amount of recent research, some of which has used logistic regression, has revealed an overrepresentation of higher security prisoners (i.e., maximum security level) among suicide completers and attempters. Recent more methodologically sound research has indicated that several characteristics of prisoner criminal history are linked with suicidal risk. In one study, suicide attempters were more likely to have current convictions for homicide, break and enter, or robbery. Consistent with that result were two studies that found having a current violent offense was more predictive of suicide completers. In addition, prisoners with a history of prior criminal involvement (variously defined as prior offense[s], prior incarceration) were more likely to attempt or commit suicide. One study found that suicide completers and attempts were more likely to have had breach of trust offenses (i.e., escapes, violations of parole or probation). Finally, limited recent research using comparison groups and logistic regression found that both suicide completers and attempters had demonstrated negative institutional adjustment (e.g., institutional violence, contraband violations, substance abuse incidents, escape, requests for protective custody). Prisoners with a history of contraband-related incidents were three times more likely to attempt suicide. Those with a disciplinary history were 19 times more likely to engage in a suicide attempt. Both suicide completers and attempters participated in correctional programs less than nonattempters.

Clinical Factors

In addition to assessing the risk factors characteristic of suicidal prisoners, there is a fundamental role for the assessment of relevant generic clinical factors as part of the suicide assessment. In other words, a good assessment of prisoner suicidality is predicated on conducting a competent clinical assessment. In fact, there are several salient clinical factors that require particular attention. Clinical domains and factors important to the

suicide assessment are described. The work of John and Rita Sommers-Flanagan has been used to lend some structure to the description of clinical factors. In addition, where relevant, prisoner suicide research related to that factor is summarized. The overarching clinical factors include the presenting problem, depression, suicidal ideation suicidal intent, suicidal plan, self-control, vulnerability, and coping.

Presenting Problem

Similar to a suicide assessment with a nonforensic client, the initial goal is to attempt to establish rapport and determine the nature of the presenting problem. Determining the prisoner's level of distress and coping efforts will provide some indication of how to pace the remainder of the assessment. Identifying the precipitating factors and current stressor(s) provides some contextual and situational information.

Depression

There is a strong relationship between depression and suicidality as well as between depression and hopelessness. If a user combines alcohol and depression, then risk will further elevate. Therefore, it is important to determine the presence of depressive symptomatology. The diagnostic criteria and symptomatology of depression are not detailed here. Rather, relevant domains of functioning are reviewed as a means of suggesting some structure for the assessment process. These include emotional, physical, cognitive, behavioral, and social domains.

The *emotional domain* primarily refers to determining the presence of depressed mood and related factors such as frequency, intensity, and duration. Of particular concern is the presence of hopelessness. Research has established hopelessness as a strong predictive factor of suicide generally. Available research investigating this factor in prison populations has confirmed the predictive relevance of hopelessness. An additional emotional factor that warrants attention is the occurrence of a sudden and unexplained change in the individual's mood and/or functioning. This is a salient clinical sign that has traditionally been interpreted as an indication of increased risk. Experts in suicide assessment suggest that the improvement may result from the individual making a decision about ending his or her emotional pain or result from an alleviation of mental illness. The suggested dynamic is that either of these occurrences reduces ambivalence, brightens moods, and frees up energy to act (and possibly carry out a plan for suicide).

The *physical domain* refers to determining the presence of physical symptomatology indicative of depression. Relevant factors include appetite, weight, sleep, energy level, concentration, psychomotor functioning, and self-care.

The *cognitive domain* involves assessing whether cognitive functioning is intact. For example, there may be the presence of thought distortions, disorganized thought, impaired judgment, or event psychotic symptoms. Research has also pointed to the relationship between depression and the presence of negative thinking about oneself, the world, and the future (referred to as the cognitive triad).

The *behavioral domain* refers to behavioral symptoms of depression that can be observed. These may include decreased pleasure in one's usual activities, decreased physical activity, restlessness, poor concentration, and poor problem solving. Changes in self-care and other negative behavior may be present.

The *social domain* refers to interpersonal and social functioning. Some examples can include social withdrawal, rejecting support, interpersonal conflict, and decline in social skills.

Suicide Ideation and Suicidal Intent

Suicidal ideation and suicidal intent are related to increased risk for suicide. Ideation does not necessarily result in high risk. Expressing suicidal intent generally presents a greater risk than ideation. Inquiring directly about ideation and intent is important. Questions regarding frequency, duration, and intensity can provide additional information. In addition, collateral information and/or behavioral observations can be useful. If the prisoner commits or contracts, it is suggested that the commitment be made for both self-harm and suicide rather than assuming the commitment for one act will generalize to the other.

Suicide Plan

Having a suicide plan can present a serious level of risk. Determining the details is crucial. Relevant domains of functioning to assess include prior suicide attempts, specificity, lethality, availability, and proximity.

A history of prior suicide attempts increases the risk for suicide. A suicide attempt within the past year elevates risk even further. Obtaining details about the prior

attempts can help identify any patterns or past precipitants that may be relevant to the current situation.

Specificity of the suicide plan needs to be determined. Generally, the more detailed (i.e., high specificity) a plan, the greater the risk of suicide.

Lethality of a suicide plan is defined as the amount of time that passes between initiating the suicidal act and dying. High lethality is a plan that results in a quick death (e.g., hanging) and translates into high risk. In addition to the lethality presented by a specific method, there is also an impact resulting from how the method will be used. Research on prison suicide has revealed that hanging, a very lethal method, is the primary method of committing suicide.

Self-Control

By examining a prisoner's behavioral history (e.g., history of impulse control difficulties) and obtaining information about previous suicide attempts, the prisoner's degree of self-control can be assessed. Another factor affecting self-control is the use of alcohol or substances.

Coping and Vulnerability

A prisoner's poor ability to cope is a risk factor of suicide. Research has identified a component of the prison population that is particularly vulnerable and poor copers. These individuals tend to have difficulty coping across time and situations.

Psychosocial isolation (e.g., emotional and social support) increases the likelihood of suicide. The prisoner's access to emotional and social support resources should be assessed.

Physical isolation of suicidal prisoners can have a detrimental effect. Research addressing this issue had revealed that placing suicidal prisoners in some form of isolation (e.g., constant observation) is quite detrimental and can actually contribute to increased suicidal risk.

Suicide Prevention

Suicide prevention is typically conceptualized as an institutional or organizational approach to preventing prisoner suicides. Among the preventive strategies, there can be policies and procedures that specify the management of identified suicidal prisoners (e.g., type, frequency, and/or location of observations; mental health referrals). More broadly, there can be policies, procedures, and programs designed to improve identification of suicidal prisoners. Screening for suicidal risk at intake can be a valuable preventive strategy. During the last decade, there has been an appreciable amount of research directed toward developing effective screening instruments. Some scales are designed to be administered by nonclinical frontline staff at intake (e.g., correctional staff), while other scales require mental health training to administer. Some screening instruments have been designed for specific settings (e.g., remand centers vs. prisons), while other scales have been designed for use across a variety of settings. Implementing a screening instrument can be influenced by human resource and cost factors. A brief scale that requires no mental health training to administer is typically less resource intensive than a scale that may require clinically trained staff (e.g., nurse) to administer. However, the administrative costs must be weighed against the effectiveness of the scale to accurately identify prisoners as potential suicide risks.

An important component of suicide prevention programs includes training programs for prison staff. These programs can vary in scope. Some training programs target improved knowledge about the indicators of suicidality, while others target skill building in detection and basic intervention. Indeed, some institutions or jurisdictions have developed programs that provide training to prisoners in an effort to improve knowledge and/or provide skills that facilitate detection and peer support. Yet another suicide prevention strategy can involve changes to the physical environment that essentially decrease opportunity for a suicidal prisoner. For example, changes in cell location (e.g., observation cell) may improve visibility of a suicidal prisoner. Improvements to the physical structure of a cell may include installing tamper-proof fixtures and eliminating structures that provide opportunities to implement a suicide plan (e.g., a noose attached to a pipe).

Overall, research supports the conclusion that suicide prevention programs can reduce the incidence of prisoner suicides. Wider implementation of suicide prevention policies, procedures, and programs is necessary to further advance prevention efforts. Indeed, more comprehensive suicide prevention programs would also be beneficial.

Natalie H. Polvi

See also Critical Incidents; Extreme Emotional Disturbance; Forensic Assessment; Jail Screening Assessment Tool

(JSAT); Mood Disorders; Personality Disorders; Posttraumatic Stress Disorder (PTSD); Substance Use Disorders

Further Readings

Bonner, R. L. (2000). Correctional suicide prevention in the year 2000 and beyond. *Suicide and Life-Threatening Behavior, 30,* 370–376.

Daigle, M., Labelle, R., & Cote, G. (2006). Further evidence of the validity of the Suicide Risk Assessment Scale for prisoners. *International Journal of Law and Psychiatry, 29,* 343–354.

Hayes, L. M. (2007). Jail suicide/mental health update. National Institute of Corrections. Retrieved April 12, 2007, from http://www.nicic.org/Library/000001

Heikkinen, M., Aro., H., & Lonnqvist, J. (1993). Life events and social support in suicide. *Suicide and Life-Threatening Behavior, 23,* 343–358.

Liebling, A. (1995). Vulnerability and prison suicide. *British Journal of Criminology, 35,* 73–187.

Polvi, N. H. (1997). Assessing risk of suicide in correctional settings. In C. D. Webster & M. A. Jackson (Eds.), *Impulsivity: Theory, assessment, and treatment* (pp. 278–301). New York: Guilford Press.

Sommers-Flanagan, J., & Sommers-Flanagan, R. (1995). Intake interviewing with suicidal patients: A systematic approach. *Professional Psychology: Research and Practice, 26,* 41–47.

Suicide Assessment Manual for Inmates (SAMI)

The Suicide Assessment Manual for Inmates (SAMI) is a new instrument designed to assess risk for suicide attempts among individuals admitted to a pretrial remand center or jail. The SAMI is a 20-item clinical checklist of risk factors derived from the suicide research literature. Initial research on the SAMI has focused on its factor structure and predictive validity.

Suicide is the leading cause of death of inmates in jail facilities. Research on suicide prevalence rates indicates that the rate of suicide in an incarcerated population is higher than that in the general population, with some estimates indicating the prevalence to be as much as nine times higher in incarcerated populations. In addition, the prevalence of suicide may be higher in a population of remanded (pretrial) offenders than in a population of sentenced offenders. Suicide is a low base rate behavior; therefore, it is difficult to predict which individuals will attempt to commit suicide. It is, however, important to be able to identify those inmates who are at an increased risk for suicide on admission to a correctional facility so that they may be classified and housed accordingly.

Structured clinical guidelines are useful in attempting to determine which individuals are at an increased risk for suicide. The SAMI was developed to provide a framework of important variables that should be assessed for each individual admitted to a pretrial remand center or jail to determine that individual's risk for suicide within the next 24 hours. The SAMI is a clinical checklist of risk factors for institutional suicide attempts. It consists of 20 items that were identified by a review of the literature on suicide in general as well as suicide in jails and prisons. The purpose of the SAMI is to guide evaluators through important information and variables that should be assessed to determine an inmate's risk for institutional suicide. The SAMI was developed for use as a way to structure professional judgment in the assessment of institutional suicide risk.

Each of the 20 items contained in the SAMI can be rated on a 3-point scale, with a score of 0 being associated with low risk, a score of 1 being associated with moderate risk, and a score of 2 being associated with high risk with respect to the particular item. It is important to note, however, that like many instruments developed to structure professional judgment, the item scores on the SAMI are not to be added but, rather, are to be considered within the full context of the individual, the institution, and the circumstances. Both the self-report of the inmate as well as the observations and professional judgment of the evaluator are to be considered for each item.

Extensive and thorough literature reviews have identified numerous variables that are associated with risk for suicide in general as well as in jails and prisons, including age; sex; marital status; history of drug or alcohol abuse; psychiatric history; history of suicide attempts; history of institutional suicide attempts; family history of suicide; arrest history; history of impulsive behavior; high-profile crime or position of respect within the community; current intoxication; concern about major life problems; feelings of hopelessness or excessive guilt; presence of psychotic symptoms or thought disorder; symptoms of depression,

stress, and coping; social support; recent significant loss; suicidal ideation; suicidal intent; and suicide plan. The SAMI includes an assessment of each of these variables, with the exception of age and sex given the low variability on these factors since the vast majority of jail inmates are males in their 20s and 30s.

The SAMI is a new instrument, and research examining its reliability and validity is limited. Results of a preliminary study in which the SAMI was administered to 138 pretrial defendants indicate acceptable levels of interrater reliability. In addition, this research indicates that scores on the SAMI items are related to institutional category of risk for suicide (low, medium, high), need for mental health services, and need for monitoring within the pretrial facility. Factor analysis of the SAMI items identifies six factors: affective disturbance, suicide history, current cognitive state, current situational variables, impulsivity, and support and coping. The first three factors (affective disturbance, suicide history, and current cognitive state) are strongly associated with institutional category of risk for suicide, need for mental health services, and need for monitoring within the institution. The sixth factor, support and coping, is also strongly associated with need for mental health services. Regression analyses with the SAMI have indicated that Factors 1 and 2 (affective disturbance and suicide history) are predictive of referral to mental health services within the institution, whereas Factors 2 and 3 (suicide history and current cognitive state) are predictive of category of institutional suicide risk. Further research investigating the predictive utility of the SAMI is currently underway.

Patricia A. Zapf

See also Suicide Assessment and Prevention in Prisons

Further Readings

Zapf, P. A. (2006). *Suicide assessment manual for inmates.* Burnaby, BC: Mental Health, Law, and Policy Institute.

Suicide by Cop

Suicide by cop (SbC) is a phenomenon confronted by police officers in which suicidal individuals behave in such a way as to force officers to use lethal force against them. Research findings have found common characteristics and behaviors among SbC subjects. The phenomenon is recognized sufficiently that there are a number of court decisions that are relevant to incidents that are defined as SbC. Finally, police officers often suffer psychologically after their involvement in SbC incidents. Their suffering must be addressed if they are not to have long-term effects.

Suicide requires an active decision to kill oneself. Such action may conflict with religious ideology, or the subject may fear societal stigma. Suicidal individuals also may fear pain and believe that the police officers' training in lethal force will ensure their instant death. Some of these individuals have a desire to die in a high-profile "blaze of glory." Often, the decision of individuals to induce the police to use lethal force against them is impulsive. Emotionally distraught and under the influence of alcohol, many individuals form a cloudy decision to die only when the police arrive in response to a precipitating event such as a domestic dispute. Due to some of these conditions, suicidal subjects may become SbC subjects, inducing officers to kill them.

As with other suicidal behavior, the subject frequently is ambivalent about death. If the police can delay a confrontation, SbC subjects often are open to negotiation, especially if they become sober. Unfortunately, as found by studies conducted by the author, SbC subjects often place officers in situations in which they cannot get themselves or the victims in a safe place, so must shoot the SbC subjects. Also similar to other forms of suicide attempts, the behavior that often accompanies an SbC incident is an endeavor to cope with stressful life events by self-destructive behaviors.

SbC subjects primarily are male, White, and more than 25 years old. They often have a mental illness history, including mood and personality disorders. Alcohol is used in a majority of the recorded SbC incidents, with a number of the individuals having a history of alcohol abuse. Subjects under the influence of alcohol overcome their inhibitions and are more impulsive and lethal. Often, anger and aggression are indicated by a number of past assault or domestic violence complaints, homicidal pre-incident conversations, and negotiation conversations that include injury to others.

Precipitating events to the SbC incidents often include the termination of a relationship and/or other family problems. SbC subjects have been known to attempt to use the incident as a means to coerce a significant other to remain in a relationship or for revenge against a significant other. Unlike other suicide victims,

SbC subjects usually have significant others in their lives, although these others are often part of the problem. Outstanding criminal warrants on the SbC subject also are prevalent. They may state that they would rather die than return to prison.

Although early research in SbC focused on preparation by SbC subjects, more recent research done by the author has found that about half of the SbC incidents are impulsive rather than planned. About half of the SbC subjects, who she studied, had made some sort of statement or had a change in behavior that could be interpreted as presuicidal. These behaviors included writing and leaving a note, telling a therapist or significant other of what they were considering, and giving away possessions. Prior suicide attempts overall were not very prevalent; however, those who had attempted suicide in the past were more likely to be successful in their attempts in inducing police officers to shoot them.

The courts have not decided predominantly in favor or against police officers in all SbC cases; however, the courts have agreed that only the facts known by the officers at the time of the incident are relevant to the case. Intentions or motives of the SbC subjects discovered later are not directly related. The degree of danger that the officer or another person is in is judged at what is known by the officer at the time of the incident. Officers are granted qualified immunity unless they violate established law. The plaintiff has the burden to prove that the officers committed a constitutional violation.

Although the courts should consider only what the officer would have known at the time of the incident, it is useful to conduct a psychological autopsy to investigate what the individual's state of mind was at the time of the SbC incident. Such information will give officers a better understanding of the subject's motivation, plan, and pathology. It can help also in officers' psychological debriefings. Information for a psychological autopsy often is obtained from the subject's friends, family, and co-workers, as well as from any notes left by the subject, recent high-risk behavior, the giving away of personal property, and actions or statements that suggest preoccupation with death and/or suicide.

Officers who are involved in the SbC incident, especially the officer(s) who actually shoot the subject, are quite likely to suffer psychological traumatic stress disorder. Often, the subject does not actually have a loaded or real gun, although it appears real at the time of the incident. The officer may feel manipulated by the subject and is unprepared for the emotional and physiological reactions that follow the shooting. The officer also is often not given the opportunity to verbalize or emotionally ventilate his or her emotions. It is critical that police agencies require officers to see a therapist if they are involved in shootings or other violent incidents.

Vivian B. Lord

See also Critical Incidents; Police Psychology; Psychological Autopsies

Further Readings

Hutson, H. R., Anglin, D., Yarbrough, J., Hardaway, K., Russell, M., Strote, J., et al. (1998). Suicide by cop. *Annals of Emergency Medicine, 32,* 665–669.

Lord, V. B. (2004). *Suicide by cop: Inducing officers to shoot.* Flushing, NY: Looseleaf Law.

Parent, R. B., & Verdun-Jones, S. (1998). Victim precipitated homicide: Police use of deadly force in British Columbia. *Policing: An International Journal of Police Strategies and Management, 21,* 432–448.

Supermax Prisons

Super-maximum secure or "supermax" prisons are used to hold those prisoners whom prison authorities regard as the most problematic in the prison system. These facilities merge the 19th-century practice of long-term solitary confinement with 21st-century technology in ways that subject prisoners to unparalleled levels of isolation, surveillance, and control, usually for long duration, with the potential to inflict significant amounts of psychological harm. Despite a range of academic studies documenting the serious and potentially long-lasting psychological harm it may inflict, and several judicial opinions criticizing the risks it entails and significantly limiting its use, the supermax prison form persists. This entry describes the conditions in which prisoners in supermax confinement are held, characteristics of the supermax population, effects on prisoners of supermax confinement, and the current legal status of supermax prisons.

Although different prison systems employ different terminology to refer to supermax-like conditions (e.g., "control unit," "special management unit," "security housing unit," or "close management"), these units have enough distinctive features in common to be analyzed as

a separate penal form. Their use has continued to increase over the past several decades, and there are now tens of thousands of prisoners in supermax-type confinement throughout the United States.

Conditions of Supermax Confinement

Conditions in supermax confinement are marked by the totality of the isolation, the intended duration of the confinement, the reasons for which it is imposed, and the technological sophistication with which it is achieved. Supermax facilities house prisoners in virtual isolation and subject them to almost complete idleness for extremely long periods of time. These prisoners rarely leave their cells and are typically given at most 1 hour a day of out-of-cell time. They eat all their meals alone in the cells, and typically, no group or social activity of any kind is permitted. In most of these units, prisoners are escorted outside their cells or beyond their housing units only after they first have been placed in restraints—chained while still inside their cells (through a food port or tray slot on the cell door)—and sometimes tethered to a leash that is held by an escort officer.

Prisoners in supermax confinement are rarely if ever in the presence of another person (including physicians and psychotherapists) without being in some form of physical restraints (e.g., ankle chains, belly or waist chains, handcuffs). They also often incur severe restrictions on the nature and amounts of personal property they may possess and have limited access to the prison library, legal materials, and canteen. Their brief periods of outdoor exercise or "yard time" typically take place in caged-in or cement-walled areas that are so constraining they are often referred to as "dog runs." In some units, prisoners get no more than a glimpse of overhead sky or whatever terrain can be seen through the tight security screens that surround their exercise pens.

Supermax prisoners often are monitored by camera and converse with staff through intercoms rather than through more direct and routine interactions. In newer facilities, computerized locking and tracking systems allow most of their movement to be regulated with a minimum of human contact (or none at all). Some supermax units conduct visits through videoconferencing equipment rather than in person, which means that prisoners are denied immediate face-to-face interaction (let alone physical contact), even with loved ones who may have traveled great distances to see them. In addition to "video visits," some facilities employ "telemedicine" and "telepsychiatry" procedures in which prisoners' medical and psychological needs are addressed by staff members who "examine" and "interact" with them over television screens from locations many miles away.

As noted, supermax prisons routinely keep prisoners in this near-total isolation and restraint for extremely long periods of time. Unlike punitive segregation in which prisoners typically are isolated for relatively brief periods of time for specific disciplinary infractions, supermax prisoners may be kept under these conditions for years on end. In addition, many correctional systems impose supermax confinement as part of a long-term strategy of correctional management and control rather than as an immediate sanction for discrete rule violations.

Population of Supermax Prisons

Supermax prisons are usually justified by reference to the alleged dangerousness of the prisoners who are housed there—the "worst of the worst," as correctional administrators often characterize them. Thus, the increased use of this distinctive prison form is linked to the contention that an especially dangerous or "new breed" of disruptive prisoner now inhabits the modern maximum security prison. In fact, there is little or no empirical support for these contentions. Instead, many prisoners appear to be placed in supermax less for *what* they have done than *who* they are judged to be (e.g., "dangerous," "a threat," or, especially, a member of a "disruptive" group).

In many states, a large group (sometimes the majority) of supermax prisoners has been given "indeterminate" terms, usually on the basis of having been officially labeled by prison officials as gang members. An indeterminate supermax term often means that these prisoners will serve their entire prison sentences in isolation unless they "debrief" by providing incriminating information about other alleged gang members. These practices have resulted in a significant overrepresentation of racial and ethnic minorities in supermax prisons and what analysts have described as an "overclassification" of the prisoners who end up in these units.

In addition, the percentage of mentally ill prisoners in supermax appears to be much higher than in the general prison population. Thus, researchers estimate that approximately 30% of supermax prisoners suffer from "severe mental disorders." This overrepresentation of the

mentally ill likely results from the fact that some mentally disturbed prisoners engage in disruptive behavior that prison officials punish rather than treat. It also may indicate that supermax conditions themselves are severe enough to exacerbate and perhaps even create psychological disturbances in persons subjected to them.

Effects of Supermax Confinement

Numerous empirical studies have documented the harmful psychological consequences of living in supermax facilities. The evidence is substantial and comes from personal accounts, descriptive studies, and systematic research on solitary and supermax-type confinement conducted over a period of many decades by researchers from several different continents with diverse backgrounds and a wide range of professional expertise.

Direct studies of prison isolation have documented an extremely broad range of harmful psychological reactions, including potentially damaging symptoms and problematic behaviors such as negative attitudes and affect; insomnia, anxiety, withdrawal, hypersensitivity, ruminations, cognitive dysfunction, hallucinations, loss of control, irritability, aggression; and rage, paranoia, feelings of hopelessness, lethargy, depression, a sense of impending emotional breakdown, self-mutilation, and suicidal ideation and behavior. Self-mutilation and suicide are also more prevalent in isolated prison housing—the hallmark of supermax confinement, as are deteriorating mental and physical health (beyond self-injury); other-directed violence, such as stabbings, attacks on staff, and property destruction; and collective violence. In fact, many of the negative effects of solitary confinement are analogous to the acute reactions suffered by torture and trauma victims, including posttraumatic stress disorder.

Some researchers have estimated the prevalence rates of these adverse symptoms among prisoners who are confined in supermax-type conditions. One study found that three-fourths or more of a representative sample of supermax prisoners reported suffering from ruminations or intrusive thoughts; an oversensitivity to external stimuli; irrational anger and irritability; confused thought processes; difficulties with attention and often with memory; and a tendency to withdraw socially, to become introspective, and to avoid social contact. An only slightly lower percentage of prisoners in the same study reported a constellation of symptoms that appeared to be related to developing mood or emotional disorders—concerns over emotional flatness or losing the ability to feel, swings in emotional responding, and feelings of depression or sadness that did not go away. Finally, sizable minorities of supermax prisoners reported symptoms that are typically only associated with more extreme forms of psychopathology—hallucinations, perceptual distortions, and thoughts of suicide.

In addition to these specific symptoms, many supermax prisoners undergo other kinds of significant and potentially damaging transformations during their isolated confinement. Because they are so tightly and completely controlled, they may lose the ability to initiate or to control their own behavior or to organize their personal lives. Because individual identity is socially constructed and maintained, the virtually complete loss of genuine forms of social contact and the absence of any routine and recurring opportunities to ground thoughts and feelings in a recognizable human context leads to an undermining of the sense of self. For other prisoners, total social isolation leads, paradoxically, to social withdrawal. That is, some prisoners recede even more deeply into themselves than the sheer physical isolation of supermax requires.

Legal Regulation

Because supermax prisons are of relatively recent origin, their constitutionality—the question of whether the conditions of confinement in this new prison form represent "cruel and unusual punishment"—has been tested in only a few important legal cases. The first of these cases, *Madrid v. Gomez* (1995), addressed conditions of confinement in California's Pelican Bay Security Housing Unit. Although the judge found that overall conditions in the supermax units were harsher than they needed to be, he concluded that he lacked any constitutional basis to close the prison or even to require significant modifications in many of its general conditions. Instead, he barred certain categories of prisoners from being sent there because of the tendency of the facility to literally make them mentally ill or to significantly exacerbate preexisting mental illness. However, he also emphasized that the record before him had pertained to prisoners who had been in supermax for no more than a few years and that longer-term exposure might lead to a different result. The constitutionality of supermax confinement has been tested in federal courts in several other states (notably in Texas and Wisconsin), with largely similar results—a strongly worded condemnation of the

harshness of the conditions, exclusionary orders that exempted certain categories of prisoners from such confinement, but a concession that there was no legal basis to order that the supermax prisons be closed.

The legal threshold for finding conditions of confinement unconstitutional has been set especially high in the United States over the past several decades. Supermax prisons per se continue to come very close to this threshold and, in the case of mentally ill prisoners, were found to have crossed it. As the empirical record about the psychological effects of this kind of confinement continues to be augmented, and the consequences of long-term confinement in these units becomes clearer, other courts may reach different and perhaps even more sweeping conclusions about the legality of supermax.

Craig Haney

See also Prison Overcrowding

Further Readings

Haney, C. (2003). Mental health issues in long-term solitary and "supermax" confinement. *Crime & Delinquency, 49,* 124–156.

Haney, C., & Lynch, M. (1997). Regulating prisons of the future: The psychological consequences of solitary and supermax confinement. *New York University Review of Law and Social Change, 23,* 477–570.

King, R. (2000). The rise and rise of supermax: An American solution in search of a problem? *Punishment and Society, 1,* 163–186.

Kurki, L., & Morris, N. (2001). The purposes, practices, and problems of supermax prisons. *Crime and Justice, 28,* 385–424.

Madrid v. Gomez, 889 F. Supp. 1146 (1995).

Riveland, C. (1999). *Supermax prisons: Overview and general considerations.* Washington, DC: U.S. Department of Justice.

T

Tender Years Doctrine

The tender years doctrine, or the practice of awarding infants and young children to mothers in custody disputes, was employed in most state courts from the late 19th century until the 1960s. The tender years doctrine is based on the idea that mothers have superior, "natural" nurturing abilities and a biological connection to their infants. In the 1970s, most states abolished the tender years doctrine and replaced it with a gender-neutral "best interests of the child" standard. However, some current research claims that a maternal preference, especially in custody disputes over infants, continues to exist in practice in lower-level courts.

History of Child Custody Law

Historically, fluctuations in child custody law have reflected societal changes in beliefs about parenthood. Until the mid- to late 1800s, fathers had sole rights to custody, reflecting the notion that women and children were considered the property of the male head of the household. The father's absolute claim to custody also reflected the view of children at the time: In the primarily agrarian economy of the early 19th century, children were seen as economic assets. This agrarian economy shifted to an industrial one in the mid- to late 19th century, which made children less economically valuable and also necessitated the separation of home and work. With the emergence of separate spheres, men worked outside of the home, and women had responsibility for the home. At this time, the law shifted to a "tender years" doctrine. The tender years doctrine emphasized mothers' biological superiority as a parent and gave a legal preference to mothers in custody matters.

In the past few decades, most states have replaced the tender years doctrine with a best interests of the child doctrine, under which both mothers and fathers are considered equally. This shift in custody law reflected more widespread changes to gender-neutral legal language. For example, in *Watts v. Watts* (1973), a New York family court stated that "application of the 'tender years presumption' would deprive [the father] of his right to equal protection of the law under the Fourteenth Amendment to the United States Constitution." Adopting the "best interests" standard also coincided with increasing public acceptance of the notion that fathers are able to care for children as well as mothers. In 1986, in *Pusey v. Pusey*, a Utah appeals court held that a maternal preference "lacks validity because it is unnecessary and perpetuates outdated stereotypes."

At the same time, psychological research was used in legal proceedings to bolster the idea that mothers or fathers could be good caregivers to young children. Research on father-child interactions supported this idea, as did studies claiming that preserving the child's relationship to its "psychological parent"—the adult most responsible for and connected to the child—was paramount. This psychological research was used to discredit the tender years doctrine and to endorse the best interests of the child policy.

Current Research on the Tender Years Doctrine

Despite the shift to a more gender-neutral custody standard, the consideration of tender years is not a relic

of the past. As recently as 1989, a Florida appeals court, in *DeCamp v. Hein*, applied a maternal preference in the case of a child of tender years. And until 1997, the Tennessee child custody statute allowed judges to consider the sex of the parents in the case of a child of tender years. Thus, some scholars argue that judges in the lower courts have not "caught up" with this change in the law. Even if the tender years doctrine is not endorsed in statutory or case law, trial court judges may subscribe to it.

A recent study examined both judges' views of the tender years doctrine and whether their views were consistent with contested custody rulings. In face-to-face interviews, judges were asked directly about the tender years doctrine and also asked to assess a hypothetical custody case involving an infant. Despite the current gender-neutral custody policy, over half the judges interviewed expressed some support for the tender years doctrine. These views of the tender years doctrine were explained, in large part, by the gender of the judges and, relatedly, by their gender role attitudes; female judges reported more egalitarian views and were less likely to support the tender years doctrine than male judges. When comparing judges' views of the tender years doctrine with their decisions in custody disputes, judges' accounts were generally consistent with their rulings in contested custody disputes. Judges who endorsed the tender years doctrine were more likely to award custody of infants and young children to mothers than judges who did not endorse the tender years doctrine.

This research suggests that although state appellate courts and legislatures have abolished the tender years doctrine, practice in lower courts may continue to perpetuate some vestiges of the tender years doctrine. So despite greater legal and cultural acceptance of the idea that fathers and mothers are equally qualified to raise children, there are complex processes at work in the legal system that may perpetuate traditional notions of motherhood and fatherhood.

Julie E. Artis

See also Child Custody Evaluations; Divorce and Child Custody

Further Readings

Artis, J. E. (2004). Judging the best interests of the child: Judges' accounts of the tender years doctrine. *Law & Society Review, 38,* 769–786.

DeCamp v. Hein, 541 So.2d 708, 710 (Fla. App. 1989).

Mason, M. A. (1994). *From fathers' property to children's rights: The history of child custody in the United States.* New York: Columbia University Press.

Pusey v. Pusey, 728 P.2d 117 (Utah 1986).

Watts v. Watts, 77 Misc.2d 178, 350 N.Y.S.2d 285 (1973).

Termination of Parental Rights

When families fail to care for and protect children, states have the authority, when granted legal jurisdiction by the court, to initiate family services and to provide substitute care for the children. The prevailing legal standard for the care and protection of children is the *best interest* standard. The state is expected to act in the best interest of the child. Termination of parental rights is a legal action initiated in state family or juvenile court by the state's child protective services department. It typically follows a series of care and protection hearings and interventions designed to protect children within the confines of child welfare laws and regulations promoting child safety, family life, and parental rights. Cases of severe maltreatment, defined by statute, may move immediately to termination of parental rights without the provision of family services. Less serious care and protection cases are resolved without a termination hearing. When the conditions for family reunification remain unsuitable, a termination hearing is initiated according to state statutes, child protective service regulations, and codified timelines. The content of termination statutes varies across state jurisdictions (in some instances, federal statutes apply). Common thresholds for state jurisdiction and subsequent termination of parental rights include serious harm or the threat of serious harm to a child due to a caregiver's physical abuse, sexual abuse, or physical and emotional neglect of the child. Some statutes contain other criteria, such as the amount of time the child has been in substitute placement and the child's attachment to substitute caregivers after a defined period of time in their custody.

Termination of parental rights is a legal action and a subsection of child and family law and psychology. In termination proceedings, the attorney's role depends on whom the attorney represents. The child protective services agency's attorney, employed by the state, represents the interests of the state in the care and protection of children. When facing a termination hearing, parents in states allowing indigent funding are

provided with attorneys. In other states, parents must hire attorneys privately. Usually, each caregiver has his or her own attorney. Children may be provided their own attorneys to represent their expressed interests and guardians *ad litem* to represent their best interests as determined by substituted judgment. The role of the psychologist, as a forensic evaluator or consultant, depends on the referral source and the referral question(s). The psychologist is retained by the court, the state, or one of the attorneys for the parent(s) or child. Evaluations are requested for five main reasons: (1) to assess the caregiver's need for interventions after the state assumes jurisdiction; (2) to evaluate the risk of harm, if any, the caregiver poses to the child; (3) to assess the child's level of functioning and intervention needs; (4) to assess the caregiver's amenability to interventions; and (5) to determine the caregiver's participation and progress in recommended interventions. Referral questions may be comprehensive, involving the evaluation of multiple family members; or they may be limited to a specific feature of the case.

A properly qualified forensic psychologist has knowledge of jurisdictional legal and regulatory care and protection standards. The acceptance of a referral takes place within the legal context. The referral question is framed in a manner that respects parents' rights, the rights of children, the socioeconomic and cultural dynamics of the case, and the role and purview of the judicial finder of fact. Psychologists consult ethical standards and guidelines for practice, and they have a strong foundation in theories and research relevant to child maltreatment, parenting, child development, parental risk of harm through violence and neglect, parental mental illness and substance abuse, parental intellectual functioning, and parental poverty. They use the forensic assessment report and court testimony as communication mechanisms addressed to all parties relevant to the case.

Legal and Regulatory Standards

Societal responses to child maltreatment take many shapes, with the legal system representing the most formal mechanism of response. The nature and breadth of state jurisdiction in child care and protection matters are found in legal definitions of child maltreatment and in legal and regulatory procedures for identifying, investigating, intervening in, and making judicial decisions about family reunification or separation. Broad constitutional rights serve as the legal basis for family privacy, parental rights, and children's rights. Federal regulations influence developments and changes in state statutes, with the most recent guidance found in the Adoption and Safe Families Act of 1997. Child-abuse-reporting requirements and statutes influence the frequency and nature of cases entering the child protective services system. Procedural laws and regulations govern the sequence of hearings and the structure and process of service provision as cases move through the system. The confluence of these sources of laws and procedures provides a framework for the relative judicial weight given to state jurisdiction, family privacy, parental rights, and children's interests in their protection from harm or the threat of harm. From a legal perspective, children are neither fully independent nor fully dependent legal actors in actions taken by the state over the competence of their caregivers.

A typical case in which a termination hearing is eventuated moves through the following phases: an anonymous report of maltreatment by a mandated or a nonmandated reporter; an initial screening of the complaint by the local or regional child protective services agency representatives; an investigation of the allegations in the complaint; an emergency evidentiary hearing and removal of the children from the custody of the caregivers; an evidentiary hearing over whether the emergency removal will stand or will be overturned; placement of the children in substitute care; provision of relevant services to the caregivers and the children; periodic reviews and hearings relevant to the continued need for state intervention and service provision; and a final evidentiary hearing that leads to an outcome of a reunification plan, permanent substitute care, or termination of parental rights. Only the most serious and protracted cases reach termination. If their rights are terminated, parents occasionally are allowed posttermination contact with their children under carefully specified and limited circumstances. More commonly, ties are severed, and posttermination contact is disallowed.

Forensic Assessment in Context

Referrals for forensic assessment in the context of care and protection matters are made to assist the court in gathering data relevant to the case. Referrals may originate directly from the court by prior agreement of all involved parties, through an ex parte motion by the attorney for one parent or a joint motion by the attorneys for both parents, from a representative or an attorney for the child protective services agency, through

a regional child protection agency's contracted relationship with specific consultants/evaluators, or through an ex parte motion by the attorney for the child. Ex parte motions are those that occur in front of the judge without the knowledge of the other parties to the case. They preserve attorney–client privilege until the report is introduced into evidence. Motions may or may not be requested in this private fashion. The use of exparte motions gives the attorney the option of quashing results unfavorable to the client's case. The disadvantage is the difficulty of retaining attorney–client confidentiality and protecting the evaluation results under the attorney work product rule because of the eventual need for the evaluator to contact multiple parties to conduct a thorough evaluation that would typify most referral questions in care and protection matters.

Referral questions cover a range of topics. The evaluator might be asked to assess the child's psychological well-being in the aftermath of maltreatment or threats of maltreatment, to determine what services should be offered to the child and/or the caregiver to promote child well-being and safety, the amenability of the caregiver to interventions designed to reduce the risk of harm to the child, the psychological impact on the child of a return to the custody of the caregiver, the psychological impact on the child of permanent substitute care or parental rights termination, and the child's attachment to substitute caregivers.

Ethical Standards and Guidelines for Practice

Psychologists and other mental health professionals seek the relevant education, professional training, postdoctoral training, and continuing education. They turn to ethical standards and principles to guide their practice. Professional organizations develop guidelines for practice. Guidelines have been written specifically for the subspecialty of forensic assessment and consultation in care and protection matters. Guidelines relevant to cultural competence are particularly important because of the broad diversity of families that come to the attention of the care and protection system. Advocacy organizations for child welfare sometimes develop their own suggested practice guidelines.

Child Maltreatment

Legal definitions of child maltreatment are drawn from statutes, child protective service regulations, and case law. Social science definitions and nosologies of child maltreatment may not be fully consistent with the legal standards because of differing classification schemes and thresholds for maltreatment. Research on the etiology and impact of child maltreatment is complicated by differences in the definitions of maltreatment, differing standards for quantifying the scope and impact of maltreatment, and differing classification and diagnostic schemes. Theories of child maltreatment are drawn from sociobiology, the emerging field of genetics and human behavior, the psychology of human attachment, and the psychology of the inner life of the individual. Such theories may also take into account violence in the individual and society, parental attribution style, parental intellectual and social support resources, the impact of mental illness and substance abuse on parenting, intergenerational transmission or desistance of child maltreatment (i.e., whether parents who were victimized by child abuse become abusers or set about making sure they do not become abusers), social isolation, youthful parenting, and macrosocial issues such as neighborhood quality or the stress of parental impoverishment. Scholars are careful to point out that parents may parent competently even when they face multiple challenges. Parental factors such as mental illness, parental substance abuse, or intellectual limitations must be linked directly to the maltreatment to be considered legally relevant. Parental violence and neglect involve multiple complex factors that result in child maltreatment by some but not all parents. Research usefully illustrates the features that are common in cases of child maltreatment, but none of the features or combinations of features is isomorphic with maltreatment per se. Although much is known about the factors that predict child maltreatment, the relative weight of individual factors is less clear. Cumulative risk and chronicity of risk are not well researched, in part because of the inherent ethical and methodological challenges of conducting relevant empirical research in applied settings.

Parenting and Child Development

Theories of parenting and child development provide a framework for considering multiple styles of parenting, multiple forms of family structure, and child development trajectories. Theory serves as an organizing framework for understanding the inner life of individuals, family dynamics, the social biological

context, and the cultural context of cases. It facilitates the use of logic and reasoning in the integration of evaluation data. Research provides a basis for understanding family relationships, understanding the family system from the child's perspective, recommending relevant interventions, understanding and interpreting parental risk of harm, and placing parameters around interpretations and recommendations based on limitations in the state of the science. A forensic assessment report with legal utility has probative value based on the science of psychology as it is applied to and interpreted within specific legal standards.

Forensic Assessment in Care and Protection Matters

Evaluation methodology and forensic assessment reports in care and protection matters vary with the breadth and comprehensiveness of the referral questions(s). A typical evaluation involves an interview with the caregiver(s), an interview with the child, caregiver-child observations, collateral information, relevant records, and psychological assessment and/or risk assessment measures when indicated. Multimodal assessment is the most optimal approach. Focus is placed on hypothesized factors that potentiated family distress and child maltreatment, the viability and treatment utility of the service plan, whether conditions have changed or have been adequately addressed, and whether positive changes might be stable over time. Evaluation methodology might alternatively focus on the child's attachment to substitute caregivers and the child's readiness for adoption. Depending on the referral question, the interpretation section of a report might address the parent's level of functioning; the strength and quality of the parent-child relationship; child maltreatment risk and the mediators of risk; parental amenability to treatment; accommodations that might contribute to parental amenability to treatment; the expected intervention outcome for a parent or a child; specific changes (or lack thereof) in a parental condition, such as mental illness or substance abuse; support services that would allow a parent with intellectual limitations to parent adequately; the description of a particular child's special needs and their bearing on the child's parenting needs; and the matter of whether a positive intervention outcome might be expected within statutory time limits. Meaningful reports and testimony answer the referral question(s) with scientific integrity, within the parameters of the legal standards and context, in a tone respectful of all parties to the case and the judiciary, and with appropriate caveats.

Lois Oberlander Condie

See also Child Maltreatment; Children's Testimony, Evaluation by Juries; Child Sexual Abuse; Sex Offender Assessment; Sex Offender Treatment; Substance Abuse Treatment; Substance Use Disorders

Further Readings

American Psychological Association, Committee on Professional Practice and Standards. (1988). *Guidelines for psychological evaluations in child protection matters.* Washington, DC: Author.

Belsky, J. (1993). Etiology of child maltreatment: A developmental-ecological analysis. *Psychological Bulletin, 114,* 413–434.

Condie, L. (2003). *Parenting evaluations for the court* (Perspectives in Law and Psychology, Vol. 18, R. Roesch, Ed.). New York: Kluwer-Plenum.

Dubowitz, H. (1999). The families of neglected children. In M. E. Lamb (Ed.), *Parenting and child development in "nontraditional" families* (pp. 327–345). Mahwah, NJ: Lawrence Erlbaum.

Goldstein, R. D. (1999). *Child abuse and neglect: Cases and materials.* St. Paul, MN: West.

Terrorism

Terrorism, like many other horrific types of violence, has begged in the minds of many for a psychological explanation. The research and systematic analysis that has been done on the topic, however, show that neither mental illness nor a simple "lack of conscience" are significant primary causes of terrorism. There is no known "terrorist personality." The pathways and influences that lead certain individuals to become terrorists are quite diverse. Psychological research and systematic analysis, however, can help illuminate the processes by which people and groups come to adopt extremist ideologies and subsequently use those ideas to justify violent actions.

Since the attacks on the United States on September 11, 2001, leaders in the U.S. intelligence, diplomatic, and law enforcement communities have concurred that terrorism currently poses the most serious threat

to American national security. Understanding the causes, motivations, and determinants of terrorist behavior poses an enormous challenge in countering that threat, leading to a heightened interest in the "psychology of terrorism." This entry focuses on the psychological dimensions of terrorist behavior, deemphasizes the analysis of sociologically based explanations (sometimes referred to as *root causes*) or macrolevel economic and political theories, and does not address the psychological effects of terrorism.

After decades of social science research, no single theory of aggression has gained ascendance as an explanatory model for all types of violence. Terrorism is a distinct form of violence, although the basic question of how best to define terrorism has itself been a vexing problem. For heuristic purposes, though, most agree that terrorism would include acts of violence (as opposed to threats or more general coercion) intentionally perpetrated on civilian noncombatants with the goal of furthering some ideological, religious, or political objective.

Issues of intent, tactics, motive, ideology, and legitimacy of targets all add complexity and plurality to the construction of terrorism as a form of violence and challenge the emergence of a unifying explanatory theory. Commenting on the search for a master explanation of terrorism generally, Walter Laqueur has insightfully observed that there exist "many terrorisms" and that the factors that cause, sustain, or weaken them may vary greatly for different groups in different contexts at different points in time. From a psychological perspective, the psychiatrist Jerrold Post believes that there is not one terrorist psychology, but multiple terrorist psychologies.

Psychological theory and research on terrorism has evolved considerably since the 1960s. The earliest line of work was drawn principally from psychoanalytic theory and tended to focus on narcissism and hostility toward parents as explanatory variables. More recent explanations have moved away from this approach. A summary of the more contemporary body of professional literature on the psychology of terrorism is outlined below and framed around a series of functional questions.

How and why do people enter, remain in, and leave terrorist organizations? Research on terrorists and violent extremists who adhere to a broad range of ideologies shows that the pathways to, and motives for, terrorism are quite varied and diverse. Among the key psychological factors in understanding whether, how, and which individuals in a given environment enter the process of becoming a terrorist are motive and vulnerability. By definition, *motive* is an emotion, desire, physiological need, or similar impulse that acts as an incitement to action, and *vulnerability* refers to susceptibility or liability to succumb, as to persuasion or temptation. Regarding motive, researchers have begun to distinguish between the reasons for joining, remaining in, and leaving terrorist organizations, finding that motivations may be different at each stage and not even necessarily related to each other. Regarding vulnerability, there do appear to be some common vulnerabilities and perceptions among those who turn to terrorism—perceived injustice, need for identity, and need for belonging, though certainly there are persons who share these perceptions but do not become terrorists.

In 2006, at Pennsylvania State University, an Advanced Research Workshop was convened of professionals who study the psychology of terrorism. The common "risk factors" for terrorism identified by the participants of the workshop included the following:

- Perceptions of isolation or alienation from general society
- Perceptions of individual or group humiliation, injustice, shame, or dishonor
- Social isolation
- Need for identity and desire to belong
- Sense of disillusionment with the available alternatives
- Ideology that legitimizes terrorism
- Role models and heroes
- Sense of being or identifying with victims

Promising areas of inquiry have focused on common stages and processes in adopting extremist ideologies rather than on the content of the motive or justification per se. Three contemporary theories describing the adoption of extremist ideologies include Randy Borum's generic four-stage *terrorist mindset* model, which attempts to explain how grievances and vulnerabilities are transformed into hatred of a target group and how hatred is transformed—for some—into a justification or impetus for violence. Also recently introduced is Ali Moghaddam's *staircase to terrorism* model, in which he describes a convergent (i.e., fewer people proceed to each successive stage), five-step progression that transforms the personal experience of adversity into violent terrorist action. Using a more socially based framework in a study of people affiliating with Al-Muhajiroun in the

United Kingdom, Quintan Wiktorowicz outlines a four-part, developmental process based on social movement theory. Although each model was developed independently, and almost contemporaneously, the consistency of the major themes across the three models is quite striking.

To what extent is psychopathology relevant for understanding or preventing terrorism? Research on the psychology of terrorism has been nearly unanimous in its conclusion that mental illness and abnormality are typically not critical factors in explaining terrorist behavior. Studies have found that the prevalence of mental illness among samples of incarcerated terrorists is as low as or lower than in the general population. Moreover, although terrorists often commit heinous acts, they would rarely be considered classic psychopaths. Terrorists typically have some connection to principles or ideology as well as to other people (including other terrorists) who share them. Psychopaths, however, do not form such connections, nor would they be likely to sacrifice themselves (including dying) for a cause.

To what extent is individual personality relevant for understanding or preventing terrorism? There is no terrorist personality "type," nor is there any accurate profile—psychologically or otherwise—of the terrorist. Moreover, personality traits alone tend not to be very good predictors of behavior. Becoming a terrorist is probably best regarded as a process rather than as a single decision. That process is affected not only by the individual psychological characteristics, but also by situational factors, recent experiences, associations with others, and the ambient political environment and influence of people's constituencies. The quest to understand terrorism principally by studying the personality traits of terrorists is likely to be an unproductive area for further investigation and inquiry.

To what extent are an individual's life experiences relevant for understanding or preventing terrorism? Certain life experiences tend to be commonly found among terrorists. Histories of childhood abuse and trauma appear to be widespread. In addition, themes of perceived injustice and humiliation often are prominent in terrorist biographies and personal histories. None of these contribute much to a causal explanation of terrorism but may be seen as markers of vulnerability, possible sources of motivation, or mechanisms for acquiring or hardening one's militant ideology.

What is the role of ideology in terrorist behavior? Ideology is often defined as a common and broadly agreed on set of rules to which an individual subscribes, which help regulate and determine behavior. Ideologies that support terrorism, while quite diverse, appear to have three common structural characteristics: They provide a set of beliefs that guide and justify a series of behavioral mandates; those beliefs are inviolable and must be neither questionable nor questioned; and the behaviors are goal directed and seen as serving some cause or meaningful objective. Culture is a critical factor in the development of ideology, but its impact on terrorist ideologies specifically has not been extensively studied. Ideology guides and controls behavior, perhaps by providing a set of behavioral contingencies that link immediate behavior and actions to long-term positive outcomes and rewards, or it may best be viewed as a form of rule-following behavior.

What distinguishes extremists who act violently from those who do not? Not all extremist ideologies facilitate violence, nor are all extremists violent. One potentially useful distinction to consider is the direction of activity—that is, whether the focus is more on promotion of a cause or destruction of those who oppose it. Even within destruction-oriented extremism, it usually takes more than ideology to compel violent action. Psychological and social influences must erode the powerful, naturally occurring barriers that inhibit widespread human killing. The two main avenues of assault on those barriers are outside-in (i.e., effects of the group or social environment) and inside-out (i.e., making an internal cognitive adjustment about how to perceive the environment or situation).

What are the vulnerabilities of terrorist groups? Terrorist groups, like all social collectives, have certain vulnerabilities in their existence. Some come from within the organization, and some operate from outside. Internal vulnerabilities include internal mistrust, boredom/inactivity, competition for power, and major disagreements. Some of the more common external vulnerabilities include external support, constituencies, and intergroup conflict.

How do terrorist organizations form, function, and fail? Surprisingly little research or analysis has been conducted on the stages and cycles of terrorist groups' organizational development and functioning. In particular, there has been little systematic inquiry on the process of terrorist recruitment, despite the fact that

thwarting tomorrow's terrorists is at least as critical as understanding extremists of the past and the present. There are three tentative conclusions on extremist recruitment: (1) terrorists focus their recruitment where sentiments about perceived deprivation are deepest and most pervasive, (2) social networks and interpersonal relationships provide critical connections for recruitment into terrorist organizations, and (3) effective terrorist recruiters either identify in or impart on the prospect a sense of urgency and imminence in "closing the deal." Though some anecdotal reports exist on how some specific individuals came to join a terrorist group, there has been little serious scientific or systematic study of recruitment and radicalization processes.

From extremist group research based on organizational behavior principles, it does seem clear that the group must be able to maintain both cohesion and loyalty. Effective leaders of terrorist organizations must be able to maintain a collective belief system, establish and maintain organizational routines, control the flow of communication, manipulate incentives (and purposive goals) for followers, deflect conflict to external targets, and keep the action going.

The State of Research

Social science researchers in the field of terrorism studies are nearly unanimous in their conclusion that its research largely lacks substance and rigor. Several fundamental problems remain unresolved: There still is no agreed-on definition of terrorism, most of the existing research is not empirical or based on any data, and the existing research is largely inapplicable to operational considerations. Future endeavors designed to inform counterterrorism operations should be operationally informed, maintain a behavior-based focus, and derive interpretations from analyses of incident-related behaviors.

In addition, to further the basic social science of terrorist behavior, NATO's Advanced Research Workshop posed the following as "high-priority" research objectives for the future:

- A more rigorous, specific understanding of social and political movements that are not involved in violence, in order to understand what leads some organizations toward violence
- More primary research—better access to and more interviews with activists and terrorists
- Better triangulation of data obtained from these sources

Furthering psychological and other behavioral science research on terrorism will, it is hoped, enhance international security and prevent acts of violence toward innocent civilians.

Randy Borum

See also Criminal Behavior, Theories of

Further Readings

Borum, R. (2003). Understanding the terrorist mindset [Electronic version]. *FBI Law Enforcement Bulletin, 72*(7), 7–10. Retrieved from http://www.fbi.gov/publications/leb/2003/july03leb.pdf

Borum, R. (2004). *Psychology of terrorism.* Tampa: University of South Florida. Retrieved from http://www.ncjrs.gov/pdffiles1/nij/grants/208552.pdf

Borum, R. (2004). *Psychology of terrorism: Annotated bibliography.* Tampa: University of South Florida. Retrieved from http://www.ncjrs.gov/pdffiles1/nij/grants/208551.pdf

Moghaddam, F. (2005). The staircase to terrorism: Psychological exploration. *American Psychologist, 60,* 161–170.

Testamentary Capacity

Under Anglo-American law, the *right of testation* refers to the freedom to choose how one's property and other possessions will be disposed of following one's death. For a will to be valid, the testator (the person making the will) must have testamentary capacity (TC) at the time that the will is executed. TC is thus a legal construct that represents the level of mental capacity necessary to execute a valid will. If TC is absent, then the will is void and fails. For reasons of public policy, courts have traditionally applied a low legal threshold for finding TC.

Conceptually, TC falls within the broader concept of *financial capacity*, but for reasons of history and tradition, TC continues to receive distinct attention within the legal system. Each state jurisdiction, through its statutes and case law, sets forth the legal elements or criteria for TC. The absence of one or more of these elements of TC can serve as grounds for a court to invalidate a will. A will can also fail if the testator has an *insane delusion* that specifically and materially affects the testator's creation or amendment of a will. Finally, a will is often challenged on the conceptually separate

ground that it was the product of *undue influence* on the testator exerted by a family member or a third party.

As TC represents a legal construct closely associated with the testator's mental status, clinicians are often asked to evaluate TC and offer clinical testimony in legal proceedings. Such evaluations are sometimes conducted contemporaneously with a will's execution but more often occur retrospectively following the incapacity or death of a testator and probating of the will. In recent years, there has been an increase in will contests in the probate courts, with associated claims of impaired TC and also undue influence.

There is currently relatively little literature on TC. Several papers addressing the general clinical guidelines for assessing TC and undue influence exist. However, there is a great need for conceptual and empirical work in this area.

Legal Elements of TC

Although the requirements for TC vary across states, four criteria must generally be met. A testator must have (a) knowledge of what a will is, (b) knowledge of the class of individuals that represents the testator's potential heirs ("natural objects of one's bounty"), (c) knowledge of the nature and extent of his or her assets, and (d) a general plan of distribution of assets to his or her heirs.

The absence of one or more of these elements can serve as grounds for a court to invalidate a will due to lack of TC. However, the way in which courts weigh the legal elements of TC in determining the validity of a will varies across states. Some states require that the testator meet only one of the criteria for a will to be valid. Other states require that the testator not only must understand a will and demonstrate memory of all property and potential heirs but also must hold this information in mind while developing a plan for disposition of assets. Accordingly, the reader is strongly encouraged to review the relevant law on TC specific to his or her state jurisdiction.

Insane Delusion and TC

Even when the legal elements of TC are present, a will can fail due to an insane delusion. Specifically, some states require that the testator be free of delusions and hallucinations that result in the testator devising property in a way that he or she would not have done in the absence of the delusions and hallucinations. A psychiatric disorder with delusions and other symptomatology is not by itself sufficient to invalidate the will. It must be shown that the delusion specifically and materially affected the testator's creation or amendment of a will. In other words, the will must be the direct product of the insane delusion.

Undue Influence

A will can also fail on the separate ground that it was the product of undue influence. Although undue influence is conceptually distinct from TC, these two legal issues very often co-occur and intertwine when wills are contested. Under the law, undue influence exists in those situations where the will is the product of manipulation, persuasion, or coercion exerted by the "influencer" (e.g., family member, friend, neighbor, caregiver) and is not truly the volitional act of the testator. It commonly occurs in relationships where the testator has a special trust in or reliance on the influencer and where dependency has been increased through the influencer's use of isolation and manipulation. In some instances, the testator may be subjected to explicit threats and intimidation by the influencer. Conceptually, undue influence assumes some preserved level of TC in the testator, which, however, is supplanted by the wishes and actions of the influencer. For this reason, undue influence should be considered conceptually distinct from TC, albeit closely linked to it. Clinicians need to understand both TC and undue influence when conducting evaluations in this area.

Attorney Observations of TC

Typically, issues of TC may first arise in the context of a testator's interactions with his or her attorney. During the course of the client interview, an attorney may observe signs of diminished TC, such as an inability to recall the names of family members or to appreciate the full value of different assets. Variability in a client's state of mind and a lack of consistency between the client's current choices and his or her long-term values and previously stated wishes can also raise red flags. From a professional standpoint, attorneys must be sensitive to indicators of diminished TC in their clients and, where necessary, take steps to protect their client's best interests. In many instances, this may involve seeking consultation from a clinician.

Clinical consultation regarding TC can substantially inform the way in which attorneys and judges understand and determine the legal issues of TC. The role of clinicians in cases of TC includes informal

consulting with attorneys about clients with questionable capacity, contemporaneous clinical evaluations of TC prior to will execution, and retrospective evaluations of TC in cases involving a now-deceased or incompetent testator.

Consultation Regarding TC

An attorney may choose to consult with a clinician prior to, or instead of, seeking a formal clinical assessment. In this situation, the clinician provides an informal opinion regarding TC based solely on client observation and the information provided by the attorney. The clinician may also identify concerns or issues that the attorney may have overlooked, as well as suggest strategies for enhancing TC. Clinical consultation may assuage an attorney's concern regarding a client's TC or justify pursuing a formal clinical evaluation of TC.

Contemporaneous Clinical Evaluation of TC

In certain circumstances, the testator, a family member, or his or her attorney may request that a clinician assess the testator's TC prior to will execution. Two scenarios are common in such a referral. The attorney may have concerns about TC and desire clinical expertise and input on the issue before proceeding further. Alternatively, in cases of ongoing or anticipated family conflict, the attorney may seek to preempt a future will contest by having an assessment of TC conducted as part of the will execution.

Contemporaneous evaluations of TC are multifaceted and involve (a) collecting relevant data regarding the testator's assets, potential heirs, and general cognitive and everyday functioning from collateral sources (i.e., a spouse, other family members, and friends); (b) conducting a comprehensive mental status examination of the testator to identify cognitive and psychiatric impairments that may interfere with TC; and (c) completing a thorough clinical interview of the testator to assess TC according to the above legal criteria. Spar and Garb have proposed a valuable semistructured interview approach that clinicians can use to assess TC. Because the validity of a will is dependent on the testator's TC at the specific time that the will is executed, clinicians should conduct evaluations of TC as close to the time of will execution as possible.

Retrospective Evaluation of TC

Although contemporaneous assessment of TC is highly desirable, retrospective evaluations probably represent the majority of these forensic assessments. Retrospective evaluations arise after the death or incompetency of a testator, when potential heirs or other parties contest a will on the grounds that the testator lacked TC at the time the will was executed. Retrospective evaluations of TC are based on a thorough record review and information obtained from the testator's family, friends, business associates, and other involved professionals (often through deposition testimony). Primary attention is given to gathering evidence of mental status and neurobehavioral and everyday functional skills as close as possible to the date the will was executed. Relevant personal records include the testator's business records, checkbook and other financial documents, and personal documents (e.g., letters, diaries, family films, or videos). Medical records can yield particularly useful information, including mental status, behavioral observations, diagnosis, level of impairment, dementia stage (if applicable), and psychological test results. Clinicians may also find it beneficial to interview the testator's surviving family, friends, business associates, and other involved professionals regarding the testator's cognitive and functional abilities at the time the will was executed.

Ultimately, the clinician must assemble all of this information and retrospectively determine whether or not the testator clinically had TC at the prior relevant legal time point(s). In some cases, it may not be possible to render such a judgment if there is insufficient evidence of the testator's cognitive, emotional, and functional abilities contemporaneous with the prior will execution.

With respect to both contemporaneous and retrospective forensic evaluations of TC, it is important to emphasize that the clinician's opinions regarding TC represent clinical judgments that the court may consider and weigh in arriving at a dispositive legal judgment of TC.

Research on TC

TC as a civil competency represents a key knowledge gap in forensic science. There is relatively little published research on TC. Several good articles exist that provide general clinical guidelines and tips for assessment of TC and undue influence. However, there has

been an absence of conceptual and empirical research in this area. Specifically, there is a need for cognitive and neuropsychological models of TC, assessment instrument development, and empirical clinical studies.

Daniel C. Marson
and Katina R. Hebert

See also Competency, Foundational and Decisional; Financial Capacity; Financial Capacity Instrument (FCI); Forensic Assessment; Guardianship; Psychological Autopsies

Further Readings

American Bar Association Commission on Law and Aging & American Psychological Association. (2005). *Assessment of older adults with diminished capacity: A handbook for lawyers.* Washington, DC: Authors.

Greiffenstein, M. F. (1996, May). The neuropsychological autopsy. *Michigan Bar Journal,* 424–425.

Marson, D. C., Huthwaite, J., & Hebert, K. (2004). Testamentary capacity and undue influence in the elderly: A jurisprudent therapy perspective. *Law and Psychology Review, 28,* 1–96.

Spar, J. E., & Garb, A. (1992). Assessing competency to make a will. *American Journal of Psychiatry, 149,* 169–174.

Spar, J. E., Hankin, M., & Stodden, A. (1995). Assessing mental capacity and susceptibility to undue influence. *Behavioral Sciences and the Law, 13,* 391–403.

Walsh, A. C., Brown, B. B., Kaye, K., & Grigsby, J. (1997). *Mental capacity: Legal and medical aspects of assessment and treatment* (2nd ed.). Deerfield, IL: Clark, Boardman, & Callaghan.

Test of Memory Malingering (TOMM)

The issue of malingering is becoming increasingly important in the field of forensic psychology, particularly in cases involving traumatic brain injury, where alleged memory impairment is often used to seek personal compensation or as a defense against prosecution for various types of crimes. The Test of Memory Malingering (TOMM) was developed by the author to provide an objective, criterion-based test that is able to discriminate between individuals with bona fide memory impairment and those with feigned symptoms of impaired memory. The acronym *TOMM* was selected to emphasize that the test was developed with a definite, preconceived notion—to determine whether or not an individual is feigning or malingering a *memory* impairment. Thus, the TOMM should not be viewed as a malingering test per se.

The TOMM consists of two learning trials and a retention trial. The learning trials consist of a learning phase and a test phase. The study portion of each learning trial contains 50 line-drawn pictures (targets), each presented for 3 seconds with a 1-second interval between pictures. The same 50 pictures are used on each learning trial. However, they are presented in a different order on the second trial. During the test phase, each target is paired with a new line drawing (distractor). The position of the target is counterbalanced for the top and bottom positions. The person is required to select the correct picture (i.e., target) from each panel. For each answer, the examiner provides feedback about the correctness of the response. A delayed retention trial, consisting only of the test phase, is administered approximately 15 to 20 minutes after completion of the two learning trials. The TOMM is available in a computerized as well as a paper-and-pencil format.

Development and Validation

The TOMM was initially validated with 475 community-dwelling adults ranging in age from 17 to 84 years and 187 neuropsychological assessments from patients classified as follows: no cognitive impairment ($n = 13$), cognitive impairment ($n = 42$), aphasia ($n = 21$), traumatic brain injury (TBI) ($n = 45$), depression ($n = 26$), and dementia ($n = 40$). Inspection of the distribution of correct responses for the cognitively intact participants and the clinical patients showed that most nondemented individuals achieved a perfect score on Trial 2 and the retention trial. Moreover, rarely did a nondemented patient obtain a score lower than 45. In view of these results, the criterion score of 45 on Trial 2 or on the retention trial was selected. That is, any score lower than 45 should raise concern that an individual is not putting forth the maximum effort and is likely malingering. The criterion score correctly classified 100% of the community-dwelling participants and 95% of the nondemented clinical patients (cognitively impaired = 90%; aphasia = 95%; TBI = 98%; depressed = 100%; and dementia = 73%). Thus, the only clinical sample with a relatively

low sensitivity score was the dementia group. Even these individuals still obtained a score of greater than 92% on Trial 2. The finding that the scores on the TOMM were less than 95% for the dementia group is not particularly negative since it is unlikely that feigning memory impairment is a major issue when dementia patients undergo neuropsychological assessment.

It should be noted that "below-chance" performance (<18 correct at the 95% confidence level) also can be used as a statistical decision rule. However, experience has shown that malingerers or individuals simulating malingerers do not ordinarily obtain below-chance scores on the TOMM on any trial. Of course, if they do, the decision rule can be applied.

Five experiments using different types of participants and different types of experimental designs provide evidence that the TOMM readily differentiated between malingering and nonmalingering individuals and show that the TOMM is a useful psychometric test for detecting exaggerated or deliberately faked memory impairment. In this context, it should be noted that the TOMM meets all the guidelines established in *Daubert v. Merrell Dow Pharmaceuticals* (1993) to define the generally accepted standards for judges to use in determining the scientific admissibility of evidence, particularly when presented by expert witnesses.

Interpreting the TOMM

Interpretation of the TOMM should never be made solely on the basis of the TOMM score that a patient achieves. It depends on many factors, starting with the basic conceptual issues on how *malingering* is defined. The TOMM does not measure a general trait called "malingering." In forensic assessments, the TOMM is not an appropriate test to evaluate whether or not a person is faking a psychiatric disorder any more than it would be appropriate to use it to determine if a person is faking a back injury. Moreover, the interpretation of the TOMM should not be used to identify a "malingerer" but rather to indicate that a person is putting forth less than the maximum effort. Although individuals malinger, malingering cannot be legitimately viewed as a personality trait. Malingering in one situation does not necessarily mean that the person will always malinger or, in fact, will ever malinger again. In many, if not most, instances, individuals with TBI who malinger are "good" people caught in "bad" situations. It must also be remembered that malingering is not an all-or-none phenomenon but that it exists in different degrees, ranging from minor exaggeration of existing symptoms to flagrant faking of nonexistent symptoms.

Tom N. Tombaugh

See also Forensic Assessment; Malingering

Further Readings

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

Lynch, W. J. (2004). Determination of effort level, exaggeration, and malingering in neurocognitive assessment. *Journal of Heat Trauma Rehabilitation, 19,* 277–283.

Multi-Health Systems. (2006). *Test of Memory Malingering (TOMM). Research monograph: Summary application in clinical and research settings.* Toronto, ON, Canada: Author.

Tombaugh, T. N. (1996). *The Test of Memory Malingering (TOMM).* Toronto, ON, Canada: Multi-Health Systems.

Tombaugh, T. N. (2002). The Test of Memory Malingering (TOMM) in forensic psychology. *Journal of Forensic Neuropsychology, 2,* 69–96.

Vallabhajosula, B., & VanGorp, W. G. (2001). Post-Daubert admissibility of scientific evidence on malingering of cognitive deficits. *Journal of the American Academy of Psychiatry and the Law, 29,* 207–215.

Therapeutic Communities for Treatment of Substance Abuse

Therapeutic communities use interpersonal interactions within a structured community milieu to treat substance abuse. They have shown promising outcomes, especially among people with substance use disorders who require a highly structured environment to succeed. Therapeutic communities are used frequently in correctional institutions to treat inmates with severe substance use disorders and who exhibit antisocial behavior. Positive outcomes have been found for many participants, such as reduced substance use and recidivism after release from incarceration. Since therapeutic communities focus on communal processes to facilitate change, this treatment may not be an effective means to individualize care. In addition, the communities may not be helpful for autonomous, high-functioning individuals or people with severe co-occurring psychiatric

disorders. However, these communities have functioned well in correctional settings and seem to be well designed to serve the needs of inmates with severe substance use disorders who are motivated to change their behavior.

Substance Abuse Treatment Within Therapeutic Communities

Therapeutic communities are commonly used in correctional institutions to treat substance use disorders and other life problems. Therapeutic communities operate under the assumption that substance use is a consequence of a dysfunctional lifestyle that requires a holistic treatment solution to facilitate change. Holistic healing occurs within a highly structured peer milieu that seeks righteous living without substance use. In therapeutic communities, the interpersonal interactions within the context of communal living are considered to be the mechanism for treating substance use. The community models appropriate behavior for individual members, serves to correct the behaviors of individuals when they are inappropriate, and shapes changes in individuals. The historical roots of therapeutic communities for substance abuse can be traced to the Synanon community.

Therapeutic communities often include group work and may provide opportunities to participate in 12-step support groups. However, therapeutic communities differ from traditional treatment in that they view engaging in everyday life activities within the context of the community as a critical part of the healing process. For example, treatment involves engaging in work activities that benefit the community. In correctional institutions, staff and senior community members assume mentorship roles for the junior members of the community. They often function as closed communities, operating as independently of their surroundings as possible, and frequently require junior members of the group to limit exposure to events outside the community until they reach a certain level of maturity in the program.

Emphasis is placed on the importance of social relationships and reciprocal social support among participants and staff in the therapeutic community which can contribute to persistence in treatment engagement and better treatment results. Encouraging friends and family to participate in treatment also has been used to enhance social support with positive results among therapeutic community participants. Following treatment, participants often report improved relations with friends and family.

Research on Therapeutic Communities

Data concerning the efficacy of therapeutic communities are somewhat sparse, and interpretation of results is complicated by the lack of a standardized model, which makes comparisons across sites difficult. Therapeutic communities can work well for people who have severe substance use problems and would benefit greatly from treatment in a highly structured environment. Researchers examining the efficacy of therapeutic communities in the United States and Europe have found evidence that inmates, homeless people, adolescents, older adults, and certain ethnic minority groups may benefit from participation. Positive outcomes have included lower levels of distress, drug and alcohol use, and criminal involvement among participants. In addition, there is evidence that participation may enhance self-esteem, promote the taking of prescribed medications as directed, lead to gainful employment, and increase social and coping skills. Relapse prevention strategies and aftercare have been used to improve the efficacy of therapeutic communities' intervention in substance use disorders.

Evidence suggests a positive relationship between the length of association with therapeutic communities and successful outcomes after treatment. Motivation to participate in therapy and change current behavior patterns commonly is related to better treatment retention and less drug use after treatment. Participants in therapeutic communities often report greater motivation to change and higher satisfaction with treatment than people in other types of substance abuse treatment. However, these results may be confounded with self-selection biases since members choose to join these communities and participation requires a high degree of commitment.

Differential treatment outcomes associated with gender have been found. Because of these differences, some researchers have suggested that it may be helpful to use gender-specific treatment strategies. Women commonly enter therapeutic communities with lower levels of social functioning than men. They may exhibit evidence of greater psychological distress, often including suicidality and trauma histories, which need to be addressed in treatment. After participation in therapeutic communities, many women experience less victimization by

their partners and are less likely to engage in risky sexual behaviors, including trading sex for money.

Participants who are higher functioning and do not require highly structured care may not benefit from therapeutic communities. In addition, research suggests that people with severe mental health disorders may not have positive outcomes in therapeutic communities. Participants with greater psychological distress and more mental health symptoms when they enter the therapeutic communities seem to be more likely to drop out. Participants in need of limited social and environmental stimulation may find it difficult to tolerate the intense social interactions encouraged in this treatment model. Tailoring treatment to the needs of individuals with greater mental health symptoms would likely increase the chance of a successful outcome. One of the criticisms of the therapeutic community model in general has been that it does not account for individual differences or needs in treatment. However, the therapeutic community model meets the needs of inmates with severe substance use disorders in correctional settings such as jails, prisons, and halfway houses by providing a highly structured and safe community dedicated to staying substance free.

Arthur W. Blume
and Michelle R. Resor

See also Substance Abuse Treatment; Substance Use Disorders

Further Readings

Broekaert, E. (2001). Therapeutic communities for drug users: Description and overview. In B. Rawlings & R. Yates (Eds.), *Therapeutic communities for the treatment of drug users* (pp. 29–42). London: Jessica Kingsley.

De Leon, G. (1999). The therapeutic community treatment model. In B. S. McCrady & E. E. Epstein (Eds.), *Addictions: A comprehensive guidebook* (pp. 306–327). New York: Oxford University Press.

Therapeutic Jurisprudence

Therapeutic jurisprudence (TJ) is an interdisciplinary approach to the study and practice of law and the role of legal actors. It aims to focus on the often underappreciated aspect of the law and legal actors' role in producing therapeutic or antitherapeutic consequences. It is a normative framework that advocates the use of the social sciences to inform the processes and outcomes of legal interactions and procedures. It does not suggest that therapeutic concerns should override other important elements of the legal system (such as due process or justice concerns), but it does suggest that the therapeutic consequences of the law and legal actors be considered and systematically studied. TJ has become a highly influential framework for thinking about the law and the way legal actors interact with their clients.

The influence of TJ has recently begun to move from the conceptual to the empirical. Social science researchers are now beginning to empirically test the conceptual assumptions of the therapeutic framework. This is ushering in a new and exciting wave of TJ scholarship, for now, the TJ scholars are using not only the insights of the social sciences to develop law and legal processes but also the methods of the social sciences to test those insights. The near future of TJ scholarship promises to be an exciting and fruitful one for the development of law and legal processes.

This entry examines this newly emergent and important aspect of the intersections between law and psychology (and the wider social sciences). It provides an overview of the concept, a brief history of its development, a review of the practical implications of the framework, and an overview of its international appeal.

Therapeutic Jurisprudence: An Overview

TJ is, at its most basic, a therapeutic perspective of the legal system. It aims to use the knowledge and expertise of the social sciences–including psychology, criminology, social work, and others—to study the therapeutic and antitherapeutic aspects of the law and the wider legal system. TJ suggests that, whether one likes or acknowledges it or not, the law and the way legal actors interact with people have therapeutic consequences; thus, when the opportunity arises, legal actors should attempt to maximize the therapeutic potential (or at least minimize the antitherapeutic potential) of the legal interaction, providing that legal safeguards such as due process and justice considerations are not compromised.

TJ is not a paternalistic framework and does not call for increased state intervention or coercion. Therapeutic jurisprudence simply suggests that the therapeutic potential of the law and legal actors be recognized, systematically studied, and, when appropriate, acted on.

It suggests that all things being equal, the law should be constructed in such a way as to enhance the therapeutic potential of the law and legal actors.

TJ does not suggest that therapeutic ends should trump other considerations of the law. The law often serves other purposes that are equally valuable or more valuable than therapeutic ones. The TJ framework suggests that to achieve truly effective and humane law reform, policymakers should strive for a solution where these values converge. However, where these values conflict, TJ does not itself resolve the conflict, but it does sharpen and enrich the discussion.

The Development of Therapeutic Jurisprudence

Initial Origins: The Law and Mental Health

TJ began in the area of mental health law. It aimed to systematically study the previously neglected aspect of the law's therapeutic or antitherapeutic effects in relation to mental health law, in order to minimize the antitherapeutic effects and highlight the need for further analysis on therapeutic grounds. The first exploration of the framework occurred in 1987, when David Wexler delivered a paper to the National Institute of Mental Health in the United States. The impetus for the development of TJ was a reaction to the antipsychiatry perspective that had developed in the late 1970s and through the 1980s in mental health law. TJ suggested that psychiatry, and indeed the wider disciplines of the social sciences, had valuable insights to offer to the field of law and mental health and that the law and the legal profession should attempt to use those insights where appropriate.

The Spread Across the Discipline of Law

Through the early part of the 1990s, David Wexler, Bruce Winick, and a growing group of legal scholars in the mental health field sought to investigate the scope of TJ and its application to not only mental health law but other areas of the law as well. The interdisciplinary scope and easy applicability of its mission statement—to enhance the therapeutic potential of the law and legal actors—made the framework appealing to a number of different areas of the legal system.

By 1996, TJ had expanded to include legal arenas such as correctional law, criminal law, family and juvenile law, sexual orientation law, disability law, health law, personal injury and tort law, law of evidence, labor arbitration law, contracts and commercial law, and the legal profession, as well as theoretical explorations and empirical examinations of the concept. The wide scope of the TJ framework quickly made it a valuable resource for the future development of legal areas and law reform. Toward the end of the millennium, the concept became thought of in conjunction with a number of other legal developments of the comprehensive law movement, including preventive law, collaborative law, and problem-solving courts. The convergence between these practical applications of the legal system and the principles of TJ has seen the concept move from a theoretical (and largely academic) enterprise into a collaborative form of scholarship with truly practical implications.

Practical Implications

The move from theory to practice has thoroughly enriched the scope and application of the TJ framework. This entry will now highlight some of these.

Problem-Solving Courts

In an important joint resolution in the United States, the Conference of Chief Justices and the Conference of State Court Administrators endorsed the continued use and expansion of problem-solving courts (such as drug treatment courts, mental health courts, and domestic violence courts) and made specific reference to the courts' use of the principles of TJ. Although TJ and problem-solving courts (which emerged in Miami in 1989 with the first Drug Treatment Court) developed around the same time, their development was independent of each other, and for almost a decade, they each continued to show significant development within the U.S. legal system. However, in the mid-1990s, Judges Peggy Hora and William Schma began collaborating with David Wexler and Bruce Winick, speaking at conferences, and writing about the applicability of the TJ framework to the problem-solving (specifically, drug treatment) court phenomenon. Since then, the two concepts have developed a symbiotic relationship, and most problem-solving courts acknowledge the influence of the principles of TJ in their day-to-day work.

General Criminal Jurisdiction

Recently, scholars and, perhaps more significantly, judges and court administrators have begun to apply

and implement the principles of TJ in courts of general jurisdiction. An excellent example is a manual produced by Canada's National Judicial Institute. The manual uses TJ principles to inform judges how they might use probation as a behavioral contract. Also, with the implementation of insights such as relapse prevention planning, scheduled periodic review hearings, and early termination of probation after successful probationary sentences, the insights of TJ have added to the tools of judges in Canadian criminal courtrooms. In England, TJ principles have guided the way judges act even when handing down a custodial sentence. There, instead of simply sending the offender to custody without an explanation of the purpose of or reason for the custodial sentence, a community court judge completes a "Statement of Reasons," which explains the rationale behind the incarceration, and sends a follow-up letter to further explain the need for the custodial sentence. In this case, the judicial officer takes care to condemn the act and not the person. Such practices use the psychological principles of procedural justice to inform their functions, and it is hoped that these practices increase the defendant's sense of fair treatment and potentially facilitate future compliance with the law.

Civil Law

Besides its focus on criminal law, TJ continues to grow in the area of its origin—mental health law, principally through the work of Bruce Winick, Michael Perlin, Kate Diesfeld, and Ian Freckelton. There have also been important developments in family law and child protection law. Scholars such as Daniel Shuman and Katherine Lippel have looked at topics such as compensation in tort law and procedural justice elements in workers' compensation.

Lawyering

TJ influences the processes of the courtroom and urges an expanded rehabilitative role for criminal lawyers. TJ also influences the way lawyers undertake their roles in their offices. The TJ perspective suggests that lawyers work with their clients to achieve outcomes that are good from a therapeutic standpoint as well as a legal one. It also encourages lawyers to explain the potential consequences of pursuing certain forms of action. For example, when combined with preventive law, TJ asks the lawyers not only to identify legal "soft spots" (potential legal problem areas) but also to identify *psycholegal* soft spots—areas where legal interventions may lead to antitherapeutic consequences regardless of the legal outcomes. TJ suggests that lawyers should discuss these potential soft spots with the client prior to any legal intervention to ensure that the client has a full understanding of the potential for therapeutic harm.

Legal Education

TJ has now established itself in the curricula of many law schools as well as a number of social science courses. The concept is also gaining prominence in clinical legal education.

International Appeal

The wide appeal of TJ has seen it spread from its birthplace in the United States to a number of countries, including Australia, Canada, New Zealand, England, Pakistan, Scotland, Puerto Rico, South Africa, India, Vanuatu, Spain, Israel, Italy, Sweden, and Argentina. Publications now appear in English, Spanish, French, Italian, Japanese, Swedish, Hebrew, and Urdu. Indeed, at the Third International Conference on Therapeutic Jurisprudence, held in Perth, Western Australia, about nine countries were represented.

The Future of Therapeutic Jurisprudence

The wide-ranging appeal and international growth of TJ have seen the concept move from the theoretical to the practical, with a growing number of justice systems around the world implementing the ideas and principles of the concept in new and exciting ways. The next chapter in the development of TJ will provide researchers, policymakers, and those involved in the justice system with an excellent platform to think about the way we see the law, legal actors, and the justice system in the future.

Glenn Took and David B. Wexler

See also Alternative Dispute Resolution; Civil Commitment; Domestic Violence Courts; Drug Courts; Forcible Medication; Mental Health Courts; Mental Health Law; Patient's Rights; Procedural Justice

Further Readings

International Network on Therapeutic Jurisprudence. (2006). *Welcome.* Available at http://www.therapeuticjurisprudence.org

Stolle, D. P., Wexler, D. B., & Winick, B. J. (Eds.). (2000). *Practicing therapeutic jurisprudence: Law as a helping profession.* Durham, NC: Carolina Academic Press.

Wexler, D. B. (1990). *Therapeutic jurisprudence: The law as a therapeutic agent.* Durham, NC: Carolina Academic Press.

Wexler, D. B., & Winick, B. J. (Eds.). (1996). *Law in a therapeutic key: Developments in therapeutic jurisprudence.* Durham, NC: Carolina Academic Press.

Winick, B. J., & Wexler, D. B. (Eds.). (2003). *Judging in a therapeutic key: Therapeutic jurisprudence and the courts.* Durham, NC: Carolina Academic Press.

Training of Eyewitnesses

The ability to accurately recognize others is important to everyone, particularly because important social, personal, physical, and economic resources are uniquely associated with individual persons. The recognition training that most people experience comes with everyday social interaction, containing the incentives within their social environment. The ecology of personal recognition and the social-cognitive processes through which it develops have hardly been studied, and the social conditions under which some persons might become more accurate recognizers than others are largely unknown. Attempts to improve face recognition through short-term training focused on changing the attributes of faces that participants attend to or use in encoding facial information have largely proved ineffective.

There are social environments in which higher recognition performance levels would be very valuable. These are most commonly environments in which individuals to be recognized or identified have committed some crime and need to be apprehended. For example, persons at risk as victims due to their employment (bank tellers, convenience store clerks) might benefit from being capable of high recognition performance levels. Law enforcement, military, or intelligence personnel likewise would benefit from higher levels of recognition capability than the general public. For this reason, developing effective training in face recognition has real practical utility. Unfortunately, the available evidence is not encouraging: There is little evidence that persons of any occupational group are reliably better or worse at recognizing faces than others. Research conducted with law enforcement officers suggests that they are no better than other citizens in face recognition accuracy; however, officers have been shown to perform better at recalling the details of an event.

Research on face recognition training also has theoretical utility because of the need to better understand the basic cognitive and social psychological processes that form the basis for training. While face recognition processes have been shown to involve both featural and holistic components, few studies have been directed at using these aspects of face recognition to improve recognition. We know that elaborated or inferential processing of faces leads to higher levels of recognition performance, and it appears that such processing is the default mode. Instructing participants to attend narrowly to specific features causes their recognition performance to suffer. Some studies show that attempts to change or refine the facial information research participants extract at the point of encoding can lead to reduced recognition performance. This may result from attempting to substitute new memory strategies based on relatively short training experiences for encoding and recognition strategies that are based on a lifetime of practice. There is growing evidence that we develop selective processing of faces very early in life and that this processing is selective for our own "race" (or that which is experienced early).

A deficit in face recognition accuracy has been shown when people attempt to recognize faces of other "races." Known as the cross-race effect, studies have consistently shown the deficit in recognition across a variety of races, ethnicities, and nationalities. A few studies have attempted to train individuals in order to improve their ability to make accurate cross-race identifications; however, the studies have shown limited success, demonstrating that training effects are at best temporary and inconsistent. The methods used to train in face recognition have varied immensely since the early 1970s. For instance, one of the first training studies administered electrical shock following an incorrect recognition judgment. After only 1 hour of training, the shock feedback improved recognition performance. Effects of training over longer intervals were not examined. Another study trained participants to focus on critical facial features that were believed to differ between White and Black faces. Once again, participants showed immediate improvement in their face recognition ability; however, these effects diminished after the passage of 1 week. More recent research has focused on "feature-critical training" using INDSCAL (INdividual Differences SCALing software) analyses of the physiognomic differences between certain races. Results suggested that such training improved cross-race face

recognition; however, once again there was no indication of the persistence of the improvement or whether the improvement could be generalized across faces within that race. It is unclear at this juncture whether or not systematic training can, or ever will, reduce or eliminate the cross-race effect.

Natural experience (or the lack thereof) appears to be the basis for the cross-race effect, and studies of the effects of changing environments over a period of years (e.g., residential school experience) support this, as do studies of the effects of high levels of interest in sports where many of the outstanding performers are of a "racial" group contrasting with the "racial" group membership of many fans. Fans investing large amounts of time in watching the sport and who have a high level of detailed knowledge about the players show a reduced level of the cross-race effect. It is thought that social incentives and penalties exist for successful recognition and recognition errors or omissions, respectively. As good an idea as this might be, manipulating incentives as a training technique has not been studied.

Given the general failure in training individuals to improve their recognition of faces, a current movement among researchers has involved developing computer-based recognition algorithms. A number of procedures have been developed to use information from facial images to match one instance of a person to another of the same individual, under different conditions. Great progress has been made in this line of research, and it has now been shown that face recognition algorithms can be superior to human face recognition even under previously troublesome conditions, such as differences in illumination and shadow between the two photos to be matched. In addition, fusing the use of computer-image-processing algorithms with human similarity judgments leads to near-perfect recognition. Nevertheless, the problem of extracting accurate identifications from human memory remains. While human judgments have led to improvements in computer-based face recognition, computer-based support systems using genetic algorithms have been shown to provide effective assistance in human recognition.

Overall, training the human cognitive system to achieve higher levels of face recognition performance is an important goal, with only modest advances having been achieved.

Roy S. Malpass, Kyle J. Susa, and Christian A. Meissner

See also Cross-Race Effect in Eyewitness Identification; Expert Psychological Testimony on Eyewitness Identification; Police as Eyewitnesses

Further Readings

Malpass, R. S. (1981). Training in face recognition. In G. M. Davies, H. D. Ellis, & J. W. Shepherd (Eds.), *Perceiving and remembering faces* (pp. 271–285). London: Academic Press.

O'Toole, A. J., Abdi, H., Jiang, F., & Phillips, P. J. (2006). Fusing individual algorithms and humans improves face recognition accuracy. In G. Bebis, R. Boyle, D. Koracin, B. Parvin, P. Remagnino, A. Nefian, et al. (Eds.), *Advances in visual computing* (pp. 447–456). Berlin: Springer-Verlag.

O'Toole, A. J., Abdi, H., Jiang, F., & Phillips, P. J. (in press). Fusing face recognition algorithms and humans. *IEEE: Transactions on Systems, Man and Cybernetics.*

Transfer to Adult Court

See Waiver to Criminal Court

Translated Testimony

As society becomes increasingly more diverse culturally and linguistically, translated testimony will become a more frequent component of the American justice system. Due to the complex nature of the translation process, errors and misunderstandings of interpreted testimony are nearly unavoidable and can affect jurors' perceptions of a trial. Misjudgments may occur due to the inadvertent influences of the court interpreter or jurors' biased perceptions of a defendant's translated testimony. Psychological theories related to individuals' social identity and the human propensity to categorize other people as members of one's in-group or out-group may provide a framework for understanding the potential biasing nature of translated testimony. The implications for law and policy provided by research pertaining to translated testimony are vital for the fair and impartial treatment of all people within the U.S. justice system.

From the perspective of courts in the United States, the official language of courtroom proceedings is

English. When a trial participant does not speak or understand English, court interpreters are used. The court interpreter's task is to completely, impartially, and accurately reiterate in English the utterances of a trial participant that originate in a speaker's native language. The interpreter also renders the utterances that originate in English into the native language so that the non-English-speaking witness or defendant can understand the proceedings as well.

The number of monolingual and minimally bilingual non-English-speaking individuals who come in contact with the U.S. criminal justice system is increasing. According to the 2005 Annual Report of the Director of the Administrator's Office of the United States Courts, the number of cases requiring the use of court interpreters increased by 1.5% in 2005, with the Spanish language involved in 94% of these cases. The 2000 U.S. Census indicated that the percentage of Spanish speakers living in the United States increased by 3.2% since 1990; additionally, 10% of the Spanish-speaking population was monolingual. This rise in the monolingual Spanish-speaking population has created a need for Spanish-English interpreters, in particular in the United States.

Perceptions of Translated Testimony

Linguistic minority speakers are at a disadvantage in the courtroom. Early research demonstrated that English-speaking individuals perceive unaccented English more favorably than either Black vernacular English or Mexican American accented English. Thus, if linguistic minority witnesses and defendants choose to communicate in English during the court proceedings, they may be perceived less favorably by the jury because of their accented or limited English. Providing translated testimony to counter the linguistic minority speaker's limited English does not remove this bias.

Furthermore, the court interpreter's translation of testimony can shape jurors' views of speakers in the courtroom due to linguistic alterations in the translation process. Interpreters tend to lengthen testimony by using uncontracted versions of words and altering fragmented speech into a more narrative form. For example, in Spanish-to-English translation, English interpreters often add hedges such as ". . . uh, . . . well, and . . . um" into the speaker's testimony. These added hedges may reflect the interpreter's own performance deficiencies in the translated language; however, such additions to testimony cause the jurors to perceive the witness, not the interpreter, less favorably.

Finally, linguistic minority defendants and witnesses are forced to rely on the interpreter to understand the courtroom proceedings. During translation, interpreters may inadvertently alter an attorney's intended meaning during questioning by weakening the force of leading questions or including additional words. For example, if an interpreter adds words such as "well" or "now" to the beginning of an attorney's question during cross-examination, the witness may view the attorney as confrontational. Such alterations in the structure of the questions can influence the witness's perception of the attorney and understanding of the questions, thus altering the resulting testimony.

Impact on Jurors' and Juries' Decisions

The fact that interpreted testimony per se may influence the outcome of criminal cases has been demonstrated as well. Empirically derived data reveal that jurors see criminal defendants who testify in a language other than English with the assistance of an English interpreter more negatively than defendants who testify in English. For example, data collected in Texas courts in the 1990s showed that criminal defendants who testified in Spanish with interpretation into English were at significantly greater risk of conviction than were similarly situated defendants who testified in English. That is, the negative perceptions of non-English speakers were converted into a predisposition to vote for conviction of the defendant. This occurred even when people who themselves were Spanish speakers served on the juries that convicted.

More recent experimental data collected in the same jurisdictions suggested that the language of a defendant's testimony continues to have an impact on jurors' judgments about the guilt of defendants but that now the direction of the outcome has changed. That is, jurors serving on cases where defendants testify in Spanish with English interpretation are less likely to be conviction prone, other things being equal, than jurors serving on cases with equivalently situated defendants who testify in English. However, this effect seems to be diminished when jurors deliberate, when the language of defendants' testimony does not appear to influence juries' decisions. An important

additional finding from this research is that the jurors' own language use influences both voting preference prior to deliberations and jury verdicts after deliberations. Spanish-English bilinguals seem to be more lenient in general than are monolingual English speakers.

Explanations of the Impact of Language

One theoretical explanation proposed for these results follows social identity theory. This theory postulates that individuals are motivated to maintain a positive social identity. In addition, it is presumed that humans have a universal and natural tendency to categorize other people as members of the categorizer's in-group or members of some other out-group. One can use a variety of strategies to maintain a positive self-image, but important strategies relate to the way we interact with and reward those we see as in-group or out-group members. One can, for example, increase one's own positive self-image by perceiving members of one's in-group more favorably than members of out-groups and by differentially rewarding those who are in-group members. In a legal context, leniency would be expected from those jurors who perceive themselves to be most similar to the defendant. Spanish-speaking jurors would be expected to perceive Spanish-speaking defendants as more similar to themselves than would English monolinguals and thus would be expected to act more favorably toward Spanish-speaking defendants. Similarly, English monolingual jurors should be more lenient, other things being equal, with English-speaking defendants and more punitive with Spanish speakers. The empirical data from the studies conducted to date do not support this logic, however. Rather, Spanish-speaking jurors are more lenient toward defendants in general, no matter what the defendants' language of testimony. In addition, regardless of their own language use, jurors treat Spanish-speaking defendants more leniently.

An alternative hypothesis is that jurors should be motivated to see themselves, and be seen by others, as different from those who are accused of crimes. Other things being equal, they should be predisposed to convict defendants to clarify the fact that they are different from that person.

By testifying in a language other than the mandatory language of the proceedings (i.e., English), a Spanish-speaking defendant also may be seen as an out-group member by *all* the jurors. To serve as a juror, an individual must be able to read and write the English language. Therefore, by testifying in Spanish, the defendant is demonstrating that he or she is distinctly different in this regard.

While out-group members may be treated more punitively than in-group members, this punitive treatment may not be manifest in the bilingual courtroom. Indeed, quite the opposite may occur. The commission of a crime is what society would define as deviant behavior. Violations of norms result in negative sanctions (e.g., convictions and imprisonment), but this also is contingent on the observers' (e.g., the jurors) recognition that the person who violated the norms was able to conform to the expectancies in the first place.

When they testify in Spanish, defendants may be perceived as foreigners in a system that they do not understand. Jurors may be sympathetic toward the Spanish-speaking defendants because they see them as individuals who do not understand the situation in which they find themselves. This speculation suggests a new line of inquiry to pursue empirically. That is, if a defendant is seen as a "stranger" to the system, jurors may heighten their standard for the burden of proof and require the prosecution to justify the conviction of an individual who does not completely understand the consequences of his or her actions.

Community attitudes also may explain the results of the research outcomes to date. Recall that the impact of jurors' language use has been shown to be greater than that of the defendant's language of testimony. It may be that jurors' views of the American judicial system are critical in providing a context for their decisions. So, for example, it may be that more people who serve as jurors today hold more negative attitudes regarding law enforcement and the courts than those who served as jurors in the past, producing a more lenient outcome for defendants.

Implications for the Law

Court interpretation plays a pivotal role in the provision of justice to linguistic minorities in the United States. Future empirical research concerning court interpreters and the impact of translated testimony on jurors will provide useful information for the legal system and allow for unbiased due process for all defendants.

It is vital that standards remain consistent concerning the availability of a translator in all cases involving

linguistic minorities. The establishment of state and federal training and certification procedures ensures that courts handle such cases in a consistent and impartial manner. Furthermore, programs allowing for contract interpreters and telephone interpreting in districts where no certified interpreters are available are important steps to facilitate due process for all defendants. In addition to training court interpreters consistently, training for legal professionals such as judges and attorneys may allow for a better understanding of the special challenges associated with such cases. This type of training will generate greater awareness of the rights of defendants and the responsibilities of federally certified interpreters.

The fact that jurors are prepared to treat defendants who testify in the official language of trials (English) differently from those who do not is disturbing. Regardless of the quality of the interpretation, the fact that interpretation is provided at all seems to be an influential factor in the outcome of cases. At a minimum, courts may need to provide additional instruction to jurors to set aside their beliefs about those who do not testify in English. If jurors are instructed that the language of testimony is not to be included in consideration of the meaning and importance of facts presented in evidence, they may be able to hold their predilections in abeyance, and equal treatment can be given to all defendants.

Brooke A. Smith, Larissa A. Schmersal, and Harmon M. Hosch

See also Procedural Justice; Race, Impact on Juries; Sentencing Decisions

Further Readings

Berk-Seligson, S. (1990). *The bilingual courtroom.* Chicago: University of Chicago Press.

Hovland, D. L. (1993). Errors in interpretation: Why plain error is not plain. *Law and Inequality: A Journal of Theory and Practice, 11,* 473–503.

Laster, K., & Taylor, V. (1999). *Interpreters and the legal system.* Leichhardt, New South Wales, Australia: Federation Press.

Stephan, C. W., & Stephan, W. G. (1986). Habla ingles? The effects of language translation on simulated juror decisions. *Journal of Applied Social Psychology, 16,* 577–589.

Treatment and Release of Insanity Acquittees

For more than one and a half centuries, from the first insanity defense commitment of John Hadfield in England in 1800 through the mid-1960s, insane defendants (those not guilty by reason of insanity, or NGRIs) were automatically and indefinitely committed to a secure psychiatric facility until the state determined that they could be released. Until the mid-1960s, most were never released regardless of their crime. Treatment for NGRIs then and today mirrors the standard psychiatric treatment of the time—ranging from simple confinement in pretreatment eras to increasingly more sophisticated interventions such as those available starting in the 1950s. Today, most people found that NGRIs in the United States and elsewhere have a major mental disorder such as schizophrenia or bipolar disorder, and their treatments are at least initially as inpatients in a public psychiatric hospital. Due to legal changes from the 1970s onward, states that take custody of this population must also provide them with medical and mental health care whether they are inside or outside the hospital.

The Role of the Physician

Mental illness has for centuries been considered a mitigating circumstance in criminal behavior. Beginning in England in 1760, physicians specializing in madness have testified before the court that an individual's criminal responsibility could be diminished due to mental state. While such testimony was not an insanity defense per se, the early role of the physician as a court expert established medicine's domain, which continues today in many criminal trials throughout the world. Few defendants are found not criminally responsible without psychiatric testimony, confirming the long-held view that mental disorder is a medical illness and that responsibility for treatment lies with the medical profession. Today, while psychologists and social workers are included in evaluation, treatment planning, and service delivery, it remains the physician's responsibility to decide whether a defendant is mentally ill, to prescribe medications—the treatment of choice, and to recommend the confinement or release of an insane defendant.

Treatment

Treatment for NGRIs is delivered primarily by the public mental system. The first public mental hospitals in the United States were built after the 1830s, and there was no distinction between patients committed by family and those brought in by law enforcement. *Insanity* was used interchangeably to refer to all patients who were believed to be unable to make decisions due to mental illness. As suspicions rose about the use of civil commitment for inappropriate motives, such as acquiring family wealth or obtaining a divorce, the laws were changed in the late 1800s to require hearings prior to civil commitment, at which time the patient could object. These concerns were not directed at the legally insane patients. The concern with unfair commitments was short-lived as many states began allowing unrestricted, streamlined emergency commitments, as is still the case today. It was not until the judicial activism of the U.S. federal bench starting in the 1950s that civil commitment laws began to change, but these early federal decisions did not extend to NGRIs. This population of patients was committed for life and was not covered by the new, stringent civil commitment laws. Treatment continued unscrutinized in hospitals, and insanity acquittees could expect to spend their lives confined to the state hospital.

Public Policy on the Rights of the Insane

This period of complete neglect of the legal and treatment interests of the insane extended until 1966, when the U.S. Supreme Court ruled that convicted and hospitalized defendants were to be held to civil commitment standards. This holding was extended to NGRIs on the grounds that they had been denied equal protection due to lack of review of their automatic, indefinite commitment to maximum-security hospitals. The next year, the Court held that sex offenders were entitled to a hearing before being transferred from prison to a hospital after serving their sentence. The following year, the D.C. Court of Appeals held that insanity defendants were to be given the same procedural protections as other patients. In case after case, federal courts decided in favor of both NGRIs and convicted defendants with mental illness, requiring states to prove why continued commitment was necessary. As these new commitment laws were written, most states had the burden of proving that persons found NGRIs were mentally ill, dangerous, and in need of hospitalization. If treatments were not being provided, the state failed to meet the burden. Hearings were now required to review the continued hospitalization of all patients.

Prosecutors opposed to an insanity defense in a particular case were put in the awkward position of first arguing at trial that the individual's mental disorder was not so severe as to require an insanity verdict and then following this with the argument that the mental disorder was so severe that the person acquitted should be involuntarily committed. Not surprisingly, many insane patients no longer met the criteria for commitment and were released. The lack of treatment and supervision they encountered is legend, and beginning in the late 1960s, states began releasing NGRIs who no longer met the criteria for commitment—mental illness and dangerousness. At the same time, the costs of inpatient mental health care continued to rise due in part to "right to treatment" cases. For myriad reasons, such as the lack of resources, the belief that treatment would be ineffective, and fear, there was considerable community resistance to treating this forensic population.

The relatively unsupervised release of insanity defendants who had, in many cases, been hospitalized for decades caused fear and concern among the general public. Complicating the issue, a number of states had notorious cases in which a former NGRI committed a particularly heinous crime, leading to a reconsideration of the release procedures of insanity defendants. States began to make the release procedures more stringent, placing more responsibility on the defendant. The landslide of legislative change accelerated with the 1983 insanity acquittal of John Hinckley for his attempted assassination of President Ronald Reagan (and serious injuries to other victims). Following this widely publicized case, most states tightened their insanity defense laws, shifting the burden of proof to the defendant; changing the test for insanity from the American Law Institute's guidelines back to the more restrictive M'Naghten test; adopting guilty but mentally ill statutes; abolishing the affirmative insanity defense; and creating new, less defendant-friendly release procedures. Whether such legal reforms created the intended outcomes has been the subject of extensive research. While Hinckley did not start the retrenchment movement, his acquittal completed it.

Public Sentiment and the Insanity Defense

Research conducted from the 1960s through the 1980s reveals that the public views NGRIs as more dangerous than ordinary inmates, consistent with other research on public views of persons with mental illness as being dangerous. Therefore, little public sentiment exists to attend to the rights of NGRIs. Even when faced with overwhelming expert testimony that a defendant's mental illness is so severe that he or she could not have known right from wrong, juries more often than not find a defendant guilty, perhaps hoping that they will receive treatment in prison. When asked following the trial why they rejected the insanity defense, jurors often state that although they do not dispute the evidence of psychosis, they are fearful that the individual will be released from the hospital.

As public opinion shifted away from reform favoring defendants' rights, the courts turned away from defendants as well. What followed from 1983 to the present could be summarized as a refinement of procedures and laws regarding the insanity defense, within a context where standard psychiatric treatment is constitutionally required for NGRIs. In 1983, the Supreme Court ruled that an insanity acquittal for any crime is a presumption of dangerousness for purposes of commitment. In 1992, the Court held that NGRIs must be released if they no longer meet commitment criteria. An exception is made for convicted sex offenders, who can be involuntarily committed to a psychiatric hospital following completion of their sentence until their "mental abnormality" is cured. The implication of the Court's ruling is that sex offenders can be treated by mental health professionals, even though there is lack of evidence for the efficacy of these treatments.

Treatment and Release of Insanity Acquittees

One effect of the documented reduction of insanity defense cases from the 1960s through to the present is the change in the NGRI population, affecting treatment needs in both the hospital and the community. While some defendants might have been able to "fake" psychosis in the early decades, this grew less likely as the fields of forensic psychiatry and psychology developed and specialized training became required. Both civil patients and NGRIs have always been prescribed treatments that are thought to be medically appropriate and necessary. Earlier interventions including psychosurgery and electroconvulsive treatment were invasive and performed by physicians While both interventions are still sparingly used today, the most common treatment for all mental illness is medication; like earlier treatments, it is fixed within the professional domain of licensed medical doctors. For inpatients and outpatients alike, some psychosocial treatments have always been available, although the only common treatment is psychotropic medication.

In terms of treatment options in public facilities, there is little difference among patients due to their commitment status. Nearly all jurisdictions maintain maximum-security hospitals, and most NGRIs begin their commitment in these types of facilities but are eventually transferred to less secure, less costly facilities. In some states, these transfers require multiple approvals, but the degree of real oversight is unknown. Most often, security changes are made with internal review boards. Outright release or conditional release of NGRIs is supervised to a greater extent than transfers, and the release process varies in complexity and criteria. Some states require extensive, multitiered reviews, while others allow the committing judge to grant the release. A few states have convened specialized boards to oversee all NGRI release decisions and supervision. If placed on conditional release, NGRIs are required to adhere to the prescribed treatment and can face revocation if they violate the terms of their release. Failure to adhere to treatment, along with psychiatric deterioration, is the most common reason for revocation, not re-offending.

Contemporary Issues and Developments

Today, defense attorneys and defendants alike will not necessarily opt for an insanity defense for a relatively minor offense, even if the defendant meets the criteria for an acquittal. So, while the court decisions of the 1960s resulted in the release of many long-term patients, this trend away from commitment was short-lived. The insanity defense fell into disfavor among defense attorneys, in large part due to closer scrutiny of defendants and stricter release procedures leading to a long period of hospitalization, and among the public, due to perceived fears of this population. There was a parallel influx of nonviolent persons with mental illness into the

communities and the criminal justice system. Whereas between 1966 and 1983 the insanity defense was a viable defense for a wide range of defendants with concern about unusually long commitment, the new laws discourage its use for less serious offenders. The insanity defense with its expected long-term commitment is an attractive defense only for serious offenders who are facing long incarcerations if convicted. This leaves a large portion of persons with mental illness who are being cared for in the community finding themselves in minor scrapes with the criminal justice system.

Two major law and mental health initiatives of the late 20th and early 21st centuries are outpatient commitment and mental health courts, both of which are outgrowths of the real and the perceived influx of nonviolent persons with mental illness into the communities and the criminal justice system. Outpatient commitment is not a new concept, but it has only recently been widely implemented. It is a form of leverage of persons who have a history of treatment noncompliance—accept treatment or be hospitalized. In some states, it is also a form of leverage of the legislature to provide resources for mental health treatment. Most of the early mental health courts accepted only nonviolent misdemeanants. Revisions of these courts and the newer courts began to accept felons as well, but these may be limited to nonviolent offenders. Mental health courts are a form of criminal justice system diversion for defendants with mental illness. It is unknown at this point the degree to which these diversion programs are taking the place of the insanity defense. It is well documented that there is a measured increase in psychotic disorders among jail inmates and the convicted prison population. While this may be due in part to better diagnostic work in jails and prisons, it is unlikely that this accounts for all of the increase. These observed changes parallel the decline in the use and success of the insanity defense. Persons with mental illness who in prior decades were acquitted and provided treatment in mental health facilities are perhaps now receiving treatment in branches of the criminal justice system—outpatient commitment, jail diversion programs, mental health courts, and jails and prisons. How states respond to the increased demand for psychiatric treatment both in and outside the criminal justice facilities is evolving. Some states have extensive "inpatient" and "community" mental health services throughout their prison system. Ironically, these states are often the same states that provide extensive community mental health services in general. At the same time, some states fail to meet the demand at all levels and fail to recognize that good treatment is good security.

Lisa Callahan

See also Conditional Release Programs; Criminal Responsibility, Assessment of; Criminal Responsibility, Defenses and Standards; Insanity Defense Reform Act (IDRA)

Further Readings

Eigen, J. P. (1995). *Witnessing insanity: Madness and mad-doctors in the English court.* New Haven, CT: Yale University Press.

Moran, R. (1985). The modern foundation for the insanity defense: The cases of James Hadfield (1800) and Daniel McNaughtan (1843). *Law & Society Review, 19,* 602–631.

Steadman, H. J., McGreevy, M. A., Morrissey, J. P., Callahan, L. A., Robbins, P. C., & Cirincione, C. (1993). *Before and after Hinckley: Evaluating insanity defense reform.* New York: Guilford Press.

Zapf, P. A., Golding, S. L., & Roesch, R. (2006). Criminal responsibility and the insanity defense. In I. B. Weiner & A. K. Hess (Eds.), *The handbook of forensic psychology* (3rd ed., pp. 332–363). Hoboken, NJ: Wiley.

Trial Consultant Training

The nature and scope of trial consultant training reflect the array of services that are offered to clients, such as jury research, presentation strategies, and assistance with exhibits. There are no standard academic or professional requirements for trial consultants. Their training varies considerably across the profession, but it tends to involve a relevant academic background, some on-the-job training, and continuing education. Graduate training in the social sciences tends to be quite valuable, typically more than a background in law. However, on-the-job training helps provide competencies and strengthen skills that are difficult to obtain in any other way. Continuing education helps trial consultants remain up-to-date on valuable developments in the industry and advances in methodological, technological, and statistical areas.

Trial consultants provide either a narrow or a wide range of services to their clients, who are usually attorneys but can also include insurers, corporations, or individuals. These services generally include case

consultation and trial strategy, witness preparation, jury-related services, or presentation and technology-related services. Trial consultants who specialize in trial strategy often have a foundation in social psychology and communication and a solid understanding of law and legal procedure. Those who specialize in witness preparation may have a background in theater, communication, or counseling. Consultants who specialize in jury-related services such as jury selection or community attitude surveys typically have experience with social science research methodology and statistics as well as a foundation in social psychology. Finally, trial consultants who specialize in presentation and technology-related services tend to have a foundation in graphic art and communication. Of course, there are trial consultants who offer the full gamut of services. Thus, trial consultant training is quite diverse, reflecting the umbrella of services that consultants may provide and tapping into a range of disciplines.

Academic Preparation

Most successful trial consultants have graduate degrees in the social sciences, with a doctoral degree in psychology (particularly clinical psychology or psychology and law) being quite prevalent. In these types of academic programs, students acquire valuable skills in research design and methodology as well as in qualitative and quantitative data analysis. Graduate programs in the social sciences, particularly psychology, typically provide students with a solid theoretical background as well as research experience. These are particularly important for consultants who provide jury-related services such as mock trials and community attitude surveys. Analytical and communication skills are also valuable skills that can be honed in graduate programs in the social sciences, although other types of training, such as law school, can provide these as well. Some trial consultants assist their clients with mediations and arbitrations, so an understanding of the theories and applications relating to negotiations and conflict management is often helpful.

There is no clear academic path for individuals interested in trial consulting. Currently, there are no known academic programs that are dedicated to training future trial consultants. Appropriate academic preparation depends on the types of services that the individual plans to offer. For example, a person interested in focusing on graphics or demonstratives (e.g., developing day-in-the life videos of someone with a serious disability, designing illustrations to be used at trial) would need different training from someone who is more interested in conducting jury research in the form of posttrial interviews. In 2007, several universities offered masters and doctoral programs in psychology and law, forensic psychology, or related disciplines (e.g., Florida International University, John Jay College of Criminal Justice, and some other institutions offer relevant courses). A few of these programs offer a combined J.D./Ph.D. degree (e.g., University of Nebraska at Lincoln), although it is not clear whether the dual degree constitutes a superior academic path for those interested in trial consulting.

It is important to note that familiarity with the law and legal procedure is crucial, regardless of the nature or scope of the services provided. Attorney clients do not expect trial consultants to be legal scholars, but they do expect a functional knowledge of the law and a solid understanding of legal procedure. A careful read of relevant texts as well as in-court observations of proceedings is strongly advised.

The level of academic training that trial consultants should have depends on the level of responsibility and the type of work. For example, a master's degree in the social sciences should suffice for someone working as an associate or assistant to a more senior trial consultant. A doctoral degree in psychology or the social sciences provides valuable academic preparation for more senior-level positions, as well as the type of credentials that attorney clients often value. It is not clear whether graduate training of any form would be necessary for someone working in graphics or presentation-focused aspects of trial consulting. Proficiency in the appropriate software and graphic arts coupled with a background in communications should be adequate.

On-the-Job Training

Most trial consultants tend to acquire hands-on training by working for a consulting firm. This experience provides an invaluable opportunity to learn about the profession, the business, and the clients. Working with more experienced consultants can help individuals learn about best practices and gather their own sense of what works best. Moreover, many seasoned trial consultants have considerable insight into how jurors respond to certain types of arguments or evidence, particularly if they have worked on a particular type of case for a long time (e.g., medical malpractice cases).

Someone who acquires training under the tutelage of a consultant who has built a practice around certain types of cases would likely acquire specialized knowledge in that area, which is probably difficult to obtain in other ways.

It is in the courtroom that novice trial consultants often obtain considerable insight into courtroom dynamics, trial strategy, appropriate behavior, and the idiosyncrasies corresponding to some state and federal courts. By observing hearings and trials from start to finish, a novice trial consultant who is working as part of a trial team acquires know-how that is probably difficult to obtain in any other way.

On-the-job training can also help individuals learn about the business of trial consulting, including how to market and sell trial consulting services as well as meet the needs of clients. Such hands-on experience helps consultants provide answers to clients' questions. For example, a client may wonder whether jurors will understand the testimony of a scientific or technical expert in a complex civil case. A trial consultant might suggest some witness preparation to help the expert deliver the information clearly and convincingly in a way that fits with the themes of the case and to prepare the witness for cross-examination. The consultant might also recommend some demonstratives or exhibits to help the witness convey complex information clearly and help jurors use the testimony and evidence as intended. Additionally, surrogate jury research might test, among other things, the extent to which mock jurors understood the expert's message and incorporated that evidence into their decision-making process. Of course, clients do not always have unlimited resources, so successful trial consultants learn to devise solutions that meet the needs and fit within the constraints that clients bring to the table.

Trial consultants must also successfully manage clients. Understanding client needs and managing the complex interpersonal dynamics and political issues that can emerge when working among attorney clients, corporate clients, support staff, and others is important. Depending on their practice, trial consultants often find themselves working with multiple clients, such as corporate defendants and insurers, who do not always share the same goals. These are the types of situations that test consultants' skills in diplomacy, conflict management, communication, and critical thinking. As another example illustrating the importance of understanding client needs and politics, trial lawyers sometimes hire trial consultants only to be able to blame them for providing bad advice if the verdict is unfavorable. Such practices are probably uncommon but reflect the importance of being able to understand the trial consultant's role in a particular situation. Generally, trial consultants tend to acquire and hone many of these competencies through hands-on experience.

Finally, some successful trial consultants have built their practice entirely on their experience and have no relevant academic credentials. These consultants present a compelling argument when they point to their repeat clients, who are pleased with the level of services they provide. However, it is likely that in the future, trial consultants who acquired their knowledge and skills exclusively on the job will face increasing challenges in providing cogent answers to questions about statistics and methodology from increasingly sophisticated clients.

Continuing Education

Trial consultants need to update their skill set and remain up-to-date with current best practices and developments in the field and changes in the law. Clients are becoming increasingly sophisticated with regard to social science and technology, so trial consultants are additionally motivated to keep up with professional developments. For continuing education, trial consultants in the United States typically turn to the American Society of Trial Consultants (ASTC). Every year, the ASTC organizes a conference where trial consultants can take "Trial Consulting 101" and can discuss emerging trends and findings with seasoned experts. Other related professional organizations include the American Psychology-Law Society and the Law and Society Association. The annual meetings of these organizations sometimes provide useful information about scientific findings that are relevant to trial consultants (typically relating to jury behavior).

Certification of Trial Consultants

The ASTC has considered the merits and drawbacks of certification for trial consultants. Considering the diverse nature of the services as well as the swift changes that technological advances can bring, the current state of the profession in the United States excludes any professional certification or state licensing.

However, the ASTC has outlined some practice guidelines for some services (e.g., witness preparation, jury selection), and its annual conference provides workshops and sessions designed to disseminate these best practices. As the ASTC moves to identify practice guidelines for additional services (e.g., posttrial interviews), trial consultants should consider the implications of training or education.

Veronica Stinson

See also Jury Deliberation; Jury Selection; Trial Consulting

Further Readings

Cutler, B. L., & Stinson, V. (in press). Training and education of trial consultants. In R. L. Wiener & B. Bornstein (Eds.), *Trial consulting: A psychological handbook.* New York: Springer.

Posey, A. J., & Wrightsman, L. S. (2005). *Trial consulting.* New York: Oxford.

Strier, F. (1999). Whither trial consulting? Issues and projections. *Law and Human Behavior, 23,* 93–115.

Strier, F. (2001). Why trial consultants should be licensed. *Journal of Forensic Psychology Practice, 1,* 69–76.

Trial Consulting

Trial consulting gained attention in 1971, when "scientific jury selection" was employed by a group of social scientists in the defense of the Harrisburg Seven, a group of war protesters who faced conspiracy and kidnapping charges. Since that time, the field has grown considerably in terms of both the number of professionals in the field and the range of services offered. The educational and professional backgrounds of trial consultants vary, but doctoral-level psychologists make up the largest percentage of consultants. There are arguably no limits to the types of services that trial consultant can provide, but the most common include community attitude surveys, jury selection, witness preparation, focus group studies, mock trials (also referred to as trial simulation studies), demonstrative exhibit preparation and evaluation, content analysis of media for purposes of change of venue or change of venire motions, shadow juries, and posttrial juror interviews.

Consultant Backgrounds and Qualifications

The trial-consulting industry is unregulated, and there are no educational, training, or experiential qualifications required to identify oneself as a trial consultant, jury consultant, litigation consultant, or any other associated title. The American Society of Trial Consultants (ASTC) states that its members come from the fields of communication, psychology, sociology, theater, marketing, linguistics, political science, and law. Although there are no state or national licensing requirements, the ASTC Professional Code states, "The trial consultant fully discloses academic qualification and consulting experience to potential clients, specifies the services provided, and identifies the objectives of each consultation."

Trial Consultants Versus Experts

Trial consultants are typically retained by the attorney(s) representing one party in a case to assist with one or more aspects of trial strategy. Trial consultants differ from experts generally in the type of assistance they provide, although there can be similarities in the research methods they employ and overlap in the information or assistance they provide to attorneys. Whereas experts are hired because of their specialized knowledge of a particular field or subject relevant to a case (e.g., fire analysis, medical disease, accounting methods) and it is anticipated that they may testify at trial, trial consultants are generally hired to provide services that will assist the trial team with the assessment and development of case presentation and trial strategies, and it is typically not expected that they will testify at trial.

Trial-Consulting Services

A wide range of services designed to address pretrial, trial, and posttrial issues are provided by trial consultants.

Jury Selection

Jury selection was one of the first services provided by trial consultants when "scientific jury selection" was employed in the defense of the Harrisburg Seven in 1971, and over the years, there has been considerable debate over the purpose, effectiveness, and ethics of

trial consultants assisting with jury selection. Generally, jury selection involves attempts to identify jurors who are sympathetic or unsympathetic toward a particular party in the litigation. These attempts may be based on intuitive assessments of potential jurors during voir dire or on research-based "juror profiles" that identify demographic and attitudinal factors associated with favorable or unfavorable attitudes toward one or more of the parties and that are developed prior to the trial. Sources of information about potential jurors include juror questionnaires administered by the court in connection with jury pool maintenance and provided to the attorneys shortly before the trial, community attitude surveys, supplemental juror questionnaires, and the observation of potential jurors during voir dire (which can provide information on their verbal and nonverbal behavior).

Among jurists as well as social scientists, there is substantial variability in the weight afforded to jury selection and beliefs about the influence of individual jurors and jury composition on final verdicts. Empirical examinations have found that juror demographic and attitudinal factors account for a relatively small amount of variance in final verdicts (somewhere between 5% and 15%). However, it can be argued theoretically as well as statistically that in cases where the strength of evidence on opposing sides is evenly balanced and the litigation stakes are perceived to be high, even a slight advantage afforded by means of juror profiles or other empirically derived diagnostic information employed during jury selection can be helpful.

The methodological shortcomings of much of the early research on jury selection have been pointed to as possible explanations for the relatively weak relationships that have been found between juror demographic and attitudinal characteristics and final juror verdicts. Jury selection research that has assessed juror attitudes specific to the characteristics of a particular case has found stronger relationships between juror attitudes and final verdicts.

Community Surveys

Community surveys of jury-eligible individuals can be used to develop juror profiles to be used as part of jury selection. They can also be used to assist attorneys in assessing the strength of a case, a range of possible damage awards in civil cases, and the preexisting prejudice in the trial venue against one or more of the parties.

To develop juror profiles, surveys are administered (typically by phone) to a large number of jury-eligible community members in the trial venue or a surrogate venue deemed sufficiently similar to the trial venue. There is no minimum number of required respondents, but as the sample size increases, the margin of error decreases. Consequently, survey data from hundreds of respondents are required to reach margin-of-error rates that are generally accepted as reasonable in social science. The surveys consist of many demographic and attitudinal questions. In addition, a brief summary of the case is provided, and respondents are asked to indicate which side they favor. (This can be in the form of asking respondents to select a "verdict," but that form of measurement is not required.) Data analyses are then conducted to examine whether particular demographic or attitudinal factors are consistently associated with a verdict leaning or case outcome preference in favor of one party or the other.

If a community attitude survey reveals that, in general and across demographic factors and various attitudes, jury-eligible individuals heavily favor one side in a particular case, the trial team may decide to plea bargain or settle the case rather than go to trial. Survey results indicating an unbalanced case can also help place the potential influence of juror demographics and attitudes in an appropriate context.

Community surveys can be particularly helpful in civil cases where damage awards may be large or difficult to estimate. Given the variability typically associated with economic measures, a community survey can be a cost-efficient method of gathering estimates of damages from hundreds of jury-eligible individuals.

When the ability of a defendant to receive a fair trial in the trial venue is questioned, trial consultants can conduct community surveys to assess prejudice in that venue. And these results may be included in a motion for change of venue or change of venire. (Change-of-venue/venire motions are typically submitted by the defense, but community surveys can also be conducted by the prosecution or the plaintiff in a case to counter data presented by the defense.) Prejudice against a party may result from various sources, including pretrial publicity, personal experience with the party, or community gossip and rumor. Generally, personal experience with the party and community gossip do not substantially influence prejudice in the venue unless the venue is very small or sparsely populated. Community surveys can then be designed to assess the content and amount of

knowledge about the parties as well as preexisting beliefs about guilt or liability.

Focus Group and Trial Simulation Studies

Focus group studies and trial simulation studies allow for a more extensive presentation of trial evidence and arguments to a sample of jury-eligible individuals than community surveys do, but the higher costs associated with compensating individuals for their time and travel to some focus group or conference facility typically result in smaller samples being used in focus group and trial simulation studies. The methods and data analysis techniques generally used in focus group and trial simulation studies come from the fields of marketing, communications, and psychology (particularly small-group research). Trial simulation studies are sometimes based on the experimental method, with half the mock jurors being presented a particular factor (e.g., an argument, a piece of evidence, or a trial procedure) and the other half not being presented with the factor. The fact that the techniques used in focus group and trial simulation studies are grounded in the strong research methods of other fields may account for the lack of empirical examination of the effectiveness of these trial-consulting techniques.

Witness Preparation

Another service commonly provided by trial consultants is witness preparation, whether it is preparation for depositions or trial testimony. Based on the findings of research in the fields of communications and psychology on topics such as persuasion, physical attractiveness, deception detection, and communicator expertise, trial consultants can provide feedback and guidance on the verbal and nonverbal behavior of potential witnesses. In addition, trial consultants can conduct case-specific research involving the presentation of particular witness testimony, or different versions of the witness testimony, to a sample of individuals and then gathering data on their perceptions of the witness.

Demonstrative Exhibits

Based on empirical research on models of juror decision making, information processing (including the topics of attention, encoding, and recall), and visual perception, trial consultants can assist attorneys in the preparation of demonstrative exhibits and animations to be presented during trial. In addition, trial consultants can present prepared exhibits or animations to a sample of jury-eligible individuals (in isolation or as part of a focus group or trial simulation study) and gather data on individuals' perceptions of, reactions to, and memory for the materials.

Content Analysis of Media

When substantial pretrial publicity is associated with a case and attorneys believe that it may affect the defendant's ability to receive a fair trial, trial consultants can assess the amount and content of the publicity. This information can then be included in a motion for change of venue or change of venire. (As with community attitude surveys, this service can also be provided to prosecuting or plaintiff attorneys who seek to oppose such a motion.) Both print (i.e., newspapers and Internet publications) and visual (e.g., news stories or clips appearing on the TV evening news) media can be analyzed. The information gathered from the print media can be quite extensive, including the source of the information and the possible bias of the source (e.g., someone who is likely to be perceived as pro-prosecution, someone who is likely to be perceived as prodefense, or someone who is likely to be perceived as neutral), the nature of the information (including whether it is likely to be deemed inadmissible at trial), the total length of the story, the prominence of the information (e.g., Did it appear on the front page of the newspaper? What was the size of the headline?), and the content of any photos or figures associated with the story. Information gathered from the visual media can include the content of the video, the length of the video, the time and day(s) when the story was aired, and any commentary provided by the newscaster. Results from media content analyses can be combined with results from community attitude surveys to argue that the prejudice in the venue has resulted from the existing pretrial publicity and that alternative venues in which pretrial publicity has not occurred need to be sought.

Shadow Juries

The main service that trial consultants can provide during the actual trial (as compared with before the trial) is "shadow juries." This consists of recruiting a small group of jury-eligible individuals to sit in the courtroom throughout the trial and act as if they were

actual jurors in the case. At the end of each day, the trial consultant meets with the shadow jurors to discuss what has been presented at trial that day as well as to date and to gather their perceptions of the strength of each side's case and their reactions to particular witnesses, evidence, exhibits, attorney tactics and presentation styles, and anything else of interest to the trial team. This information is then provided to the trial team before trial recommences the next day, which allows them to adjust trial strategy based on the feedback.

Posttrial Juror Interviews

To understand the ultimate verdict in a case, attorneys often desire to meet with jurors after trial and talk with them about the case and the jury deliberation. This information can provide attorneys feedback on the effectiveness and accuracy of their jury selection techniques as well as the influence of particular arguments or evidence; assist attorneys with similar, pending cases; and serve as a general educational tool. Trial consultants can assist attorneys in developing interview protocols, or they can carry out the actual interviews. Systematic interviews of individual jurors are likely to produce the most complete and reliable data. Obtaining permission from the court to interview jurors and informing jurors about the limits of confidentiality and the use of the data are essential.

Christina A. Studebaker

See also Damage Awards; Expert Psychological Testimony; Juries and Judges' Instructions; Jury Deliberation; Jury Reforms; Scientific Jury Selection; Story Model for Juror Decision Making; Trial Consultant Training; Witness Preparation

Further Readings

Bennett, C., & Hirschhorn, R. (1993). *Bennett's guide to jury selection and trial dynamics in civil and criminal litigation.* St. Paul, MN: West.

Fulero, S., & Penrod, S. (1990). Attorney jury selection folklore: What do they think and how can psychologists help? *Forensic Reports, 3,* 233–259.

Krauss, E., & Bonora, B. (Eds.). (1983). *Jurywork: Systematic techniques* (2nd ed.). St. Paul, MN: West.

Posey, A. J., & Wrightsman, L. S. (2005). *Trial consulting.* New York: Oxford University Press.

Strier, F., & Shestowsky, D. (1999). Profiling the profilers: A study of the trial consulting profession, its impact on trial justice and what, if anything, to do about it. *Wisconsin Law Review, 1999,* 441–499.

Studebaker, C. A., & Penrod, S. D. (1997). Pretrial publicity: The media, the law, and common sense. *Psychology, Public Policy, and Law, 3,* 428–460.

Web Sites

The American Society of Trial Consultants: http://www.astcweb.org

U

Unconscious Transference

Unconscious transference is a memory error that occurs when an eyewitness to a crime misidentifies a familiar but innocent person from a police lineup. Historically, the use of the term *unconscious* refers to the idea that the witness who misidentifies the familiar foil (an innocent person in a police lineup) has no conscious recollection of the previous encounter with the person. A classic real world example involved a case where a ticket agent at a train station was robbed and misidentified a former customer from a lineup. While the customer had an ironclad alibi, the ticket agent maintained that the person appeared all too familiar to him. Failing to recollect that he was a former customer, the ticket agent apparently based his identification on a sense of familiarity alone and incorrectly associated that with the crime. There is evidence that foils who are familiar to an eyewitness are at risk of being misidentified, but the literature suggests that the process through which it happens is not "unconscious," but, rather, involves a conscious recollection of the previous exposure to the familiar foil.

Studies on unconscious transference typically involve asking witnesses to a mock crime to make an identification from a lineup that contains a foil who is familiar or unfamiliar to the witnesses. Using this design, some studies report that a familiar foil is more likely to be misidentified than an unfamiliar foil. Other studies report null results—that prior exposure to a foil does not increase the probability of a misidentification. A reverse unconscious transference effect has also been reported where a familiar foil is less likely to be misidentified than an unfamiliar foil. In the latter studies, witnesses remember the foil as familiar but innocent and quickly dismiss that person as a potential lineup choice.

So why is there such variability across studies? Two critical moderator variables, physical similarity and conscious inferencing, influence the presence or absence of the unconscious transference error. First, unconscious transference is most likely to occur when the familiar foil and the perpetrator are "moderately" similar in appearance. If they look very different from one another, then they are not likely to be confused, regardless of the level of familiarity. Conversely, if their appearance is so similar that they are indistinguishable from one another, then the foil is at risk of being misidentified regardless of familiarity. Therefore, a moderate level of similarity between the foil and the criminal is needed so that when a familiarity component is added, it increases the likelihood of a misidentification, but only for witnesses previously exposed to the foil. Unfortunately, in many studies on this topic, the level of physical similarity between the familiar foil and the criminal was not controlled or measured, making their results difficult to interpret.

Second, unconscious transference occurs when witnesses incorrectly infer that the familiar foil and the criminal are the same person, a process referred to as conscious inferencing. Conscious inferencing allows the witness to accurately recall the previous encounter with the foil, but not dismiss the person as familiar but innocent. Because the witness thinks the familiar foil and the criminal are the same person seen in two

different places (at the crime scene and the place where they saw the familiar foil), recollecting the previous encounter with the familiar foil only reinforces the misidentification. Several studies have demonstrated that unconscious transference effects can be eliminated by preventing conscious inferencing. This can be done by telling witnesses just prior to making a lineup identification that the familiar foil and the criminal are not the same person, or by presenting a lineup that contains the familiar foil and the criminal. These procedures allow witnesses to distinguish between the familiar foil and the criminal, to realize that they are not the same person, and the result is often a correct, positive identification of the criminal.

The importance of conscious inferencing was also seen in a study with children, where 11- to 12-year-olds were found to be as susceptible as adults to unconscious transference, whereas 5- to 10-year-olds did not make the unconscious transference error. The study reported that the older children engaged in conscious inferencing and thought the familiar foil and the criminal were the same person seen in two different places. The younger children did not exhibit conscious inferencing, nor did they make the unconscious transference error. Therefore, the older children were susceptible to making the unconscious transference error because they had the cognitive ability to engage in conscious inferencing. The younger children were not susceptible to making the unconscious transference error because they lacked the cognitive skill to engage in conscious inferencing.

The discovery of the role of conscious inferencing has affected how the concept of unconscious transference is viewed. There does not appear to be support for the traditional definition of unconscious transference whereby a familiar foil is misidentified and the witness has no "conscious" recollection of the previous exposure to the foil. The misidentification of a familiar foil appears to depend on the ability of the witness to recall where the familiar foil was encountered, followed by an error in inferential processing whereby the foil and the criminal are thought to be the same person. Therefore, recalling the context where the familiar foil was seen appears to be a prerequisite for the misidentification. This process results in the formation of what has been referred to in the literature as a composite memory that is formed by using old information that was previously stored in memory (exposure to the foil) and new information (exposure to the criminal). The composite memory can be thought of as two separate memories that are held together by a contextual tag, which is the inference that the familiar foil and the criminal are the same person. If the contextual tag is broken, then the unconscious transference effect is eliminated. However, if the contextual tag is not broken and the witness misidentifies the familiar foil, then the composite memory may become solidified and very difficult to correct due to commitment effects and the destructive updating of the original memory for the crime. While the unconscious transference concept has enjoyed widespread acceptance in the field, perhaps it is time to give the general idea a more accurate title or description, such as "misidentifying a familiar bystander effect," given that such errors are driven by the conscious recollection of a previous exposure to the familiar foil.

David F. Ross, Dorothy F. Marsil, and Richard Metzger

See also Estimator and System Variables in Eyewitness Identification; Eyewitness Identification: Field Studies; Eyewitness Memory; Identification Tests, Best Practices in; Instructions to the Witness; Wrongful Conviction

Further Readings

Deffenbacher, K., Bornstein, B, & Penrod, S. (2006). Mugshot exposure effects: Retroactive interference, mugshot commitment, source confusion, and unconscious transference. *Law and Human Behavior, 30,* 287–307.

Lindsay, R. C. L., Ross, D. F., Read, J. D., & Toglia, M. P. (2007). *The handbook of eyewitness psychology: Vol. 2. Memory for events.* Mahwah, NJ: Lawrence Erlbaum.

Ross, D. F., Marsil, D. F., Rapus-Benton, T., Hoffman, R., Warren, A. R., Lindsay, R. C. L., et al. (2006). Children's susceptibility to misidentifying a familiar bystander from a lineup: When younger is better. *Law and Human Behavior, 30,* 249–257.

Uniform Child Custody Evaluation System (UCCES)

The Uniform Child Custody Evaluation System (UCCES) provides a method of gathering and organizing information during child custody evaluations. It proposes to standardize the process for evaluations as a remedy for the unsystematic methods and procedures that are frequently employed in these cases. Although it offers a specific process for structuring data collection, it does not specify which psychological tests or

assessment instruments should be used. Research examining the psychometric properties of this system is currently lacking. The UCCES recommends that examiners provide a specific custody recommendation to the court, although the ethicality of addressing this "ultimate issue" is a matter of debate in the field.

Description

Harry Munsinger and Kevin Karlson designed the UCCES to standardize the processes of conducting custody evaluations and providing recommendations to the courts. State laws do not specify what information should be gathered and considered during custody evaluations, and the authors argue that this lack of specificity has led to custody examiners performing dissimilar assessments and providing widely different information to the courts. They suggest that the courts are better served by a standardized process that carefully balances information gathered from parents, children, and collateral sources. Such evaluations in principle should be more predictable and equable, and the courts should be better able to compare recommendations from different experts.

Materials in the UCCES packet consist of a set of 25 forms that the examiner uses sequentially to structure the evaluation. Forms begin with client referral, agreement to conduct the assessment, consent to evaluate minors, and parent personal history questionnaires. Some forms are intended to structure the parent interviews, child interviews, behavioral observations, home observations, and collateral interviews. Other forms seek to structure the examiner's analysis of the validity of individuals' responses during the evaluation, the suitability of joint custody, and the possibility of abuse or neglect. A form is even provided for tracking all communications relating to the case.

The examiner is encouraged to follow a strict set of procedures, beginning with the initial communications with the attorneys and parents. The actual evaluative process begins with gathering historical information from the parents and any other primary caretakers (e.g., grandparents) and the children. The parents are interviewed together during an initial session. The examiner then interviews each parent and child alone over a series of days. The UCCES manual offers various recommendations for performing the evaluation in as consistent and unbiased manner as possible. For example, it strongly recommends alternating the order of parental meetings or interviews at each session to avoid the suggestion of bias.

Although a strict set of procedures is recommended, the UCCES does not constrain the type or number of assessment instruments administered to children or parents beyond recommending that the standard interview forms should be completed. For example, the use of various objective and projective tests that might inform one's understanding of the closeness of the children to each parent is encouraged. When the children are interviewed alone, the UCCES manual specifically recommends administration of the Kinetic Family Drawing test, a projective device scored by measuring the distance between the persons in the drawing.

In addition to the interviews, the UCCES recommends making behavioral observations of parent-child interactions with each parent. The manual does not indicate the types of behaviors or interactions that the examiner should track nor does it provide a specific coding or rating system. Professional surveys have suggested that examiners rarely make use of structured rating systems, nor have any custody-specific methods been developed. Home visits are also recommended to verify that the home situation has been described accurately by the parents (e.g., the environment is safe and clean). Finally, the examiner also may perform "collateral interviews" to gather substantiating information from friends, neighbors, babysitters, and/or other individuals who interact with the family.

After performing the standard information gathering, the examiner reviews the forms and determines a custody recommendation based on the principle of "goodness of fit." The UCCES manual provides a very general operationalization of this legal principle by directing the examiner to consider if the parent lovingly supports healthy individuation and development of the child, encourages and is involved in the child's interests and academics, and has basic competencies with regard to child care. More detailed operationalizations of the goodness of fit standard are referenced in the manual. Finally, a written report is prepared and sent to the court and both attorneys. The authors recommend that the examiner make a specific recommendation of custody for the family.

Psychometric Properties

No information concerning psychometric properties is provided in the UCCES manual. This is perhaps not surprising because the authors consider the UCCES to be a flexible, evaluative process rather than a specific psychological instrument. Nevertheless, whether

UCCES-based recommendations are more reliable or valid than non-UCCES-based recommendations ultimately is an empirical question. A literature search failed to locate any publications specifically evaluating the reliability or validity of custody recommendations made using the UCCES, however.

The authors assume that examiners will use a variety of psychological tests in addition to the UCCES forms, and they exhort clinicians to be aware of the limitations of psychological testing and to adhere to the *Standards for Educational and Psychological Testing* when administering, scoring, and interpreting test data. Despite this caveat, they also suggest that examiners may use various controversial projective tests to inform judgments concerning the child's psychological closeness to each parent. More generally, many of the clinical instruments recommended for use were not designed to address typical custody-related questions, and several authorities have questioned the relevance and utility of these tests for this purpose.

The Ultimate Issue Debate

The "ultimate issue" refers to the legal question that is to be determined by the court in a particular case. Mental health experts continue to debate whether it is ethical to offer ultimate issue opinions more broadly, as well as specifically in relation to custody cases. This debate centers on several concerns, such as that expert witnesses are not necessarily trained in legal issues and, perhaps most important, that experts giving ultimate issue opinions represent an attempt to usurp the fact finder's role as the final arbiter of case dispositions. Some experts, including the authors of UCCES, are comfortable providing such opinions. Others believe that experts are not qualified to make such assertions in court and that it is unethical to do so.

M. Catherine Dodson
and John F. Edens

See also Child Custody Evaluations; Divorce and Child Custody; Expert Psychological Testimony, Forms of; Forensic Assessment

Further Readings

Munsinger, H. L., & Karlson, K. W. (1994). *Uniform child custody evaluation system*. Odessa, FL: Psychological Assessment Resources.

Otto, R. K., Edens, J. F., & Barcus, E. H. (2000). The use of psychological testing in child custody evaluations. *Family and Conciliation Courts Review, 38,* 312–340.

Tippins, T. M., & Wittmann, J. P. (2005). Empirical and ethical problems with custody recommendation: A call for clinical humility and vigilance. *Family Court Review, 43,* 193–222.

U.S. Supreme Court

The U.S. Supreme Court conducts appellate review hearings of lower-court decisions, relying on written briefs and oral arguments by counsel for the parties to help the justices formulate opinions as to cases' outcomes. The number of petitions from parties seeking to have the Supreme Court grant a hearing on their appeal far exceeds the number of cases the justices are able (or willing) to take on. For the very few cases that reach the Supreme Court, there is a highly structured, formalized process waiting. Should a petitioner succeed in obtaining a hearing, his or her attorneys will be able to submit written briefs and participate in oral arguments. Thereafter, the case will fall entirely within the justices' domain; processing of the case will include an initial justices-only conference, the exchange of draft opinions, and various types of interim decisions by the justices (e.g., on the standard of proof to which the government—if a party to the case—should be held), leading up to a majority's ultimate decision to affirm or overturn the lower-court ruling.

Matters before the Court sometimes involve questions about human behavior. The need for behavioral science knowledge provides opportunities for professional organizations to submit their own briefs addressing relevant research areas. Guidelines and precedents exist for how justices may decide cases, but such parameters are often open to disagreement and justices may even fashion new rules. The interpersonal and cognitive aspects of the justices' own decision making have also been studied. This entry examines the operations of the U.S. Supreme Court, the criteria used by justices in making decisions, the types of rulings issued by the Court, and the role of precedent in Court deliberations, as well as the various interfaces between it and psychological science.

Operations of the Supreme Court

The U.S. Supreme Court does not conduct "trials" in the sense of evidence presentation, cross-examination of witnesses, and original fact-finding. Rather, it conducts appellate reviews (i.e., hearings) of cases from lower appellate courts, such as a federal Circuit Court of Appeals or a state High Court. The one exception to the U.S. Supreme Court's role as an appellate venue, which is very rare, is when the Court takes a case under original jurisdiction, as when there is a dispute between two states. In its typical appellate role, the U.S. Supreme Court will evaluate the soundness of the lower-court decision being appealed, with an eye toward whether the previous court acted properly in applying U.S. Supreme Court precedents, interpreting provisions of the U.S. Constitution, interpreting a statute, and so forth. Ultimately, a majority of the Supreme Court must decide whether to affirm or overturn the lower-court ruling.

An estimated 8,000 petitions for hearing are filed annually to the U.S. Supreme Court. In such petitions, the losing side at the previous level (petitioner) requests a full review and hearing at the Supreme Court, based on the contention that the previous court's ruling contained reversible *procedural* error and that the case raises highly important statutory or constitutional issues. In only about 80 cases per year (based on recent years' practice) does the Court grant certiorari (cert. for short), meaning that it agrees to hear the appeal. For cert. to be granted, at least four of the nine justices must vote to do so.

A case before the nine U.S. Supreme Court justices is highly structured. With the exception of extremely high-profile cases, to which more time may be devoted, a typical Supreme Court oral argument lasts for exactly 1 hour, with 30 minutes granted to counsel from each of the two sides. The justices can (and often do) interrupt attorney arguments to pose questions, with the time consumed by the justices counting as part of the arguing side's 30 minutes. Written briefs submitted in advance by each side, as well as amicus curiae ("friend of the Court") briefs submitted by outside parties, form the basis for the oral questioning. For an outside party to submit an amicus brief, consent must be obtained from the focal parties in the case or from the Court. Greg Stohr (2004) details how the University of Michigan, in preparing to defend its affirmative action admissions policies, actively sought supportive amicus briefs from groups including corporations and retired military leaders to buttress its argument for the importance of diversity in society.

On the next available Friday after oral arguments, a justices-only conference takes place, at which a straw vote is held to see how many justices are leaning toward voting for each side. The most senior justice in the (tentative) majority—with the Chief Justice treated as being first in seniority, regardless of length of service on the Court—has the choice of to whom to assign the writing of the (apparent) majority opinion. Other justices can draft concurrences or dissents, depending on their judgment of the case. Draft opinions are exchanged among the justices' chambers, sometimes for months, with a justice who was originally planning to vote for one side sometimes being won over to the other side; such shifting coalitions may, of course, necessitate a reorganization of the writing of majority and minority opinions. Justices vary in the amount and nature of the work they delegate to their law clerks; the latter tend to have graduated from elite law schools and clerked previously for an appellate judge at a lower level.

Role of the Solicitor General

According to Lincoln Caplan (1987), "the Solicitor General's principal task is to represent the Executive Branch of the [federal] government in the Supreme Court" (p. 3). In some cases, the U.S. government is one of the two focal parties to the dispute, whereas in others it is not. Overall, however, so influential does Caplan consider the Solicitor General (SG) to be that the former's book on the history of the SG's position is titled *The Tenth Justice.* Two ways in which the SG's office has an impact on procedural aspects of Supreme Court cases are (1) its high success rate with cert. petitions relative to others who file and (2) its opportunity to participate in the oral arguments of some cases as a third party with its own block of time, when the U.S. government is not one of the focal parties. In the University of Michigan affirmative action cases mentioned above, for example, the SG was given 10 minutes each in the undergraduate and law school cases. Caplan suggests that, for much of its history, the SG's office has enjoyed a reputation for thorough, impartial legal analysis in its briefs, thus possibly accounting for its influence with the justices.

Decision-Making Criteria

Just as jurors in a criminal or civil case use standards of proof in deciding how to vote in a trial (e.g., "guilt beyond a reasonable doubt," "preponderance of the evidence," "clear and convincing evidence"), federal judges—including those on the U.S. Supreme Court—have a number of guidelines and frameworks for deciding the cases they hear. At a general level, the Supreme Court's role is to interpret the U.S. Constitution and federal statutes. In addition, the Court can establish new rules for deciding future cases. Among the many types of cases the U.S. Supreme Court decides, those involving the Due Process and Equal Protection Clauses of the Fourteenth Amendment to the U.S. Constitution often are among the most high-profile ones. Furthermore, these types of cases illustrate one of the frameworks used by the justices in deciding how they will vote.

As a starting point, a state may pass a law restricting some type of behavior, such as certain forms of sexual conduct or the circumstances under which a woman can obtain an abortion. The initial inquiry would probably ask whether the statute threatened a "fundamental right" or imposed burdens on a "suspect class" (e.g., groups that have historically been subjected to discrimination). If the answer to this inquiry is "no," the statute's constitutionality is then evaluated by the Supreme Court justices (or federal judges on a lower court) according to what is known as the "rational basis" or "rational relations" test, which is considered a relatively easy standard for the government to meet in defending the law. Harry Krause and David Meyer (2003) note that "ordinarily, the Equal Protection Clause requires only that the lines drawn by the government be rationally related to the object of the legislation" (p. 25).

If, however, the Court determines that one or both of the aforementioned triggering conditions—intrusion on a fundamental right or against a suspect class—is met, the government will then be held to the more difficult "strict scrutiny" standard regarding its statute. This standard "presumes that the challenged action is unconstitutional, unless government can rebut . . . by proving that the intrusion on the fundamental right is necessary, or 'narrowly tailored,' to the advancement of a 'compelling' state interest" (Krause & Meyer, 2003, p. 23). A saying has developed reflecting many observers' impression of the government's difficulty in prevailing under strict scrutiny; the standard is said to be "strict in theory, fatal in fact." Regarding Supreme Court justices' ability to devise new standards, the former justice Sandra Day O'Connor's test of whether abortion-related restrictions impose an "undue burden" on women's access to the procedure is one of the most prominent examples in recent years.

A somewhat different, more linguistically related issue concerns statutory interpretation. Justice Stephen Breyer discusses some of the complexities of this seemingly obscure area in his 2005 book *Active Liberty.* The following is one example of such interpretive principles, in which Breyer draws on several different legal sources:

> A canon of statutory interpretation, *ejusdem generis*, says that, if "general words follow specific words in a statutory enumeration," courts should construe the "general words" as "embrac[ing] only objects similar in nature to those objects enumerated by the preceding specific words." (p. 92)

Such "canons of construction" are often discussed in law review articles.

Types of Rulings

Many of the U.S. Supreme Court's best-known rulings are those that appear to bring final resolution to a matter. For example, once the Court's final decision in *United States v. Virginia* (1996) was announced, observers knew instantly that the Virginia Military Institute could no longer exclude female students. Other cases, at the time they are decided, appear to provide finality to an issue, only to have it reemerge years later in a new line of cases. One recent example is how the Court shifted its stance on a constitutional right to privacy of sexual intimacy from *Bowers v. Hardwick* (1986) to *Lawrence v. Texas* (2003). What these cases all have in common, however, is that the U.S. Supreme Court rulings brought closure to the parties at hand, with no need for further hearings.

Not all cases at the High Court are like that. In some, the justices remand the case back down to a lower court for reevaluation in light of some new standard or ruling. A new round (or set of rounds) of hearings and determinations thus takes place in a lower court, far away from the spotlight of the U.S. Supreme Court, to which the case ultimately may or may not return. In *Schlup v. Delo* (1995), for example, the U.S. Supreme Court had to decide if the state prisoner Schlup's habeas corpus claim of new exculpatory evidence should be evaluated by a lower court under the standard of "clear and convincing" evidence (harder for Schlup to prove) or,

simply, greater likelihood than not (easier for Schlup to prove) that the new evidence would be able to sway a "reasonable juror."

In other cases, the U.S. Supreme Court's role is to decide if a lawsuit can go forward at the trial level (e.g., in a U.S. District Court). Subsumed under this larger issue are more specific questions, such as whether the parties bringing suit have legal standing to do so and whether an issue is one that can be properly deliberated and decided in the judicial arena, as opposed to legislative or other nonjudicial venues (if so, the issue is said to be "justiciable"). The landmark legislative redistricting case of *Baker v. Carr* (1962) is illustrative of such cases.

Overturning of Precedents

Many justices and commentators advocate adherence to precedents or *stare decisis*. However, as alluded to above, the Supreme Court occasionally reverses one of its major decisions. Lawrence Wrightsman (2006, p. 232), drawing on the 1992 case of *Planned Parenthood of Southeastern Pennsylvania v. Casey*, summarizes four factors justices may consider when deciding whether to overturn precedent:

- The workability of the [existing] rule
- The extent to which the public has relied on the rule
- Relevant changes in legal doctrine
- Changes in the facts or perceptions of the facts

Interface of Psychological Science and the Supreme Court

The U.S. Supreme Court is relevant in at least two significant ways to the study of psychology and law. First, research on human behavioral processes may be relevant to deciding a case. Second, a substantial body of empirical studies on psychological and other factors appearing to play a role in Supreme Court justices' decisions is rapidly accumulating.

Recent Cases Involving Studies of Human Behavior

Cases being debated in the U.S. Supreme Court may involve issues of human behavior. For example, in deciding whether a governmental practice is, "cruel and unusual" or demonstrative of a "compelling" state interest, some justices on the Court may wish to consult evidence from the social sciences. Accordingly, professional organizations may submit amicus briefs attempting to guide the Court on matters of human behavior. A systematic listing of amicus briefs filed by the American Psychological Association is available on its Web site (listed at the end of this entry). Historically, probably the best known citation of social science research in a U.S. Supreme Court opinion is that in *Brown v. Board of Education* (1954, footnote 11). A sampling of contemporary Supreme Court cases raising behavioral science issues are summarized as follows, for illustrative purposes:

In *Roper v. Simmons* (2005), the Court had to decide whether it was constitutional to impose the death penalty on individuals who committed their crimes while younger than 18. The case, therefore, raised questions of adolescents' cognitive and emotional maturity. In disallowing such executions, the majority opinion cited research from developmental psychology, noting, among other findings, that compared with older individuals, adolescents are more "impetuous" or impulsive. They are also more susceptible to peer pressure and would likely be less able to get themselves out of situations where violence could take place.

Gratz v. Bollinger (2003) and *Grutter v. Bollinger* (2003), companion cases on whether the University of Michigan's admissions policies for its undergraduate and law school programs, respectively, could constitutionally use race as a factor, hinged in part on the University's claim that attending an institution with a diverse student body tended to confer academic and social benefits on majority and minority students. Such a finding would appear to strengthen the argument for a university having a compelling state interest in providing a diverse student body and, potentially, for particular methods used to achieve this objective. Indeed, Justice O'Connor's majority opinion in *Grutter* noted that "the Law School's claim of a compelling interest is further bolstered by its *amici*, who point to the educational benefits that flow from student body diversity."

Supreme Court justices vary widely in their receptivity to psychological and other social scientific evidence. In some of the above cases, such evidence appears to have played a substantial role in the Court's decision making (or, at least, was cited in the majority opinion). In contrast, other justices appear to take a much more negative view. Wrightsman (2006) quotes Justice Antonin Scalia as alluding to "those of us who have made a career of reading the disciples of Blackstone rather than of Freud" (p. 103). Wrightsman also

adds that "this was not the only time that Justice Scalia has gratuitously attacked psychology."

Related to the introduction of scientific information into court cases, another important role of the U.S. Supreme Court has been to interpret the Federal Rules of Evidence as far as standards for the admissibility of scientific evidence (social, as well as physical, science) and technical knowledge into federal trials. Leading cases in this area from recent years include *Kumho Tire Company v. Carmichael* (1999) and *Daubert v. Merrell Dow Pharmaceuticals* (1993).

Research on the Psychology of Supreme Court Decision Making

The cognitive and interpersonal processes that go into the justices' own decision making have been active research topics in their own right. As summarized by Wrightsman (2006), areas of inquiry include pressures toward group conformity (that there appear to be more unanimous decisions, and fewer 8:1 decisions, than would be expected, suggests that such pressures are operative); whether the justices' ultimate votes can be predicted from an analysis of their questioning during oral arguments; and content analysis of justices' written opinions to assess the cognitive complexity exhibited in the opinions and see if situational factors (e.g., being in the majority or dissent) affect levels of complexity. One of the major scholarly projects on Supreme Court decision making in recent years, Washington University's Supreme Court Forecasting Project, has an extensive database online. Guiding such empirical studies are conceptual models known as the legal model, the attitudinal model, and the rational choice model.

Alan Reifman

See also Amicus Curiae Briefs

Further Readings

Baker v. Carr, 369 U.S. 186 (1962).
Bowers v. Hardwick, 478 U.S. 186 (1986).
Breyer, S. (2005). *Active liberty: Interpreting our democratic constitution.* New York: Knopf.
Brown v. Board of Education, 347 U.S. 483 (1954).
Caplan, L. (1987). *The tenth justice: The Solicitor General and the rule of law.* New York: Knopf.
Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).
Gratz v. Bollinger, 539 U.S. 244 (2003).
Grutter v. Bollinger, 539 U.S. 306 (2003).
Krause, H. D., & Meyer, D. D. (2003). *Family Law in a Nutshell* (4th ed.). St. Paul, MN: Thomson/West.
Kumho Tire Company v. Carmichael, 526 U.S. 137 (1999).
Lawrence v. Texas, 539 U.S. 558 (2003).
Lazarus, E. (1998). Closed chambers: *The first eyewitness account of the epic struggles inside the Supreme Court.* New York: Times Books.
Planned Parenthood of Southeastern Pennsylvania v. Casey, 505 U.S. 833 (1992).
Roper v. Simmons, 543 U.S. 551 (2005).
Schlup v. Delo, 513 U.S. 298 (1995).
Stohr, G. (2004). *A black and white case: How affirmative action survived its greatest legal challenge.* Princeton, NJ: Bloomberg Press.
United States v. Virginia, 518 U.S. 515 (1996).
Wrightsman, L. S. (2006). *The psychology of the Supreme Court*. New York: Oxford University Press.

Web Sites

American Psychological Association, list of amicus briefs: http://www.apa.org/psyclaw/amicus.html
U.S. Supreme Court: http://www.supremecourtus.gov
Washington University Supreme Court Forecasting Project: http://wusct.wustl.edu

V

Validity Indicator Profile (VIP)

The validity indicator profile (VIP) is a measure of response validity that is intended to be administered concurrently within a battery of cognitive tests in a forensic assessment. The VIP has two subtests (verbal and nonverbal), containing 178 items in all. Curve analysis of test responses classifies performance as valid or invalid. Invalid performances are subclassified as inconsistent, irrelevant, or suppression (obvious malingering). The VIP has been validated in several adult samples.

Forensic psychological testing often involves assessment of cognitive functioning. Given the inherent advantages of appearing impaired in many forensic forums (e.g., litigated claims of injury, competency to stand trial), it is important to provide a formal assessment of the validity of test performance. Forensic assessments that conclude that cognitive impairment exists are below the standard of practice if they do not include overt assessment of the validity of presentations in interviews or on psychological tests. A large variety of response validity instruments exist. Most response validity instruments depend on assessment of memory performance. The VIP directly assesses problem-solving ability and vocabulary.

Performance on the VIP is categorized as valid or invalid. Valid performances, referred to as compliant, reflect an intention to perform well and reveal sustained effort throughout the test. Invalid performances are classified as inconsistent, irrelevant, or suppressed. Inconsistent performances reveal evidence of intention to respond correctly but reflect inconsistent effort. Irrelevant performances result from random responding throughout the test. Performances classified as suppressed demonstrate that the individual intended to respond incorrectly on the test and exerted sustained effort to respond incorrectly.

These classifications reflect a model of test validity in which validity is evaluated by a cross-classification of "intent" (intends to respond correctly or does not intend to respond correctly) and "effort" (low to high). Although most "malingering tests" in use are referred to as "effort" tests and employ a dichotomous classification process that generally is construed to mean "malingering" or "not malingering," the VIP employs a fourfold classification scheme to capture elements of these two constructs. Construct validation of this scheme demonstrates that compliant and inconsistent performances could be distinguished on the basis of effort, that inconsistent and irrelevant performances could be distinguished on the basis of intent, and that compliant and suppressed performances could be distinguished on the basis of intent.

The categorizations are accomplished by performance curve analysis. The performance curves are a summary of response accuracy plotted against item difficulty. The VIP has two subtests, nonverbal and verbal. The nonverbal subtest includes 100 picture-matrix problems, and the verbal subtest includes 78 word-definition problems. The items within each subtest span a hierarchy of difficulty, from very easy to very difficult. The items are presented in a randomized order of difficulty. The test is typically completed

by paper and pencil, but the publisher also provides a means for computer testing.

The test takers must complete all the items, each of which has two answer choices. Once the test is completed, the answers are scored (0 or 1), and they are reordered by item difficulty. Spans of 10 scores are averaged, using running means, to yield performance curves comprising 91 (nonverbal) or 69 (verbal) points. For example, Items 1 to 10 yield the first running mean, and Items 2 to 11 yield the second running mean. In a VIP performance curve, the *x* value of the performance curve is item difficulty, and the *y* value is mean performance accuracy (running mean value).

When a line is plotted through the running means, the resulting performance curve yields distinctive features that are used to categorize performance. The first general feature is the slope of the performance curve. The curves that have a downward slope from easy to difficult reveal intent to respond correctly. The flat curves reflect irrelevant responding, and the upward sloping curves reflect intent to respond incorrectly. The extent to which these slopes are sustained provide information about application of effort. The first running mean is also an indicator of intent, as that point of the curve reflects performance on the 10 easiest items. These items are easily answered by young children. The test includes items that are not easily answered by most individuals so that a transition from effortful performance to guessing can be observed. The fluctuations in the expected progression of the performance curve from consistent correct responding to guessing, given the ability level of the individual, and identify instances of inconsistent responding. That is, these fluctuations are meaningful irrespective of the inherent capacity of the individual to respond correctly.

For classifications of compliant, inconsistent, and suppressed, it is possible to estimate the intellectual capacity of the individual. The characteristics of the performance curve and the number of items correctly responded to have been correlated with performances on other intellectual measures. It is noteworthy that these features are applicable when individuals intentionally choose incorrect answers and are classified as suppressed.

Validation studies have been reported in four published papers and the test manual. Validation and cross-validation samples have included large numbers of normal adults, neuropsychology examinees, criminal defendants, and persons with serious mental illness. The reported classificatory accuracy of the nonverbal subtest is 66% sensitivity and 90% specificity. The verbal subtest demonstrates 59% sensitivity and 94% specificity.

Richard I. Frederick

See also Competency to Stand Trial; Detection of Deception: Use of Evidence in; Detection of Deception in Adults; Forensic Assessment; Malingering; Personal Injury and Emotional Distress; Test of Memory Malingering (TOMM)

Further Readings

Frederick, R. I. (2003). *The validity indicator profile* (2nd ed.). Minnetonka, MN: NCS Pearson.

Frederick, R. I., Crosby, R. D., & Wynkoop, T. F. (2000). Performance curve classification of invalid responding on the Validity Indicator Profile. *Archives of Clinical Neuropsychology, 15,* 281–300.

Ross, S. R., & Adams, K. M. (1999). Test review: One more test of malingering? *Clinical Neuropsychologist, 13,* 112–116.

Verbal Overshadowing and Eyewitness Identification

Verbal overshadowing (VO) refers to situations in which describing a nonverbal experience, such as the appearance of a face, impairs subsequent recognition. In the original demonstration of VO, participants viewed a video of a robbery with a salient perpetrator and were later asked to recognize the perpetrator in a photographic lineup, including seven similar distractors. After viewing the video, half the participants spent 5 minutes writing a description of the robber, while the other half performed an unrelated control task. Remarkably, participants who verbalized the face were significantly less likely to correctly identify the target face among others in the lineup.

Since its original demonstration, considerable research has explored the generality and boundary conditions of VO. VO has been found to generalize to a large variety of other visual experiences, including colors, abstract figures, photographs of mushrooms, and maps, as well as other sensory modalities, including audition (e.g., music and voices) and taste (wines).

In contrast, it is not observed for more verbalizable experiences such as the contents of spoken statements. The boundary conditions associated with VO involve both situation and individual difference variables. An important individual difference variable is expertise, with verbalization impairing performance when perceptual expertise is high (e.g., when individuals have been perceptually trained with a stimulus) and verbal expertise is low (e.g., among individuals with high verbal ability or those trained to describe a stimulus).

A variety of situation variables have been found to mediate VO during the encoding, postencoding, and retrieval phases. With respect to encoding, verbalization is observed with faces of persons from one's own race but not with faces of those of other races (demonstrating a role of perceptual expertise). With respect to postencoding, extensive verbalization produces greater VO than more modest descriptions. With respect to retrieval, VO is more likely to be observed when the distractors are highly similar than when they are dissimilar (and thus more verbally distinguishable). VO is more likely to be observed for faces presented upright than inverted faces (suggesting a role of holistic processing). Despite the prevalence of VO across many domains, a number of researchers have failed to replicate the phenomenon. However, a meta-analysis including 29 studies and 2,018 participants found a statistically significant overall effect, indicating that participants who verbalized a target were 1.27 times more likely than nonverbalizers to misidentify the target. Furthermore, this meta-analysis also revealed that verbalization effects are more likely to be observed when (a) the verbalization instructions induce detailed and elaborate descriptions and (b) there is a minimal time delay between the verbalization and the recognition test.

Currently, it is not entirely clear why VO occurs, and there are three competing accounts proposed to explain the phenomenon. The *content account* asserts that it is the precise contents of what is said during verbalization that interferes with memory. In other words, people create verbalizations that do not quite match up with the original visual memory, thus interfering with future recognition. The content account fits well with the effect of expertise on VO (see above) and helps explain why extensive verbalizations (which tend to include more inaccuracies) are more disruptive, but it fails to account for why many studies have failed to show a connection between the quality of verbal descriptions and recognition accuracy. It also has trouble accounting for why describing one face can interfere with the recognition of a different face. According to the *criterion shift account,* verbalization biases participants toward the target-"not-present" option, leading to reduced recognition accuracy when the target is present. Although this account potentially explains VO results in studies with "not-present" options, it fails to account for the many times in which VO has been observed in the absence of a not-present option. Finally, according to the *process shift account,* verbalization changes the individual's processing orientation from a more holistic strategy to a more local one. If, as is often the case, faces are initially encoded holistically, the verbally induced featural processing strategy may lead to recognition processes that are incommensurate with the manner in which the face was originally encoded. A particular strength of the processing account is that it does not require a link between verbalization quality and recognition accuracy, which as stated above, is often not demonstrated. Although at present there is some controversy regarding the relative merits of the content, criterion, and processing shift accounts of VO, it seem likely that all three accounts have merit. Further research is needed to determine when each one is most likely to apply.

In summary, a large amount of research has shown VO to be a pervasive effect across many types of visual memory and other areas of perception. A recent meta-analysis has shown VO to be a relatively small, but reliable effect on memory. Furthermore, characteristics of the verbalizer, the particulars of the description task, and what occurs between viewing the original stimulus and retrieval of this stimulus appear to play a role in the strength of the VO effect. Although the exact cause(s) of VO remain unclear, that the effect occurs and that it can significantly effect eyewitness memory is beyond dispute. From a practical perspective, the modest size of VO effects combined with its tendency to dissipate over time suggests that investigators should not avoid soliciting verbal descriptions from witnesses. However, investigators may want to avoid asking participants to make identifications immediately after providing extensive verbal descriptions of a perpetrator's face or voice.

Jason M. Chin and
Jonathan W. Schooler

See also Eyewitness Memory; Reconstructive Memory

Further Readings

Chin, J., & Schooler, J. W. (in press). Why do words hurt? Content, process, and criterion shift accounts of VO. *European Journal of Cognitive Psychology*.

Meissner, C. A., & Brigham, J. C. (2001). A meta-analysis of the VO effect in face identification. *Applied Cognitive Psychology, 15,* 603–616.

Victim Impact Statements

Most states allow victims and/or victims' survivors to speak during the sentencing phase of trials as to the pain they have suffered as a result of the crime. Such proclamations, called "victim impact statements," are extremely controversial. Some legal experts posit that victims and/or victims' survivors have the right to speak publicly about the harm they have endured; other legal experts suggest that such statements encourage the trier of fact to base sentencing decisions on emotion, as opposed to fact. The presence of victim impact statements in capital trials has caused considerable debate, as social scientific research has suggested that juror, defendant, and victim characteristics play a significant role in how such declarations are perceived and, consequently, in juror decision-making processes in death penalty cases. The U.S. Supreme Court has ruled that victim impact statements are constitutional; however, social scientists have issued certain recommendations as to how the prejudicial nature of such statements can be minimized.

Victim impact statements outline the harm they have suffered as a result of the defendant's actions. Since the enactment of the Victim and Witness Protection Act (1982), most states allow the trier of fact (i.e., judge or jury) to take such statements into consideration when determining the sentence of the defendant. Victim impact statements may detail the following: (a) the physical, psychological, and financial impact that the crime has had on the lives of the victim and/or the victim's survivors; (b) the victim or victim's survivor's opinions about the crime and/or defendant; and (c) in murder cases, information about the personal characteristics of the deceased. In most states, victim impact statements cannot characterize the defendant in negative terms, nor can victim impact statements describe the type of punishment the victim or victim's survivors feel is appropriate for the defendant.

The presence of victim impact statements in the sentencing phase of trials is an extraordinarily controversial issue. The primary debate stems from the fact that victim impact statements are not evidence; rather, they simply serve as a context through which the jury should interpret the impact of the crime. Some legal experts have argued in favor of the admissibility of victim impact statements, suggesting that they give victims and victim's survivors a voice in court proceedings, allow for psychological healing and closure, promote sentences that are more reflective of the suffering endured, humanize the person who has been harmed, encourage other victims to come forward, and enhance the perception of procedural justice. Other legal experts have argued against the admissibility of such statements, positing that they foster inconsistencies in sentencing procedures, expose judicial proceedings to undue public pressure, and encourage jurors to base decisions on issues that are irrelevant to the facts at hand (i.e., emotion).

In no type of case are victim impact statements more debated than in capital (i.e., death penalty) trials. Two Supreme Court rulings are pivotal in discussing the impact that victim impact statements are allowed to have in death penalty cases. In *Booth v. Maryland* (1987), the Court concluded that the victim impact statements created a "constitutionally unacceptable risk" and violated the Eighth Amendment's prohibition against cruel and unusual punishment. The Court ruled that in a death penalty case, the jury's decision must be based on the characteristics of the defendant and/or crime and not on the impact of the crime on the victim's survivors. The Court posited that allowing victim impact statements to influence the jury's decision could lead it to base the sentence on juror sentiment, as opposed to the facts presented in court.

In *Payne v. Tennessee* (1991), the Court reversed its earlier decision and changed the role that victim impact statements were allowed to play in capital trials. *Payne v. Tennessee* held that the Eighth Amendment erects no prohibition against the admission of victim impact statements relating to both a victim's personal characteristics and the emotional impact that the crime has had on the victim's survivors. In summary, the Court ruled that such evidence is admissible during the sentencing phase of capital trials if the state legislature chooses to permit it. Finally, the Court concluded that victim impact statements jeopardize capital defendants' right to due process only if such declarations are "so unduly prejudicial that it renders the trial fundamentally unfair."

Social scientific research has suggested that the presence of victim impact statements affects the way in which jurors perceive the victim, the victim's survivors, and the defendant. Previous findings have also concluded that such declarations affect jurors' decision-making processes in capital trials. For example, earlier studies have found that jurors exposed to victim impact statements are more likely to think favorably of the victim and the victim's survivors than jurors who are not exposed to such declarations. Previous research has also suggested that the aforementioned attitudes translate into behavior: Capital defendants are more likely to receive the death sentence when victim impact statements are present than when they are absent.

Psycholegal data have also suggested that victim characteristics appear to affect the way victim impact statements are weighed. Specifically, victims with greater social standing in a community may both be more valued by the victim's survivors and have survivors who are more educated and, consequently, persuasive and eloquent. Consequently, the victimization of a person of higher social status may have more effect on a jury and ultimately influence the extent to which defendants are perceived as blameworthy.

Certain juror characteristics also appear to affect the way victim impact statements are perceived. For example, one study found that death-qualification status (i.e., a jurors' eligibility to hear a capital case based on their attitudes toward the death penalty) enhances jurors' susceptibility to victim impact statements. Specifically, when victim impact statements were presented, death-qualified jurors (i.e., jurors who are eligible to hear a capital case) were more likely to think favorably of both the victim and the victim's survivors.

Because of the prejudicial nature of victim impact statements, social scientists have issued several recommendations. First, psycholegal researchers have suggested that victim impact statements be limited in scope, particularly when describing the victim in ways that emphasize his or her high social status. Second, social scientists have recommended that restrictions be placed on the number of victims' survivors allowed to testify in court, so as to reduce the cumulative effect that such testimony has on the jury. Third, psycholegal researchers have advocated that the jury be prohibited from hearing descriptions of the defendant in dehumanizing terms (e.g., "animal," "monster"). Fourth, social scientists recommend that juries be given more guidance about the purpose of victim impact statements when they are admitted. Finally, some psycholegal researchers suggest countering the effect of victim impact statements with execution impact statements. Such declarations involve informing the jury of the impact that the execution of the defendant would have on his or her survivors and serve to "level the playing field" between victims (who tend to be hyperindividualized) and defendants (who tend to be deindividualized). Although not constitutionally mandated, several states (e.g., Oregon, California) have approved the inclusion of such testimony in capital trials.

Brooke Butler

See also Death Penalty; Death Qualification of Juries; U.S. Supreme Court

Further Readings

Booth v. Maryland, 482 U.S. 496 (1987).

Butler, B. (2007). The role of death qualification in venirepersons' susceptibility to victim impact statements. *Journal of Applied Social Psychology, 37,* 115–123.

Finkel, N. (1995). *Commonsense justice: Jurors' notions of the law.* Cambridge, MA: Harvard University Press.

Greene, E. (1999). The many guises of victim impact evidence and effects on jurors' judgments. *Psychology, Crime, and Law, 5,* 331–348.

Greene, E., Koehring, H., & Quiat, M. (1998). Victim impact evidence in capital cases: Does the victim's character matter? *Journal of Applied Social Psychology, 28,* 145–156.

Logan, W. (1999). Through the past darkly: A survey of the uses and abuses of victim impact evidence in capital trials. *Arizona Law Review, 41,* 143–192.

Logan, W. (1999). When balance and fairness collide: Witness sentence recommendations in capital trials. *University of Michigan Journal of Law Reform, 33,* 1–56.

Logan, W. (2000). Opining on death: Witness sentence recommendations in capital trials. *Boston College Law Review, 41,* 517–547.

Myers, B., & Arbuthnot, J. (1999). The effects of victim impact statements on the verdicts and sentencing judgments of mock jurors. *Journal of Offender Rehabilitation, 29,* 95–112.

Myers, B., Godwin, D., Latter, R., & Winstanley, S. (2004). Victim impact statements and mock juror sentencing: The impact of dehumanizing language on a death-qualified sample. *American Journal of Forensic Psychology, 22,* 39–55.

Myers, B., & Greene, E. (2004). The prejudicial nature of victim impact statements: Implications for capital sentencing policy. *Psychology, Public Policy, and Law, 10,* 492–515.

Myers, B., Lynn, S. J., & Arbuthnot, J. (2002). Victim impact statements and jurors judgments: The effects of harm information and witness demeanor. *Journal of Applied Social Psychology, 32,* 2393–2412.

Payne v. Tennessee, 111 S. Ct. 2597 (1991).

VICTIMIZATION

Victimization can be defined as the act or process of someone being injured or damaged by another person. The resulting damage may be physical (e.g., bruises, broken bones) or psychological (e.g., posttraumatic stress disorder [PTSD], depression). Victimization is a frequent event that occurs within an interpersonal context, often involving an abuse of power, such as a parent who abuses a child; an adult child who abuses a frail, elderly parent; or a teacher who sexually abuses a student. Although past research on victimization has tended to be compartmentalized, a more integrative approach is needed not only because of the frequent comorbidity among the different types of victimization, but also because of the shared psychological issues. The shared core psychological issues extending across types of victimization include damage to interpersonal relationships and self. Although victimization may often involve traumatic experiences, trauma may not involve victimization. For example, stepping off a curb and falling and breaking an ankle might be a traumatic event; however, such an event does not define an experience of victimization because it is not an interpersonal event.

To understand victimization, several core themes need to be acknowledged. Contrary to a layperson's perspective, victimization is not a rare event that occurs only in a stranger-on-stranger context. On the contrary, victimization is an extraordinarily frequent event that most often occurs in, and adheres to, the ordinary roles of human life. Although stereotyped conceptions of victimization do occur (e.g., a woman raped by a stranger walking down a street at night) and are damaging and need to be addressed, these types of victimization are not the norm outside the context of a war. Rather, the most significant sources of victimization are those that arise out of our ordinary day-to-day roles, such as those of spouse, parent, child, and friend. Thus, victimization must be understood as an inherent part of human relationships.

Unfortunately, research and writing about victimization is often compartmentalized or balkanized. For example, researchers who study child sexual abuse frequently do not consider the co-occurrence of other forms of victimization, such as physical abuse. Similarly, researchers who study physical abuse may fail to acknowledge the effects of witnessing domestic violence. This has lead to a failure to appreciate the total context of the victimization. Furthermore, such balkanization has led to the failure of researchers to create conceptual models that are organized around general concepts of victimization. Instead, most research and most models of victimization are limited to a particular context. As the field has matured, there is growing recognition that such balkanization can lead to failures to recognize the similarities in these experiences. In particular, such balkanization has prevented researchers from recognizing the common core of the victimization experience: the need to focus on the interpersonal nature and consequence of victimization.

This entry does not discuss victimization that is related to social and political processes such as war. Although war and genocide are grim fields from which victimization springs, such events are beyond the scope of this entry and require their own level of analysis and consideration. Likewise, victimization that is the result of living in a socially disintegrated or impoverished state (e.g., dangerous neighborhoods or extreme poverty), while profoundly damaging to human beings, is not discussed here.

This entry focuses on phenomena that occur in the context of human relationships, particularly those relationships that are defined as the ordinary relationships in which people are involved. The experiences of victimization are defined not simply by who did it and what was done but, instead, by what core psychological process is involved. Such an integrative approach is a useful developmental stage in understanding the phenomena of victimization for a number of reasons. First, more and more researchers are finding that unique, isolated victimization may be rare and that, instead, multiple victimizations of the same person, occurring across time and context, are more typical. In short, there is an enormous amount of overlap among victimized populations in their exposure to what had been seen as distinct and unique victimization situations. As researchers have identified this process, what has come to be understood as a variation of the Matthew Principle is true—"He who has, receiveth; he who has not, receiveth not." That is, victimization has a far higher likelihood of occurring among certain groups and certain people, particularly those previously victimized.

An abused child may be bullied at school and, as an adult, be a victim of domestic violence. Furthermore, the effect of these different victimizations may be more than simply the sum of the individual types.

Finally, the need for an integrative approach is particularly demonstrated by the shared interpersonal nature of the victimization phenomena. If the key facet of the victimization experience that defines it is the interpersonal nature of the victimization, then there is quite likely to be a shared psychological expression of exposure to victimization across types of victimization. An integrative approach allows for the examination of this common core of psychological features attendant to this definition of victimization.

Effects of Victimization

The early research on the consequences of victimization detailed the many psychological consequences of exposure to victimization. Typically, researchers would identify populations previously victimized and compare this population with a nonvictimized population on standardized measures, primarily of psychological disturbance. This research has demonstrated that victimization exposure is a pathogen. In addition to the possible physical effects associated with victimization, there may be psychological symptoms across a range of domains, such as dissociation, depression, anxiety, and interpersonal difficulties. Additionally, specific forms may have more specific outcomes. For example, child sexual abuse may be linked to sexual difficulties. Not only is there a wide range of possible symptoms associated with victimization, but there also is a wide range of severity of response to victimization. With the maturation of the field, particularly with the leadership provided by researchers such as David Finkelhor, emphasis has shifted from specific psychological symptoms and the recognition of PTSD to core psychological issues or processes that are affected by victimization. These core psychological issues include damage to interpersonal relationships and self.

One of the accomplishments of the several decades of research into the consequences of exposure to violence and victimization is the recognition that PTSD is often a specific consequence of victimization. This recognition has brought considerable attention to the role of trauma in the lives of human beings and an awareness that exposure to trauma, particularly chronic, repetitive trauma, creates a unique kind of psychological response that does not fit the typical understanding of PTSD and, instead, requires an understanding of not only trauma and its response but also trauma and the task of adjusting to chronic exposure to trauma. This has led researchers to identify different types of PTSD, described as complex PTSD, to distinguish it from the diagnosis of PTSD as given in the *Diagnostic and Statistical Manual* (fourth edition; *DSM-IV*).

Likewise, in the lives of children, there is a greater recognition that the responses of children to chronic, repetitive stressful events cannot be subsumed under the diagnosis of PTSD, which was developed primarily in the crucible of wartime experiences of soldiers. Thus, in the current scientific community, there is an appreciation that the unique adjustment capacities and responses of children and adolescents require some new types of diagnostic nomenclature. In particular, the notion of a developmental trauma disorder has been brought into the scientific community by several people and is being considered for inclusion in subsequent editions of the *DSM*. The finding that should be emphasized, however, is that trauma exposure is a unique and particular pathogen that occasions a range of responses in humans. In part, these outcomes can be captured by the diagnosis of PTSD; however, the range of responses needs a more articulated and specific set of diagnostic categories to be able to delineate the variety of responses and syndromes observed in children, adolescents, and adults.

The fact that victimization typically occurs within the context of an interpersonal relationship has profound consequences for understanding the consequences of victimization. Such victimization elicits unique interpersonal, emotional, and developmental issues. Humans form their working models of the world in the context of relationships. It is how we come to understand what we may expect from other people and how we learn to interact with others. Thus, the consequences of victimization, particularly victimization that occurs in the context of central human relationships, are far reaching and may affect later relationships.

As originally proposed by John Bowlby, our core attachment figures are the lens through which we develop our understanding of the world. The theory of the world we form in these relationships, thus, becomes the template against which we judge subsequent experiences and by which we shape our own actions in the world. When these models are damaged or distorted by victimization, the primary consequence is that all subsequent interactions are affected by the accommodations that the victim has to make to the

experience of victimization. For example, as a result of abuse by a parent, a child believes that all relationships are potentially hurtful. The child then enters into all subsequent relationships with a sense of mistrust and an expectation that rejection and harm will soon follow. The microenvironment that the child has created, in turn, may lead to these expectations being fulfilled.

Thus, at the heart of the victimization experience is the damage done to the victim's sense of trust and his or her ability to create a safe, attached relationship. The betrayal of victimization is considered to be one of the most difficult processes for humans to incorporate into their expectation of the world as being a benign or benevolent place. Particularly, when victimization is repetitive and ongoing, there is no opportunity for the development of a secure base in any attached relationship.

This damage to the attachment's schema occurs along with changes in other cognitive schemas. The way in which the world is experienced and interpreted is transformed by victimization exposure. Cognitive schemas, particularly with the perception of relationships, are transformed in negative ways. Roland Summit was among the first to explain these changes in cognitive schemas through his description of the accommodation syndrome, wherein the experience of victimization fixes and makes rigid subsequent interpretations of reality.

The core cognitive schemas of relationship are all profoundly influenced by the experience of victimization. Finkelhor has summarized for a developmental approach, in particular, how this damage is mediated through four core conditions: (1) repetitive and ongoing victimization occurs, (2) the victim's core relationships are altered, (3) victimization is added to other stressors, and (4) victimization occurs during a critical developmental stage. That is, if victimization is repetitive, if the nature of the victim's relationship with core attachment relationships is damaged by the victimization, is added on to other stressors, and occurs at a critical period, then these serve as moderators that contribute to the power of the victimization experience through the powerful degradation of development processes.

In terms of critical developmental tasks that can be affected by victimization, perhaps the most core cognitive schema affected is that of the self. Early child development requires the development of a sense of self. One of the core functions of this self is the ability to manage one's emotions, physiological arousal, basic daily living tasks, as well as managing and regulating affect. In particular, affect regulation is perhaps the most critical task for all humans. The experience of victimization may have a particularly critical influence on children's ability to regulate their emotional responding to the world. Victimization occurring during adulthood has the effect of undermining acquired competencies and forcing a kind of psychological regression. A very typical experience in adult victimization is for the victim to lose significant psychological developmental accomplishments and regress to previous levels of dependence. There may be a corresponding failure to be emotionally autonomous and self-regulating. There is considerable research that demonstrates that these experiences, moreover, have the power to foreclose the future accomplishment of a developmental task by the consequence of victims being burdened by psychological symptoms and/or accommodating to the victimization by a disengagement from the social world and a lack of confidence in their own self-efficacy.

As described by Finkelhor and Angela Browne, the damage to the self also may include feelings of stigmatization and powerlessness. The person may feel responsible and to blame for what happened. For example, the physically abused child and battered wife may feel deserving of the abuse. Furthermore, given the nature of the interpersonal relationship, the victim may feel too ashamed to report the experience. For example, an elderly person abused by an adult child may feel too ashamed to report the experience. Victimization also may be accompanied by a feeling of powerlessness. The stalking victim, for example, may feel a loss of control over his or her life.

As was previously noted, victimization is not usually an isolated event, and this is important in understanding the consequences of victimization. Finkelhor suggests that there is an additive effect when victimization occurs in the context of other stressors. He also notes that if victimization occurs during a critical period of development, it can interrupt successful task resolution of a developmental stage. Finkelhor's model, defining the moderating effects of damaging context, is a useful attempt at bringing understanding of the psychological processes to the specific understanding of the victimization effects. There is now an increasing body of literature that does confirm most of Finkelhor's suggestions, particularly those having to do with multiple victimizations and the cumulative effect of victimization co-occurring with other stressors.

In summary, victimization is a frequent event with profound consequences on human adjustment. To have a more nuanced psychological understanding of victimization, the interpersonal context of the experience

must be included in our theoretical and practical models of those who have been victimized.

Barry R. Burkhart and
Mary Ellen Fromuth

See also Battered Woman Syndrome; Child Abuse Potential (CAP) Inventory; Coping Strategies of Adult Sexual Assault Victims; Elder Abuse; Rape Trauma Syndrome; Reporting Crimes and Victimization; Sexual Harassment; Victim-Offender Mediation With Juvenile Offenders; Victim Participation in the Criminal Justice System

Further Readings

Finkelhor, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry, 55,* 530–541.

Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment, 10,* 5–25.

Herman, J. L. (1992). *Trauma and recovery.* New York: Basic Books.

Myers, J. E. B., Berliner, L., Briere, J., Hendrix, C. T., Jenny, C., & Reid, T. A. (Eds.). (2002). *The APSAC handbook on child maltreatment* (2nd ed.). Thousand Oaks, CA: Sage.

Summit, R. C. (1983). The child sexual abuse accommodation syndrome. *Child Abuse & Neglect, 7,* 177–193.

Victim-Offender Mediation With Juvenile Offenders

Policymakers, social workers, and researchers have long been reflecting on how to respond to youth crime. In recent years, the concern that traditional approaches stemming from retributive and rehabilitative models of justice may no longer be viable responses to criminal acts has increased the interest in alternative measures and approaches originated within the restorative justice model. Central to this model is the notion that a criminal act is an offense against a victim within the context of a community, as opposed to a violation against the state. Thus, a criminal act engenders a conflict among people and harms the victim; justice cannot be achieved unless that conflict is solved and that harm repaired. Based on this view, the offender along with other individuals affected by the criminal act (e.g., victim, community members) actively participate in the resolution of the conflict, with the help of a fair and impartial third party. Several measures have been developed within the restorative model; of these measures, the oldest and most frequently adopted is victim-offender mediation (VOM).

This entry provides a definition of VOM, describes its goals, and outlines the key components of the VOM process, including the role of the mediator. It then discusses the relation between VOM and the criminal proceeding in the juvenile justice system. It also summarizes evidence on the type of cases that are likely to be mediated and the motivations behind victims' and offenders' decisions to participate in VOM and describes victims' and offenders' perceptions of the VOM process. It also reviews the evidence concerning the relation between participation in VOM and later recidivism among juvenile offenders. Reflections on the present and the future of VOM practice and research are offered as conclusive remarks.

What Is VOM?

VOM is a process through which victims of crimes meet the offender in a structured and safe environment. As a practice, VOM involves a face-to-face meeting between the victim and the offender in the presence of a trained mediator. The goal of VOM is to create the opportunity for the victim and the offender to engage in a dialogue addressing their informational and emotional needs. The VOM process cannot begin until the offender acknowledges his or her responsibility for the offense. Thus, VOM does not deal with issues revolving around establishing the truth about the occurrence of the offense but focuses on the consequences of the offense.

The importance of conflict resolution distinguishes VOM from other forms of mediation (e.g., mediation in custody cases or in divorce cases) in which the emphasis is placed on reaching a settlement rather than on addressing the emotional consequences of the facts in questions.

What Happens During VOM?

In most of the VOM programs, prior to the actual mediation, the mediator contacts and meets separately with the victim and the offender. During these sessions, the mediator evaluates whether the parties are willing and able to engage in VOM; the mediator also prepares the parties for the subsequent meeting (e.g., by correcting unrealistic expectations). To avoid feelings of rejection

that may induce a sense of revictimization, the victim is typically contacted after the offender has already agreed to take part in VOM.

During the actual VOM meeting, the victim and the offender talk to each other about the crime, discuss the effects of the crime on their lives, and describe their feelings about it. At times, more than one mediation meeting is necessary to complete the process. In some practices, family and community members join the victim and the offender in the meetings (i.e., family group conferencing, conferencing).

As a result of the VOM process, the victim and the offender may choose to create a mutually agreeable plan to repair any material and psychological damages that resulted from the crime. Research indicates that VOM is largely successful, and an agreement between the parties is reached more than 90% of the times. The reparation plan may include direct compensation to the victim, work for the victim, and community service. Research suggests that when reparation plans are generated within VOM, reparation is completed more frequently than when reparation is court imposed.

What Is the Relation Between VOM and the Criminal Proceeding?

In the United States, there is great variability in the relation between VOM and the criminal proceeding. In some cases, VOM is attempted as a diversion measure, as when a juvenile case is diverted to mediation services in the early stages of a criminal proceeding and does not reenter the juvenile justice system, assuming that the mediation agreement is completed. In other cases, VOM is the condition for probation following an admission of guilt accepted by the court. Finally, in some cases, VOM is attempted in the postadjudication phase. Such variability exists in other countries as well, such as those in the European Union, except that VOM is not a common practice in the postadjudication phase. Furthermore, the practice of VOM in Europe is frequently an inherent part of the criminal procedure (at certain stages of the proceeding, the case may be referred to a mediation service), so that if the mediation process is successful, there will be a tangible impact on the case sentence. The variability observed appears to depend largely on the characteristics of legal and policy tradition specific to each country rather than on considerations pertaining specifically to the practice of VOM with juvenile offenders.

Who Participates in VOM and Why?

Participation in VOM depends largely on the criteria for case referral and, critically, on the parties' willingness to partake in the process. Various referral criteria have been used, such as the age of the offender, whether the offense is more or less severe, or whether it was committed by a first-time offender. Traditionally, VOM has mostly involved juvenile offenders who had committed crimes against property and minor assaults. However, more recently, there has been a tendency to broaden the scope of VOM and extend this practice to more serious offenses and to adult offenders, although it should be noted that the seriousness of the offense may deter victims' participation.

Victims' and Offenders' Motivations

Research indicates that approximately 60% to 70% of victims who are offered the opportunity to partake in VOM do so. When asked what motivates their decision to undergo the VOM process, victims express a desire for restitution and a desire to see the offender held accountable, learn about the reasons behind the offender's actions, share the pain caused by the crime, help the offender change, and avoid court processing.

High percentages of participation are also observed among juvenile offenders. With respect to motivations, there is some indication that juvenile offenders choose to participate in order to take responsibility for the criminal acts they have committed, apologize to the victim, and move on with their lives.

To date, little is known about the motivations behind the decision not to participate in VOM. Victims seem to emphasize either the triviality of the offense or, at the other end of the spectrum, the fear that the VOM meeting may not be safe. As for offenders, there is initial evidence that they may opt out of VOM because their lawyers advise them against participating. Indeed, the admission of responsibility for a crime, a necessary condition for VOM, raises issues of legal safeguards for juveniles.

Victims' and Offenders' Perceptions of VOM

A number of studies have examined the consequences of participating in the VOM process for victims and

offenders. Specifically, extant investigations have focused on individual participants' satisfaction with VOM and perception of fairness of the process. The picture emerging across these investigations is clear: The vast majority of victims and offenders report being satisfied with the process and with the resulting agreement (i.e., between 80% and 90% according to some reports).

Victims' Perceptions

Results from research suggest that victims who meet with their offenders are more likely to be satisfied with the criminal justice system's response to their case than victims of comparable offenses who do not meet their offender and whose case undergoes criminal prosecution. The main factors associated with victims' satisfaction are that the victim deemed the restitution plan as fair, appreciated the role of the mediator, and had a strong inherent motivation to meet the offender. This latter factor, together with the consideration that participation in VOM occurs only on a voluntary basis, highlights the possibility that self-selection may be a key component of long-term satisfaction. Thus, long-term satisfaction may be accounted for by preexisting differences between individuals who agree and individuals who do not agree to partake in the process. Although it is possible that individuals who view the outcomes of VOM more positively hold more favorable views of it in the first place, which makes it difficult to isolate the effects of VOM per se, the close connection between the voluntary nature of VOM and its outcomes underscores the fact that choice and direct participation are germane to the restorative justice approach and its effects.

Offenders' Perceptions

Results from research also indicate that participating in VOM is also largely positive for juvenile offenders who report having understood their mistakes and the consequences of their mistakes for the victim; furthermore, feelings of internal change have been reported. Nevertheless, a tendency to use the VOM process instrumentally as a way to conviction has also been observed.

Recidivism

VOM and other measures grounded in the restorative justice model have met with unprecedented interest in the past decade. This interest in part reflects the disaffection toward more traditional approaches that are deemed to have failed to reduce the prevalence and recidivism of youth crime. A number of studies have examined whether participation in VOM is associated with decreased prevalence and severity of recidivism in youth crime. The outcomes of these studies have been summarized in recent meta-analytic work and indicate that juveniles who underwent VOM were less likely to re-offend a year after VOM, and when they did so, the new offenses were less severe than those that originally resulted in VOM participation.

These results have been considered promising evidence in favor of the efficacy of VOM in reducing youth crime. However, these studies suffer from some methodological limitations. For one, only in a small subset of them were juvenile offenders randomly assigned to VOM as compared with other intervention measures. If the cases were referred for VOM because they were considered particularly amenable to this form of intervention, the differences in recidivism may reflect inherent differences between the VOM group and the comparison group. Furthermore, even when randomization procedures were employed, participation in VOM was still voluntary. This intrinsic characteristic of the process makes it difficult to evaluate the effects of VOM in an unbiased fashion.

The Future of VOM

Over the past three decades, VOM has witnessed increasing interest in several parts of the world. VOM is appealing because it is rooted in shared values of solidarity, reparation, and a sense of justice, while it holds the promise of becoming an effective measure for reducing and preventing youth crime and for increasing citizens' sense of security.

To maintain such a promise, extant research results should be confirmed by more extensive investigations employing rigorous designs, including studies in which individuals are randomly assigned to VOM, experimental and control groups are measured on key variables pre- and post-VOM, and the effects of VOM are followed up longitudinally over several years.

Simona Ghetti and
Anna Mestitz

See also Alternative Dispute Resolution; Juvenile Offenders; Victimization; Victim Participation in the Criminal Justice System

Further Readings

Mestitz, A., & Ghetti, S. (2005). *Victim-offender mediation with youth offenders in Europe. An overview and comparison of 15 countries*. Dordrecht, The Netherlands: Springer.

Morris, A., & Maxwell, G. (2001). *Restorative justice for juveniles. Conferencing, mediation and circles.* Oxford, UK: Hart.

Umbreit, M. S. (2001). *The handbook of victim-offender mediation*. San Francisco, CA: Jossey-Bass.

Umbreit, M. S., Coates, R. B., & Vos, B. (2004). Victim-offender mediation: Three decades of practice and research. *Conflict Resolution Quarterly, 22,* 279–303.

Victim Participation in the Criminal Justice System

As a result of a number of developments—including the rise of restorative justice—victims in common-law jurisdictions now have far more input into the criminal process. Victim participatory rights are currently recognized as an important component of criminal justice proceedings. Research has shown that victim participation in justice can help victims who want to be included in proceedings and that victim participation does not result in difficulties or create problems for the smooth operation of the criminal justice system. However, because victim participation in sentencing decisions challenges traditions and established patterns within the criminal courts, these rights sometimes encounter resistance in their implementation. As legal cultures are transformed, however, and victims are increasingly perceived as a legitimate party in proceedings, victim participation can become an acceptable practice and a way to inject restorative justice elements into adversarial justice systems. Ultimately, it is the underlying value system and ideology that will determine whether victims are meaningfully integrated into proceedings. Attempts to integrate victims outside the adversarial criminal justice system through restorative justice schemes have worked for some victims, but they do not serve those who wish to remain within the protective structure of adversarial systems.

This entry reviews the historical development of the role of crime victims in common-law criminal justice systems. It presents and assesses research on the impact of these changes on victims and the criminal justice system. Emerging alternative perspectives and schemes to integrate victims in proceedings are then discussed. The entry concludes by noting some implications for criminal justice policies regarding crime victims.

Victims' Role in Criminal Proceedings

In adversarial justice systems, a criminal trial entails a conflict between two adversaries—the state and the defendant, and the search for the "truth" is conducted before an impartial adjudicator—the judge. In earlier centuries, crime victims had to assume the responsibility of pursuing the offender and bringing him or her to justice. Over time, this state of affairs changed. With the centralization of power and creation of the concept of "the King's peace," victims lost their active role in justice. The state began to prosecute a defendant on behalf of the community, and the crime victim was relegated to the role of witness for the prosecution.

For most victims, even their role as witness never materializes. Most criminal incidents do not result in a trial as a result of the attrition of cases. The police may fail to make an arrest, or the prosecutor may decide not to file a criminal charge. If a charge is filed, it may be stayed or withdrawn. In the vast majority of cases, the offender ultimately pleads guilty, and the case proceeds to sentencing without a criminal trial being held. Unlike continental legal systems, which provide victims with a formal role in criminal proceedings, adversarial legal systems do not accord victims any formal standing in the prosecution of "their" offenders. Victims have little influence over whether (or how) the state chooses to proceed against the alleged perpetrator. Thus, until fairly recently, crime victims were denied any input into the sentence of the offender. Yet the state highly depends on victim cooperation, without which a criminal prosecution is unlikely to succeed.

Changes in the Role of Crime Victims

Until the 1970s, crime victims were considered the "forgotten persons" of criminal justice—invisible to and neglected by the system. The lack of victim standing in criminal proceedings, and the consequent insensitivity to the needs of crime victims, led to victim

dissatisfaction and alienation from the criminal justice system. Surveys of crime victims in a number of countries revealed complaints related to the lack of information about the case as well as frustration due to the lack of input into the proceedings. These findings provoked campaigns by victims' rights groups to bring about changes in the criminal justice system.

In response to the victim movement, Western countries have passed legislation creating various victim rights and have established a wide range of services for victims of crime. Victims now have the right to receive information about the status of the case in which they are involved, and they also have the right to apply for financial compensation and psychological assistance. More recently, many jurisdictions have provided victims with participatory rights throughout the criminal process, beginning with the arrest of a suspect and ending with the prisoner's release from prison. Although most rights and benefits that facilitate victim participation in justice have been generally accepted, the right to actively participate in the judicial process and to have a voice in proceedings has proved controversial and continues to be the subject of heated debate.

Emergence of Participatory Rights for Crime Victims

Research and practice have shown that while some victims prefer to stay out of the criminal justice system, many others wish to participate. The need to accord victims participatory rights has been recognized by many national committees established to study victims in the criminal justice process (e.g., the President's Task Force on Victims of Crime, 1982, in the United States and the report of the Standing Committee on Justice and Human Rights, 1998, in Canada). Similar reports have been published in other jurisdictions.

The international community has also recognized the need to integrate victims into the criminal justice process. In 1985, the United Nations Seventh Congress on the Prevention of Crime and Treatment of the Offender adopted a declaration that required that victims be allowed to present their views and concerns at appropriate stages of the criminal justice process. Victims also enjoy significant rights in proceedings before the International Criminal Court in the Hague. That court hears cases involving the most serious crimes committed against many hundreds of crime victims.

Many states in the United States have enacted victims' bills of rights that vary in scope from mandating that criminal justice officials simply show respect toward victims, to establishing a victim's right to be present and heard, to allowing victims to sit at the prosecutor's table during trial. In several states, victims' rights are achieved by specific statute, but a number of states have adopted constitutional amendments to give victims' rights greater permanence and visibility. The majority of the states also allow for victim participation in sentencing and parole hearings. The states also provide for victim participation in plea bargaining. However, the extent to which victims are allowed to participate in plea discussions varies widely, with no state providing victims with a veto over plea agreements.

Reforms addressing the circumstances in which victims are afraid or reluctant to provide testimony or input into proceedings (such as domestic violence cases) have also been adopted. These laws (or statutory amendments) require the police to make arrests regardless of whether the victim signs the complaint. Similarly, prosecutors are allowed to proceed with a case even if the victim refuses to cooperate (this is known as a "no-drop" policy). Mandatory arrest laws and no-drop prosecutorial policies recognize that victims of domestic violence are especially vulnerable to retaliation from the perpetrator if they press charges. These laws therefore remove this decision from victims. Mandatory charging and prosecuting policies thus create a potential conflict with the principal goal of victims' advocates: to give victims a say in important criminal justice decisions that affect their lives. Accordingly, some battered women's advocates and feminist scholars have criticized the mandatory element of these policies on the grounds that they further disempower the crime victim.

Victim Impact Statements at Sentencing

Sentencing attracts more interest than any other stage of the criminal process. Victims look toward a sentencing court to vindicate their suffering and to mark the crime by imposing an appropriate penalty on the convicted offender. It is therefore not surprising that it is at the stage of sentencing that victims are most interested in providing input. Of all the participatory reforms, victim input into sentencing decisions, or victim's right to submit victim impact statements (VIS), have attracted the most opposition.

The VIS—as the concept is referred to in the United States and Canada—or the victim personal statement (VPS)—its counterpart in England and Wales—is a statement in which the victim describes the impact of the crime on his or her life, including physical, social, psychological, and financial harms. The VIS may be delivered at the sentencing hearing either in writing, orally, or visually (in countries or jurisdictions that allow victim allocution or presentations through a video). Judges are encouraged, or in some jurisdictions required, to take the VIS into account when determining sentence.

Arguments for Victim Participation at Sentencing

Advocates of victims' rights to participate in the criminal justice process have advanced a variety of arguments, some moral, some penological, and others practical in nature. The idea of victim participation recognizes victims' wishes to be treated as a party to the proceeding. Allowing victims to participate in the criminal process reminds judges, juries, and prosecutors that behind the "state" there is an individual victim with an interest in how the case is ultimately resolved. It is argued that providing victims with input promotes proportionality in sentencing because victims can provide accurate information about the seriousness of the crime. Victim participation may also lead to increased victim satisfaction with the judicial process and cooperation with the criminal justice system. This, in turn, may enhance the system's effectiveness in bringing offenders to justice. It may also increase perceptions of the fairness of proceedings, because it will also allow victims to be heard. The use of VIS may also promote psychological healing by helping victims recover from the emotional trauma associated with their victimization. Finally, it may also alleviate some of the feelings of helplessness that can arise as a result of the crime and the inability on the part of victims to express themselves to judicial authorities.

Objections to Victim Participation

Objections to victim participation at sentencing range from assertions that vengeful justice will result to predictions that the system will grind to a halt as a result of the additional time needed to process cases. Opponents of victim participation are reluctant to expose the court to public pressure (created as a response to the victim input), from which it should properly be insulated. There are also concerns that the victim's "subjective" account of events may take precedence over the allegedly "objective" one pursued by the court. The legal profession has found the prospect of allowing material that may be highly emotional in the courtroom unacceptable and argues that a victim's input into sentencing is irrelevant to any legitimate sentencing considerations, lacks probative value in a system of public prosecution, and is likely to be prejudicial. Permission to deliver a VIS in person—exercising victim allocution right—has been regarded as particularly objectionable, as an oral version in a very serious crime may be very moving for the judge and this may increase sentence severity or promote sentencing disparity. Objections also included arguments that victim input violates the fundamental principles of the adversarial legal system, which do not recognize the victim as a party to the proceedings. Including victims would transform the trial between the state and the defendant into a tripartite court proceeding (state-victim-offender). Such practices, it was argued, belong only in the so-called continental legal systems with adhesive prosecution or *partie civil* procedures or to restorative justice schemes.

Research Findings on the Effects of Victim Participation

Victim Input Into Sentencing

Research provides answers to some of the questions raised in the debate about victim input into sentencing. Although far from conclusive, this research suggests that (a) victim participation does not result in delays or clog the criminal justice system by protracting the time taken to arrive at an adjudication; (b) victim participation does not always or necessarily result in harsher punishment of offenders; (c) victim participation has the potential to increase victim satisfaction with the judicial system; (d) many judges see a benefit in receiving crime impact information directly from the victim by means of VIS; (e) victim statements seldom include inflammatory or prejudicial material that may bias the court against the defendant; and (f) the implementation of victim input laws is still problematic, as a result of which many victims do not benefit from these reforms.

Research has demonstrated that in practice, many victim-related reforms never reach victims. Victims either are unaware of their rights to participate or elect not to exercise them. Studies also reflect considerable

confusion about the nature and purpose of VIS. Victims often do not understand the true purpose of VIS or may claim that they did not fill out such statements when, in fact, they did. This may be because victims are questioned by a seemingly endless array of people and may become confused about the purpose of particular interviews. Some jurisdictions have overcome this problem by having victims prepare their own VIS rather than merely provide the information to the investigating officer (in some countries, probation or victim assistance staff).

In common-law jurisdictions, it was observed that only a minority of all victims participate by submitting a VIS. Analysis of court files and surveys of criminal justice professionals, such as prosecutors and judges, confirm that most sentencing hearings take place without the benefit of an impact statement from the victim. The likelihood of an impact statement being submitted will depend on the nature and seriousness of the crime, as well as many other variables. Victims of serious violent crimes are more likely to submit VIS.

Impact of VIS on Victims' Welfare and Satisfaction With the Justice System

Findings on the effect of providing input into sentencing are inconsistent with respect to the issue of victim welfare and satisfaction and suggest, at best, modest effects. The lack of evidence on satisfaction, however, may simply reflect a problematic implementation of the law. The level of satisfaction may also vary with the type of offense committed. In some cases, filing VIS heightens victims' expectations that they will influence the outcome. When that does not happen, victims may be less satisfied than those who do not submit a statement. In contrast, research has shown that in the continental criminal justice systems (which allow victims a party status and let them provide significant input into the proceedings, victims who participated as subsidiary prosecutors or acted as private prosecutors were more satisfied than victims who did not participate. These differences suggest that in jurisdictions in which victims have more input into proceedings, levels of satisfaction with justice are higher.

Restorative Justice, Therapeutic Jurisprudence, and the VIS

Victims have benefited greatly from the worldwide rise of interest in a new paradigm in justice known as *restorative justice.* Restorative justice programs have been created in many nations, both developed and developing. These programs exist at all stages of the criminal process, from pretrial conferences involving victims and perpetrators to restorative programs that arrange meetings between victims and prisoners. All restorative justice programs share the same goal of attempting to achieve something more than simply punish the offender.

This approach to addressing crime assigns a prominent role to the victim. Restorative justice advocates argue that victims are better served by an attempt to reconcile, where appropriate, the victim and the offender. When this occurs, the offender accepts responsibility for the offense, expresses remorse for the crime, and often makes some practical form of compensation to the crime victim. Under a purely retributive justice system, which privileges punishing the offender, the benefit to the victim—beyond seeing the offender punished—may be negligible. Another new approach, known as *therapeutic jurisprudence*, addresses the legal participants' psychological welfare. This perspective also offers an alternative to the conventional retributive model of criminal justice, one that assigns a very prominent role to the victim.

Although some researchers have questioned the extent to which restorative justice proceedings serve the interests of victims, this approach does focus attention on the connection between victims' participation and their welfare. The importance of victims' voices in proceedings, on the one hand, and victims' roles in the reentry of offenders (which is the ultimate purpose of restorative justice), on the other, has been increasingly recognized in justice practices around the world. This change is due in part to victim advocates' efforts on behalf of victims and in part to research findings that challenge prevailing beliefs and myths about victims' interests, motives, and the consequences of input into sentencing. Research has questioned the common assumption that victims are vengeful by showing that they can also be forgiving or merely expressive about what they perceive as injustice (a lenient sentence or a lack of compensation). Research indicates that many crime victims, particularly victims of serious offenses, are eager to describe their victimization experiences. They want a voice to communicate a sense of the harm they have sustained rather than wishing to influence the sentence that is ultimately imposed.

Edna Erez and Julian Roberts

See also Therapeutic Jurisprudence; Victim Impact Statements

Further Readings

Dignan, J. (2005). *Understanding victims and restorative justice*. Maidenhead, UK: Open University Press.

Erez, E., & Roberts, J. (2007). Victim participation in the criminal justice system. In R. C. Davis, A. Lurigio, & S. Herman (Eds.), *Victims of crime* (2nd ed., chap. 17). Thousand Oaks: Sage.

Hall, D. (1991). Victim voices in criminal court: The need for restraint. *American Criminal Law Review, 28,* 233–266.

Joutsen, M. (1994). Victim participation in proceedings and sentencing in Europe. *International Review of Victimology, 3,* 57–67.

Orth, U. (2002). Secondary victimization of crime victims by criminal proceedings. *Social Justice Research, 15,* 313–326.

President's Task Force on Victims of Crime. (1982). *Final report*. Washington, DC: Government Printing Office.

Zedner, L. (2002). Victims. In M. Maguire, R. Morgan, & R. Reiner (Eds.), *The Oxford handbook of criminology*. Oxford, UK: Oxford University Press.

Videotaping Confessions

The Innocence Project, an organization dedicated to exonerating the wrongfully convicted by means of DNA testing, has to date been responsible for freeing 197 people from unjust imprisonment. By examining the particulars of wrongful conviction cases, the Innocence Project has also identified several factors contributing to these miscarriages of justice. One such factor is false confessions, which can occur when innocent suspects succumb to the intense psychological pressure that is a ubiquitous feature of today's police interrogations in the United States. In fact, false incriminating statements made by suspects during detention played a role in more than 25% of the wrongful-conviction cases in which the Innocence Project has been involved. In response to these troubling facts, many scientific, legal, and political leaders have called for mandatory videotaping of custodial interrogations. Proponents argue that videotaping interrogations will discourage the police from using highly coercive techniques to elicit confessions, and the resulting audiovisual record will permit later trial fact finders to more accurately assess the voluntariness and veracity of suspects' statements. However, policies requiring videotaping should be carefully considered so as to minimize the potential drawbacks of the procedure as suggested by psychological research.

Law Enforcement's Mixed Reactions to Videotaping

Over the past 25 years, there has been considerable ambivalence within the law enforcement community concerning the videotaping of interrogations and confessions. Long before the first DNA exoneration case in 1989, the police in some jurisdictions took the initiative and began experimenting with the videotape recording of at least portions of the questioning of detained suspects. For example, by the early 1980s, the district attorney's office in one borough of New York City had access to approximately 3,000 videotaped admission statements. According to statistics maintained by that office, videotaping produced an 85% guilty-plea rate and a nearly 100% conviction rate. In contrast, other jurisdictions have adamantly resisted the call for mandatory videotaping of custodial interrogations. Those in law enforcement opposing the videotaping movement have argued that the cost of equipment, storage, and transcription of videos is an undue burden for jurisdictions with limited budgets. Moreover, they fear that suspects will be hesitant to talk in the presence of a camera; judges and juries will disapprove of certain legally permissible interrogation tactics commonly used (e.g., lying about the amount and kind of evidence incriminating a suspect), thus rejecting the confession evidence as unreliable; and requiring videotaping will impugn the integrity of law enforcement agencies that have worked diligently to earn a reputation for honesty.

In the past 15 years, two large surveys have been conducted to assess the extent to which law enforcement agencies were videotaping at least some interrogations and/or confessions and their reactions to this procedural modification. The first was a report to the National Institute of Justice in 1992 by William Geller, who estimated that approximately one-third of law enforcement agencies serving populations of 10,000 or more recorded interrogations, or parts thereof, on some occasions in the late 1980s. Importantly, Geller found that the police, who had experience with videotaping, expressed strong support for the practice. As a member of the San Diego police put it, "Not using video would be like not using state-of-the-art fingerprint analysis

equipment. If better technology comes along, and its cost is reasonable, the police should experiment with it if there is a reasonable chance that it can assist them in their work" (p. 153).

The second report by attorney Thomas Sullivan in 2004 similarly found positive responses from those departments videotaping custodial interrogations. The following are some of the reasons mentioned by officers in Sullivan's report for embracing the videotape practice: It eases the public's concerns for how suspects in custody are treated; it eliminates the need for extensive note taking, so that officers can better observe suspects' nonverbal behavior; videotapes serve as a useful teaching tool for demonstrating appropriate interrogation techniques; and subsequent viewing of videotapes can reveal incriminating information missed during the live interrogations. Sullivan believes that once the police try videotaping, they will not want to go back to older methods, and he argues that the widespread acceptance of this practice will "benefit suspects, law enforcement, prosecutors, juries, trial and reviewing court judges, and the search for truth in our justice system" (p. 28).

Compelled Recording of Interrogations by Court Order or Legislative Statute

The electronic recording of interrogations was mandated for the first time in the United States by the Supreme Court of Alaska. The court's ruling issued in 1985 was based on the state constitution's due process clause. The justices reasoned that "recording . . . is now a reasonable and necessary safeguard, essential to the adequate protection of the accused's right to counsel, his right against self-incrimination and, ultimately, his right to a fair trial" (*Stephan v. State*, 1985). Nine years later, the Supreme Court of Minnesota also ruled for compulsory videotaping, stating that "an accurate record makes it possible for a defendant to challenge misleading or false testimony and . . . protects the state against meritless claims" (*State v. Scales*, 1994). Decisions by state Supreme Courts in Massachusetts, New Jersey, and New Hampshire fell short of ruling that their state constitutions mandate recording of interrogations. Nevertheless, in each of these states, the highest court held that failure to offer a custodial recording at trial could be a basis for the presiding judge to suppress any purported confession offered by the prosecution. Furthermore, should the judge admit an unrecorded confession into evidence, it was held that the jury would be instructed to exercise great caution in the weight given to the prosecution's claim that the defendant made self-incriminating statements. These decisions have generally led many police departments in these states to implement custodial recordings to avoid the possibility of their confession evidence being thrown out or having it greatly diluted by unfavorable jury instructions.

In 2004, Illinois became the first state to require by statute complete custodial recordings. Following Illinois's lead, Maine, New Mexico, Wisconsin, and the District of Columbia have since enacted similar recording legislation. Several additional states have prorecording bills currently under legislative consideration.

Possible Drawbacks of the Videotaping Practice

As the foregoing discussion suggests, all indications are that the videotaping of in-custody interrogations will become a standard law enforcement practice. It is therefore prudent to consider any possible downsides associated with the videotaping procedure or with the manner in which it might be specifically implemented.

Recap Bias

One concern is the potential prejudicial effect of the police choosing to record the suspects' final confession but not any of the interrogation that preceded it. Both Geller and Sullivan noted in their survey reports that such "recap videotapes" are not unusual. Recap videotapes are potentially problematic for two reasons. First, recaps may convey to trial fact finders that the confession was more voluntary than they would otherwise perceive it to be if the interrogation in its entirety was available for them to observe. Second, recaps often are recorded after suspects have been asked to recount their stories multiple times. By the time the camera is rolling, their statements may be accompanied by little of the emotion and agitation that might have been present the first time they revealed the self-incriminating information. Recap videotapes, then, may make suspects appear far more callous and unremorseful than is in fact the case, which in turn could bias the jury against them. Awareness of this issue has led most courts and legislative bodies that have made custodial recordings

compulsory to spell out clearly that the entire interrogation must be recorded—from the *Miranda* warning to the end of the session.

Fundamental Attribution Error

Even if judges and jurors have the opportunity to view an entire interrogation videotape, it may still be an extremely difficult task for them to accurately assess whether or not a confession was voluntarily given. A vast amount of research on social judgment demonstrates that observers tend to attribute people's actions to internal causes (i.e., to their dispositions or intentions) even when external forces or pressures in the situation (e.g., orders from an authority figure) could readily account for their actions—a phenomenon known as the fundamental attribution error. The U.S. Supreme Court in *Lego v. Twomey* (1972) expressed the view that jurors are readily capable of differentiating voluntary from involuntary confessions and thereby discounting the latter. However, the pervasive tendency for people to commit the fundamental attribution error should serve as a warning that the task of evaluating the voluntariness of suspects' statements made during an in-custody interrogation designed explicitly for the purpose of extracting a confession is not necessarily as straightforward as it might seem. Consistent with this point, laboratory research has shown that mock jurors asked to consider a suspect's self-incriminating statements, which came on the heels of very obvious high-pressure tactics on the part of an interrogator (e.g., he waved his gun in a menacing manner), were unable to completely discount the confession in rendering their verdict.

Differentiating True From False Confessions

As noted at the outset, one of the primary reasons why proponents of the videotaping practice are so insistent about the need to adopt this approach is their belief that a videotape record of an interrogation will make it possible for judges and juries to more readily catch false confessions that make their way into the system. Years of scientific studies on people's ability to accurately distinguish truthful from untruthful statements, however, indicate once again that commonsense notions may be largely incorrect. The consensus among researchers who study the detection of falsehoods is that people generally do little better than chance when it comes to separating lies from the truth. Even those who receive special training to increase lie-detection skills seldom show significant improvement; alarmingly, they sometimes perform worse after training than before.

An especially disturbing implication of the literature on lie detection for the videotaping practice is that people perform relatively worse when they rely primarily on visual cues, particularly those emanating from a person's face, when trying to make veracity judgments. Consistent with this pattern, a recent study found that people were better at differentiating true from false mock confessions when they listened to an audio recording or read a transcript of an interrogation than when they viewed a full videotape version that featured a close-up of the suspect's face. People tend to believe that they can tell from closely observing another person's face whether he or she is speaking untruths, but the scientific evidence suggests otherwise.

Camera Perspective Bias

A final issue concerning the videotaping practice that should be taken into account is the perspective of the camera when the interrogation is initially recorded. This may appear at first to be an inconsequential factor, but a growing body of research indicates that it may have profound effects on the conclusions drawn by triers of fact who later evaluate videotaped confessions. A considerable body of research indicates that an observer attributes unwarranted causality (influence) to objects and other people when they stand out in his or her visual field or are the focus of his or her attention—a phenomenon referred to as illusory causation.

Based on such demonstrations, Lassiter and his colleagues (2006) hypothesized that videotaped confessions recorded with the camera focused on the suspect would lead observers to assess that the suspect's statements were more voluntary and conclude that the suspect was more likely to be guilty than if the camera focused on the interrogator or on both the suspect and the interrogator equally. Two decades of research have confirmed this hypothesis. Videotapes that show both the suspect and the detective in profile (an equal-focus camera perspective) produce evaluations that are comparable with those based on more traditional presentation formats—that is, audiotapes and transcripts. Lassiter and his colleagues have therefore recommended that any legislation requiring videotaping of custodial interrogations should also specify that an

equal-focus camera perspective be used at the time of the initial recording.

G. Daniel Lassiter, Lezlee J. Ware, and Jennifer J. Ratcliff

See also Capacity to Waive *Miranda* Rights; Competency to Confess; Confession Evidence; Detection of Deception in Adults; False Confessions; Interrogation of Suspects; Wrongful Conviction

Further Readings

Geller, W. A. (1992). *Police videotaping of suspect interrogations and confessions: A preliminary examination of issues and practices* (A report to the National Institute of Justice). Washington, DC: U.S. Department of Justice.

Lassiter, G. D., Ratcliff, J. J., Ware, L. J., & Irvin, C. R. (2006). Videotaped confessions: Panacea or Pandora's box? *Law and Policy, 28,* 192–210.

Lego v. Twomey, 404 U.S. 477 (1972).

State v. Scales, *Minn.* 518 N.W.2d 587 (1994).

Stephan v. State, Alaska, 711 P.2d 1156 (1985).

Sullivan, T. P. (2004). *Police experiences with recording custodial interrogations*. Chicago: Northwestern University School of Law, Center on Wrongful Convictions.

Violence Risk Appraisal Guide (VRAG)

The violence risk appraisal guide (VRAG) is an actuarial instrument that assesses the risk of further violence among men or women who have already committed criminal violence. On average, it has yielded a large effect in the prediction of violent recidivism in more than three dozen separate replications, including several different countries, a wide range of follow-up times, several operational definitions of violence, and many offender populations. It is the most empirically supported actuarial method for the assessment of violence risk in forensic populations.

The VRAG is a 12-item actuarial instrument that assesses the risk of violent recidivism among men apprehended for criminal violence. It was developed on 618 male violent offenders assessed pretrial in a secure psychiatric hospital; about half of them returned later for treatment, whereas the others were imprisoned. Most of the approximately 50 variables considered for the VRAG had predicted criminal or violent recidivism in previous research, and a few were nominated by clinicians. All variables were scored from institutional records by researchers blind to outcomes and were from four domains: childhood history, adult adjustment, referral offense details and circumstances, and assessment results. The outcome was whether, according to criminal records, there was a criminal charge for subsequent violence in an average of 7 years' access to the community; 31% of the offenders met this recidivism criterion.

Many candidate variables predicted recidivism, but multiple regression selected the best combination for the VRAG. Several steps maximized the likelihood that the VRAG's predictive validity would replicate—requiring that each item uniquely predict violence, ensuring the inclusion of items from all four domains, and requiring that items predict recidivism in each of several subsamples (randomly selected halves, treated and imprisoned subjects) plus the entire sample. Item weights were based on the bivariate relationship between each item and recidivism. The VRAG items in descending order of the weights are the Hare Psychopathy Checklist–Revised, elementary school maladjustment, a diagnosis of personality disorder, age (negatively related), having been separated from one or both parents prior to 16 years of age, failure on a prior conditional release, nonviolent offense history, never having married, a diagnosis of schizophrenia (negatively related), victim injury in the referral offense (negatively related), alcohol abuse, and not having a female victim in the referral offense. The VRAG can be used when as many as 4 items are missing and scored by prorating.

The VRAG predicted violent recidivism in the development sample with a high degree of accuracy—the area under the relative operating characteristic (ROC) was .76. (The ROC area is a measure of effect size equivalent to the common language effect size—the probability with which a randomly chosen violent recidivist will have a higher score than a randomly chosen nonrecidivist.)

The original sample (plus additional men who had not been released at the time) was followed again at 10 years' average opportunity. The violent recidivism rate was .43 and the ROC area .74. There have been more than 36 replications with nonoverlapping samples, and the VRAG's average ROC area is .72—a large

effect by conventional standards. Under optimal conditions (high reliability; not dropping, replacing, or modifying items; fixed and equal follow-up durations), the VRAG yields ROC areas of approximately .85. The VRAG has been shown to generalize across outcomes (number of violent re-offenses, institutional violence, very serious violence, self-reported violence, general recidivism, overall severity of violent recidivism, rapidity of violent failure), follow-up times (12 weeks to 10 years); countries (seven in North America and Europe), and offender populations (mentally disordered offenders, sexual aggressors, violent felons, developmentally delayed sex offenders, emergency psychiatric patients, wife assaulters, and juvenile offenders). Some data suggest the VRAG predicts violence among women, but there are few studies on this.

The VRAG scores range from −26 to +38; the mean in the development sample was 0.91 (SD = 12.9), and the standard error of measurement was 4.1. Each score has been associated with one of nine categories, each with a known likelihood of violent recidivism in 7 years and increasing linearly from 0% in the lowest category to 100% in the highest. There are also norms for 10 years of opportunity. Each VRAG score is associated with a particular percentile so that the violence risk of an individual assessee is evaluated according to his or her standing relative to a large sample of violent offenders. Replications of the VRAG have generally reported that the obtained rates of violent recidivism matched the predicted likelihoods for each category. If the average score of the sample is similar, the follow-up duration is approximately the same as for the norms, and the outcome is operationalized similarly.

The recommended basis for scoring the VRAG for research and individual assessment is a comprehensive psychosocial history addressing childhood conduct, family background, antisocial and criminal behavior, psychological problems, and details of offenses. Adequate psychosocial histories include more than past and present psychiatric symptoms and rely on collateral information (i.e., material gathered from friends, family, schools, correctional facilities, the police, and the courts). Scoring the VRAG is not a clinical task in its typical sense because it does not require contact between the assessor and the person being assessed. Nevertheless, compiling the required psychosocial history clearly is a clinical task, and expertise is required to score VRAG items from psychosocial histories.

The VRAG scores are static inasmuch as they do not change with time or treatment (although they might change when rescored after offenders commit further violent offenses). Current research is aimed at identifying which changes in personal characteristics or circumstances make a valid additional contribution to the assessment of violence risk based on static variables. At this point, however, no such "dynamic" variables have been identified in assessing which offenders are at risk of committing violence. There is some evidence that they might aid in predicting when violence is imminent. In concurrent testing, actuarial tools such as the VRAG have consistently outperformed structured and unstructured clinical judgment. Although requiring resources and expertise, the VRAG is the most accurate and empirically supported actuarial method for assessing the risk of violent recidivism in forensic populations.

Marnie E. Rice and Grant T. Harris

See also Sex Offender Risk Appraisal Guide (SORAG)

Further Readings

Harris, G. T., Rice, M. E., & Quinsey, V. L. (1993). Violent recidivism of mentally disordered offenders: The development of a statistical prediction instrument. *Criminal Justice and Behavior, 20,* 315–335.

Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (2006). *Violent offenders: Appraising and managing risk* (2nd ed). Washington, DC: American Psychological Association.

Rice, M. E., & Harris, G. T. (1995). Violent recidivism: Assessing predictive validity. *Journal of Consulting and Clinical Psychology, 63,* 737–748.

Web Sites

MHC Penetanguishene (for updated information about the VRAG/SORAG, including replications): http://www.mhcp-research.com

Violence Risk Assessment

Violence risk assessment is a decision-making task that transpires in numerous legal and clinical settings in which the possibility of a person's future violent behavior is of concern. Common contexts in which violence risk assessment occurs include involuntary

civil commitment, release from prison or forensic hospital, sentencing, transfer of youths to adult court, and sexually violent predator determinations. The formal study of violence risk assessment proliferated after the seminal research studies and legal decisions in the 1960s and 1970s established that despite the legal demands for and constitutionality of risk assessments, little empirical evidence could be garnered in their support. Researchers soon focused on identifying promising risk factors for violence and, more recently have been developing and evaluating structured violence risk assessment measures intended to improve on unstructured clinical prediction.

The Purpose and Application of Violence Risk Assessment

The purpose of violence risk assessment differs somewhat across applications, but at its core, it is the estimation of the likelihood of future violent behavior posed by an individual. In some settings (i.e., treatment discharge planning), risk assessment also includes a specification of the risk factors present in a case and the risk management or intervention strategies that would be necessary to mitigate risk. In other settings (i.e., sexual predator determinations, prison security-level classification decisions), less attention is given to the specific *nature* of the risk factors that underlie a risk assessment than to the end result (an estimate of *level* or *amount* of risk).

Almost invariably, risk assessments transpire within legal contexts. One exception would be the duty to protect that many mental health professionals have in the context of private psychotherapy. Even here, however, a mental health professional is subject to common law and has ethical duties to identify high-risk patients. At some point in their careers, most mental health professionals will be faced with a client or patient who poses a risk of violence.

In terms of applications, violence risk assessment commonly is employed for release decisions from prisons and psychiatric facilities (both civil and forensic). Although specifics differ across jurisdictions, release may be contingent on a decision that a person does not pose an undue risk to public safety. In some such applications, efforts are made to gear the risk assessment toward identifying risk factors that would be important to target in violence-reduction treatments. Violence potential is also relevant in the civil commitment context, in which persons must not only be mentally ill but also pose a risk to others (or self) to be detained involuntarily. In criminal sentencing contexts, risk assessment can be used to inform decisions about whether a person should receive a custodial or a community sentence. In more extreme manifestations, it may be used in the determination of whether a person is sentenced to death. An increasingly common use of risk assessments is to determine whether a person meets statutory criteria for being declared a "sexually violent predator"; that is, a sexual offender who poses a substantial risk to reoffend in a sexual manner may be committed for treatment after serving a term of incarceration. Other countries use risk assessment within the context of indeterminate sentencing statutory provisions. Furthermore, risk assessment often is used when persons are admitted to prisons, youth detention centers, or psychiatric facilities, to determine the security level of their placement and/or their risk-relevant treatment needs. There are numerous other legally relevant contexts in which risk assessment figures prominently (i.e., child abuse evaluations, custody and access evaluations, judicial interim release decisions, immigration hearings).

Risk assessments typically are done by persons within the human services fields, such as psychology, psychiatry, social work, nursing, or substance use counseling. Personnel within prison systems (i.e., correctional classification officers) also engage in a type of risk assessment for offenders admitted to penal systems.

History of the Scientific Study of Violence Risk Assessment

Although the clinical and legal tasks of violence risk assessment have been occurring in some form for centuries, the contemporary scientific study of violence risk assessment has its roots in important legal decisions and empirical studies that occurred between the mid-1960s and late 1970s. During this time, important legal decisions such as *Baxstrom v. Herold,* a 1966 decision of the U.S. Supreme Court, found the extant process underlying postsentence confinement of the so-called mentally disordered dangerous offenders unconstitutional and ordered hundreds of such persons, all of whom had been declared to be "dangerous," to be released from confinement or transferred to less secure institutions. The sociologist Henry J. Steadman took advantage of the opportunity to study the fate of these persons and reported that there were very few who subsequently committed new violent offenses, suggesting that the accuracy of the determinations of dangerousness was

low. Despite these developments, other legal decisions upheld the constitutionality of clinical predictions of violence. Furthermore, the 1976 groundbreaking case of *Tarasoff v. Regents of the University of California* went so far as to impose a positive legal duty on psychiatrists and psychologists to forecast the potential violence of patients under therapy in some circumstances.

In the early 1980s, Professor John Monahan summarized what he called the "first generation" of empirical studies on the prediction of violence. He concluded that clinical predictions were not very accurate, in particular leading to an unacceptably high false-positive error rate. He also called for a "second generation" of research that would focus on identifying meaningful risk factors for violence and using empirically based procedures for making risk assessments. Since that time, researchers have indeed identified numerous meaningful violence risk factors, such as substance use problems, psychopathic personality features, anger, impulsivity, antisocial peers, antisocial attitudes, previous violence, young age at first violent act, stress, treatment nonadherence, lack of social support, and some features of mental illness.

Although there has been no well-recognized declaration of a "third generation" of risk assessment research, efforts since the early to mid-1990s have capitalized on what was learned from risk factor research that has led to the construction and evaluation of risk assessment measures that compile and integrate numerous empirically validated risk factors. A further movement has included increased emphasis on the reduction of risk or prevention of violence, as opposed to solely estimating the likelihood of future violence. For this reason, a single definition of violence risk assessment is elusive. The two primary contemporary approaches to risk assessment, discussed below, adopt somewhat differing conceptualizations of the task.

Contemporary Approaches to Violence Risk Assessment

There are two primary approaches to violence risk assessment—structured and unstructured. The structured risk assessment typified first-generation research on risk assessment and remains commonly used today. However, unstructured risk assessment, sometimes called clinical prediction, is based primarily on clinicians' discretion and lacks rules that guide the risk factor selection or integration process. As such, it is vulnerable to decisional biases and widely varying quality across clinicians. For these reasons, although research supports that it can achieve statistically significant predictive levels, this differs across clinicians. Furthermore, most research indicates that it has lower reliability and predictive validity than more structured approaches to risk assessment. Therefore, a purely unstructured, discretion-based approach to risk assessment cannot form the basis of defensible risk assessment.

To increase the reliability and validity of risk assessments, researchers focused on developing and evaluating structured approaches: *actuarial decision making* and *structured professional judgment (SPJ).*

Actuarial Decision Making

The actuarial approach has a long history in psychology in terms of prediction. It is defined by the application of algorithms (equations, score cutoffs, decision rules) to the combination of risk factors to reach a predictive decision, thus improving the consistency and accuracy of such decisions. It also tends to incorporate risk factors that have been selected through empirical means (i.e., those items that add independently and incrementally to the prediction of the outcome). Therefore, at least within development samples, the risk factors used to make decisions have empirical support. Meta-analytic research suggests that actuarial prediction is more accurate than unstructured clinical prediction in approximately 50% of research studies, by about a 10% increase in hit rate.

Problems have been noted with actuarial approaches. Perhaps most important, actuarial measures that rely on statistical selection of risk factors and decision algorithms are subject to predictive degradation when used in new samples, and hence their generalizability is potentially tenuous. Therefore, cross-validation is a vital component of actuarial measure development, and evaluation and must be performed prior to the use of such measures. Furthermore, there is a tendency for actuarial methods to emphasize time-invariant risk factors that are less relevant to violence risk management and reduction aims than time-varying, or dynamic, risk factors. Because there has been a strong conceptual shift in the violence risk assessment field from a purely predictive model to a risk management or harm-reduction model, the predominantly predictive focus of some actuarial methods has been criticized. Although identifying risk level can indicate the *intensity* of necessary intervention, the failure to include risk factors that can serve as treatment targets reduces the relevance of actuarial

prediction for informing the *type* of treatment that would reduce risk. These limitations have led some researchers to express concern about this method of decision making and to develop another approach—SPJ.

Structured Professional Judgment

The SPJ approach shares some features with typical actuarial approaches, such as specifying risk factors with empirical support that are to be considered in a risk assessment and providing operational definitions and coding rules for risk factors. These features are intended to facilitate its reliability and predictive validity. However, the SPJ approach allows professional judgment at the point of making final decisions. It provides guidelines for such decisions but does not impose strict cutoffs or algorithms derived from a particular sample because of their potential predictive degradation and instability across samples. Evaluators are encouraged to consider the relevance of risk factors to the given individual being evaluated and to make decisions of low, moderate, or high risk based on the number, pattern, and relevance of such risk factors, as well as the probable degree of intervention that would be necessary to mitigate risk. The other distinguishing feature of SPJ is its explicit emphasis on risk management and the importance of bridging assessment and management. It does this through including time-varying risk factors and by providing guidelines for linking risk factors to risk management strategies, the point of which is not only to provide the means of assessing the likelihood of future violence but also to facilitate risk reduction and the prevention of future violence.

The SPJ approach has been criticized for allowing professional judgment to form part of the final decision-making process. Critics argue that this reduces its reliability and validity. However, those studies that have compared actuarial and SPJ measures or the structured judgments produced by SPJ with the numeric use of SPJ measures have generally found that SPJ decisions fare as well or better than actuarial decisions. Criticism also has been directed toward the publication of some SPJ measures prior to the accumulation of evaluation studies. Developers counter that SPJ measures are professional guidelines that are based on the empirical literature. They do not rely on empirically derived, potentially unstable algorithms that are in need of cross-validation, and hence, they do not require the same type of validation. Both arguments have merit. However, specific SPJ measures ought to have empirical support for their interrater reliability and predictive utility (of risk factors and risk judgments) prior to recommendation for use in practice.

Kevin S. Douglas and Kim Reeves

See also Civil Commitment; Classification of Violence Risk (COVR); Danger Assessment Instrument (DA); Forensic Assessment; HCR–20 for Violence Risk Assessment; Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR); Risk Assessment Approaches; Risk-Sophistication-Treatment Inventory (RSTI); Sex Offender Needs Assessment Rating (SONAR); Sex Offender Risk Appraisal Guide (SORAG); Sexual Violence Risk–20 (SVR–20); Short-Term Assessment of Risk and Treatability (START); STATIC–99 and STATIC–2002 Instruments; Structured Assessment of Violence Risk in Youth (SAVRY); Violence Risk Appraisal Guide (VRAG)

Further Readings

Baxstrom v. Herold, 383 U.S. 197 (1966).

Douglas, K. S., & Kropp, P. R. (2002). A prevention-based paradigm for violence risk assessment: Clinical and research applications. *Criminal Justice and Behavior, 29,* 617–658.

Heilbrun, K. (1997). Prediction versus management models relevant to risk assessment: The importance of legal decision-making context. *Law and Human Behavior, 21,* 347–359.

Monahan, J., Steadman, H. J., Silver, E., Appelbaum, P. S., Robbins, P. C., Mulvey, E. P., et al. (2001). *Rethinking risk assessment: The MacArthur study of mental disorder and violence.* New York: Oxford University Press.

Mulvey, E. P., & Lidz, C. W. (1995). Conditional prediction: A model for research on dangerousness to others in a new era. *International Journal of Law and Psychiatry, 18,* 129–143.

Tarasoff v. Regents of the University of California, 17 Cal.3D 425 (1976).

Voice Recognition

Voice recognition, or "earwitness" identification, has not received the amount of research or public interest that eyewitness identification has received in recent years. A 1983 survey of British legal cases, however, found more than 180 cases at that time in which voice

identifications were used as evidence. But a growing body of research suggests that the use of voice identifications in court is just as dangerous, if not more so, than reliance on eyewitness identification. Research consistently shows that voice recognition is less accurate than face recognition under similar circumstances and that the same factors that affect eyewitness reliability can also create problems for the earwitness. Potential jurors, however, often overestimate the accuracy of voice recognition in forensic contexts.

Voice Recognition in the Courtroom

Perhaps the most famous use of voice recognition evidence in a criminal trial was in the trial of Bruno Richard Hauptmann, executed in 1936 for the kidnapping and murder of the infant son of the aviator Charles Lindbergh. The Lindbergh case was called the trial of the century, and one of the most dramatic moments in the trial was when Lindbergh himself took the stand. Describing the night of the ransom drop-off 3 years before the trial, Lindbergh spoke of hearing a voice from 100 yards away while he waited in his car for a friend to hand over the ransom. When Hauptmann was arrested 29 months later, Lindbergh was brought to the police station to listen to Hauptmann repeat the words of the kidnapper: "Hey doctor! Over here, over here." Lindbergh testified under oath that he was certain that Hauptmann's voice was the voice of the kidnapper. Experts still disagree over whether the jury reached the correct verdict in finding Hauptmann guilty.

Voice identification has played a role in at least one well-publicized case of erroneous conviction in Canada. In October 1984, a 9-year-old girl named Christine Jessop disappeared from her home in Ontario and was found dead almost 3 months later. She had been stabbed to death, apparently shortly after her disappearance. The investigation quickly focused on a neighbor, Guy Paul Morin, who was arrested in April 1985. Although Morin had a strong alibi, he was brought to trial in 1986 and was initially acquitted. But in Canada, the prosecution can appeal an acquittal, and Morin was retried in 1991. The second trial lasted almost 9 months, and the second jury found Morin guilty.

Although many errors occurred in the investigation of Christine Jessop's death and the trials of Guy Paul Morin, one dramatic piece of evidence at the trial came from Christine's mother, Janet. She testified that on the night of Christine's funeral, she heard an unknown male voice crying out near her home, "Help me, help me, oh God, help me!" She later identified this voice as that of her neighbor, Morin, with whom she had spoken over the fence just a few times. The prosecution claimed that Morin experienced a fit of remorse after the funeral and cried out in emotional agony from his home. While we cannot know the role that this testimony played in the jury's decision, one thing is clear: The wrong man was ultimately convicted. DNA testing revealed several years later that Morin could not possibly be the killer, and he was exonerated in 1995. The real killer has never been found.

Earwitness Research

Morin's voice was mistakenly identified by a casual acquaintance. Lindbergh, in contrast, was called on to identify a voice that he had heard only once. Both types of identification have forensic relevance. Usually, voice identifications are made in situations in which the witness or victim was unable to see the perpetrator's face because of darkness or because the perpetrator wore a mask. Sometimes, the victim of a crime may recognize the perpetrator's voice as that of a former co-worker or even a relative. The victim tells the police that he or she recognized the voice, and the identified person becomes the main suspect. Many cases in which voice identification is used as evidence, however, involve the identification of a stranger's voice. In such cases, when a suspect has come to light, a voice lineup may be played for the witness, usually in the form of a tape-recorded series of short clips of several parties speaking. The witness is asked to indicate whether any of the voices is the voice of the perpetrator. A voice showup may also be used, in which the witness is asked to listen to only one voice and to indicate whether this voice is the voice of the perpetrator. For example, witnesses to a bank robbery in North Carolina were asked to listen to a tape-recording from a previous convenience store robbery, in an effort to gather evidence that the two crimes were committed by the same person.

Why would such identifications result in errors? As with face recognition by eyewitnesses, it is important to recognize that memory for a voice does not operate like a tape recorder or a video camera. A listener encodes certain salient features of a voice into memory (e.g., pitch, loudness, accent, or unusual pronunciation or cadence) when it is heard, but later recognition of the voice as familiar is also heavily influenced by context, expectations, and logical reasoning. For example, if you answered your telephone right now, your identification of the voice at the other end of the line would

depend partly on your actual auditory memory for voices and partly on your expectations of who might be calling you, your knowledge of people who know your phone number, and even considerations such as the time of day. And almost all of us have had the experience of picking up the telephone, expecting a particular caller, "identifying" the voice as that of a friend or relative, only to realize minutes later that the caller is actually a stranger who has dialed a wrong number.

In a typical earwitness experiment, participants listen to a recorded statement of a particular duration and may or may not be informed that they will be asked to recognize the voice later. After a period of time, the participants are exposed to a voice lineup consisting of several different voices and are asked to choose the voice that had uttered the original statement. Participants also often rate their confidence in their choice or are asked whether they are certain enough to testify in court regarding their identification. In a study by Daniel Read and Fergus Craik, for example, college students heard a series of statements, including a male target voice saying, "Help me, help me, oh God, help me!" (the words heard by Christine Jessop's mother) and were asked to rate the emotionality of each statement. They did not know that they would be asked to recognize any of the voices in the future. At a class meeting 17 days later, the same students were asked to listen to a series of 20-second, conversational utterances by 6 male speakers and to choose the one that had uttered the statement in question. The target voice was one of the voices in the lineup. Pure guessing would have resulted in a chance performance level of 17% (1 out of 6). In fact, the accuracy of the students in the study was only 20% correct, no better than chance.

Most studies also incorporate a "target-absent" lineup to measure the likelihood of a false identification when the lineup does not contain the actual perpetrator. Such research points out the danger of misidentifying an unfamiliar voice as familiar; even with a relatively lengthy exposure to a distinctive target voice, false identification rates in such a target-absent lineup can be as high as 90% to 100%.

Factors Influencing Voice Recognition Accuracy

The likelihood of correctly identifying a voice depends on a number of factors or *estimator variables*, many of which also influence eyewitness accuracy. Limited exposure to a voice can lead to decreased accuracy; the longer the time that the perpetrator spends talking, the more likely the witness is to properly encode the voice characteristics. It is important to recognize, however, that witnesses are likely to overestimate the length of time that the perpetrator spent speaking. A 30-second speech sample, for example, is typically remembered as having lasted from 90 seconds to more than 2 minutes. The amount of time that passes between initially hearing a voice and then being tested for recognition is also critical. The longer the delay between exposure and testing, the greater the chance of error becomes, particularly errors in the form of false recognitions of innocent persons' voices. Background noise can interfere with the witness's ability to encode voice characteristics. The proximity of the witness to the speaker is also important, with closer proximity being associated with greater accuracy.

The ability to see a perpetrator's face may also adversely affect the recognition of the perpetrator's voice, a phenomenon known as the face overshadowing effect. It is thought that a witness pays relatively more attention to the face when it is visible, resulting in decreased voice identification accuracy. Studies have shown, however, that instructions to pay attention to the voice do not significantly reduce the face overshadowing effect, suggesting a process that may not be under the witness's conscious control. Use of voice recognition evidence in situations where the perpetrator's face has been visible, then, is considered unreliable.

Studies of eyewitness identification consistently find superior performance in recognizing faces of one's own race as opposed to faces of another race. There is a similar finding in voice recognition research regarding accents and languages. English speakers, for example, have been shown to be more accurate in recognizing unaccented English-speaking voices than heavily accented English-speaking voices and least accurate in recognizing voices speaking in a foreign language. Language familiarity, then, has a significant positive effect on voice identification accuracy. (Gender, on the other hand, has no consistent relationship to voice recognition.)

Stress can also decrease the accuracy of voice recognition. When viewing videotaped crimes in the laboratory, research participants typically make more errors in both face and voice recognition when violent threats are made or a weapon is present. Our ability to pay attention to all aspects of our surroundings is limited under any circumstances, and under conditions of stress it becomes more limited. When threats are made, it is more important to our survival to listen to and remember the content of the spoken message rather than the vocal qualities of the speaker.

Voices may easily be disguised, further decreasing the ability of a witness to accurately recognize a voice. When a witness hears a voice raised in anger during the commission of a crime and subsequently attempts to recognize the speaker saying something in a normal tone, accuracy is decreased. Whispering is an extremely effective way to disguise a voice, because it covers up many distinctive vocal characteristics such as pitch.

Earwitness accuracy may also be related to the age of the witness. Studies tend to show that very young children are not as accurate in recognizing voices as children above 10 years of age, who often perform comparably with adults. Speaker identification accuracy also decreases after the age of 40, probably related to increases in hearing loss for older persons. Furthermore, blind persons are not superior to sighted persons in their ability to recognize voices or other natural sounds, in spite of popular opinion to the contrary.

Common sense tells us that recognizing the voice of an acquaintance, friend, or family member should be easier than recognizing the voice of a stranger. To a certain extent, research supports this conclusion. However, studies of the recognition of familiar voices find a wide range of accuracy levels, depending on the specific circumstances of the event. Although some studies find a high degree of accuracy (more than 95%) in recognizing familiar voices, studies often show accuracy rates of less than 70%, and sometimes significantly lower. Daniel Yarmey and colleagues, for example, compared participants' recognition of highly familiar voices (immediate family members or best friends), moderately familiar voices (co-workers, teammates, or friends), or low-familiarity voices (casual acquaintances) and found that accuracy for identifying voices of low and moderate familiarity was only about 65% and participants misidentified the voices of strangers as being familiar almost 40% of the time. Thus, according to Yarmey, when a witness claims to recognize a perpetrator's voice as that of a familiar person, police officers should not simply take this statement at face value but should construct a voice lineup to test the witness's ability to identify the voice in question.

Unfortunately, the most salient indicator of voice recognition accuracy for a juror is often the witness's confidence in the courtroom. Studies consistently show that voice identification accuracy is almost completely unrelated to confidence. Extremely confident witnesses are often wrong in their identification of a voice, and accurate witnesses often show little confidence in their identifications. Furthermore, jurors are likely to overestimate the likelihood of any voice identification being accurate. When psychology students, for example, are asked to estimate the percentage of accurate identifications in circumstances mirroring actual laboratory and field studies, they consistently give unrealistically high accuracy predictions. While it may not be surprising that laypersons have little knowledge of the problems associated with earwitness identification, a recent British study indicated that police officers were no more knowledgeable than the general population regarding voice recognition issues.

Voice Identification Procedures

In another parallel with eyewitness research, the use of one-person showups in voice identification has been criticized as unduly suggestive. In a study by Daniel Yarmey and his associates, a young woman approached citizens individually in a public place and interacted with them for about 15 seconds each. The participants were given a voice identification test approximately 5 minutes after the encounter. When the test was a one-person showup as opposed to a lineup to six voices, innocent suspects were significantly more likely to be identified. Accurate identifications of the real speaker's voice were rare in both conditions.

Within the United States and, for the most part, internationally, there are few standardized procedures for use in forensic voice identification. Researchers at the Netherlands Forensic Institute have proposed the development of guidelines for voice lineup construction, similar to the guidelines in use in many police departments for eyewitness lineups. They advocate a minimum of five voices in the lineup in addition to the suspect, with foils being chosen for similarity to the suspect's sex, age, accent, socioeconomic background, and vocal characteristics, such as pitch and speed of speaking. They also recommend the use of double-blind administrators and standardized instructions for the earwitness—recommendations that are becoming common in the realm of eyewitness procedure but need stronger advocacy in the voice recognition arena.

Lori R. Van Wallendael

See also Confidence in Identifications; Estimator and System Variables in Eyewitness Identification; Eyewitness Identification: Field Studies; Eyewitness Memory; Eyewitness Memory, Lay Beliefs About; Juries and Eyewitnesses; Retention Interval and Eyewitness Memory; Showups; Weapon Focus

Further Readings

Broeders, A. P. A., & van Amelsvoort, A. G. (1999). Lineup construction for forensic earwitness identification: A practical approach. In *Proceedings of the 14th International Congress of Phonetic Sciences* (pp. 1373–1376), University of California, Berkeley.

Read, D., & Craik, F. I. M. (1995). *Earwitness* identification: Some influences on voice recognition. *Journal of Experimental Psychology: Applied, 1,* 6–18.

Solan, L. M., & Tiersma, P. M. (2003, November/December). Falling on deaf ears [Electronic version]. *Legal Affairs.* Retrieved June 18, 2007, from http://www.legalaffairs.org/issues/November-December-2003/story_solan_novdec03.msp

Van Wallendael, L. R., Surace, A., & Hall-Parsons, D. (1994). "Earwitness" voice recognition: Factors affecting accuracy and impact on jurors. *Applied Cognitive Psychology, 8,* 661–677.

Yarmey, A. D. (1995). Earwitness speaker identification. *Psychology, Public Policy, and Law, 1,* 792–816.

Yarmey, A. D., Yarmey, A. L., Yarmey, M. J., & Parliament, L. (2001). Commonsense beliefs and the identification of familiar voices. *Applied Cognitive Psychology, 15,* 283–299.

Voir Dire

Voir dire is a legal proceeding during which attorneys and/or judges question prospective jurors (called *venirepersons*) to determine their fitness for jury duty. The purpose of voir dire is to uncover bias; the procedure is designed to identify and eliminate members of the venire panel who are unable to be impartial and who do not meet statutory requirements of jury service. The format and scope of voir dire questioning varies across jurisdictions and the discretion of the trial judge. Research on voir dire is limited and primarily concerns its effectiveness, the relative effectiveness of extended versus minimal voir dire, and the factors influencing juror honesty during voir dire questioning.

Purpose of Voir Dire

Voir dire, a term derived from Middle French which means "to speak the truth," is a pretrial legal proceeding. During voir dire, the members of the jury pool, known as the venire panel, are questioned by the judge, the attorneys, or both. Questioning may be directed toward the group as a whole or administered privately to individual jurors. Based on their responses to this questioning, prospective jurors are chosen for removal from the jury. The legal purpose of voir dire is to uncover any existing jury bias and to protect against the possibility that the defendant receives an unfair trial. This questioning process is designed to eliminate both jurors who do not meet the statutory requirements for jury service and those who are unable or unwilling to set aside preexisting biases and remain impartial. The Sixth Amendment of the U.S. Constitution guarantees all defendants the right to a speedy and public trial by an impartial jury of their peers, and thus the judge must determine whether service by any of the venire members would result in a constitutional violation.

The impaneling of an impartial jury requires that venire members answer demographic and attitudinal questions, as well as questions regarding their familiarity with the case, the litigants, and anyone else involved in the case. Jurors who express an inability to be impartial may be excused from jury service through a challenge for cause or a peremptory challenge. However, it is possible that the judge may alternatively attempt to "rehabilitate" biased jurors or secure public commitments that they will ignore their biases. Rehabilitation is attempted when jurors indicate that they could have difficulty remaining impartial to both sides of the case. These jurors may be asked if their preexisting attitudes will interfere with their ability to be fair and follow the law. Jurors who agree to set aside their biases and decide the verdict based on the evidence are considered "rehabilitated" and fit for jury service. Although the objective of voir dire is to identify jurors who hold opinions or biases that would make them unfit or ineligible for jury service, the voir dire proceeding may also be used for other purposes. Attorneys may attempt to ingratiate themselves with the jury, instruct the jury on the relevant law, or obtain public assurances from jury members that they can be fair during voir dire.

Procedural Elements of Voir Dire

The format of voir dire proceedings and the number and scope of voir dire questions vary widely across states and jurisdictions. The format of voir dire, the level of attorney involvement, and the nature of questioning are ultimately determined by the trial judge. In some instances, only minimal voir dire is allowed, and the judge conducts all questioning of the venire panel; attorneys have a minor role, and questioning is typically conducted in a formal manner. In addition, the questions are superficial in nature and primarily concern the

prospective jurors' ability to serve as impartial jurors. Federal court adheres to this format of voir dire. Extended voir dire typically allows for a greater number of questions, more case-specific questions, and greater involvement of the attorneys in the questioning. The questioning format also varies according to the discretion of the judge. Questions may be posed to the venire members as a group, or members of the venire panel may be questioned individually, out of earshot from the remainder of the panel.

Attorneys from each side of the case may recommend the elimination of venire members by issuing an objection to a particular prospective juror's presence on the jury in the form of a challenge. There are two categories of challenges: challenges for cause and peremptory challenges. The trial judge is responsible for either granting or denying both types of challenges.

When issuing a challenge for cause, an attorney must communicate to the Court the justification for the challenge. The challenges for cause are intended to eliminate prospective jurors who do not meet the legal requirements for jury service. For example, federal law mandates that jurors must be 18 years or older and U.S. citizens to serve on a jury. In addition, impartiality is another requirement for jury service; jurors must agree to set aside preexisting opinions and promise to decide the case based solely on the evidence presented during trial. Thus, challenges for cause are designed both to eliminate jurors who do not fit the statutory requirements of jury service and to excuse those who express an inability or unwillingness to follow the law in a given case. Both prosecutors and defense attorneys are granted an unlimited number of challenges for cause.

The second mechanism for removing members of the venire panel is through the use of peremptory challenges. The peremptory challenge differs from a challenge for cause in that attorneys are not routinely required to provide justification for the objection. Peremptory challenges may be used to excuse prospective jurors who meet the legal requirements for jury service. Indeed, an attorney may expend a peremptory challenge to excuse a prospective juror whom the attorney believes to be unfavorable to their case but who is not eligible for an excusal for cause. With some exceptions, attorneys may base peremptory challenges on any number of factors, including occupation, physical appearance, and even nonverbal behavior in the courtroom. The number of peremptory challenges allotted to attorneys is limited, and attorneys are usually granted a greater number in high-profile cases. In addition, in some cases, defense attorneys may receive more peremptory challenges than prosecuting attorneys. There are some restrictions to an attorney's use of peremptory challenges, however. Peremptory challenges may not be used to excuse a member of the venire panel because he or she is a member of a cognizable group. Case law maintains that jurors may not be excluded based on their race (*Batson v. Kentucky*, 1968), sexual orientation (*People v. Garcia*, 2000), gender (*J.E.B. v. Alabama ex rel. T.B.*, 1994), religion (*State v. Fulton*, 1991), or socioeconomic status (*Thiel v. Southern Pacific Co.*, 1946). Despite these rulings, limiting the implementation of peremptory challenges, it is widely acknowledged that the inappropriate use of peremptory challenges, especially with regard to the race or ethnicity of prospective jurors, still occurs.

Voir Dire as a Safeguard

Voir dire is widely considered to be a legal safeguard, helping ensure that verdict decisions are based on evidentiary considerations and not the preexisting attitudes of individual jurors. Voir dire is especially important in cases in which there are concerns about the existence of juror partiality, such as cases that have received a great deal of pretrial media attention. In these types of cases, jurors may hold attitudes that could interfere with their ability to weigh the evidence in a fair manner. For example, if jurors have been exposed to media coverage of a case, it is possible that they may have already formed opinions about the guilt of the defendant prior to the trial. Similarly, research has demonstrated that there are certain types of cases about which jurors have strong attitudes, such as death penalty and child sexual abuse cases as well as cases in which a defendant enters an insanity plea. Research has demonstrated that attitudes toward the death penalty and attitudes toward the insanity defense are related to verdicts in these types of cases. For example, research indicates that jurors who are proponents of the death penalty are more likely to render a guilty verdict than jurors who are opposed to the death penalty. This research indicates that for cases in which jurors hold biases or strong preexisting attitudes, juror judgments are not solely based on the strength of evidence.

For voir dire to be an effective procedure for eliminating biased jurors from the panel, several conditions must be met. First, attorneys must be able to construct questions that accurately assess juror attitudes and tap into juror bias. In addition, jurors' attitudes must be related to their verdict decisions. Finally, jurors must respond honestly to questions posed to them during voir dire.

Research on the Format and Effectiveness of Voir Dire

Perceptions and opinions about the voir dire procedure are mixed; while some have described it as an essential part of the trial process, others claim that the time and financial resources consumed by this process contribute to a lack of efficiency in the legal system. As the Sixth Amendment guarantees each criminal defendant the right to an impartial jury, it seems certain that some form of voir dire is a legal necessity to assess the venire panel for preexisting biases. However, some critics maintain that the information obtained during the voir dire process is not sufficient or appropriate for identifying juror bias. Therefore, many have argued for a reduction in both the time and scope of voir dire and attorney involvement in the process. Although research on actual voir dire proceedings is limited, an observational study of voir dire in four felony cases found that approximately half the discussion during voir dire concerned jurors' ability to fulfill their role and remain impartial. The findings in this study suggest that attorneys can be effective at challenging members of the venire panel, who are generally biased against their side. However, it is premature to draw conclusions based on these data as the sample of cases observed was very small.

In addition to debate over voir dire in general, there is controversy concerning the length and scope of voir dire and the level of attorney participation. Proponents of extended voir dire claim that it is necessary to adequately assess juror bias and to provide both parties with enough information to properly exercise peremptory challenges. However, critics of extended voir dire argue that it wastes valuable time and monetary resources in light of the nation's large backlog of cases. These critics argue for minimal voir dire and limited attorney involvement and claim that the high status of judges and the serious nature that surrounds the questioning will encourage jurors to be forthcoming with information. In addition, opponents of extended voir dire claim that attorneys abuse the voir dire procedure by using it for purposes other than assessing juror bias. Indeed, according to critics, these inappropriate uses include ingratiation and establishing rapport with the jury, obtaining public commitments from jurors prior to the start of the trial, and prematurely presenting case arguments. The most central critique of extended voir dire is that it does not result in a more effective elimination of biased jurors than does minimal voir dire. In addition, although extended voir dire has been shown to reduce perceptions of defendant culpability compared with minimal voir dire after juror exposure to pretrial publicity, research has failed to find evidence that extended voir dire is superior to minimal voir dire in reducing the biasing impact of pretrial publicity on juror judgments.

Despite the failure to demonstrate the superiority of extended voir dire over minimal voir dire as a safeguard, there is evidence to suggest that extended voir dire may be the preferable format for obtaining honest answers from jurors. Although it is possible that minimal voir dire in which a judge conducts the questioning may be more efficient than extended voir dire in terms of time and cost, existing data suggest that judge-conducted voir dire may be less likely to assist in the identification of biased jurors than attorney-conducted voir dire. Mock jury research has demonstrated that participants are more honest and forthcoming when voir dire questioning is performed by an attorney rather than by a judge. This finding is also supported by research on information disclosure in interview settings, which demonstrates that when there is a great amount of social distance between the interviewer and the interviewee, the interviewee may feel pressure to respond in an "acceptable" manner rather than responding honestly. The status differential between judges and jurors is larger than that between attorneys and jurors, suggesting that prospective jurors would be more likely to provide honest responses to questioning by attorneys rather than by a judge. Attorneys are free to move around the courtroom and decrease their physical distance from the venire panel, whereas the large social distance between judges and prospective jurors is exacerbated by the placement of the judge behind the elevated bench.

In addition, research on social interactions also demonstrates that people are more willing to disclose information to people who appear friendly and warm than to those who seem detached and reserved. Judges are compelled by their role to maintain a formal and proper demeanor during trial proceedings, and although they may act in a kindly manner toward the venire members, it would be inappropriate for judges to attempt to curry favor with the jurors. Conversely, attorneys may take advantage of their partisan role and act in a warm, friendly, and sociable manner toward the venire panel. This type of behavior toward the prospective jurors may also work to limit the perceived social distance between attorneys and jurors and to increase disclosure and honesty during voir dire.

Although attorney-conducted voir dire may be a mechanism for eliciting honest information from

jurors, there are other obstacles that may impede juror honesty during voir dire. There are several features of voir dire that may serve as demand characteristics, or aspects of the situation that communicate to jurors what behavior is considered appropriate and acceptable. For example, the situational aspects of voir dire communicate to prospective jurors that the judge is in a position of authority, and it is likely that the high status of the judge makes the norm to obey authority salient in this situation. The judge is dressed in a ceremonial black robe, seated at an elevated bench, and addressed as "Your Honor," highlighting his or her elevated status and official role. Stanley Milgram's classic research on obedience to authority has demonstrated the potential for this social norm to influence behavior. In addition, several aspects of the voir dire setting communicate the seriousness of the procedure. The courtroom setting is formal and ritualistic. It is likely that ideals such as fairness and impartiality are made salient by the situational aspects of the voir dire procedure. As jurors most likely agree with these ideals, it may be difficult for biased jurors to admit their biases in response to questioning by a judge.

The expectations that attorneys and judges have about jurors' level of preexisting bias may influence the manner in which they question prospective jurors and influence juror honesty. This is known as the experimenter expectancy effect. Research in this area suggests that when experimenters have a prediction about the results of an experiment, this prediction can be unconsciously communicated to participants, which generates hypothesis-confirming behavior from the participants. It is possible that because judges must ignore their personal biases when presiding over a case, they believe that jurors also possess the ability to put aside preexisting prejudices for the trial. Thus, it is possible that if judges expect that jurors will be impartial, this expectation could be inadvertently communicated to jurors, resulting in dishonest answers from the prospective jurors in response to questioning.

As mentioned earlier, for voir dire questioning to be effective in allowing for the elimination of biased jurors from the venire panel, jurors must answer the questions posed to them during voir dire honestly. However, during voir dire, the common legal practice of juror rehabilitation may be an additional impediment to the honest reporting of juror bias during voir dire. Indeed, when prospective jurors admit to harboring bias, the judge often asks if they can put their biases aside and decide the case based on the evidence. The Supreme Court ruling in *Mu'min v. Virginia* (1991) simply requires an affirmative response to these questions to demonstrate juror impartiality. Other rehabilitation tactics include reminding the prospective jurors of the grave importance of their civic duty and that the law requires jurors to ignore all preexisting biases and opinions. It is possible that prospective jurors feel pressure to comply with a request from the judge and are uncomfortable reporting that they would be unable to be fair and impartial. It is likely that prospective jurors find it difficult to respond honestly to inquiries about bias.

Caroline B. Crocker, F. Caitlin Sothmann, and Margaret Bull Kovera

See also Jury Selection; Scientific Jury Selection

Further Readings

Batson v. Kentucky, 391 U.S. 145 (1968).

J.E.B. v. Alabama ex rel. T.B., 511 U.S. 127 (1994).

Jones, S. E. (1987). Judge- versus attorney-conducted voir dire: An empirical investigation of juror candor. *Law and Human Behavior, 11,* 131–146.

Kovera, M. B., Dickinson, J. J., & Cutler, B. L. (2003). Voir dire and jury selection. In A. M. Goldstein (Ed.), *Handbook of psychology: Vol. 11. Forensic psychology* (pp. 161–175). New York: Wiley.

Marshall, L. L., & Smith, A. (1985). The effects of demand characteristics, evaluation anxiety, and expectancy on juror honesty during voir dire. *Journal of Psychology, 120,* 205–217.

Mu'min v. Virginia, 501 U.S. 415 (1991).

People v. Garcia, 92 Cal. Rptr.2d 339 (Cal. App. 2000).

State v. Fulton, 57 Ohio St.3d 120 (Ohio 1991).

Suggs, D., & Sales, B. D. (1981). Juror self-disclosure in the voir dire: A social science analysis. *Indiana Law Journal, 56,* 245–271.

Thiel v. Southern Pacific Co., 328 U.S. 217 (1946).

W

Waiver to Criminal Court

Juvenile transfer to adult court is the process by which some youths who are viewed by juvenile court judges as inappropriate for the juvenile justice system are transferred to adult court. The decisions to transfer a youth to adult court are typically based on concerns about public safety balanced against considerations of youth development. The rationale for waiver is fourfold: (1) separate severely antisocial from amenable youths, (2) ensure public safety, (3) remove youths unlikely to be amenable within the juvenile court time frame, and (4) hold mature adolescents accountable for their conduct. There are various mechanisms for waiver, including juvenile waiver, prosecutorial filing, and automatic and reverse transfer. The standards applied in each transfer mechanism are typically based on the criteria outlined by Judge Abe Fortas in *Kent v. United States* (1966). These standards are used by judges in determining whether a youth should be transferred to adult court.

Since the inception of the new juvenile justice system, psychology has played a role in the evaluation of juvenile offenders. Psychology's link to the waiver process is important because it increases the likelihood that individual characteristics will be considered prior to waiving jurisdiction of youth. An important component of the evaluation is for mental health professionals to suggest what types of treatment might allow for prosocial change. With respect to policy, psychologists can inform the courts about new mechanisms or ways of processing and treating severe offenders that would allow for potential change in their problem behavior and their healthy development.

This entry discusses the rationale for waiver, the various mechanisms for waiver, the standards that are applied by judges in determining whether a youth should be transferred to adult court, and the criteria that underlie each standard. In addition, it describes the relationship between psychology and the waiver process and highlights the contribution to evaluation that mental health professionals can make by suggesting what types of treatment might allow for positive change. Psychology can also help inform policy on the waiver process.

Historical Purposes of Waiver of Jurisdiction

The rationale for and the juvenile court's interest in upward waiver for certain juvenile offenders is fourfold. First, the juvenile justice system was initiated to rehabilitate delinquent youths. Transfer mechanisms have always been available to avoid the inclusion of youths whose potential dangerousness might detract from the rehabilitative efforts of programs that were designed to benefit errant children and adolescents. Thus, the waiver mechanism was used as a safety valve to remove certain youths who were thought to detract from a system that was intended to treat and improve youths who were believed to be amenable to intervention.

Second, the juvenile justice system is responsible for protecting the public. In most states, the juvenile justice system must release youths in its custody when they reach a certain age (typically 17 or 18 years), depending on the laws pertaining to particular offenses. If it is thought that a juvenile is unlikely to be rehabilitated prior to turning 18 (the most common age after which

the juvenile justice system no longer has jurisdiction), the law allows juvenile court judges to waive jurisdiction. This then alleviates any potential threat the child or adolescent might pose to public safety with regard to escape from less secure facilities or at the time of mandatory release.

Third, when a youth's rehabilitation is considered unlikely, it has been argued that the state has an interest in avoiding the use of its limited rehabilitation resources. Historically, waiver has been an acceptable legal mechanism for avoiding the use of existing resources when even the usually effective treatments would be unlikely to result in rehabilitation. However, the courts are also expected to think of creative ways to help youths change their behavior.

Fourth, until the waiver and transfer laws were enacted, it was legally presumed that all juveniles below a certain age (typically 18 years) were insufficiently mature to be held criminally responsible for their antisocial acts. Youths below this age were automatically treated as juveniles under the parens patriae philosophy. This guiding principle remains as a presumption, but one that is debatable depending on the juvenile's level of maturity. Thus, juveniles may be transferred if they are viewed as mature participants in a criminal act. Maturity is often considered in conjunction with risk of future offending and treatment amenability.

Mechanisms for Transfer: Routes to and From Juvenile Courts

There are different mechanisms by which the justice system achieves transfer. Transfer mechanisms can be grouped into three categories: judicial (upward) waiver, statutory exclusion, and direct file. Transfer mechanisms are determined by state law, and states may use any combination of mechanisms to meet perceived societal needs and policy goals.

Judicial waiver is the most common method for transferring cases to adult criminal court, with 45 states allowing for transfer of certain types of cases on the basis of juvenile court judges' decisions about the appropriateness of transfer. Under this method, juvenile court judges make a determination as to whether the juvenile should be tried in juvenile court or transferred to adult court. Juvenile court judges may consider a range of factors in making this decision, including psychological evaluations that address the psychological characteristics of the youth as they pertain to *Kent* criteria.

Two other mechanisms by which youths may be transferred to criminal court for trial exist. These mechanisms, which were introduced in the 1990s, include statutory exclusion and prosecutorial direct file. At present, 29 states provide a statutory exclusion. In these states, offenders above a certain age or accused of certain types of crime (serious offenses such as murder and assault) are automatically outside the jurisdiction of the juvenile court. In these cases, the charge is filed directly in adult criminal court without any input from juvenile court judges, a formal juvenile hearing, or an evaluation of the youth's characteristics. This mechanism, which is available in 25 states, removes the discretion of the juvenile court judges from the transfer process entirely.

The second transfer mechanism, which was adopted in 15 states in the late 1980s and early 1990s, is called prosecutorial direct file. This mechanism allows prosecutors to file charges against youths in either juvenile or criminal court for certain types of offenses. Similar to automatic transfer, prosecutorial direct file does not allow for a hearing at the juvenile level, nor is there any evaluation of the youth prior to the prosecutor's filing of the case directly in adult criminal court. Recent estimates of the percentage of juveniles transferred to adult court under each type of transfer indicate that although newer routes have been introduced, judicial transfer from juvenile courts remains a relatively common mechanism for transfer. Waiver rates differ based on the types of crimes committed and what is occurring in various communities with respect to the level of juvenile violence.

A protective transfer mechanism is now in place in some states if a decision error occurs during the transfer process. In some states where criminal courts receive transferred youths by statutory exclusion or direct file, judges may view the youths as amenable to treatment in the juvenile justice system and/or possibly too immature to be processed in adult criminal court; at this point, juvenile court judges have the opportunity to reverse the transfer or decertify the youths. This option is available in 25 states and serves as a safety net for youths who are inappropriately transferred to criminal court. It is interesting that in some states where judicial transfer from juvenile courts (upward waiver) is used, reverse transfer is an option. However, this special case of the reverse transfer is rare and only occurs in 6 states. In sum, the reverse transfer process, available in 25 states, serves as a protective mechanism for youths who are inappropriately transferred to adult courts (e.g., if they are immature, amenable to treatment, or incompetent to stand trial); however, this mechanism typically requires that some authority (attorney and/or the

judge) recognize the decision error and plan a pretrial hearing in criminal court, which then allows the criminal court judge to transfer jurisdiction and send the youths back to juvenile court.

There is also the potential for blended sentencing, wherein the trial occurs in one setting, but sentencing occurs in a different setting or combination of settings. Such a system may result in the imposition of both juvenile and criminal sanctions for the same offense. All these mechanisms are attempts to balance the need for protecting society against the recognition that children may possess diminished capacity compared with adults and therefore deserve a judicial process that takes such factors into account.

Legal Standards for Transfer to Adult Court

With each of the mechanisms for transfer, it is required that the judge apply a "standard" to determine whether or not the youth should be tried in adult court. The laws controlling waiver of court jurisdiction require hearings to address whether evidence supports the statutory criteria for waiver. Many states have two to three levels of legal standards for waiver of jurisdiction. The first is a set of simple threshold conditions that must be met before going further (e.g., age, being charged with a certain offense, having a special history of prior offenses). If the threshold measures are met, then courts in most states can proceed to the point at which they apply one of typically three standards, which are often referred to as (1) *public safety* or *danger to others,* (2) *amenability to rehabilitation,* and (3) *the best interest of the child/community.* Many of these standards have a similar meaning. Specifically, they are attempting to balance the development of the youth against the protection of society. For instance, the *danger to others* standard requires that youths not be waived to criminal court unless they present a serious risk of harm to others. The same standard would generally be applied in reverse waiver (requiring that the youth not present a serious risk of harm if the waiver were approved). The amenability to rehabilitation standard allows the court to waive jurisdiction and remand the youth for criminal court trial only if the youth is found to be not amenable to rehabilitation within the resources of the juvenile court (as stated in *Kent v. United States*) and/or "is not a fit and proper subject" for juvenile custody. Each of these criteria mentioned above are drawn from the eight criteria listed in *Kent v. United States*. The best interest of the child/community standard requires that the juvenile court judge consider issues such as dangerousness and amenability and attempt to provide the best placement for the youth. Finally, it appears that increasingly states do not list a broader standard but rather list the specific *Kent*-like criteria to be considered before transferring a youth to adult court. All three standards exist because of a concern for risk of harm to the public.

Criteria Underpinning the Standards: The *Kent* Criteria

Under each standard within state statutes, there is a set of criteria that judges consider to address the legal standard. Many of these factors listed in state statutes mimic *Kent* criteria. Specifically, in *Kent v. United States*, the U.S. Supreme Court recommended eight factors, and most states have etched some permutation of these factors into the statutes or case law. The *Kent* criteria can be separated into straightforward legal criteria and others that are psychological or psycholegal in content. For example, some *Kent* criteria—such as whether the case has prosecutorial merit or the desirability of trial in criminal court because the case involves adult associates—are primarily factors that the judges can easily determine without any psychological input. Therefore, forensic clinicians do not need to provide input pertaining to direct legal factors. Other elements of *Kent* that concern danger to others, sophistication maturity, and amenability to treatment are pertinent psychological constructs for which judges often request psychological evaluations and input.

Psychology's Link to Juvenile Waiver Considerations

Historically, clinical forensic psychologists have been central participants in the evaluation of youths who were facing transfer. Psychologists are often asked to provide information about the risk the youths pose to society, their level of maturity, and the degree to which they are amenable to treatment. If the youths are amenable, psychological reports and/or testimony then are responsible for providing a road map for change and, in relation, recommend where this change could occur. Traditionally, these questions have been answered by clinical interview alone. More recently, juvenile assessment tools have been designed for the assessment of young offenders that may be helpful in guiding assessment in this area. For example, the Structured Assessment of Violence Risk for Youth, the Youth Level of Service/Case Management Inventory

(YLS/CMI), and the Risk-Sophistication-Treatment Inventory (RSTI) are all measures that could be used to examine youths and provide information that is relevant to the courts regarding youths who are being evaluated by the courts. In addition to these measures, Thomas Grisso also provides a structure for the evaluations that might be used. While the aforementioned measures provide structure to the evaluation process, they do not supplant the need for extensive knowledge about adolescent development and the need to keep abreast of the current literatures on transfer, risk of violence in youth, maturity, and treatment amenability.

The role of psychology in the waiver of youths has been substantial for two primary reasons. First, psychologists are able to provide relevant psychological information on youths that allows for the individual assessment of youths rather than automatic or direct file procedures that do not consider individual differences. In addition, psychologists' reports and testimony provide an opportunity not only to describe the youths but also to determine and delineate what needs to change.

Second, the role of psychology has been to aid in the eventual development of policy. Research and scholarly papers thus far have suggested that one way to improve transfer evaluations is to have the evaluations conducted frequently. At present, single-point predictions are limited because they capture the youth at one moment in time but do not incorporate future data. This may not be particularly helpful as the youth grows. Thus, the concepts of youth violence prevention, management, and treatment need to be infused into contemporary thinking on juvenile evaluations by juvenile and adult court decision makers. This conceptual development suggests the need for identifying, measuring, and monitoring changeable risk and readiness for treatment factors in youth because these factors are the most promising targets for reducing problem behavior in youth. Maturity and amenability are two concepts that are changeable and may affect the potential for problem behavior in youth over time, but single-point predictions do not allow for the development of these concepts over time. One such policy change might be to adopt the blended sentence option more frequently so that youths can be monitored over longer periods of time before making an ultimate decision about transfer.

Randall T. Salekin, Christie A. Ledbetter, Nicole M. Johnson, and Jessica Morgan

See also Conduct Disorder; Juvenile Offenders; Risk-Sophistication-Treatment Inventory (RSTI)

Further Readings

Brannen, D. N., Salekin, R. T., Zapf, P. A., Salekin, K. L., Kubak, F. A., & DeCoster, J. (2006). Transfer of youth to adult courts: A national study of how juvenile court judges weigh pertinent *Kent* factors. *Psychology, Public Policy, and Law, 12,* 332–355.

Kent v. United States, 383 U.S. 541 (1966).

Salekin, R. T. (2002). Juvenile waiver to adult court: How can developmental and child psychology inform policy decision making. In B. Bottoms, M. B. Kovera, & B. McAuliff (Eds.), *Children and the law: Social science and U.S. law* (pp. 203–232). Cambridge, UK: Cambridge University Press.

Salekin, R. T., Yff, R. M. A., Neumann, C. S., Leistico, A. R., & Zalot, A. A. (2002). Juvenile transfer to adult courts: A look at the prototypes for dangerousness, sophistication-maturity, and amenability to treatment through a legal lens. *Psychology, Public Policy, and Law, 8,* 373–410.

Snyder, H. N., & Sickmund, M. (2006). *Juvenile offenders and victims: 2006 national report.* Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Weapon Focus

The weapon focus effect is the tendency for witnesses who observe an armed criminal to direct their attention toward the weapon so that they fail to encode and remember information about the perpetrator's physical appearance as accurately as they would have if no weapon had been visible. This effect can have important consequences for the investigation of a crime, as the police often rely on witnesses' descriptions of a perpetrator as they attempt to identify a suspect.

In lab experiments investigating weapon focus, researchers typically expose participant-witnesses to slide sequences, videos, or live enactments in which a target person holds a weapon (in the experimental condition) or a neutral object (in the control condition), although sometimes in the control condition the target is empty-handed. Several kinds of weapons have produced the effect, including a handgun, carving knife, switchblade knife, meat cleaver, liquor bottle, and syringe. Usually witnesses' performance in a condition

with a completely visible weapon is compared with performance in a condition with no weapon, but in some studies researchers have manipulated the amount of exposure time or the degree of visibility.

The primary dependent variable, witnesses' memory of the target's appearance, has been measured using two different methods. First, witnesses may attempt to describe the target's physical features (e.g., height, hair color) and clothing by responding to open-ended or multiple-choice questions. Many studies have demonstrated that a weapon's presence impairs the accuracy of witnesses' descriptions. A second method is to ask witnesses to identify the target in a lineup. The weapon's influence on this less sensitive measure is weaker, with a few experiments reporting null results.

Although memory of the target's appearance is the main interest in most studies, a weapon's presence can harm the ability to remember other aspects of the target as well. For example, witnesses exposed to a weapon may find it more difficult than controls to recall the semantic content of verbal statements made by the target.

If witnesses in the experimental condition focus on the weapon to a greater extent than controls focus on the neutral object, one might expect this difference to be revealed by eye movements and by memory for the object. Consistent with these expectations, researchers found that witnesses made more frequent and longer eye fixations on an object held by a target in a slide sequence if that object was a gun rather than a nonweapon. Additionally, although only a few studies have investigated memory for the object, those that do exist generally indicate that witnesses can identify and describe a weapon better than a neutral object.

Some researchers have used field studies rather than lab experiments to explore the weapon focus effect, usually by interviewing witnesses to actual crimes or examining police reports. Some, though not all, of these investigations have yielded null results. Perhaps these findings are at odds with those obtained in lab experiments because field studies are more realistic. Alternatively, the discrepancy could be attributed to field researchers' difficulty in surmounting daunting methodological obstacles. For example, determining the accuracy of witnesses' reports is problematic because there is often no complete, objective record of the scene they observed. Also, researchers must struggle to eliminate potential confounds with the weapon's presence, such as exposure time, retention interval, the witness's vantage point, the perpetrator's behavior, and differences in police response (e.g., the police might question witnesses to crimes involving weapons more thoroughly than witnesses to weaponless crimes). Nevertheless, field studies are a valuable complement to lab research, and they offer the possibility of greater ecological validity.

Two different explanations for the weapon focus effect have been discussed in the literature. The first interprets it as a consequence of the psychological arousal or anxiety that the sight of a weapon is supposed to create. The idea is that as a witness's anxiety rises to a point above the optimal level, attentional capacity shrinks so that the witness focuses mostly on central cues (e.g., the weapon, because it is the source of the anxiety) at the expense of peripheral cues (e.g., the perpetrator's clothing and facial features). This hypothesis is contradicted by several findings: Memory of the target is not affected by (a) the level of threat that the armed target directs toward another person, (b) the degree of threat associated with the object held by the target, or (c) having a confederate holding a syringe threaten the witnesses by telling them that they would receive an injection as part of the experiment. Moreover, the weapon focus effect occurs even when witnesses rate their anxiety as low.

An alternative explanation proposes that weapons seem unusual or unexpected within many contexts. Furthermore, it is known that unusual objects within visual scenes attract attention. Consistent with this account, research has shown that an unusual object, such as a stalk of celery or a toy Pillsbury doughboy, can have the same impact on memory of the target as a weapon.

One prediction that follows from the unusualness explanation is that a weapon should fail to elicit the typical weapon focus effect if it appears within a context in which weapons would be expected. For example, a gun held by a target at a shooting range would not be out of place. A test of this prediction revealed that, as hypothesized, a weapon focus effect did not occur in that setting.

An interesting question with both theoretical and practical implications concerns the mechanism by which weapons attract attention. Specifically, do weapons capture attention automatically? If so, witnesses would have relatively little awareness of and control over their attentional focus. However, if the answer is no, potential witnesses (e.g., bank tellers and convenience-store workers) could perhaps receive training that educates them about the weapon focus effect and teaches them to watch the perpetrator rather than the weapon as a crime unfolds. Recent data suggest that educated

witnesses can overcome the weapon focus effect, which implies that weapons probably do not capture attention automatically.

Kerri L. Pickel

See also Estimator and System Variables in Eyewitness Identification; Eyewitness Descriptions, Accuracy of; Juries and Eyewitnesses; Juries and Joined Trials; Stress and Eyewitness Memory

Further Readings

Loftus, E. F., Loftus, G. R., & Messo, J. (1987). Some facts about "weapon focus." *Law and Human Behavior, 11*(1), 55–62.

Pickel, K. L. (1999). The influence of context on the "weapon focus" effect. *Law and Human Behavior, 23*(3), 299–311.

Steblay, N. M. (1992). A meta-analytic review of the weapon focus effect. *Law and Human Behavior, 16*(4), 413–424.

WITNESS Model

Formal (mathematical and computer simulation) models have been developed and applied in a wide range of areas in psychology. The application of formal models can be helpful for clarifying theoretical assumptions, generating precise predictions, and testing the adequacy of theoretical explanations by comparing theory-generated predictions with human-generated data. This entry describes a computational model called the WITNESS model that has been developed for eyewitness identification. The WITNESS model assumes that lineup members are compared with an error-prone memory representation of the perpetrator and that identification decisions are based on a weighted combination of absolute and relative match information.

Eyewitness identification research has a clear and immediate real-world application. Given the converging evidence that mistaken identification is the primary factor contributing to wrongful conviction, it is important to understand the causes of mistaken identification and develop techniques to minimize its occurrence. Toward that end, eyewitness identification research has provided several important insights into the factors that cause or are associated with eyewitness errors and has been instrumental in efforts to reform the procedures by which identification evidence is obtained.

It is also important to understand the psychological processes that underlie eyewitness identification decisions and errors. Here, the questions are not about what happens, but rather *why what happens happens.* Toward that end, it can be useful to develop and test comprehensive, mathematical models of the memory and decision processes that underlie eyewitness identification. One model that has recently been developed for eyewitness identification decisions is called the WITNESS model. This entry will present a brief overview of the WITNESS model and how it is applied to eyewitness identification.

The WITNESS Model

The WITNESS model makes a few simple assumptions about the memory and decision processes that underlie identification decisions and produces response probabilities that can be compared with data. The comparison between responses generated by the model and responses generated by human witnesses provides a means of evaluating the assumptions of the model.

These assumptions are straightforward. First, the model assumes that any event or stimulus may be represented as a vector of features, $f_1, f_2, f_3, \ldots, f_M$. For eyewitness identification, the critical stimulus is the perpetrator of the crime, represented in the model as a vector $\mathbf{P}$. Memory, denoted as a vector $\mathbf{M}$, is an incomplete and error-prone representation of the perpetrator. Specifically, in the model, a given feature of the perpetrator $\mathbf{P}_j$ is stored correctly with probability s and stored incorrectly with probability $1 - s$.

Lineup members are also represented as vectors of features. An important aspect of eyewitness identification generally and the WITNESS model specifically concerns the similarity relationships between lineup members (denoted by vectors $\mathbf{L}_1, \mathbf{L}_2, \mathbf{L}_3, \ldots, \mathbf{L}_N$), the perpetrator ($\mathbf{P}$), and the witness's memory of the perpetrator ($\mathbf{M}$).

According to the model, when the lineup is presented, the witness compares each lineup member with his or her memory of the perpetrator. The result of this comparison process is a number of match values, each one indicating the similarity between lineup member ($\mathbf{L}_i$) and the witness's memory ($\mathbf{M}$) of the perpetrator, denoted $m(\mathbf{L}_i, \mathbf{M})$. Thus, for a six-person lineup, there will be six match values.

Of course, these match values do not specify the decision that the witness will make. The witness must apply a decision rule that considers the match values

so as to make a decision. In the WITNESS model, the decision to make an identification is based on the best match and the next best match. Specifically, the evidence in favor of identifying the best match is given by a weighted combination of the value of the best match and the difference between the best match and the next best match. This is illustrated below as

$$EV_{ID} = w_b(\text{BEST}) + w_{b-n}(\text{BEST} - \text{NEXT}),$$

where BEST is the value of the best-matching lineup member and BEST − NEXT is the difference between the best-matching and the next best-matching lineup member. Thus, a person may be identified if he or she is a very good match to memory or if he or she is a much better match than anyone else in the lineup. These two ways of making an identification are similar to the distinction between absolute versus relative judgments made by Gary Wells in 1984. The degree to which the identification is based on absolute versus relative judgments depends on the values of the weights w_b and w_{b-n} (where w_b and w_{b-n} must sum to 1.0). A high value of w_b is consistent with an absolute judgment, whereas a high value of w_{b-n} is consistent with a relative judgment. According to the model, the witness makes an identification if EV_{ID} is above a criterion c and makes no identification if EV_{ID} is below c.

Applications of the WITNESS Model

In fitting the WITNESS model (or any model) to data, the model's parameters are free to vary. Of course, the parameters should vary in ways that are sensible. A few examples of how the model's parameters vary with experimental manipulations are illustrated below.

Observation and Memory

The changes in the conditions of observation and memory are produced in the model by variation in the storage parameter *s*. The value of *s* will be higher to the extent that the witness has a better opportunity to view the perpetrator, and the delay between the crime and the presentation of the lineup is shorter. Thus, values of *s* reflect both the failure to store information in memory at the time of the observation and the failure to retain that information over time. When there is less accurate information about the perpetrator in memory, the match values become noisy and converge, making it less likely that the witness will correctly identify the perpetrator and more likely that the witness will identify an innocent person. Any factor that affects the storage or loss of information in memory would be modeled in terms of lower values of *s,* including shorter exposure durations, longer retention intervals, high levels of stress and fear, and distraction due to weapon focus effects.

Lineup Composition

Police officers usually select foils (innocent persons in a lineup) based on their similarity to the suspect in the lineup. In the model, the critical parameter is $S(F, S)$—that is, the similarity between the foils and the suspect. Specifically, $S(F, S)$ is the proportion of features shared by both the suspect and the foil. The suspect should be more likely to be identified when $S(F, S)$ is low and less likely to be identified when $S(F, S)$ is high. In the extreme, the model predicts that if $S(F, S)$ is very low, the suspect may be very likely to be identified, whether he or she is guilty or not.

Lineup Instructions

Because the suspect may be innocent, it is important to instruct the witness that the true perpetrator may or may not be in the lineup and that the witness is not obligated to make an identification. These instructions are called *unbiased* because they are unbiased with respect to the guilt or innocence of the suspect. A *biased* instruction implies or explicitly states that the perpetrator *is* in the lineup and that it is for the witness to identify him or her (disallowing a "None of the above" response). It is not surprising that biased instructions result in a higher identification rate, irrespective of whether the suspect is guilty or innocent. The problem, of course, is that as the identification rate increases (without any change in the accuracy of memory), the likelihood that an innocent person will be misidentified also increases.

One way to model the effect of instructions is to lower the value of c (the decision criterion) for biased instructions and raise it for unbiased instructions. However, it is not the only way to model instruction effects. One could assume that biased instructions result in changes in the weights. For example, the biased instructions could have their effect by inducing witnesses to make identifications even if the best match is not that high, provided that he or she is a better match than anyone else in the lineup. In the model, this shift would be instantiated as a decrease in w_b and an increase in w_{b-n}.

The Importance of Mathematical Models

Why is it important to develop mathematical models for eyewitness identification? Mathematical and computational models can be particularly useful when the behavior of interest arises from the confluence of many complex, underlying processes. Eyewitness identification decisions certainly fit that description. For example, a witness's identification accuracy may change with the passage of time, not only because information is lost from memory but also because the witness may make adjustments in his or her decision processes (e.g., lowering the decision criterion as match values drop due to the loss of information over time).

Also, models provide a way of evaluating ideas within a common framework. As noted earlier, when a witness is given biased instructions, the change in the witness's willingness to make an identification could be due to a change in decision criterion or a change in the balance of absolute and relative information used to make the decision. Competing explanations can be compared within the model to see which explanation gives the best account of the experimental results.

Models such as the WITNESS model can lead to new discoveries and new ideas and can challenge well-accepted views. Such models generate quantitative predictions that can be compared with data, allowing precise specification, clear predictions, and straightforward evaluation of the model. When models are compared in this way, theories that seem intuitively plausible sometimes fail quite badly and theories that seem intuitively wrong sometimes fit data quite well.

Steven E. Clark

See also Eyewitness Memory; Instructions to the Witness; Lineup Size and Bias

Further Readings

Clark, S. E. (2003). A memory and decision model for eyewitness identification. *Applied Cognitive Psychology, 17,* 629–654.

Hintzman, D. L. (1991). Why are formal models useful in psychology? In W. E. Hockley & S. Lewandowsky (Eds.), *Relating theory and data: Essays on human memory in honor of Bennet B. Murdock* (pp. 39–56). Hillsdale, NJ: Lawrence Erlbaum.

Wells, G. L. (1984). The psychology of lineup identifications. *Journal of Applied Social Psychology, 14,* 89–103.

Wells, G. L., & Olson, E. A. (2003). Eyewitness testimony. *Annual Review of Psychology, 54,* 277–295.

Witness Preparation

The term *witness preparation* refers to any type of advice or training given to someone who is going to give sworn testimony with the intention of helping improve the quality of their testimony. All persons who might testify in court are potential candidates for witness preparation, including civil and criminal case defendants, plaintiffs, victims, experts, eyewitnesses, and other lay witnesses. Witness preparation may be used to prepare witnesses to testify during trial, but it is also used to prepare them to testify in pretrial depositions and hearings. Witness preparation is carried out by attorneys in most cases, but psychologists, communication specialists, acting coaches, and other consultants assist attorneys in preparing witnesses in some cases—especially high-profile cases.

The two main goals of witness preparation are to educate witnesses about the testimony process and to improve their communication skills. Whether carried out by attorneys, psychologists, or other consultants, witness preparation can be thought of as a behavioral intervention designed to improve communication skills and foster an appropriate level of confidence about testifying. This entry provides an overview of the techniques used to prepare witnesses to testify in court and a summary of the small, but generally supportive research literature examining its use.

Witness Education

Most people who undergo witness preparation training are novice witnesses who have little or no experience testifying. Sometimes, these witnesses know little about the nature and process of courtroom testimony, such as where they will sit in the courtroom, who will ask them questions, and what the questions will be like. These circumstances often contribute to feelings of anxiety and fear in novice witnesses. Research suggests that one way to reduce witnesses' feelings of anxiety about testifying is to educate them about the testimony process by having them participate in a testimony simulation. A testimony simulation can also be

thought of as a testimony rehearsal or a dry run. In a testimony simulation, the witness responds to the types of direct and cross-examination questioning that their attorney expects them to experience in the courtroom. Ideally, the direct examination questioning in the testimony simulation is conducted by the attorney who will question the witness in court, while an unfamiliar attorney conducts the cross-examination testimony.

Although many witnesses are apprehensive about testifying and unsure about how well they will be able to testify, some witnesses are extremely eager to testify and overly confident about how likely jurors are to believe their testimony. In these instances, witness education can be used to induce a realistic amount of anxiety in the witness. For example, some criminal defendants want to testify in their defense because they feel that they can simply explain or argue away all the evidence that the prosecution has amassed against them. These defendants see testimony as an opportunity to tell their story, the way they see it, and tend to argue and become defensive in response to challenging cross-examination questions. Testimony simulations can be used with overconfident witnesses to provide a realistic example of what it is like to be cross-examined and to show them that their "I'm right, you're wrong" approach to testifying is not likely to be persuasive in the courtroom.

Testimony Delivery Skills

Testimony delivery skills are the verbal and nonverbal behaviors that witnesses use to create a desired impression on those observing their testimony, including jurors, judges, and attorneys. Although the type of impression that an attorney wants a witness to create can vary considerably from witness to witness, ranging from confident and in control (e.g., a falsely accused executive) to indignant and upset (e.g., a sexual harassment victim who has been persecuted for coming forward), all attorneys want their witnesses to appear honest and to be believed. Most testimony delivery skills are intended to help witnesses appear honest and believable.

Critics of witness preparation may ask why honest witnesses need to be taught to appear honest. Nearly, all cases that go to trial or come close to going to trial involve multiple versions of the same event or set of events. Witnesses disagree about what happened, who did what, when they did it, and why. When this happens in the courtroom, jurors, judges, and other decision makers must decide which witnesses to believe. Unfortunately, people are not very accurate at telling when other people are being honest and when they are being deceitful. Indeed, years of research has shown that most laypeople have no better than chance accuracy at detecting deception. One reason why most people are inaccurate lie detectors is that they base their inferences about deceitfulness on behaviors that are not clearly associated with lying. The most common layperson beliefs about deceitfulness are that liars fidget, shift their posture, make poor eye contact, stammer, and frequently say "uh" and "um." None of these behaviors are consistent indicators of lying, although they are all signs of nervousness. Honest witnesses who show these and other signs of nervousness while testifying are at a risk of being seen as deceitful simply because they are nervous, flustered, or uneasy. There are many reasons why honest witnesses appear nervous while testifying, and witness preparation is used to help honest but nervous witnesses avoid looking like liars in the eyes of jurors.

The most important testimony delivery skill for witnesses to master is to be completely honest. Witnesses who attempt to present only selected pieces of the story often get called on the incompleteness of their answers and end up facing the types of aggressive and challenging cross-examination questions from opposing attorneys that tend to elicit behavioral signs of nervousness. Moreover, witnesses who are caught being less than 100% forthcoming in one area of their testimony will likely have all their testimony seen as dishonest, regardless of the quality of their other testimony delivery skills. One witness preparation technique that is used to help witnesses avoid appearing deceitful in their testimony is to have them review all previous statements, testimony (e.g., deposition, pretrial hearing), and other case material related to the case. Witnesses often give statements and deposition testimony many months or even years before trial, and reviewing this material allows witnesses to be completely consistent in their story. The merit of this technique is based on the assumption that the witnesses were completely honest in their previous statements and testimony. Although there is a risk that reviewing earlier statements and testimony can create a false sense of confidence or accuracy in witnesses, being uncertain about the content of previous testimony makes honest witnesses vulnerable to appearing unreliable simply because they do not remember relatively minor details of their previous statements.

Other testimony delivery skills that are emphasized by attorneys and consultants during witness preparation training are to listen carefully to the question being asked and to respond only to the content of that question. Witnesses should understand that the attorney will ask another question if he or she wants more information. Witnesses should also be comfortable with saying, "No" and "I don't know" when those are appropriate answers, and they should not guess or provide an answer simply because an attorney repeatedly asks for the same piece of information. Thus, witnesses should avoid using phrases such as "I think" or "I guess." Witnesses should also avoid using rehearsed statements or answers because they appear unnatural and witnesses may become so whetted to rehearsed statements that they rely on them throughout their testimony and repeat the same statements in response to many different types of questions.

Witness preparation is also used to teach a number of nonverbal communication skills. Witnesses are taught to make eye contact with attorneys and jurors, maintain good posture, and avoid looking at the attorneys who called them when asked a difficult question by opposing counsel. Witnesses are also instructed to speak clearly and to avoid speaking too quickly or too softly. Witnesses are encouraged to be expressive and comfortable with showing genuine levels of emotion; however, they are also taught to avoid overly dramatic emotional displays and signs of anger and defensiveness.

Witness Preparation Training Techniques

The most common witness preparation training regimen involves an iterative process of instruction and testimony simulation. The first step in the training process is to instruct witnesses about the basic format of courtroom testimony, such as the difference between direct and cross-examination. At this stage, witnesses are also given basic advice about giving effective testimony, such as being honest, listening carefully to the questions that are asked, and responding only to the questions that are being asked. The next step in the preparation process is to have the witness participate in a testimony simulation, undergoing both direct and cross-examination questioning. Additional instructions for improving the quality of testimony are then made by the attorney or consultant, based on the witness's performance during the simulation. Some attorneys and consultants prefer to make recommendations during the testimony simulation, while others prefer to wait until the testimony simulation is completed. If needed, a second testimony simulation can then be used to evaluate how well the witness was able to follow the most recent set of recommendations.

Some consultants videotape testimony simulations and use the recordings to show witnesses the strengths and weaknesses of their testimony. However, some attorneys prefer to avoid videotaping testimony simulations because there is always a chance that videotaped material may become discoverable to opposing attorneys. Although attorneys can argue that videotapes such as these should be protected as an attorney work product, especially when the witness is their client, many prefer to avoid the risk of creating discoverable material and do not allow videotaping of the testimony simulations.

Does Witness Preparation Work?

Witness preparation research is relatively uncommon, with only four published witness preparation studies in existence. Two of these studies examined the efficacy of relatively brief (15 minutes) witness preparation training programs that were designed to inform eyewitnesses about the purpose of direct and cross-examination and to encourage them to think about how they would answer specific questions that they might be asked when testifying. The participants in both the eyewitness studies were undergraduate research participants. The other two witness preparation studies examined a longer training program (1–2 hours) with criminal defendants. Training in these studies was designed to improve the defendants' use of verbal and nonverbal communication skills by having defendants watch videotapes of their testimony and practice improved communication skills with a researcher playing the role of a defense attorney. One of the criminal defendant studies used volunteer research participants as mock witnesses, and one used real criminal defendants as participants.

Despite variations in methodology, findings from the four existing witness preparation studies converge to provide generally positive support for witness preparation. Witnesses who were prepared to testify were generally seen as more confident, certain, and composed. Prepared witnesses also tended to report being more confident in their testimony, and simply participating in simulated testimony questioning has been found to reduce witness anxiety about testifying.

Coaching and Unethical Training

The term *witness coaching* is often used to denote instructions or training that are unethical or illegal. For example, it is unethical and illegal for attorneys to knowingly encourage witnesses to commit perjury. Although it is clearly improper for an attorney or consultant to instruct a witness to lie, the line between improving testimony quality and changing testimony content is not always clear. Social science research suggests that the content of witnesses' recollections and their confidence in them can be influenced by suggestive questioning, corroborative or contradictory information from others, and continued retelling of their experiences. Thus, the process of witness preparation may inadvertently influence what witnesses have to say when testifying. This potential risk of witness preparation training must be weighed against the potential risk of a truthful witness being seen as dishonest because he or she was not prepared to testify. Ultimately, it is up to ethical attorneys and consultants to ensure that their training techniques are used to allow witnesses to give truthful testimony and not to subtly influence what their witnesses have to say.

Marcus T. Boccaccini

See also Detection of Deception: Nonverbal Cues; Detection of Deception in Adults; Trial Consulting

Further Readings

Boccaccini, M. T. (2002). What do we really know about witness preparation? *Behavioral Sciences and the Law, 20,* 161–189.

Boccaccini, M. T., Gordon, T., & Brodsky, S. L. (2003). Effects of witness preparation on witness confidence and nervousness. *Journal of Forensic Psychology Practice, 3,* 39–51.

Boccaccini, M. T., Gordon, T., & Brodsky, S. L. (2005). Witness preparation with real and simulated criminal defendants. *Behavioral Sciences and the Law, 23,* 659–687.

Posey, A. J., & Wrightsman, L. S. (2005). *Trial consulting*. New York: Oxford University Press.

Salmi, L. R. (1999). Don't walk the line: Ethical consideration in preparing witnesses for deposition and trial. *Review of Litigation, 18,* 135–179.

Wrongful Conviction

The emergence of forensic DNA analysis in the late 1980s has enhanced the criminal justice system's ability to find the truth. In addition to facilitating the identification and conviction of the guilty, the DNA testing has also exposed a large and growing number of cases in which innocent people were convicted of crimes they did not commit. For the first time, the criminal justice system now has a body of cases in which there is scientific proof that the truth-finding mechanisms of the system failed. Jump-started by the DNA cases, recognition of wrongful convictions has expanded to include cases without any DNA as well. The study of these wrongful convictions has revealed numerous causes of errors related to the way evidence is collected and cases are tried. A commonality shared by almost all the wrongful conviction cases is the presence of a variety of cognitive distortions or biases that can lead investigators, litigators, judges, and juries astray.

Scope of the Problem

The American criminal justice system has historically prided itself on taking great precautions to guard against wrongly convicting the innocent. The American courts and commentators have long espoused a philosophy of caution, expressed in the maxim that it is better to let 10 (or 100) guilty people go free than to convict one innocent person. Nonetheless, there has never been real doubt that the system occasionally errs.

Even prior to the DNA revolution, scholars sought to identify wrongful convictions. In 1932, Edwin Borchard identified what he believed to be 65 wrongful convictions in serious cases. More recently, in 1987 and 1992, Hugo Bedau, Michael Radelet, and Constance Putnam identified more than 400 wrongful convictions in cases potentially subject to capital punishment. These and other similar efforts, however, were subject to challenge by skeptics, who doubted innocence in some of the cases, and even when accepted, the cases were largely dismissed as anomalies rather than symptoms of systemic flaws.

The DNA cases changed this. The DNA cases presented unassailable scientific proof of error. They also demonstrated that errors have occurred not just in those cases where proof of guilt appeared tenuous but also in cases where the evidence of guilt had appeared overwhelming. Moreover, they revealed that wrongful convictions are more prevalent than previously thought and that they reflect systemic flaws.

Determining a precise wrongful conviction rate is very difficult, as it is impossible to identify the whole body of erroneous convictions. To compound the problem, establishing an acceptable definition of "wrongful

conviction" is itself difficult, especially in cases that lack dispositive DNA or other conclusive scientific evidence. Not everyone "wrongly convicted" is actually or completely innocent. Rather, some individuals who are released from their convictions because of procedural errors or inadequate evidence to prove their guilt—and who are thus *legally* innocent—might nonetheless be *factually* guilty. And though they are legally innocent, they may not be *completely* innocent since, for example, they may be guilty of a lesser charge. Distinguishing between these categories can be challenging.

In recent years, however, new evidence has identified a significant number of individuals who were in fact completely innocent but were nonetheless convicted. Between 1989 (the year of the first DNA exoneration in the United States) and 2006, at least 189 people who had been convicted of serious crimes in America were exonerated by postconviction DNA testing. Although significant, this number reflects just the tip of what is certainly a much larger iceberg. As important as DNA can be, it is present in only a small percentage of all criminal cases, and it is preserved and available for postconviction analysis in just a fraction of that total. Hence, the DNA exonerations reveal only a small percentage of all wrongful convictions.

Examining media and other published accounts of cases, Samuel Gross and colleagues have identified 340 cases of proven wrongful convictions in serious felonies between 1989 and 2003. In each case, the wrongful conviction was established by an official governmental act finding the person not guilty through one of several procedures: dismissal of the case by the prosecution or court in light of new evidence of innocence, an acquittal after a retrial, or a pardon based on innocence. As Gross notes, even this group is substantially underinclusive, because it relies on the happenstance that the defendant was able to discover convincing new evidence of innocence and the chance that the researchers found the case to include it in the study.

Looking at the one group of cases for which there exist fairly reliable data on proven exoneration *rates*—capital rape-murders—Michael Risinger has developed what might be the most empirically sound estimate of a wrongful conviction rate. Risinger calculates an error rate in capital rape-murders of approximately 3.3% to 5%.

Causes of Wrongful Convictions

Examining these wrongful convictions has revealed several recurring causes of factual error in criminal cases. The causes include, among others, eyewitness error, false confessions, unreliable jailhouse snitch or informer testimony, witness perjury, faulty forensic science, police misconduct, prosecutorial misconduct, and ineffective defense counsel.

Among these, eyewitness error is by far the most prevalent, occurring in anywhere from approximately 60% to 84% of the exoneration cases. Eyewitness error typically does not involve untruthful witnesses but rather well-meaning, honest witnesses who are simply mistaken about their memory of the perpetrator or the crime. Considerable psychological research has demonstrated the fallibility of eyewitnesses and identified factors that can contribute to eyewitness error. Eyewitness memory is susceptible to contamination and distortion by suggestive police identification procedures or postincident information. For this reason, eyewitness evidence is sometimes analogized to trace physical evidence; as with trace evidence, the fragile nature of the evidence demands care in collecting and storing the evidence. In eyewitness identification cases, care must be taken to minimize suggestiveness and contamination of eyewitness memories.

False confessions are also prominent among the causes of wrongful convictions. Although it is counterintuitive to imagine that an innocent person would confess to a crime he or she did not commit, the wrongful conviction cases demonstrate that false confessions are present in up to nearly one quarter of exoneration cases. High pressure, confrontational police interrogation tactics, such as those included in the Reid Technique of interrogation (which is taught in some form in most police jurisdictions in the United States), which is believed to be effective at eliciting confessions from the guilty, also can induce innocent people to confess. Social science research suggests that under such interrogation tactics, false confessions can be the product of rational choices.

Jailhouse informer or snitch testimony typically involves testimony offered by an individual who was, or claims to have been, incarcerated with the defendant and who claims that the defendant confessed or made incriminating statements to him or her while they were incarcerated together. Courts have long recognized that such witnesses are very unreliable, both because their criminal background suggests that they might have little regard for the truth and because they have an incentive to fabricate. Jailhouse informers often are motivated by explicit or implicit promises, or even unilateral hopes, of leniency or benefits from the

prosecution in their own criminal cases if they provide useful information against another.

Numerous wrongful convictions have also rested, at least in part, on fraudulent or mistaken forensic science. Occasionally, these errors are the product of deliberate fraud. A number of high-profile instances of such fraud have been reported in recent years, in which crime laboratory analysts reported incriminating scientific test results when in fact the analysts either obtained no results, obtained nonincriminating results, or did not even run the tests (a type of fraud referred to as "dry labbing").

More typically, however, laboratory analysts have made honest errors. In some instances, the purported forensic science has itself been fundamentally unreliable and nonscientific. To take one example, microscopic hair comparison, which was a staple of criminal prosecutions for many years, has very little scientific foundation and has now been exposed by DNA analysis as frequently incorrect. Accordingly, many crime laboratories no longer conduct microscopic hair examination.

In other instances, laboratory analysts may be influenced by expectation effects. Research has shown that when laboratory analysts are informed of the results that are expected or about other evidence in a case, this nondomain information can influence the analysts' interpretation of ambiguous data. When told that other evidence includes or excludes a suspect, for example, analysts are more likely than otherwise to conclude that their scientific analyses are consistent with that other information.

Police and prosecutorial misconduct involves overreaching in a variety of contexts. The most common type of prosecutorial misconduct involves failure to comply with the constitutional mandate that prosecutors must disclose to the defense all material exculpatory evidence in their possession. In part, a prosecutor's failure to comply with this mandate reflects the very difficult demands that the adversary system imposes on prosecutors. Since a prosecutor's responsibility to convict the accused naturally encourages him or her to view the evidence in an inculpatory light, it is too much to expect that the same prosecutor would simultaneously view the evidence from the defendant's perspective and recognize its exculpatory value.

Finally, inadequate defense counsel is a frequent cause of wrongful convictions. Indigent legal services are chronically underfunded, and the result frequently is inadequate defense investigation and a lackluster challenge to the state's case at trial. When the defense is inadequate, the adversarial system fails to function as designed to weed out erroneous charges or protect the innocent.

These individual causes of wrongful convictions often work in conjunction with one another to produce a faulty assessment of guilt. A mistaken eyewitness identification, for example, can convince the police of a suspect's guilt. Once convinced of guilt, the police may then set out to develop the evidence needed to obtain a conviction. They might aggressively interrogate the suspect to obtain a confession, producing incriminating statements from the suspect, leading the police and prosecutors to interpret innocent responses in an inculpatory manner, or even inducing the suspect to confess falsely. The police and prosecutors might also seek an unreliable jailhouse informant to bolster their case. Laboratory analysts, informed of the state's theory of guilt, might interpret ambiguous data to support that conclusion. Or the police and prosecutors might otherwise cut corners or bend the rules, in the belief that doing what it takes to convict a guilty person serves the interests of justice. The result of this process is that initial assessments of guilt are reinforced, and the confidence of eyewitnesses, the police, prosecutors, and ultimately courts is bolstered in their judgments about the defendant's guilt.

Cognitive Distortions and Biases

Regardless of the particular errors in a given case, a commonality in most wrongful convictions is the effect of several cognitive distortions or biases in producing a kind of "tunnel vision" that impedes accurate assessment of the facts. The most prominent is confirmation bias—the natural human tendency to seek, interpret, and recall information in ways that support existing expectations, beliefs, or hypotheses. Numerous studies have shown that when testing a hypothesis, people tend to seek information that confirms the hypothesis. In studies, people demonstrate a preference for evidence that will confirm their hypotheses over evidence that will disconfirm them, even though the latter is frequently more probative. By seeking only information that is consistent with their hypotheses, people fail to discover evidence that might disprove their hypotheses and reveal that their confirming evidence was merely coincidental. In a criminal case, this means that investigators tend to look for evidence that is consistent with their theory of guilt but tend not to look for disconfirming evidence—that is, evidence that would exonerate a suspect.

People similarly have a natural tendency to *recall* and *interpret* information in a manner that confirms their beliefs. Research shows a general tendency to overweight positive or confirmatory evidence and underweight negative or disconfirmatory evidence. In criminal cases, this tendency means that investigators and prosecutors are likely to ignore or minimize disconfirming evidence—deeming the evidence irrelevant or the witness unreliable—while overrelying on confirming evidence—interpreting ambiguous data as inculpatory and judging incriminating witnesses and information as highly relevant and reliable.

Compounding these tendencies are phenomena such as belief persistence, also known as belief perseverance. Research shows that people are naturally disinclined to relinquish initial conclusions or beliefs, even when the bases for those initial beliefs are undermined. For example, once convinced of guilt in part because of an initial assessment that crime scene hairs bore microscopic physical characteristics that "matched" a suspect's, investigators or prosecutors in numerous cases have persisted in their belief of guilt even after new DNA testing has proven conclusively that the hairs did not come from the defendant.

Such tunnel vision is also reinforced by other cognitive biases, such as hindsight bias, or the "knew-it-all-along effect." Hindsight bias refers to the tendency that people have to use information obtained after an event to conclude that the eventual outcome was inevitable or more predictable than it actually was. With knowledge of an outcome, people's memories tend to elaborate or emphasize evidence that was consistent with the outcome and minimize or discount evidence that was inconsistent.

In criminal cases, once the police, prosecutors, and courts conclude that an individual is guilty, hindsight bias would suggest that the suspect was an obvious and inevitable suspect from the beginning. In hindsight, evidence against that individual is enhanced. That hindsight assessment in turn reinforces the commitment to focus on that person as the culprit.

Similarly, hindsight bias can affect a witness's assessment of or confidence in his or her identification of a suspect. For example, if an eyewitness had a fleeting glimpse of a perpetrator, that witness likely had a poor image or memory of the perpetrator. But if the witness subsequently viewed clear images of the suspect in a photo spread or live-person lineup and attempted an identification, the witness might replace the poor memory of the perpetrator from the crime with the clear image of the suspect from the photo spread or lineup. Although the identification might be wrong (given that the witness actually had a poor view and memory of the suspect), the witness might in hindsight draw on the clear image from the photo spread or lineup to conclude confidently that he or she had a good view and memory of the suspect and made an accurate identification, especially if the witness received any confirming feedback after making the identification.

Hindsight bias can also have a profound impact on judges called on to review the validity of convictions in postconviction proceedings or on appeal. Typically, such courts are required to assess whether any errors committed by the prosecutor, the court, or defense counsel might have made a difference in the outcome of the case. Hindsight bias makes it naturally difficult for courts to imagine that any error might have affected the outcome. The outcome of the case—the defendant was found guilty beyond a reasonable doubt—tends to appear, in hindsight, to have been inevitable and appropriate. Under these circumstances, it is difficult for courts to conclude that any but the most egregious errors might have made a difference. This, in part, helps explain why courts can be extremely reluctant to reverse convictions, even in the face of strong evidence of error.

Reforms

The increasing awareness in the criminal justice system of the problem of wrongful convictions has also led to an increasing interest in reforms to reduce the rate of such errors. Policymakers are interested in reforms to prevent wrongful convictions, not just because each such case is an injustice to the wrongly convicted but also because every time an innocent person is wrongly convicted, the true perpetrator eludes prosecution. Both basic fairness and public safety demand reliability in the criminal justice system. A variety of official commissions and policy-making bodies have been created in a number of jurisdictions to examine the wrongful conviction cases and develop recommendations for reforms to minimize such errors.

To date, the most progress in implementing reforms designed to minimize wrongful convictions has been made in the areas of eyewitness error and false confessions. In particular, extensive psychological

research has produced a well-developed series of recommendations for improving eyewitness identification procedures. A number of law enforcement agencies throughout the country are now implementing some or all these recommendations.

Some of the more significant eyewitness identification reforms include ensuring that witnesses are properly instructed that the perpetrator might not be present in any given lineup or photo array, so that the witness does not feel compelled to pick someone in every case; properly selecting lineup or photo array "fillers" (nonsuspects) so that the suspect does not stand out; presenting no more than one suspect in any given lineup or photo array; conducting the identification procedure in a "double-blind" manner—meaning that neither the witness nor the detective administering the procedure knows which individual is the suspect—so that the detective cannot even inadvertently cue the witness as to which individual to pick; and presenting photographs of lineup members sequentially, rather than simultaneously, so that the witness must rely on absolute judgments drawn from the witness's memory rather than relative judgments based on comparing one lineup member or photograph with the others.

The most significant reform designed to prevent false confessions is a requirement that all custodial interrogations be electronically recorded from start to finish. Recording serves several purposes. It deters the police from engaging in improper coercive tactics that can produce false confessions. It also creates a clear record of what was said and done, so that lawyers, judges, and juries can more fully and accurately consider the reliability of any statements elicited during an interrogation and indeed help fact finders determine accurately what the suspect said, in his or her own words, without interpretation or paraphrasing by police witnesses. Electronic recording also protects the police from spurious claims of misconduct in the interrogation room and produces powerful evidence to help convict the guilty when a suspect freely and convincingly confesses or incriminates himself in a recording that can be played for the jury.

Keith A. Findley

See also Confession Evidence; Estimator and System Variables in Eyewitness Identification; Eyewitness Memory; False Confessions; Identification Tests, Best Practices in; Interrogation of Suspects; Juries and Eyewitnesses; *Neil v. Biggers* Criteria for Evaluating Eyewitness Identification; Prosecutorial Misconduct; Reid Technique for Interrogations; Videotaping Confessions

Further Readings

Bedau, H. A., & Radelet, M. L. (1987). Miscarriages of justice in potentially capital cases. *Stanford Law Review, 40,* 21–179.

Borchard, E. M. (1932). *Convicting the innocent: Errors of criminal justice.* New Haven, CT: Yale University Press.

Findley, K. A., & Scott, M. S. (2006). The multiple dimensions of tunnel vision in criminal cases. *Wisconsin Law Review, 2,* 291–398.

Givelber, D. (1997). Meaningless acquittals, meaningful convictions: Do we reliably acquit the innocent? *Rutgers Law Review, 49,* 1317–1396.

Gross, S. R., Jacoby, K., Matheson, D. J., Montgomery, N., & Patil, S. (2005). Exonerations in the United States, 1989 through 2003. *Journal of Criminal Law and Criminology, 95,* 523–560.

Radelet, M. L., Bedau, H. A., & Putnam, C. E. (1992). *In spite of innocence: Erroneous convictions in capital cases*. Boston: Northeastern University.

Risinger, D. M. (in press). Innocents convicted: An empirically justified factual wrongful conviction rate. *Journal of Criminal Law and Criminology, 97*.

Rosen, R. A. (2006). Reflections on innocence. *Wisconsin Law Review, 2,* 237–290.

Saks, M. J., & Koehler, J. J. (2005). The coming paradigm shift in forensic identification science. *Science, 309,* 892–895.

Scheck, B., Neufeld, P., & Dwyer, J. (2000). *Actual innocence: Five days to execution and other dispatches from the wrongly convicted.* New York: Doubleday.

Index

Entry titles are in **bold.**