

Neighbors at Risk
A Quantitative Study of Civil War Contagion

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Abstract

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While previous research shows that civil wars can spread to neighboring states, we do not know why certain neighbors are more at risk than others. To address this research gap, this dissertation proposes a contagion process approach that can identify the most likely targets of contagion effects from an ongoing conflict. Using data with global coverage, theoretical expectations about why and where civil wars would have contagion effects, are examined in a series of statistical analyses. Paper I argues and empirically supports that a country is more susceptible to contagion effects when it is characterized by ethnic polarization, where few ethnic groups form a delicate balance. Paper II argues and provides evidence that the involvement in conflict by an ethnic group in one country increases the likelihood of ethnic conflict erupting in a neighboring country that shares the same ethnic group. Paper III suggests and finds support that the arrival and long-term hosting of refugees from states in civil conflict make host states more likely to experience civil conflict. Paper IV examines the common notion that the granting of autonomy or independence to separatist groups may spur other ethnic groups to violently pursue similar demands, starting off a domino effect. Using new global data on such territorial concessions, the analysis does not support this version of the “domino theory,” which is popular among policy-makers. In sum, this dissertation contributes by demonstrating the usefulness of the contagion process approach. It offers a more comprehensive view of contagion among neighbors, and as such is able to specify arguments and intuitions in previous research.

Keywords: conflict contagion, internationalization of conflict, civil war, ethnic conflict, transnational ethnic groups, ethnic polarization, refugee flows, domino effects

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List of Papers

I. "Polarization and Ethnic Conflict in a Widened Strategic Setting", 2008, *Journal of Peace Research* 45(2): 283-300. Reprinted with the kind permission of Journal of Peace Research and Sage Publications.

II. "Transnational Ethnic Groups as Transmitters of Conflict Contagion". Unpublished manuscript, Department of Peace and Conflict Research, Uppsala University.

III. "Refugees and Intrastate Armed Conflict: A Contagion Process Approach". Unpublished manuscript, previously presented at the 50th Annual Convention of the International Studies Association, New York, NY, 15-18 February, 2009.

IV. "Do Ethnic Dominoes Fall? Evaluating Domino Effects of Granting Territorial Concessions to Separatist Groups". Unpublished manuscript, early drafts previously presented at the 48th Annual Convention of the International Studies Association, Chicago, IL, 28 February to 3 March, 2007 and the European Peace Science Conference, Amsterdam, 25-27 June, 2007.

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Acknowledgements

This composite dissertation consists of an introduction and four papers. They focus on the topic of contagion effects in internal armed conflicts, which are viewed as a process whereby an internal conflict in one country affects the likelihood of a new internal armed conflict erupting in a neighboring state at a later point in time. Although this is the overall topic of the dissertation, the four papers are written as separate products that address this topic from separate angles or with different research questions.

The first paper, *Polarization and Ethnic Conflict in a Widened Strategic Setting*, examines whether ethnically polarized states are more receptive targets of contagion. The paper is published as part of a special issue on Polarization and Conflict in *Journal of Peace Research* (45:2). The journal holds the copyright for the article and it is reprinted here with its permission. I wish to thank the guest editors Gerald Schneider and Joan Esteban as well as two anonymous referees for excellent comments and suggestions for improvement on early submissions. A draft of the paper was presented at the Polarization and Conflict Workshop in Nicosia, Cyprus, April 2006. I extend my gratitude to the participants of the workshop, in particular Ragnhild Nordås, for excellent comments.

The second paper, *Transnational Ethnic Groups as Transmitters of Conflict Contagion*, develops an idea introduced in the first essay: that kinship links between groups across state boundaries are associated with contagion effects. A very first version of this paper was presented at the 46th Annual Convention of the International Studies Association, 1-5 March, 2005, in Honolulu. In particular, I appreciate comments from the discussant of the panel, Renato Corbetta. In preparation of the dataset used in the final paper, I am indebted to Emma Johansson for excellent coding assistance.

The third paper, *Refugees and Intrastate Armed Conflict: A Contagion Process Approach*, examines the idea that refugee flows may increase the likelihood of cross-border contagion effects. Drafts of this essay were presented at the

Research Paper Seminar at the Department of Peace and Conflict Research in December 2007 and at the 50th Annual Convention of the International Studies Association, 15-18 February, 2009, in New York. I much appreciate feedback and suggestions for improvement from Erik Melander, Anders Nilsson, Cullen Hendrix, Anna Hesselgren, and Therése Pettersson.

The final paper, *Do Ethnic Dominoes Fall? Evaluating Domino Effects of Granting Territorial Concessions to Separatist Groups*, addresses the claim that the granting of territorial concessions to separatist groups may generate “domino effects” whereby other ethnic groups demand similar concessions. Early drafts of this paper were presented at the 48th Annual Convention of the International Studies Association, 28 February to 3 March, 2007, Chicago, and at the Jan Tinbergen European Peace Science Conference in Amsterdam, 25-27 June, 2007. I am much grateful for comments from Desirée Nilsson, Karen Brounéus, Stephen Shellman, and Johanna Söderström. I also thank Lars-Erik Cederman, Anna Jarstad, and Desirée Nilsson for generously sharing their data.

Some argue that writing a dissertation is a solo project. As being part of the Department of Peace and Conflict Research, Uppsala University, this term poorly describes my own experience. I have been fortunate to conduct my graduate studies in what I believe is a unique research environment. My colleagues have provided me with instant yet thoughtful feedback, discussion, and friendship throughout this research project, on a daily basis. First and foremost, I am so grateful to my advisor Mats Hammarström for countless hours of guidance, discussion, and therapy. His continuous encouragement and inspiration, ever since I was an undergraduate student, cannot be emphasized enough. He is also to thank for helping me with the title of this thesis – a task easier said than done! I have benefited greatly from excellent comments from my assistant supervisor Magnus Öberg, whom I also like to thank for giving me my first job at the department. During a final seminar session, Mats and Magnus together with Lisa Hultman and Louise Olsson formed an outstanding team, and this quadruple provided first-rate comments and suggestions for improvement on my manuscript.

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These people, along with many others, have meant a lot for keeping my dissertation project going and for bringing it to an end. They have most definitely contributed positively to this dissertation; of course, responsibility for all shortcomings and errors within this dissertation rests solely with the author.

A rewarding part of my time as a graduate student was spent abroad for presenting parts of my dissertation at conferences and workshops and for participating in methodology courses. This was possible thanks to generous grants from the Swedish Development Cooperation Agency (Sida), Uddeholm's travel grant, Rektors Wallenbergmedel, the Polarization and Conflict (PAC) network, the International Studies Association's travel grant, and the Nordic network on Political Economy of Governance and Conflict (PEGC). The time spent for course work at ICPSR (Inter-university Consortium for Political and Social Research), University of Michigan, Ann Arbor in the summer of 2005, financed by the Swedish Research Council, was particularly beneficial for my dissertation work.

Finally, I would like to thank my family and friends. This project would have been so much more difficult without you! My parents Erik and Gunnel have always been there for me, in everything from intellectual inspiration to the most practical matters. Special thanks also go to my "bonus family": daste shoma dard nakone! To my daughter Elmira, whose birth was the very pleasant reason my planned completion of this dissertation was delayed: Puss! Last, to Kamyar, for love, support, and for serving me dinner after long hours working on this thesis, every so often accompanied by pep-talk. And for convincing me to be pleased about the two hours I worked on a Sunday because they mean two hours of work less on the Monday (rather than saying that the five-or-so hours I *didn't* work on a Sunday means a lot of extra work on the Monday). I am so happy to have you by my side.

Erika Forsberg
Uppsala, July 2009

Introduction

Historical and recent examples clearly demonstrate that intrastate armed conflicts¹ are often connected to each other. Among many examples are the wars of decolonization in Africa and, more recently, the civil wars fought in West Africa, the Great Lakes region, and the Caucasus. When such interconnectedness exists, a civil conflict in a country has repercussions for the security and stability of a wider neighborhood, extending beyond the outer limits of the state. Several studies demonstrate that having one or several neighboring states with ongoing civil war is an important predictor of civil war in a given country (Buhaug and Gleditsch, 2008; Gleditsch, 2007; Hegre and Sambanis, 2006; Salehyan and Gleditsch, 2006; Sambanis, 2001; Ward and Gleditsch, 2002). This finding, often referred to as the neighborhood effect of civil conflict, is considered empirically robust; in fact, it has been shown to be one of the most important predictors of civil war (Hegre and Sambanis, 2006). It thus validates a growing consensus that one cannot focus exclusively on the domestic attributes of countries to explain civil wars; modeling events and factors external to the countries experiencing civil war may be just as important.

However, the findings concerning neighborhood effects may be generated by two distinct processes. On the one hand, conflicts may cluster spatially as a consequence of a corresponding clustering of the structural factors that are related to conflict; this makes conflicts in different countries

¹ In this dissertation, unless when explicitly stated otherwise, the terms “conflict” and “war” refer to *intrastate* armed conflict, defined as a situation where the government of a state and a non-state opposition movement (e.g. a rebel group) have a declared incompatibility and the parties use violence to achieve their goals. I use the terms intrastate armed conflict, internal armed conflict, civil conflict, and civil war interchangeably, hence I make no analytical distinction between wars and minor armed conflicts. In operational terms, I make such a distinction, as the common practice prescribes. The only distinction, however, relates to how many battle-deaths the conflict produces per year, where conflicts generating at least 1,000 such deaths are categorized as wars (see, for example, Harbom, Melander and Wallensteen, 2008).

correlate with each other. On the other hand, the neighborhood effect of civil war may be explained by contagion effects, i.e. that the existence of a conflict makes the outbreak of another conflict in a neighboring country more likely. The uncertainty whether the neighborhood effect of civil war is explained by one or both of these processes has recently been overcome, with the seminal contribution by Buhaug and Gleditsch (2008). They show that when taking into account the spatial clustering of the relevant country characteristics, civil wars are still determined partly by neighborhood conflict. Hence, they provide statistical evidence suggesting that civil conflict indeed spreads from a civil war country to one or several of its neighboring countries.

Now that there is evidence suggesting that contagion effects do indeed occur within neighborhoods of countries, it is time to further address the mechanisms and conditions involved. There is a need to examine when, how, why, and where conflicts generate contagion effects. More specifically, this dissertation contributes to the research field by attempting to disclose the mechanisms that can identify *which countries are the most likely targets of contagion effects, given an ongoing conflict*. To do so, I develop a theoretical and empirical model that aims to capture this contagion process. This model is adapted in the main part of the dissertation.² Contagion is viewed as a process whereby internal conflict in one state heightens the probability of internal conflict erupting in a neighboring state at a later point in time. The starting point is, thus, an existing armed internal conflict (a source of contagion) and the focus is on its potential contagion effects on neighboring states (the targets of contagion).³ The aim is to disclose the mechanisms that identify *which* of the neighboring states are more likely to experience armed conflict due to contagion effects, i.e. the most likely targets of contagion.

This dissertation considers and empirically assesses several such mechanisms. First, I examine whether countries are more susceptible to contagion effects if ethnically polarized, where few ethnic groups form a delicate bal-

² More specifically, Papers I-III adapt this contagion process approach, which has an ongoing civil conflict as the starting point and seeks to identify the most likely targets of contagion. Paper IV has a slightly different approach: it examines whether separatist groups are more prone to violent conflict when concessions are granted to other separatist groups in their surroundings.

³ Countries that are neighbors to a country with ongoing civil conflicts are thus considered at risk of contagion effects. For the sake of simplicity, I refer to these risk states as the potential “targets” of contagion effects. It should be noted that I do not use the term target to indicate that a country at risk is an object which one intentionally aims at.

ance. Statistical analysis of global data confirms this claim. Second, I suggest that the involvement in conflict by an ethnic group in one country increases the likelihood of ethnic conflict erupting in a neighboring country that shares the same ethnic group. Statistical analysis using new data on transnational ethnic ties clearly demonstrates the relevance of such bonds in contagion processes. Third, I propose that refugee flows may contribute to the spread of civil conflict. This is supported empirically; both the arrival and long-term hosting of refugees from states with civil conflict make host states more likely to experience civil conflict. Fourth, I evaluate the widespread claim that territorial concessions granted to separatist groups may spur other proximate ethnic groups to demand similar concessions. In statistical analysis of global data, I find no evidence in support of this suggestion.

The purpose of this introduction is to situate the dissertation within a larger context in terms of concepts and previous research. From an identification of the research gap, it aims to summarize the main contributions of the dissertation to the research field and its implications for future studies. The introduction starts by discussing contagion and related concepts. It proceeds by reviewing previous research on the topic, which ends with identifying an important research gap. Next follows a discussion on how the dissertation addresses the research gap. The introduction proceeds by outlining the contents of the dissertation by presenting and summarizing its four papers. By way of conclusion, the main findings and contributions of the dissertation are summarized. That is the basis upon which I present some implications for future scholarship.

Contagion Effects

The research field dealing with contagion effects displays characteristics of both an old and new research area. It is old in the sense that the potential for contagion of various types of phenomena was noted early. In 1889, as a response to research conducted by the anthropologist Edward Tylor, the statistician and eugenicist Sir Francis Galton formulated the problem that would later be known as Galton's Problem (Galton, 1889).⁴ Since then, con-

⁴ Tylor drew inferences about functional relationships between variables based on a cross-cultural sample. Galton raised the concern that these cultures are not independent from each other, hence

tagion has been addressed in numerous, and quite diverse, academic disciplines. Procedures for taking the problem into account, theoretically and methodologically, have generated knowledge and ideas to the benefit of various disciplines.

Nevertheless, in research on civil war, the study of contagion effects suffers from several of the shortcomings of a new research field: There are few systematic empirical studies, there is no conceptual consensus, and there are non-trivial methodological problems to overcome, especially regarding how to capture the phenomenon empirically over a cross-section of relevant cases. The remainder of this section attempts to conceptually situate this study within related research, including how contagion is defined and how it relates to similar phenomena.

In pioneering research on interstate war, Most and Starr define “spatial diffusion” as “events of a given type in a given polity are conditioned by the occurrence of similar events in other polities at prior points in time” (Most and Starr, 1981: 10; 1990: 402). They use the term contagion interchangeably with diffusion. The definition is shared by most research dealing with the general phenomenon of the spread of armed conflict. However, a plethora of terms (apart from contagion and diffusion) are used to describe this phenomenon, or specific sub-categories of it, including conflict generation, infection, bandwagoning, imitation, emulation, etc. At times concepts are used interchangeably and at other times to describe different types of phenomena, yet other times they are hierarchically arranged (e.g. contagion/diffusion as the larger heading, under which e.g. demonstration effects fall). Carment and James’ definition of contagion exemplifies a more narrow type of definition: conflict contagion happens when “events in one state change directly the ethnic balance of power in a neighboring state” (Carment and James, 1998: 76).

In this study, I follow Most and Starr and view contagion and diffusion as synonymous and referring to the phenomenon quoted above. Between the two concepts, I choose to consistently use the term *contagion*. Much of related research also uses the term contagion, such as the recent study by Buhaug and Gleditsch (2008), but the present study differs in terms of how contagion is conceptualized. This is because the same definition of conta-

interaction between cultures may have influenced the correlation, rather than solely internal processes regarding the traits examined (Ross and Homer, 1976).

gion (i.e. that an ongoing internal conflict in one location increases the likelihood of conflict nearby) can be approached from two angles, using different starting points. Most previous studies focus on the target of contagion, attempting to determine whether a certain conflict is explained partly by conflicts anywhere in the neighborhood. The present study instead starts from the source of contagion, i.e. the conflict country which is suggested to potentially trigger conflict elsewhere, aiming to determine its contagion effects on certain neighboring countries.

Previous Research

Civil war research demonstrates a multitude of ways in which internal armed conflicts are linked together and embedded in a regional setting. First, in many internal conflicts, the issues at stake and the declared incompatibility of the warring actors have an international component. For instance, rebel groups can pose secessionist or irredentist claims that, if realized, would have consequences for the territorial confines of more than one country.⁵ Second, both rebel groups and regimes involved in civil conflict are frequently part of regional networks of mutual military, economic, and political cooperation or have ethnic or ideological ties to groups outside their country of residence (see, e.g., Harbom and Wallensteen, 2005; Salehyan, 2007; Salehyan, Gleditsch and Cunningham, 2008). Third, the consequences of intrastate warfare are typically not confined within a state's borders. Research findings indicate that when one state experiences civil war, it may have repercussions through a whole region, in many different ways. In fact, internal conflicts are almost never exclusively "internal" as they usually introduce costs for neighboring states.⁶ Various types of such costs have been identified in previous literature, including, but not limited to, a decline in economic growth due to e.g. reduced investment and trade (Murdoch and Sandler, 2002, 2004); degenerated health, e.g. due to the spread of HIV/AIDS (Davis, Iqbal and Zorn, 2003; Ghobarah, Huth and Russett, 2003); and instability and security threats due to refugee crises (Newland, 1993; Salehyan and Gleditsch, 2006). All these aspects indicate that conflict

⁵ According to Horowitz, "Irredentism involves subtracting from one state and adding to another state, new or already existing; secession involves subtracting alone" (Horowitz, 1991: 10).

⁶ For reviews see, for instance, Collier et al. (2003) and Brown (1996).

behavior and dynamic often transcend international borders, rather than occurring in isolation and being curbed by country borders.⁷

The specific links between different civil wars created by contagion effects are the focus of this dissertation. For a long time, contagion research was securely anchored in the literature on interstate conflict and war (e.g. Hammarström, 1994; Houweling and Siccama, 1988; Most and Starr, 1980; Siverson and King, 1979; Siverson and Starr, 1990, 1991; Starr and Most, 1983; Starr and Siverson, 1998; Vasquez, 1992). This research tradition generated several interesting findings. For instance, it established that diffusion, both conceptualized as conflict expansion (new belligerents drawn in to existing conflict) and conflict generation (trigger of new conflicts), does take place, but is customarily confined to contiguous countries (Siverson and Starr, 1991).

Recently the focus has started to shift towards the question of contagion effects in civil war. The new research agenda draws its main building blocks from the interstate research tradition. This is reflected in a continued focus on proximity; contagion effects are primarily traced within neighborhoods of countries. Another legacy from the research on the spread of interstate war is both a continued distinction between conflict expansion and conflict generation (although not always with those labels). A growing body of literature examines the expansion of civil war, whereby conflict grows by drawing in additional belligerents or prompts third party military intervention (see, among others, Carment and James, 1997; Carment and James, 2004; Regan, 1998, 2000, 2002; Regan and Aydin, 2006; Saideman, 2001; Walter and Snyder, 1999).⁸

The most relevant category for this dissertation is the literature examining the phenomenon whereby civil conflict in one country is linked to an increased probability of new conflict onset in another nearby country. Several recent studies demonstrate that for any given state, having a neighboring state with ongoing civil war increases that state's probability of civil war

⁷ In some regions, such cross-border dynamics and linkages between conflicts and actors are so substantial and prolonged that the regions are termed "regional conflict complexes" (see, for example, Wallensteen and Sollenberg, 1998: 623).

⁸ Another aspect of contagion effects in civil war is that civil wars appear temporally contagious within states; there is a legacy of war that makes countries with a recent history of conflict more prone to experience new outbursts of violence. This process is also referred to as positive reinforcement (Most and Starr, 1990; Siverson and Starr, 1990). Such temporal dependence within units is not of theoretical relevance for the present study, but is addressed empirically in all statistical estimations.

(Buhaug and Gleditsch, 2008; Gleditsch, 2007; Hegre and Sambanis, 2006; Salehyan and Gleditsch, 2006; Ward and Gleditsch, 2002). In these studies, neighborhood conflict is either collapsed into one variable of the either-or kind (a spatial lag) or a summary measure of some kind (for example, a weighted index of conflict in the neighborhood).

As mentioned in the introductory section, the finding regarding the neighborhood effect of civil war has been difficult to attribute to a contagion process; one cannot know whether the dependence structures are due to contagion processes or if the causes of conflict are clustered along with the incidence of conflict. Ross and Homer (1976) provide an illustrative example of this phenomenon. Conditions relating to weather, such as average temperatures and precipitation, are clustered geographically and the technologies used for farming are clustered in a similar manner. However, the fact that farmers adopt similar technologies may not necessarily be a consequence of them mimicking each other, through contagion processes, but may simply be the result of the farmers being faced with the same conditions favoring a specific technique.

Translated to the research problem of relevance to the present study hence indicates that if two adjacent countries experience civil wars at about the same time it is not necessarily evidence of contagion effects; the two civil wars may have started independently from each other but may have been related to the same causes, for instance underdevelopment in the region. In a recent study, Buhaug and Gleditsch (2008) are able to separate the effect of neighborhood conflict from the domestic determinants of civil conflict. More specifically, they seek to disentangle whether the observed spatial clustering of civil wars is primarily a consequence of a corresponding spatial clustering of country characteristics. Indeed, several of the robust country-level predictors of civil war onset display spatial distributions which are far from random. This includes, for example, regional wealth and levels of democracy. Geographical clusters of similarly poor and undemocratic countries overlap with the conflict clusters. The opposite is true as well; wealthy democratic regions overlap with peace. When taking into account these aspects, Buhaug and Gleditsch (2008) find strong evidence for a remaining neighborhood effect. It does not seem to matter, however, how many conflicts that are ongoing in the neighborhood; a dummy variable indicating the presence or absence of civil war in the neighborhood per-

forms the best statistically. They proceed by assessing characteristics of the contiguous conflict countries/zones in the neighborhood.⁹ They find that it does not matter if a nearby civil conflict is fought in direct proximity to a country; neither does it matter if the border to the conflict country is long. What matters is instead whether a country has transnational ethnic linkages to people living in the conflict area and whether the conflict is fought over territorial control. The results of Buhaug and Gleditsch (2008) also indicate that separatist conflicts generate more substantial contagion effects than do conflicts over government power.

Reviewing previous research, with particular focus on the empirical literature on the neighborhood effects of civil war, an important *research gap* has been identified. When examining the neighborhood effect of civil war, or its spatial clustering, previous research has been able to show that a country may be more likely to experience civil conflict partly as a function of ongoing civil wars in the neighborhood. However, previous research has not shown whether and why certain neighbors are more likely than others to be targets of contagion effects from an ongoing conflict. Thus, there is a need to specify how contagion works and investigate the mechanisms that explain contagion. The following section explicates the approach used in the dissertation in order to address the research gap.

The Contagion Process Approach

I address the research gap by suggesting a contagion process approach. The starting point is an existing armed internal conflict (a source of contagion) and the focus is on its potential contagion effects on neighboring states (the targets of contagion). This contagion process approach offers a comprehensive view of contagion: the source of contagion as well as the potential and actual targets are specified. In contrast, previous studies have a one-sided focus on the targets of contagion and typically lump together all potential sources of contagion.

The research problem posed in this dissertation project can be summarized in the following question: given an internal armed conflict in one country, which neighboring state(s) are the most likely targets of contagion

⁹ If there are several ongoing civil conflicts in the neighborhood of a country, the factors are coded with regard to the closest one (Buhaug and Gleditsch, 2008: 224).

effects? Since contagion effects are relatively rare, of priority is to identify conditions and situations where its probability is heightened. Acknowledging this, the dissertation aims to disclose the mechanisms that identify among a risk population of countries, *which* countries are the *most likely targets* of contagion. Hence, whereas previous studies attempt to answer the question whether or not contagion of domestic conflict occurs, this study seeks to identify, among a set of states, those that are more likely sites of contagion. This approach is similar to that adopted in Hammarström and Heldt (2002), although they focus on contagion of a different type of political behavior (military intervention). They analyze a number of pairs of states, of which all are contiguous states, aiming to identify those most likely to experience contagion. Hammarström and Heldt point out that while previous research has been able to show that diffusion does indeed occur among contiguous states, they are the first to also be able to identify which contiguous states that are the most likely targets of diffusion processes.

The risk population of states to which contagion is plausible, is here identified through geographical proximity; contagion effects are traced within neighborhoods of countries. The population consists of a number of dyads of countries, where the first country experiences intrastate armed conflict¹⁰ and the second country is a neighbor to the first country and so considered at risk of contagion.¹¹ There are separate dyads for each country that shares borders with the first country (the one with ongoing conflict). It is, hence, possible for the internal conflict to have contagious effects on any of the other states with which it shares land borders. Apparently, one can argue that an internal conflict can have contagion effects on other states as well, i.e. states that do not physically border the conflict state. However,

¹⁰ According to the Uppsala Conflict Data Project (Harbom, Melander and Wallensteen, 2008). In most of the papers in this dissertation, the source conflicts of relevance are restricted to those with ethnically mobilized warring parties.

¹¹ Neighbor is here defined in a direct physical sense, i.e. the two countries share a land border. Due to the changing nature of the territorial system there is significant variation over time. During the time period examined, new states have emerged (e.g. Eritrea, East Timor, and Namibia), others have ceased to exist by splitting into new independent states (such as Soviet Union and Czechoslovakia) or by merger (e.g. Germany and Vietnam). Since such alterations in the territorial confines of states influence what countries that are direct neighbors, manual coding over time was necessary. The first state in each dyad is a country that experiences internal conflict. The second state in the dyad is a neighboring state. In this study, the number of neighbors to a state experiencing internal conflict ranges from 1 to 18, the latter referring to the total number of states that at some point neighbor USSR/Russia. Island states are included if they share land borders to one or more states, such as Indonesia (with Malaysia and East Timor), Haiti (with Dominican Republic), or United Kingdom (with Ireland).

there are several reasons for focusing on bordering states. First, a focus on direct proximity follows the convention in previous research on contagion effects. As argued by e.g. Starr and Most, when studying contagion, the analysis should be limited to units that are relevant to one another; shared borders constitute such relevance (Most and Starr, 1980; Starr, 2005; Starr and Most, 1976). Second, including all possible targets in the world would not only include clearly irrelevant cases and be extremely time consuming when it comes to data collection, it would also create inefficiency problems¹² and may underestimate the probability of an event, in this case contagion (King and Zeng, 2001). Third, if one were to extend the analysis from direct proximity to some other definition of closeness, it would be necessary to draw the line somewhere to exclude those cases clearly not relevant for contagion. One could, for instance, use the Minimum-Distance database (Gleditsch and Ward, 2001), which lists the shortest distance between all pairs of states that are within 950 kilometers of each other. However, for the purposes of the present study, determining where to draw this line (at some distance larger than zero and smaller or equal to 950 kilometers) appears more arbitrary than having a strict focus on direct proximity.¹³

To summarize, this dissertation identifies potentially contagious relationships by analyzing all countries that share land borders with a country experiencing internal conflict. Obviously, sharing a border does by no means necessarily cause contagion effects, it only creates an increased opportunity (Starr and Most, 1976, 1983). With this research problem, the intention is not to answer the question whether conflict in one country causes conflict to erupt in another; the source conflict is a constant and cannot explain that variation. Of analytical relevance are, rather, the proposed mechanisms that pinpoint the most likely targets among neighboring states.

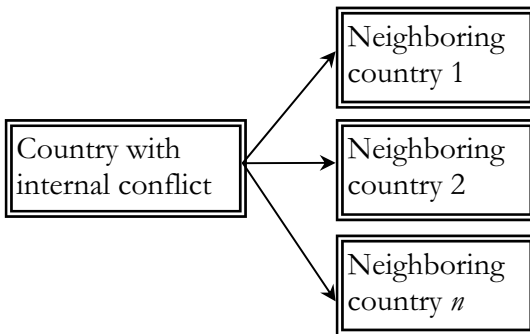
The dyadic approach, where the units of analysis consist of a source (conflict country) and a target (neighboring country), i.e. a sample of potentially contagious relationships, is proposed as a fruitful design for examining contagion effects. It makes it possible to probe explanations that vary be-

¹² That is, in the sense that a smaller sample would have equal probability of detecting the same false null hypothesis.

¹³ Another option is to construct dyads based on e.g. Maoz conception of politically relevant international environment, PRIE (Maoz, 1996). However, one of its features (a state's status in the international system) is likely more relevant in studies of interstate disputes and conflicts. From the perspective of contagion effects of civil war, power status is not an evident selection criterion.

tween different targets and we can thus learn more about contagion mechanisms. Many of the plausible explanations for contagion effects are dyadic. Hence, when each potential contagious relationship consisting of a source and target is considered separately, as in the present study, the suggested explanatory factors can also be considered dyadically. For instance, it has been suggested that refugees fleeing from a conflict to a neighbor may cause conflict contagion. With the dyadic setup, it is possible to examine the number of refugees fleeing from the source country to the target country, rather than lumping together all refugees hosted by a given state, with no reference to their origin. The dyadic approach also makes it possible to control for other, possibly confounding, factors concerning the dyadic relationship between the two countries. For instance, the number of refugees leaving a country with civil war and arriving in a neighboring country may be related to the length of the shared border of the dyad.¹⁴ Figure 1 illustrates the dyadic contagion approach adapted in this dissertation.

Figure 1. *Contagion Approach of the Dissertation*



The box to the left hence represents the source of contagion. The probability of conflict is predicted in each potential target of contagion effects, i.e. each neighboring country. This dyadic framework is adapted in papers I-III

¹⁴ One may raise the question whether the same process could be captured with a standard monadic design. For each country, one could code the number of refugees hosted from neighboring civil war countries and the length of the border(s) shared with conflict neighbors. In this way, conflict in the source country would also be ensured, through the coding of the variables. However, to code the number of refugees, one would in the case of multiple civil wars in the neighborhood, be forced to either collapse the number of refugees originating from all neighboring conflict areas or, like Buhaug and Gleditsch (2008), record only the refugees coming from the nearest conflict location.

in the dissertation. Paper IV differs by instead using a monadic setup, where the units of analysis are annual observations of ethnic groups. The purpose of paper IV is to examine the potential domino effects which may result from accommodating separatist demands. More specifically, it examines whether an ethnic group is more likely to pursue violent conflict if separatist groups in the neighborhood are granted territorial concessions. Territorial concessions granted as a result of settling a civil conflict is a factor relating to the country in the box to the left in Figure 1; hence, it does not vary between different neighboring states. As such it cannot help identify which neighboring states that are the most susceptible to contagion. As a consequence, paper IV has a monadic design.

Presenting the Papers

The dissertation consists of, apart from this introduction, four papers on contagion effects in intrastate armed conflict. Paper I introduces the suggested conceptualization of contagion and an empirical design to capture this conceptualization is proposed. It examines a condition that is hypothesized to make a country more susceptible to contagion effects: *ethnic polarization*, where few ethnic groups form a delicate balance. Statistical analysis supports this hypothesis. Paper II poses the question whether an ethnic group involved in conflict in one country increases the likelihood of ethnic conflict erupting in a neighboring state that shares the same ethnic group. In finding support for such a relationship, this study contributes to our understanding of the role *transnational ethnic groups* may have for the spread of conflict, beyond the direct effect of providing support and safe haven or by influencing the decision to intervene in ongoing conflict. Paper III investigates if *refugee flows* leaving a conflict state and being harbored by a neighboring state make that neighbor more prone to conflict than a neighbor not receiving refugees to the same extent. This is also confirmed empirically. Papers I-III all assume that conflicts generate contagion effects while they are ongoing by, for instance, providing a blueprint for the strategic behavior of ethnic groups. Paper IV instead puts attention on contagion effects as a result of a conflict outcome. It suggests that *territorial concessions* granted to an ethnically mobilized rebel group as part of a peace treaty may spur other proximate ethnic groups to demand similar concessions, hence starting off a

domino effect. Contrary to what is expected from the view of policy-makers the empirical results find no support for such domino effects.

Paper I: The Uncertainty of Ethnically Polarized Societies

...where only a few rivals confront one another within a state and where they have a history of previous protest, they will be most susceptible to intense conflict and to contagion (Hill and Rothchild, 1986: 721)

The first paper, *Polarization and Ethnic Conflict in a Widened Strategic Setting*, introduces the topic of this dissertation – contagion effects of civil wars – as a process whereby conflict in one country increases the probability of conflict erupting nearby at a later point in time. Hence, given an ethnic conflict in one country, what accounts for a difference among neighboring states in their propensity to experience conflict as a result of contagion effects? The study proposes that a country adjacent to a country experiencing ethnic conflict is more susceptible to contagion effects if it has ethnically polarized groups (conceived of as a situation of few groups in a delicate power balance). Ethnic polarization has in previous literature been associated with the incidence, onset, intensity, and duration of civil conflict (Esteban and Ray, 2008; Horowitz, 1985; Montalvo and Reynal-Querol, 2005, 2007; Reynal-Querol, 2002). A shared feature of these studies is that they primarily view ethnic polarization, as well as intrastate conflict, as domestic phenomena. However, evidence suggests that both ethnic groups and ethnic conflicts are not customarily confined within the borders of one state.

This article accepts this widened notion of ethnic groups' power relations and conflict behavior. Hence, it is argued that a violent outcome of ethnic polarization may be the result of actors being inspired by events in a wider strategic setting, encapsulating each state with ethnic conflict and the states surrounding it and involving processes of contagion. Ethnically polarized states are suggested to be more susceptible to contagion because groups in such states face more uncertainty, in the sense that each group may perceive a reasonable chance of success in a violent confrontation. In addition to assessing the role of ethnic polarization in contagion processes, the essay examines the conditional effect of transnational ethnic groups, i.e. ethnic groups that straddle two or more independent states. It is suggested that the effect of ethnic polarization is exacerbated in the presence of transnational

linkages between ethnic groups involved in conflict and group members living in a neighboring country.

The hypotheses are assessed using a global dataset in the period from 1989 to 2004. The dataset starts out from each country that experiences an ethnic conflict and examines its relative contagion effects on neighboring states. The findings suggest that polarized states are indeed more susceptible to contagion effects. The analysis also supports that cross-border links between members of the same ethnic group make contagion more likely. Hence, both ethnic polarization and kinship ties are important in their own right; however, the analysis finds no evidence of a conditional effect between the two variables. In sum, these findings point to the importance of incorporating a widened strategic setting in the analysis when examining the association between ethnic polarization and civil conflict. In addition, the result regarding transnational ethnic groups points to the importance of further examining the issue of such groups and better specify and empirically examine its potential role in contagion of conflict.

Paper II: The Impact of Transnational Ethnic Groups

The most intense and complex spillover effects in ethnopolitical conflict happen among groups that straddle international boundaries—intense and complex, because they draw in a multiplicity of ethnic and state actors (Gurr, 2000: 91).

In paper I, the findings show that given an ethnic conflict in one location, a neighboring state is increasingly likely to also experience ethnic conflict if it shares linkages based on ethnic kinship with groups involved in the conflict. To learn more about the specific ways in which such links operate, further assessment is required. This is the starting point of the dissertation's second paper, *Transnational Ethnic Groups as Transmitters of Conflict Contagion*.

Many scholars have noted that the existence of transnational ethnic groups is politically relevant. As such, they may have an impact on various types of phenomena, including intervention, interstate dispute, and as focused here in the contagion of ethnic conflict. There are many examples of ethnic groups being mobilized and involved in armed conflict in more than one state. Among many examples we find the Kurds, involved in conflict in Turkey, Iran, and Iraq; Tutsis in Rwanda, Burundi, and the Democratic Republic of Congo; Toubous in Chad and Niger; and Afars in Djibouti and Ethiopia. Apart from their geographical proximity, the conflicts including

members from the same ethnic group are also usually temporally linked. In addition, members of transnational ethnic groups are usually connected to each other and share similar traits; these conditions may make contagion effects more probable as such groups are more likely to mimic each other. Hence, conflict in one state may increase the probability of conflict involving the same group in one or more proximate states at a later point in time, i.e. an apparent contagion effect. When a rebel movement, mainly mobilized among members from a specific ethnic group, is involved in ethnic conflict in a state it is plausible that group members residing in a neighboring state are affected. In the first paper, this idea was introduced, and it was found to increase the risk of contagion effects, making it a relevant topic for further theoretical and empirical scrutiny. Hence, in the second paper I develop this idea, in two ways.

First, I discuss specific pre-existing circumstances argued to make the impact of kinship ties more substantial. One such condition is present if the neighboring state, which has kin members in its territory, is structurally weak. In the context of a weak state, ethnic groups are more capable of acting on an inspiration effect emanating from kin members being involved in ethnic conflict. Another hypothesized condition is that given ethnic conflict in one state, if any of the actors of the conflict has kin members that are either discriminated and/or politically mobilized in the neighboring state, the likelihood of ethnic conflict in the neighboring state is heightened. Second, an improvement from the first paper is that the empirical analysis is temporally extended to the period from 1946 to 2006, compared to the time period from 1989 to 2004 analyzed in the first paper.

The results confirm that kinship linkages matter for contagion. Given an ethnic conflict in one state, ethnic links to a neighboring state make that neighbor more conflict prone than a neighboring state lacking such ties. Empirical analysis also shows that the effect of such kinship ties is accentuated if the neighboring target state is structurally weak. In contrast, when the neighboring state is strong, kinship ties lack significance. There is also inconclusive evidence suggesting that the effect of kinship is stronger when group members in the neighboring state are discriminated against or mobilized.

Paper III: The Role of Refugee Flows

...direct diffusion stimulated by refugees [...] is a real and practical concern. (Lake and Rothchild, 1998a: 341)

The first two papers examine contagion processes which can be considered indirect, whereby conflict in one state inspires or prompts groups elsewhere to rebel and take up arms by example. As a contrast, the third paper addresses a more direct contagion effect. This essay is called *Refugees and Intra-state Armed Conflict: A Contagion Process Approach* and it starts with the commonly suggested idea that refugee flows may cause civil conflict to spread from one state to another. Events in, for example, the Great Lakes Region do indeed illustrate the potential magnitude of the problem of refugee-related spread of civil war. This has also been suggested by several researchers, primarily in case-studies. Statistical evidence, however, is insufficient. Using global data, Salehyan and Gleditsch (2006) find that countries that harbor refugees from somewhere in the neighborhood are subjected to an increased likelihood of internal conflict. Buhaug and Gleditsch (2008), on the other hand, find inconclusive evidence regarding the risk of civil war when a country hosts refugees from a neighboring conflict country.¹⁵ However, these studies focus on the states that receive or harbor refugees. The present study argues that to assess the role of refugees in contagion processes, it is essential to incorporate both the sending and receiving states.

The present study thus proposes a dyadic contagion framework, with a source and a target. Given the aim of examining refugee flows as a mechanism for the contagion of conflict, the approach starts with a state with armed conflict (source) – this conflict may generate refugee flows – and examines whether a neighboring state (target) that receives these refugees is more prone to end up in armed conflict than a neighboring state that does not receive refugee flows. With this dyadic setup, it is possible to separately analyze some of the mechanisms proposed by previous research. This has not been done before in a large- N setup.

Two hypotheses relate to how, given an ongoing conflict, refugees arriving to a neighboring country may increase the likelihood of conflict onset. It

¹⁵ Hosting refugees from conflict areas is not associated with the risk of conflict onset in a host state if onset is collapsed into a binary measure. When estimating a multinomial model, refugees appear to be associated with an increased risk of onset over government control. The relationship with territorial onsets is negative, but not statistically significant (Buhaug and Gleditsch, 2008).

is suggested that refugee flows from conflict areas are associated with spill-over effects that make receiving states more likely to also experience conflict, compared to neighboring states that do not experience influx of refugees from the conflict area. In addition, it is suggested that the effect of refugee flows is exacerbated when the neighboring receiving states have latent conflicts. A second set of hypotheses are restricted to explaining the onset of ethnic conflict in the host state. It is argued that there are certain features of refugee flows and their hosting states that make ethnically mobilized conflict in the host state more likely, e.g. when the inflow of refugees leads to a significant change in the ethnic geography of the hosting state. It is suggested that such disruptions of the ethnic geography due to refugee movements are more likely to generate armed ethnic conflict when the host state is characterized by ethnic polarization.¹⁶

In the empirical analysis, these hypotheses are evaluated using a global dataset covering the period from 1960 to 2006. It is constructed in a way suitable to capture the dyadic conceptualization of contagion: it consists of dyads of states in which the first state has an ongoing armed conflict and the second state is at risk of contagion due to refugees arriving from the conflict state. The dyadic setup also enables disaggregated measurement of the variables. The analysis shows that refugee flows from conflict areas generally make receiving neighboring states both more prone to conflict in general, and to conflicts with ethnically mobilized warring parties. However, the proposed conditional effects are not confirmed; rather, the analysis indicates that the opposite may be the case. As such, both the existence of a latent conflict in the host state and ethnic polarization appear to dampen the contagion effect of refugee flows. This may be due to a tendency of regimes in power in those types of countries to take countermeasures, since they may anticipate that hosting refugees brings about a higher risk of instability.

Paper IV: Territorial Concessions and Domino Effects

The demise of the Soviet Union, Yugoslavia and Czechoslovakia and the establishment of smaller, more ethnically homogenous states in their stead cannot but help whet the appetites of secessionists in the United Kingdom, Canada, Spain, Sri Lanka, India and other states (Hechter, 1992: 267).

¹⁶ The results from paper I suggest that such states are, in general, more vulnerable to contagion effects.

A common feature of the first three papers is that they focus on contagion effects as the result of processes during ongoing conflict. The last paper, *Do Ethnic Dominoes Fall? Evaluating Domino Effects of Granting Territorial Concessions to Separatist Groups*, instead examines whether conflict outcomes may produce contagion effects. One such outcome is when an internal conflict ends with a peace agreement that stipulates that the opposition movement is accommodated, to some extent, regarding the demands it pursued during the conflict. More specifically, this paper starts from the common assumption, especially among policy-makers, that granting territorial concessions in the form of e.g. autonomy or complete secession to ethnic groups involved in violent conflict may create “domino effects.” Acquiescing to the territorial claims of one ethnic group may thus inspire other groups to demand similar treatment. With this concern as a background, the international community is generally reluctant to accept the legitimacy of secessionist movements.

This paper examines whether ethnic groups are more inclined to pursue violent conflict if ethnically mobilized groups nearby are granted territorial concessions. I make a distinction between two processes that may generate domino effects. The first is a general inspiration process suggesting that the accommodation of one group’s separatist aspirations may encourage other ethnic groups to pursue similar goals. Such inspiration effects may operate both within countries and internationally. The second process is a subcategory of the first and is only applicable to a domestic setting. It suggests that if a government accommodates the separatist demands of one of the state’s ethnic groups this can be perceived by other groups in the same state as a signal that the government may yield to their demands as well. In this way, other ethnic groups may perceive that their likelihood of success has been enhanced. While systematic research has provided some support for domino effects operating within countries (Hale, 2000; Saideman, 1998; Walter, 2003, 2006a, b), no firm conclusions have been generated with regard to a wider domino effect, also extending beyond country borders to groups in the neighborhood.

In the empirical analysis, a dataset containing politically relevant ethnic groups included in the Ethnic Power Relations (EPR) dataset (Cederman, Wimmer and Min, 2008) in the time period from 1989 to 2004 is used. Using data on territorial concessions from the IMPACT dataset (Jarstad and Nilsson, 2008), the empirical analysis finds no evidence of domino effects. More specifically, ethnic groups are not more inclined to pursue violent

conflict if groups in their neighborhood are accommodated on their territorial demands. Moreover, this study finds no indications suggesting that such domino effects are present between ethnic groups within the same country, as previous research suggests. The existence of transnational linkages between ethnic groups, which was linked to contagion effects in papers I and II is included as a control variable. It performs well statistically: the involvement in armed conflict by ethnic kin members in neighboring countries significantly increases the risk of conflict initiation involving an ethnic group. Taken together, the findings of this paper suggest that concessions do not appear to inspire new separatist movements; however, violent ethnic conflict may be contagious between different subgroups of the same ethnic group. From a policy perspective, this is considered good news. While conflict in one location may be linked to the onset of new conflicts nearby, the peaceful settlement of conflict – including the granting of concessions to the challenger – does not appear to generate new conflicts.

Conclusions

Contributions

The starting point of this dissertation is that in order to learn more about contagion processes, it is important to disclose the mechanisms that identify the most likely targets of contagion, given that an ongoing conflict is observed. *The first contribution* of this dissertation is that it develops a novel approach to contagion, focusing on the process involving both the sources and targets of contagion. Using this approach made it possible to scrutinize several of the explanations that previous research has proposed. First, the results show that given an ongoing ethnic conflict, among a set of neighboring countries, those that share members of the groups involved in conflict are more likely targets than those lacking such bonds. To exemplify, if one observes an ethnic conflict in Senegal involving Diolas, the results of the dissertation suggest that those neighboring countries which harbor significant Diola populations (i.e. the Gambia and Guinea-Bissau) would be more likely to experience an onset of ethnic conflict than those neighboring coun-

tries lacking Diola segments (such as Mali and Mauritania).¹⁷ This effect of transnational ethnic kinship linkages are supported empirically using both country-level data (paper I and II) and group-level data (paper IV). Second, this dissertation finds that given an ongoing internal conflict (ethnic or non-ethnic), the variation in refugee flows to different neighboring countries is related to which neighboring states that are the most likely targets of contagion effects. To illustrate, civil war in Afghanistan has produced particularly large refugee flows to neighboring Iran and Pakistan, while flows to neighboring Turkmenistan and China have been small or non-existent. According to the findings, conflict onset would be more likely in the first two neighbors. Third, findings from paper I suggest that countries that are ethnically polarized, in the sense that there are a few equally (or roughly equally) strong contenders, are more likely targets of contagion effects. To use yet another example, if Ethiopia experiences civil conflict, neighboring states that are ethnically polarized (Djibouti, Eritrea, and Sudan) would be more susceptible to contagion effects than neighboring states that are not polarized (Kenya and Somalia). Last, while papers I-III support that conflict in one country may increase the likelihood of conflict elsewhere, paper IV finds no support for the claim that concessions granted to rebel groups inspire other groups into rebellion. This result challenges a common view, especially among policy-makers.

The second contribution of this dissertation is that it sheds new light on previous findings, arguments, and intuitions. First, if the two states share a mountainous border it may make spillover less likely, since this would hamper the movement of e.g. weapons and mercenaries from the conflict state to the neighboring state. The present study finds no evidence in support of this suggestion. Second, if the two states share a long border it is suggested to make spillover more likely (Buhaug and Gleditsch, 2008). A long shared border is more difficult to monitor; hence, it is associated with an increased likelihood that weapons and armed groups move from the conflict state to its neighbor. This proposition is not borne out in this study's empirical analysis. Third, given an internal conflict in one state, if the neighboring state abuts the actual zone of fighting, spillover effects are expected (Buhaug and Gleditsch, 2008). Internal armed conflicts are rarely fought within a whole

¹⁷ This and the following examples are strictly hypothetical and are not used to illustrate actual examples of conflict contagion processes.

country, but are often localized phenomena in the periphery of countries (Buhaug and Gates, 2002; Rød, 2003). Hence, the fact that two states are neighboring states does not necessarily mean that the country without conflict is anywhere close to the actual area of fighting.¹⁸ When introduced empirically in this dissertation, this factor has no impact. It is also interesting to note that when either of these variables is added to the empirical models, the results of theoretical relevance are not eradicated or diluted. Taken together, these findings suggest that contagion is not limited to direct spillover (of weapons, mercenaries, etc) from conflict areas, but may be the result of inspiration and conflict by example. It may even indicate that the latter type of contagion process is more salient.

The third contribution of this dissertation is that it demonstrates the usefulness of improving and specifying measurement of data. The primary data contribution of this dissertation constitutes the first attempt to establish the ethnic constituency and support base of rebel groups. This data was used in paper I, II and IV, and advances our ability to identify transnational bonds between ethnic groups. Although links between ethnic groups have been suggested as a significant cause of, for instance, intervention and interstate conflict, in quantitative analyses such links have usually been studied using crude proxies.¹⁹ With the new data collection, the role of transnational ethnic linkages in, for example, military intervention can be probed more directly. The empirical contribution of this dissertation also illustrates the usefulness of disaggregating data, which is possible with the dyadic setup. For example, in paper III, which focuses on refugee flows as a cause of contagion of civil conflict, the different refugee measures are disaggregated to count how many refugees that fled from the conflict state and arrived in a neighboring state in a given year, rather than summarizing all refugees either leaving a state or being harbored by a state.

¹⁸ For instance, the insurgency in Manipur in the Northeast of India is close to Burma/Myanmar but far away from Pakistan.

¹⁹ Transnational ethnic kinship is usually coded as present if two states share the same ethnic group X. This does not *per se* mean that X is relevant, in the sense that this specific group and/or tie have any influence on conflict. For example, Berbers constitute significant minorities in both Morocco and Algeria, but have not been primary parties in conflict in either country. In this dissertation the dyad Morocco (as a conflict state) and Algeria (as a neighboring state) is not coded as having an ethnic kinship tie, since the ethnic groups involved in conflict in Morocco are Saharawis and Moroccans and these groups do not constitute significant ethnic groups in Algeria. In addition, if ethnic ties are coded based on the Minorities at Risk data (Minorities at Risk Project, 2005), countries as diverse as Bosnia-Herzegovina, Greece, India, and France would be coded as having transnational kin ties as Muslims constitute a risk group in each of those countries.

Implications

The findings from this dissertation have both theoretical and methodological implications. Specifically, on its basis I suggest five avenues for future research. First, this dissertation attempts to disclose the mechanisms behind contagion processes in order to identify the most likely targets of contagion effects. This shift in focus opens up a new research agenda, whereby conflict is a given and its effects are of primary relevance. The research endeavor suggested that, while defining contagion as a process whereby an ongoing internal conflict in one location increases the likelihood of conflict nearby, one can approach it using two different points of departure. One can either focus on the country (or some other relevant unit) which triggers events elsewhere, i.e. the source of contagion, or one can focus on the country (or other unit) which is affected, i.e. the target of contagion. While this dissertation belongs to the first alternative, the latter alternative is clearly the dominant approach in conflict research. The findings from the present study suggest that how a contagion study is designed has implications for the results. For instance, Buhaug and Gleditsch (2008) find that countries are more susceptible to civil war onset if there are separatist conflicts in the neighborhood. In contrast, when probing the same factor but studying pairs of states, where the first state has an ongoing internal conflict and the second is at risk for contagion effects, it does not matter if the conflict in the first state is over territory or government control. As a consequence, it would be interesting to probe other potential explanations for the spread of civil war, using the conceptualization of contagion developed in this dissertation.

Second, with the exception of Paper III, which examines refugee flows as a mechanism for conflict contagion, the dissertation primarily focuses on indirect contagion processes whereby conflict in one country provides lessons, inspiration, and clues for actors in other countries. Apparently, civil wars may also spread via more direct routes.²⁰ For instance, when conflict is underway in one state, it often leads to an increased availability of arms.

²⁰ Several researchers discuss this distinction. For instance, Ayres and Saideman (2000) refer to direct spread, whereby the occurrence of conflict in one location directly changes the likelihood of conflict in another location, as spillover. Spread that is indirect, whereby conflict in one place generates lessons for actors elsewhere and changes these actors' calculations about the usefulness of violent conflict, is termed contagion. Gurr makes a similar distinction, and similarly uses contagion for the indirect processes; however, he uses the term diffusion to describe direct spillover of conflict (Gurr, 1993: 134; 2000: 89).

When border control is insufficient, these arms may be transferred to neighboring states where aggrieved groups are willing to initiate violent conflict as soon as they have the ability to do so. The inflow of weapons at knock-down rates may provide them with such capacity. Another type of explanation is that a civil war in one country affects the economy of the surrounding states. As noted by Murdoch and Sandler (2002; 2004), civil wars may lead to a reduction in trade and investment, both in the state with war and in proximate states. Considering that previous research has found consistent support for a relationship between the economic wealth of a country and its likelihood of internal conflict, a decline in wealth due to conflict in one country may be linked to the onset of a conflict in another country. In sum, spillover processes linked to, for example, weapons or economic decline would be interesting to study further.

Third, and partly related to the previous point, the dissertation puts a lot of emphasis on explanations for conflict spread that have an ethnic element. Conflicts are thus, for instance, suggested to spread because of transnational bonds between subgroups of the same ethnicity or because the ethnic balance of a country is disrupted. The present study's focus on ethnicity is partly a function of the fact that these explanations were among those most often forwarded in previous research. In addition, limiting the study to ethnic explanations, and the spread of ethnic conflict, makes it easier to think in terms of potential targets. As ethnic conflict are usually self-limiting and constrained by regions (Fearon, 1998; Lake and Rothchild, 1998b), a focus on bordering countries is straightforward. However, an avenue for future research is to examine whether other types of civil wars also spread and, if that is the case, if they do so under different circumstances than ethnic conflict. This may include the spread of coups, Islamist movements, or communal conflicts not involving governments.

Fourth, the dissertation provides further evidence for the need to integrate a transnational perspective to the study of civil war. As much recent research has demonstrated, to understand the causes of civil war, it is necessary to go beyond the nation state and its boundaries (Buhaug and Gleditsch, 2008; Gleditsch, 2002, 2007; Sambanis, 2001). The findings from this dissertation indicate that in particular ethnic conflicts are linked across borders. Hence, many studies of ethnic conflict may benefit from moving away from a focus on countries since the borders of a state do not necessarily delimit the most suitable units of analysis. Several factors point to this, including the contagion effects found in this dissertation, the links between

ethnic groups across borders, which were found to be important, and the fact that the issues at stake often have a transnational dimension.

Fifth, the findings of this dissertation also point to the necessity of examining sub-national factors. Moving away from a country-focus also implicates an examination of disaggregated factors within countries. Whereas the dissertation attempts to reflect such disaggregation in the coding of the variables, the units of analysis in papers I-III are dyads of countries. For a better assessment of the actor-level theoretical arguments, which most accounts of contagion effects are based on, the empirical model could be significantly improved. Paper IV constitutes a first attempt, as it analyzes ethnic groups. However, systematic disaggregated data has generally not been available. Recent advances in civil war research aiming to disaggregate both the data commonly used to predict a civil war, as well as more specific measure of the location of wars, is promising in this respect (see, among others, Buhaug, Cederman and Rød, 2008; Buhaug and Gates, 2002; Buhaug and Lujala, 2005; Gilmore et al., 2005; Lujala, Rød and Thieme, 2007).

In sum, the findings from this dissertation suggest that fruitful avenues for future research include further investigation of contagion processes using the approach developed in this study, additional scrutiny of contagion effects of the direct type, and examination of contagion effects involved in ideological and other types of conflict. The findings also point to the importance of relaxing the assumption that countries always form the relevant frame for analysis. Indeed, the results of this study provide further evidence to the argument that it is important to incorporate both transnational and subnational elements.

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