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TRUTHMAKERS

THE CONTEMPORARY DEBATE

Edited by

Helen Beebee and Julian Dodd

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TRUTHMAKERS: THE CONTEMPORARY DEBATE

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Truthmakers

The Contemporary Debate

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Great Clarendon Street, Oxford OX2 6DP

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Published in the United States
by Oxford University Press Inc., New York

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First published 2005

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British Library Cataloguing in Publication Data
Data available

Library of Congress Cataloging in Publication Data
Data available

Typeset by Newgen Imaging Systems (P) Ltd., Chennai, India
Printed in Great Britain
on acid-free paper by
Biddles Ltd, King's Lynn, Norfolk

ISBN 0–19–928356–7 978–0–19–928356–9

1 3 5 7 9 10 8 6 4 2

To Susan and to Gavin

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ACKNOWLEDGEMENTS

Earlier versions of most of the papers in this collection were delivered to the Truthmakers conference held at the University of Manchester in May, 2002. The exceptions are the papers by Chris Daly and Jennifer Hornsby, which were written specially for this volume. The conference itself was a stimulating and collegial event, and we'd like to thank the other participants: David Armstrong, Gloria Ayob, Carola Barbero, Simon Blackburn, Simon Bostock, Stefano Caputo, Aisling Crean, John Divers, Emma Jay, Max Kolbel, James Ladyman, Kevin Mulligan, Michael Rush, Peter Simons, and Sean Walton.

Warm thanks to the contributors for their patience during the publication process, and to the Mind Association, the British Academy, and the Analysis committee for supporting the conference.

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1 *Introduction*

HELEN BEEBEE AND JULIAN DODD

Talk of 'making true' has become commonplace in contemporary metaphysics. Alongside that talk, a considerable body of literature has grown up around what might be called 'truthmaker theory'. Ignoring questions of precise formulation that will be discussed presently, *the truthmaker principle* says that every true proposition must be made true by something. Many see the truthmaker principle as constituting what must be preserved in the correspondence theory of truth (for example, David Armstrong (1997: 128ff.) and Alex Oliver (1996: 69)). Others have suggested that the avoidance of a pernicious idealism requires us to embrace a version of the principle (for example, John Bigelow (1988*a*: 123)). It has also been claimed that such a truthmaker principle has an explanatory function, such as that of enabling us to solve the problem of universals (for example, by Gonzalo Rodriguez-Pereyra (2000)). Other philosophers, meanwhile, regard themselves as truthmaker theorists and yet back off from the truthmaker principle, retreating to more modest formulations which—some of them claim—can do the same work as the unrestricted truthmaker principle at a cheaper ontological price (for example, David Lewis (2001*a*) and Josh Parsons (1999)).

The contributors to this volume ask, amongst other things, how the truthmaker principle should be formulated, whether it is well motivated, whether it genuinely has the explanatory roles claimed for it, and whether various more modest principles might serve just as well. In this Introduction we aim to provide an opinionated sketch of this terrain. We hope that a partisan overview will enable readers to appreciate the essays that follow, and engage fully with their arguments.

1. THE TRUTHMAKER PRINCIPLE

Let us first of all focus upon the truthmaker principle's meaning, formulation, and scope. What *is it* for a truth to be made true by something? The idea would seem to be this: a true proposition's truthmaker is an entity that acts as the truth's 'ontological ground' (Armstrong 1991: 190): it is some worldly thing whose mere existence *necessitates* the proposition's truth. What is the nature of this necessitation? One thing is for sure: it is not intended to be causal. Something's making a proposition true is nothing like something's making Jane angry. Truthmakers necessitate truths in a stronger, metaphysical sense. As David Armstrong puts it, '[i]n the useful if theoretically misleading terminology of possible worlds, if a certain truthmaker makes a certain truth true, then there is no alternative world where that truthmaker exists but the truth is a false proposition' (1997: 115). All of which leads to the conception of truthmaking as a kind of world-to-language corollary of logical entailment. Speaking informally, we may describe a proposition's truthmaker as an entity whose existence *entails* that the proposition in question is true. (This approach is taken by, for example, John Fox (1987: 189) and John Bigelow (1988*a*: 125), as well as by Armstrong.) Speaking more precisely, in way that acknowledges the fact that only propositions and linguistic entities can enter into entailment relations, we may formulate an unrestricted version of the truthmaker principle as follows:

> (TM) Necessarily, if $\langle p \rangle$ is true, then there exists at least one entity α such that $\langle \alpha$ exists$\rangle$ entails $\langle \langle p \rangle$ is true$\rangle$.[1]

One notable aspect of (TM) is that necessary truths are not explicitly excluded from its scope. Armstrong, for one, is happy with this, believing that every truth—contingent *and* necessary—must have at least one truthmaker (1997: 139, 150). But one might wonder whether necessary—and, in particular, *analytic*—truths need truthmakers: an analytic truth, it could be said, is true *however* the world is, and so is not *made true* by anything. However, even if necessary truths are excluded from the scope of (TM)—as we shall assume from now on—a bold metaphysical thesis remains.

Clearly, (TM) takes us from truth to ontological commitment, and thus might be seen as a rival to Quine's famous criterion of the latter. According to Quine's criterion, what exist are the values of the variables of a true theory. So, for example, the truth of ⟨The rose is red⟩ (which we might rephrase as ⟨There is exactly one x such that x is a rose and x is red⟩) commits us, according to Quine, to the existence of a unique object which satisfies 'x is a rose and x is red'.

The existence of such an object is not sufficient to satisfy (TM), however. The existence of something which happens to satisfy 'x is a rose and x is red' does not *entail* the truth of ⟨The rose is red⟩, since the object in question—a rose, which, as it happens, is red—might not have been red, and so there are possible worlds where that object exists yet ⟨The rose is red⟩ is false.

---

[1] We follow Paul Horwich (1990) in using angled brackets to form names of propositions and their constituents. As (TM) suggests, we assume that propositions are the primary bearers of truth, but will briefly discuss the question of the nature of the bearers of truth at the end of §4.

So what is the entity whose existence *does* entail the truth of ⟨The rose is red⟩? Merely adding redness to our inventory (which, from a nominalist perspective, is bad enough) will not help, since the existence of the rose and the existence of redness do not jointly entail the truth of ⟨The rose is red⟩ either: redness might exist yet not be instantiated by the rose. Consequently, truthmaker theorists have typically regarded the truthmakers of such contingent predications to be either *states of affairs* (particulars-having-properties, such as *the rose's being red*), or else *tropes* (particularized properties, such as *the redness of the rose*). (The standard-bearer for the former view is Armstrong (1997); the claim that tropes are truthmakers is defended by Kevin Mulligan, Peter Simons, and Barry Smith (1984).) It is, of course, a controversial issue whether we should regard either states of affairs or tropes as bona fide constituents of the world; certainly from a Quinean perspective such entities would be viewed as ontological exotica. We return briefly to this issue in §4 below.[2]

As Gonzalo Rodriguez-Pereyra—a defender of (TM)—readily admits, this version of the truthmaker principle faces a serious problem. As we shall see in §3, a considerable benefit of formulating the truthmaker principle in this way is that one of the major motivations for truthmaker theory—the intuition that truth must be *ontologically grounded*—seems to apply to contingent propositions across the board. On the other hand, the unrestrictedness of (TM) is such that it immediately presents its supporter with the challenge of finding truthmakers for negative propositions such as ⟨There are no penguins at the North Pole⟩. It is one thing to have one's truthmaker theory commit one ontologically to states of affairs; it is quite another to suppose that negative propositions are made true by negative states of affairs, where a negative state of affairs is, presumably, the absence of a certain positive state of affairs. Such a truthmaker would be what P. F. Strawson has called, somewhat disapprovingly, 'a ubiquitous non-presence' (1950: 181).

One solution to the problem of truthmakers for negative truths would be to restrict the scope of (TM) still further, so that it applies not to *all* contingent truths but only to all 'positive' contingent truths, or perhaps to all atomic contingent truths. But of course imposing such a restriction leaves the truthmaker theorist in an uncomfortable position. For it would seem that negative truths are 'grounded' in how things are just as much as positive truths are. And if negative truths can be 'grounded' without having truthmakers, it is unclear why *positive* truths should need truthmakers in order to be grounded in how things are. In other words, banning negative truths from the scope of (TM) seems to leave it unclear why we need to believe in truthmakers in the first place.

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[2] For an attack on an ontology of states of affairs, see Dodd 1999; for a sceptical discussion of trope theory, see Daly 1997.

An alternative response, suggested originally by John Bigelow (1988*a*: 126), has it that the truthmaker theorist should retreat to the claim that *truth supervenes on being*, where this means that truth supervenes on *whether things are*:

> (ST) Necessarily, if $\langle p \rangle$ is true, it would be impossible for $\langle p \rangle$ to be false unless at least one entity which does not exist were to exist, or at least one entity which exists were not to exist.

According to (ST), the intuition behind (TM), but which (TM) itself presents in an unnecessarily strong form, is merely that there can be no variance in what is true without there being a variance in what exists.

It is significant, however, that both Rodriguez-Pereyra and Chris Daly argue that (ST) fails to capture the truthmaker theorist's key intuition that truth is grounded in reality. For this intuition has it that the grounding relation is *asymmetrical*: a proposition is true because reality is a certain way, but it is not the case that reality is a certain way because a proposition is true. The supervenience between truth and being, by contrast, goes both ways: if it is correct that there can be no variance in what is true without there being a variance in what exists, it is equally correct that there can be no variance in what exists without a variance in what is true. Consequently, argue both Daly and Rodriguez-Pereyra, if a truthmaker theorist were to retreat to (ST), it would require her to abandon the very intuition that motivates her project in the first place.[3]

2. MOTIVATING THE TRUTHMAKER PRINCIPLE: PHILOSOPHICAL PROBLEM-SOLVING

In the light of the discussion in the previous section, let us presume that the truthmaker principle is most plausibly formulated as (TM) (or perhaps a restricted version of it). Our next question is whether such a truthmaker principle is well motivated. Armstrong has famously confronted those inclined to question it with an incredulous stare rather than an argument. The principle is, he claims, 'fairly obvious once attention is drawn to it, but I do not know how to argue for it further' (Armstrong 1989*a*: 89). But it would seem that an argument is precisely what is required. For, as Jennifer Hornsby argues in her contribution to this volume, it is by no means clear that we must explain the truth of propositions by appeal to truthmakers. How come it is true that the rose is red? A compelling answer, suggests Hornsby, is that ⟨The rose is red⟩ is true because the rose instantiates the property *being red*. This answer commits us to the existence of the rose, and to the existence of the property of redness, but not to a truthmaker. So the challenge to the truthmaker theorist is to provide us with a convincing reason for holding (TM).

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[3] In any case, one might doubt whether (ST) is true. Dodd (2002: 73–81) argues that truth supervenes, not on *whether things are*, but on *how things are*: how things stand with the things that exist. It is a moot point whether this weaker supervenience claim deserves to be regarded as a variant of truthmaker theory.

One thing is for sure: we cannot attempt to argue for a version of the truthmaker principle by trying to show, in piecemeal fashion, that all truths, or a certain basic set thereof, have truthmakers. Such an approach cannot do the job of motivating the truthmaker principle to begin with and, consequently, cannot justify the search for truthmakers for apparently recalcitrant cases such as negative truths. An ingenious truthmaker theorist with a devil-may-care ontological attitude will be inclined to invoke whatever far-fetched entity is necessary to come up with a truthmaker for a recalcitrant case; but unless the truthmaker principle is first of all given an over-arching rationale, the suspicion will remain that such entities will have been gerrymandered into existence. (This point has been made both by Daly (this volume) and Dodd (2002: 81).)

Having put the piecemeal approach to one side, there are two kinds of strategy for providing the kind of justification that the truthmaker principle so evidently requires. The first is that of seeking to argue that the truthmaker principle must be deployed, if we are to solve particular philosophical problems. The second, by contrast, sees the truthmaker theorist arguing that the truthmaker principle best explains certain compelling intuitions that we have (or should have). We shall begin by considering approaches of the first kind, and return to the second approach in §3 below.

Rodriguez-Pereyra (2000) has claimed that we need to posit truthmakers to solve what he takes to be the problem of universals. This problem, in essence, is that of explaining how it is possible for distinct particulars to share the same property. One might think that an answer to this question will require philosophers to engage in conceptual analysis, involving the drawing of a distinction between numerical and qualitative identity, which thereby explains how two particulars can be numerically distinct and yet qualitatively the same. Rodriguez-Pereyra denies that this approach can succeed, however. In his view, the problem of universals is an ontological problem, and so focusing on the concepts and words with which we think and talk about what there is—as opposed to actually *doing* ontology—cannot provide a solution to it (2000: 260).

So how should the ontologist proceed? According to Rodriguez-Pereyra, the correct approach is that of giving the truthmakers for true propositions of the form '*a* and *b* are *F*'. Directly appealing to (TM), Rodriguez-Pereyra claims that to explain how it is possible for two particulars to share the same property is to invoke the existence of an entity which entails this fact (2000: 261). The truthmaker *is* the *explanans*. But there are worries with this, as both Daly and Fraser MacBride have pointed out. For if, as philosophers, we are puzzled by how two particulars can have the same property, we are going to be equally puzzled by how there could be an entity which entailed this (MacBride 2002: 31). Furthermore, it seems to be all too easy to cite an entity whose existence entails that *p* but which *obviously* fails to explain how *p* is possible. Following Daly (this volume: §4), let us switch to the problem of free will for a moment. The problem in question is that of explaining how free will is possible, given that all actions are causally determined; so, if Rodriguez-Pereyra is correct, to solve this problem is to cite a truthmaker for ⟨Our actions are free and yet causally determined⟩. But it is all too easy to come up with such an entity that quite obviously fails to provide an answer to the free-will problem, namely *the fact that we have free will and that all actions are causally determined*. We have a begging of the question here, rather than an explanation that dissolves our sense of puzzlement as to how we can act freely even though we could not have done otherwise. Nonetheless, we have an 'explanation' that passes Rodriguez-Pereyra's test, and it is clear that this phenomenon generalizes. *The fact that a is F and b is F*—if there is such a thing—entails that *a* is *F* and that *b* is *F*, but positing this fact does nothing to explain how it is possible for two distinct particulars to share the same property.

What should we conclude from all this? Daly suggests that the moral of the story is that invoking truthmakers for truths is simply not to explain those truths. We might even be tempted to go further, suggesting that the kind of conceptual analysis that Rodriguez-Pereyra rejects is precisely what we need to engage in. Returning to the case of free will and determinism, one familiar compatibilist move is to question whether we really have to think of a free action as one that the agent might not have performed: the compatibilist examines our concept of freedom and concludes that '*A* acted freely' does not entail '*A* could have done otherwise' (see, for example, Frankfurt 1969 and Dennett 1984: ch. 6). Another familiar compatibilist move is to provide an analysis of 'could have done otherwise' such that '*A* was causally determined to do *X*' does not entail '*A* was unable to do otherwise than *X*' (see, for example, Moore 1912: ch. 6 and Smith 1997).

In the same vein, it appears that a satisfying solution to the problem of universals will distinguish two particulars being qualitatively identical from their being numerically so. Unless Rodriguez-Pereyra can find some principled way of ruling out the kinds of trivializing truthmaker 'explanations' Daly considers, it appears that truthmakers cannot enable us to solve the kinds of philosophical problems he has in mind.

Joseph Melia notes that the truthmaker principle can be employed to solve a related problem. As Melia, MacBride, and David Liggins all note, the truthmaker principle provides us with, as MacBride puts it, 'an alternative route from language to ontology' to that provided by Quine's criterion of ontological commitment. According to Quine (1948), we settle our ontology by looking to the quantificational structure of our best theory, and then seeing what kinds of entities need to exist in order for that theory to be true. But consider a true sentence like:

(1) There is a property that Helen and Julian share.

(1) quantifies over properties, and, as Melia notes, thereby creates a problem not just for a nominalist, but also for an Armstrongian realist about universals, since the property in question need not be a universal. We might (in principle) share no universals at all, but may yet both wear glasses or like coffee—we may share 'second-class' properties—which is enough to render (1) true. So unless he can offer a plausible paraphrase of (1), it looks as if the Armstrongian realist has to allow second-class properties into his ontology.

Melia points out that settling ontological commitments via truthmakers rather than the Quinean route solves the problem at hand. ⟨Helen likes coffee⟩ is made true by her instantiating some collection of 'first-class' universals, and ⟨Julian likes coffee⟩ is made true by his instantiating some (possibly disjoint) collection of universals. And (1) in turn is made true by the conjunction of those two states of affairs. So we can explain why (1) is true without being ontologically committed to second-class properties. Significantly, however, Melia himself later rejects the principle itself in favour of a weaker conception of truthmaking, arguing that the would-be truthmaker theorist can help herself to an acceptable explanation of the truth of (1) without thereby endorsing (TM) or the like. If Melia is right, a convincing motivation for the truthmaker principle continues to elude us.

3. MOTIVATING THE TRUTHMAKER PRINCIPLE: REALIST INTUITIONS

Let us now consider examples of the second way in which philosophers may attempt to motivate the truthmaker principle: by arguing that it explains certain compelling intuitions. A tempting line of thought has it that we must endorse the truthmaker principle, if we are to avoid compromising our realist intuitions (Bigelow 1988*a*: 123; Armstrong 1997: 128). But, to our minds, Daly has nicely demonstrated this contention to be false (Daly, this volume: §3). The truthmaker principle seems to be neither sufficient nor necessary for realism. It is insufficient because an idealist could accept the principle and yet construe truthmakers and their constituents (objects and properties) as mind-dependent entities. It is unnecessary because a realist could take the world to be composed of mind-independent entities and yet deny that the world contains items playing the truthmaking role: belief in mind-independent reality does not, just by itself, require us to believe that that reality is carved into truthmaker-shaped chunks.

But perhaps matters are even worse for this attempt to motivate truthmaker theory than Daly supposes. In his contribution, Michael Morris argues that truthmaker theory (in its standard manifestations, at least), far from having realist commitments, can in fact only be motivated by a form of *idealism*. Truthmaker theory tends to regard the world as being either (with Armstrong (1997)) a world of states of affairs, or else (with Mulligan, Simons, and Smith (1984)) a world of tropes. However, in Morris's view, both the notion of a state of affairs and the notion of a trope are unintelligible independently of the idea of a complete proposition, because we can only think of states of affairs as things referred to by 'that'-clauses and tropes as the referents of nominalized sentences. Consequently, there must be a reason why language and the world share this basic propositional structure; and, for Morris, the only defensible explanation is that the world has the structure it has because language is how it is. The state-of-affairs and trope variants of truthmaker theory end up committed to the thesis that the world would not have the structure it has, if sentences did not have the propositional structure that they in fact have. If Morris is right, then Armstrong turns out to be a closet idealist: 'truthmaker realism' is an oxymoron.

Where can the would-be truthmaker theorist go from here, if she wants to justify the truthmaker principle? In his paper in the present volume Rodriguez-Pereyra argues that the truthmaker principle is a clear commitment of our thought about truth, independently of whether or not we are metaphysical realists. Specifically, he claims that the principle is needed to explain truth's *asymmetry*: the fact that truth is grounded in reality but that reality is not grounded in truth. For whilst

(GT) $\langle p \rangle$ is true because p

holds, the same cannot be said of

(GR) p because $\langle p \rangle$ is true.

Rodriguez-Pereyra's contention is that this asymmetry is best explained by regarding true propositions as requiring an ontological ground, where this just means that a proposition's truth is determined by the existence of a truthmaker. To Rodriguez-Pereyra's eyes, once we admit that truth is grounded in reality, Hornsby's deflationary explanation of how propositions come to be true—an account which, as we have seen, commits us ontologically only to objects and properties—is revealed to be insufficient. For what, asks Rodriguez-Pereyra, is grounding but a relation? And what else do relations do but link entities? Surely, to admit this is to admit that for a proposition's truth to be grounded in reality, there must be an entity that *does the grounding*; and this can only be a truthmaker (Rodriguez-Pereyra: §7). So the truth of ⟨The rose is red⟩ must, after all, commit us to the existence of something which makes it true.

Hornsby's response to this is to deny that grounding is a relation, and to recommend that we explain the asymmetry of truth in a way which does not reify items introduced by expressions such as 'the rose's being red' (Hornsby: §4). We—and many authors who are sympathetic to the business of truthmaking in general—agree with Hornsby that the claim that truth is grounded in reality does not, by itself, warrant this kind of reification; and we will have more to say about this issue in §6.

4. TRUTHMAKERS AND TRUTHBEARERS: THEIR ONTOLOGICAL NATURE

Suppose we grant that truthmaking is a genuine relation between entities, as those who uphold the truthmaker principle maintain. We need to know something about the things on either side of this relation. What kinds of entities are fit to serve as truthmakers? And what are the things made true by such truthmakers? In this section we shall briefly examine these questions.

Let us focus on the nature of the truth*makers* first. From the off, it would be as well to recognize that truthmakers will not all fit the same ontological category. The most plausible, and ontologically conservative, account has it that the truthmaker for ⟨Eleanor exists⟩ is an object—Eleanor—and that this same object is also the truthmaker for ⟨Eleanor is a member of the species *homo sapiens*⟩. But, as we mentioned in §1 above, the truthmaker theorist has to be a little more inventive when it comes to inessential predications. It is now time to consider in a little more detail the two standard proposals for the truthmakers of such truths. The dominant suggestion is that the truthmaker for ⟨The rose is red⟩ is a state of affairs: a complex entity which is the unity of the rose and the property *being red*. To many, notably Armstrong, this has seemed to be the obvious move to make. As he himself puts it:

> We are asking what in the world will ensure, make true, underlie, serve as the ontological ground for, the truth that *a* is *F*. The obvious candidate seems to be the state of affairs of *a's being F*. In this state of affairs (fact, circumstance) *a* and *F* are brought together. (1997: 116)

Indeed, so certain is Armstrong that truthmakers are best construed as states of affairs that this thesis forms the second premise of what he calls 'the truthmaker argument' for the existence of states of affairs (1997: 113–19). (The first premise is the truthmaker principle itself.)

However, what is obvious to a realist about universals such as Armstrong may not be obvious to the more nominalistically inclined. Nominalists drawn to the truthmaker principle will, of course, look elsewhere for their truthmakers, which is where the second standard account of the truthmakers of inessential predications comes in. Nominalists who believe in *tropes* will be tempted by the thought that the truthmakers of inessential predications are tropes: particularized properties or relations (Mulligan, Simons, and Smith 1984). It does indeed seem to be the case that if the trope *the rose's redness* exists, then the rose must be red.

There are problems with both proposals. The supporter of states of affairs has trouble explaining how states of affairs are genuinely unified entities, as even Armstrong—the most celebrated friend of states of affairs—admits (1980: 109; 1997: 118–19).[4] Consequently, given that tropes are unstructured entities and, as a result, do not face an equivalent unity problem, trope theory will have a certain appeal. But matters are not straightforward here either. For the trope the *rose's redness* could only be the truthmaker of ⟨The rose is red⟩ if this trope were *non-transferable*: only if, in other words, this particular redness could not be had by anything else. If the trope *were* capable of being had by another particular—by another rose, say—its existence would not entail that the rose in question was red. So how are we to decide on the transferability or otherwise of tropes? This question is something of an ontological hornet's nest; Armstrong, for example, cannot make up his mind on the issue (1989*a*: 117–19). (See also Molnar 2003: 43–6.) But here is a brief—though probably inconclusive—reason for thinking that tropes are indeed transferable, and hence ill-equipped for truthmaking.[5] A trope is a property, albeit a particularized property. Given that this is so, why should we not think that such a property could not be had by something else? Granted, we *refer* to a trope by means of referring to the particular which has it; but it no more follows from this that the property could not be had by something else than it follows from our referring to someone as 'Eleanor's brother' entails that this person could not have been the brother of someone else entirely (had Eleanor not existed and her parents had another child).

What of the truth*bearers*? Marian David focuses on this question, and raises the concern that there is a serious tension in Armstrong's views.

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[4] For a critique of Armstrong's attempt to solve this unity problem, see Dodd 1999: 150–2.

[5] What follows is a condensed version of the argument found in Dodd 1999: 149–50.

Armstrong holds that truthmaking is an internal relation (understood as the thesis that when ⟨*p*⟩ is made true by state of affairs *s*, the existence of ⟨*p*⟩ and *s* entails that the former is made true by the latter). However, Armstrong, being a naturalist, also holds that propositions (and intentional objects generally) are not to be taken with 'ontological seriousness' (1997: 131), saying instead that 'what exists are classes of intentionally equivalent tokens. The *fundamental* correspondence, therefore, is not between entities called truths and their truthmakers, but between the token beliefs and thoughts, on the one hand, and the truthmakers on the other' (ibid.).

David argues that these two views are in conflict with each other. Token beliefs and thoughts, unlike propositions, do not have their content essentially, so it seems that the truthmaking relation cannot be internal after all: where *s* makes token belief *t* true, the existence of *s* and *t* does not *entail* that *s* makes *t* true, since at possible worlds where *t* has a different content, it will not be made true by *s*. (At some worlds it will be made true by something else, and at other worlds—where *t* is false—by nothing at all.) It turns out that truthmaker theorists have to think hard about the nature of the vehicles of truth.

5. TRUTHMAKING WITHOUT TRUTHMAKERS?

So far we have restricted our attention to versions of the truthmaker principle, one of which was the thesis that truth supervenes on being. As we noted in §1, one may justifiably doubt whether this formulation of the principle really does justice to the deepest intuitions of philosophers such as Armstrong and Rodriguez-Pereyra. But we would like to bracket this question, and consider an alternative understanding of the supervenience claim.

Bigelow, remember, understands the claim that truth supervenes on being to mean that truth supervenes on *whether things are*: on what there is (or is not). However, some authors have rejected the truthmaker principle (thus understood) and have sought to give content to the claim that truth supervenes on being in a less ontologically inflationary way. Josh Parsons (1999: 331), for example, offers a version of truthmaker theory according to which truth supervenes on 'the qualitative nature of its truthmaker' (i.e. *how things are* with it), rather than upon *whether things are*. As Liggins notes, there is a question about whether such views merit the name 'truthmak*er* theory' at all, since they are not committed to the claim that, for example, ⟨The rose is red⟩ is made true by an *entity*—a truthmaker. Following Liggins, we shall leave the question of nomenclature to one side and accept that those who hold to a weaker reading of 'truth supervenes on being' can reasonably be seen as engaged in 'truthmaker theory' (understood less strictly) whilst rejecting the truthmaker principle (as we have characterized it) itself.

One might worry that the weakened thesis is too much of a platitude—a 'near truism' as MacBride calls it—to do any serious philosophical work, or indeed to be seriously disputable. But, like the truthmaker principle itself, the weaker thesis can be seen, at least, as embodying a commitment to realism, to the thought that truth depends or is grounded in how things stand in the world. This is an issue to which we return later.

The major attraction of the weaker thesis that truth supervenes on *how things are* is, of course, that the weaker thesis brings with it fewer ontological commitments. Melia, for example, argues (*pace* Rodriguez-Pereyra—see §3 above) that there is no need to see truthmaking as a *relation* that holds between a state of affairs and a proposition. Instead, he argues, we can see 'makes true' as a non-truth-functional sentential connective. So, rather than saying '*a*'s being red makes-true ⟨*a* is coloured⟩', we can say, '*a* is red *makes-true* the sentence "a is coloured" '. This allows what he calls the 'sensible nominalist' to avail himself of the benefits of truthmaker theory without the ontological cost, for now we can hold that the sentence 'there is a colour that *a* and *b* both share' is made-true by *a* is red and *b* is red—and this commits us to the existence of nothing more than the sentence in question, *a*, and *b*. 'Understood this way', Melia says, '*makes true* is as ontologically innocent as *and*, *or* and *not*' (Melia, this volume: §4).

Lewis, too, is no lover of the states of affairs or non-transferable tropes required by commitment to (TM), since such entities violate the thesis of Humean Supervenience. As MacBride says, Lewis approved of C. B. Martin's criticism of phenomenalism, that phenomenalism fails to provide truthmakers for truths about unobserved objects (since it fails to provide truthmakers for the relevant counterfactuals). However, Lewis held that the truthmaker principle itself is stronger than what is needed in order to run Martin's argument. Lewis's own take on the thesis that truth supervenes on being in his 2001*a* (612) is supposed to have enough bite to counter phenomenalism, but without the commitment to any Humean Supervenience-violating entities.

In his 2003, however, Lewis reverts to the truthmaker principle proper, claiming that '*qua*-versions' of things can supply the required truthmakers. The idea, roughly, is that, where '*a* is *F*' is a contingent predication, its truthmaker is *a qua F*—where *a qua F* is just *a* considered under the counterpart relation that selects, in other possible worlds, only counterpoints of *a* that are *F*.

One serious worry with Lewis's proposal, according to MacBride, is that *a qua F*—the entity that supposedly provides the truthmaker for '*a* is *F*'—'is nothing more than a projection from the truth of the proposition that *a* is *F*' (MacBride, this volume: §5). If so, then we have lost sight of the thought that the truthmaker is supposed to have explanatory priority over the truth of the proposition it makes true: the thought that the truth of the proposition *depends* on the existence of its truthmaker. MacBride suggests that this is not something that would have bothered Lewis: he argues that one can interpret Lewis as claiming that 'the truthmaking role is explanatorily thin and this is revealed by the fact that the truthmaking role is performed just as effectively by *qua*-versions of things as states of affairs' (MacBride, this volume: §5).

On MacBride's interpretation, then, Lewis holds that the truthmaker principle is true but uninteresting. This, of course, is a conclusion that most truthmaker theorists will want to resist. As we said above, one can think of the truthmaker principle (and weaker variants) as an attempt to cash out the thought that what is true depends on how things are.

Another reason for suspicion about whether the truthmaker principle (or weaker variants) really captures the notion of dependence is that standard versions of it, because they characterize truthmaking in terms of entailment or supervenience, have the consequence that necessary truths are made true by anything whatever. But there is no obvious sense in which the truth of '$2+2=4$' depends on or is grounded in or explained by the existence of, say, Julian's cat. The moral, according to Liggins, is that, following Ian McFetridge (1990), the truthmaker theorist should replace entailment with the more discriminating relation of explanation. McFetridge's version of the truthmaker principle is this:

> (ExT) For every sentence which is true there must be some explanation of why it is true (McFetridge 1990: 42).

McFetridge's principle thus clearly belongs in the 'weaker versions' camp: the suggestion is not that for every truth there is some *entity* whose existence counts as an explanation of its truth; the claim is simply that (some aspect of) *how* things are will explain why the proposition in question is true.

6. TRUTHMAKING AND TRUTH

Our next question is: what, if anything, has the truthmaker principle to do with the concept of truth? It seems that (TM) is closely related to the correspondence theory of truth, since both (TM) and the correspondence theory claim that there is a *relation* between the truth of a proposition on the one hand and the existence of some entity in the world on the other. Indeed, according to Armstrong, the truthmaker principle *just is* what is worth salvaging from the traditional correspondence theory of truth (Armstrong 1997: 128). The thought here is that once we ditch the idea that true propositions picture their truthmakers, and with it the presumption that the relation between true propositions and truthmakers is one–one, what we are left with is the truthmaker principle. But we should be careful here. For one thing, the truthmaking relation cannot itself *be* a correspondence relation. Correspondence relations are symmetric, which the truthmaking relation plainly is not. For another, to say that every (contingent) truth is made true by something is not to say what truth *is*. Unless we can spell out the notion of *making true* in terms that do not explicitly use, or presuppose a grasp of, the concept of truth, we plainly do not have an analysis of the concept.

However, to accept this much need not be to deny that the idea of truthmaking is related to the correspondence theory. For what we could say is this: the central idea that correspondence theorists were gesturing at in their appeal to the (symmetric) relation of correspondence was, in fact, the asymmetric relation of truthmaking; and if this notion could be spelt out using concepts sufficiently distinct from that of truth itself, this could, indeed, be the basis of a theory of truth with which the correspondence theorist would be happy. So, it remains the case that an attack on the truthmaker principle is an attack on the correspondence theory. If the truthmaker principle cannot be respectably motivated, then neither can a correspondence theory of truth.

Fair enough, one might think. But this account of the relation between the truthmaker principle and the correspondence theory of truth faces a formidable opponent in the form of David Lewis (2001*b*). As Lewis sees it, the word 'true' only appears in a statement of the truthmaker principle in its familiar role of 'making a long story short' (2001*b*: 278). That is to say, in

> (2) For every (contingently) true proposition there exists something such that the existence of that thing entails the proposition in question,

'true' functions as nothing more than a device which enables us to generalize with respect to sentence position, a function that the truth-predicate has precisely because

> (E) $\langle p \rangle$ is true if and only if p

holds. But—and this is Lewis's crucial point—the long stories made short *do not themselves concern truth*. And this much is evident in the fact that the schematic version of the truthmaker principle can be formulated without any use of the word, to wit:

> (TM^{+}) Necessarily, if p, then there exists at least one entity α such that $\langle \alpha$ exists$\rangle$ entails that p.

Lewis takes this to indicate that the (so-called) truthmaker principle is not about *truth* at all. Since the schema from which (2) is derived is (TM^{+}), and since this schema makes no mention of truth, (2) is simply equivalent to the infinite bundle of conditionals—none of which themselves concern truth—that are (TM^+)'s instances. For example, Necessarily, if cats purr, then there exists something such that the existence of that thing implies that cats purr' tells us 'about the existential grounding of the purring of cats' (Lewis 2001*b*: 279), Necessarily, if Helen likes coffee, then there exists something such that the existence of that thing implies that Helen likes coffee' tells us about the existential grounding of Helen's liking for coffee, and so on.

Lewis's argument presents a challenge to anyone who holds that the truthmaker principle is an essential feature of a correspondence theory truth. How could this be so, argues Lewis, if the truthmaker principle itself does not really concern truth? But we should not lose our heads here. In our view, Lewis is quite correct to point out that the truthmaker principle is not, *in the first instance*, a doctrine about truth: it is indeed the (contested) claim that *a*'s being *F*, or *a*'s entering into a relation with other objects, must be ontologically grounded. However, we part company with Lewis at the argument's next stage. The fact that we need to use the truth-predicate, if we are to generalize upon (TM^+) and produce a universally quantified proposition, does not show that the truthmaker principle does not concern truth at all; on the contrary, it means that the principle *turns into* a principle concerning truth: namely, that all (contingent) truths are made true by something; that the source of a proposition's truth is an entity in the world. It is precisely because the truth-predicate is a device for facilitating generalization into sentence positions—precisely because (E) holds—that a doctrine about what is required for *a* to be *F* can become a doctrine about what is required for a proposition to be true. An attachment to an ontological thesis thus commits one to a conception of truth as correspondence. The fact (if it is one) that *a*'s being *F* requires an ontological ground forces one to acknowledge the existence of a seriously dyadic truth-predicate.

This much, we should say, is highly controversial. There will certainly be those who are convinced by Lewis's argument, and who hence believe that the truthmaker principle has nothing to do with the correspondence theory of truth. In fact, one of the authors of this Introduction has argued along similar lines for the thesis that truth is not a norm (Dodd 1999*b*).

7. APPLICATIONS OF TRUTHMAKER THEORY

As we said in §5, it has been claimed by several authors that the truthmaker principle (or perhaps something weaker) can be used as a premise in an argument against phenomenalism. The general idea is that the phenomenalist has to claim that what it is for a currently unperceived object, like Julian's cat, to exist now is for certain counterfactuals to be true: if Julian were to do such-and-such, he would have a cat-experience of a certain kind, and so on. But the phenomenalist has to regard such counterfactuals as 'brute': they are not *made true* by anything. So, if the truthmaker principle is true (and its scope includes counterfactuals), phenomenalism must be false.

Liggins and Parsons both deploy versions of the truthmaker principle to similar effect in other areas. Liggins argues that McFetridge's explanatory principle works just as effectively as the truthmaker principle proper as a basis for refuting both phenomenalism and behaviourism. Parsons uses his own version of the truthmaker principle, which appeals to intrinsic properties, to argue against anti-realism about the past.

We confess to harbouring a certain amount of suspicion about applying the truthmaker principle in the way that Liggins and Parsons (and before them Martin and Armstrong) suggest. As we saw earlier, one primary motivation for the truthmaker theory is the realist thought that what is true depends on how things are. One important issue for truthmaker theory is thus to articulate how, exactly, that thought is supposed to be captured by various versions of the truthmaker principle, or versions of the claim that truth supervenes on being. As we have seen, there is room for scepticism here. Daly, for example, argues that principles like (TM) and (ST) can be assented to by an anti-realist; and, according to MacBride, Lewis regards the truthmaker principle as 'explanatorily thin'. One version of the truthmaker principle—McFetridge's—attempts to capture the realist intuition by dropping the notion of truthmaking and replacing it with the notion of explanation.

Suppose that some formulation of truthmaker theory does indeed succeed in capturing realist intuitions. The question arises, how can truthmaker theory now legitimately be put to use in an argument *for* realism (about a particular domain) and *against* anti-realism? If truthmaker theory itself enshrines a commitment to realism, then presumably the appropriate anti-realist reaction to such an argument is simply to deny whatever truthmaker principle is being used as a premise in that argument. If a given truthmaker principle is to pull its weight in arguments against anti-realism, then we had better have reasons, independently of our commitment to realism, for believing that the principle is true. We wonder whether such reasons are to be had.

2 *Why Truthmakers*

GONZALO RODRIGUEZ-PEREYRA

1. INTRODUCTION

Consider a certain red rose. The proposition that the rose is red is true because the rose is red. One might say as well that the proposition that the rose is red is made true by the rose's being red. This, it has been thought, does not commit one to a *truthmaker* of the proposition that the rose is red. For there is no entity that makes the proposition true. What makes it true is how the rose is, and how the rose is is not an entity over and above the rose.

Although expressed in other terms, this view has been held by various authors, like David Lewis (1992, 2001*a*) and Julian Dodd (2002). It is against this view that I shall argue in this paper. I shall argue that a significant class of true propositions, including inessential predications like the proposition that the rose is red, are made true by entities.

No truthmaking without truthmakers is my slogan. Although I have my view about what kinds of entities are truthmakers, I shall not argue for or presuppose that view here.[1] All I shall argue for here is that if a proposition is made true by something, it is made true by some *thing*, but my argument will leave it open what kind of thing that thing is: it could be a fact or state of affairs, a trope, or any other sort of entity.[2]

I shall presuppose that truthbearers are propositions. The arguments for taking propositions as truthbearers are well known, as well as their strengths and weaknesses. But I am not begging any question by adopting this presupposition, since it is a presupposition that seems to be shared by the opposition.

2. THE TRUTHMAKER PRINCIPLE

A truthmaker is an entity that makes true a proposition. That is, a truthmaker is an entity in virtue of which a certain proposition is true. By the

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[1] Succinctly, my view is that truthmakers of propositions like that *a* is *F* are facts (or states of affairs), whose all and only constituents are resembling particulars. See my 2002: 53–4, 85–7, 113–21. (Note that there I took sentences rather than propositions to be truthbearers.)

[2] I am using the words 'entity' and 'thing' interchangeably. I shall use them so throughout the paper.

truthmaker principle I shall understand the claim that necessarily the members of an important class of synthetic true propositions, including inessential predications, have truthmakers.[3] So what I shall argue for is the truthmaker principle (TM):

> (TM) Necessarily, if $\langle p \rangle$ is true, then there is some entity in virtue of which it is true.[4]

Since my thesis is not that all truths, but that a class of synthetic true propositions including inessential predications have truthmakers, in (TM) '$\langle p \rangle$' should be considered to stand for such truths, not for any truth whatsoever. But for the sake of simplicity and ease of exposition I shall usually speak of propositions in general—the reader should understand that I am referring to this class of synthetic propositions that includes inessential predications.

In virtue of is a primitive notion, not reducible to notions like entailment. Yet that it is primitive does not mean that it is unclear. One can clarify what it means by specifying which propositions are true in virtue of which entities.[5] And although *in virtue of* is not reducible to entailment, there are connections between the two notions. In particular, if $\langle p \rangle$ is true in virtue of entity e, then $\langle e$ exists$\rangle$ entails $\langle p \rangle$. If so e necessitates $\langle p \rangle$ in the sense that there is no possible world where e exists but in which $\langle p \rangle$ is not true. Thus, according to (TM), necessarily, if a proposition is true, there is some entity that necessitates it.

But before arguing for (TM), I shall consider two other principles that have been thought to capture the idea that truths have truthmakers. Problems with finding truthmakers for negative existentials led John Bigelow (1988*a*: 133) to replace (TM) by the following supervenience principle:

> (ST) Necessarily if $\langle p \rangle$ is true, then either at least one entity exists which would not exist, were $\langle p \rangle$ false, or at least one entity does not exist which would exist, were $\langle p \rangle$ false.[6]

Assuming possible worlds, (ST) can be expressed as follows:

> (ST*) For every possible world w, w^*, and every proposition $\langle p \rangle$, if w and w^* contain exactly the same entities, then $\langle p \rangle$ is true in w if and only if $\langle p \rangle$ is true in w^*.

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[3] Remarking that I take inessential predications to have truthmakers is important because some foes of truthmakers like Dodd (2002: 72) accept that essential predications and existential propositions have entities as truthmakers.

[4] I follow the usual custom of letting '$\langle p \rangle$' stand for 'the proposition that p'.

[5] I explained the notion of truthmakers in that way in my (2002: 35–40).

[6] This is not exactly the way Bigelow formulates his principle, but the differences are irrelevant.

(ST) and (ST*) are supervenience principles for they make truth supervene upon being. In particular they make truth supervene upon what entities exist: once you fix what entities exist in a certain world, you have thereby fixed what propositions are true in that world.

Although less controversial than (TM), (ST) and (ST*) also have met resistance. Dodd (2002) argues that (ST) lacks motivation and that there is no good reason to believe in it. And Lewis (2001*a*) also has proposed to abandon (ST).

I do not propose to abandon (ST) and (ST*). Nevertheless I do reject the idea, presupposed by both proponents and opponents of (ST) and (ST*), that these principles capture the idea that truths have truthmakers. For implicit in the idea of truthmakers there is an important asymmetry, namely that while entities make propositions true, true propositions do not make entities exist.

But the supervenience between truth and being goes both ways: truth and being supervene upon each other. Thus, in the case of (ST*), the following also holds: there are no two possible worlds in which exactly the same propositions are true but which differ as to the entities that exist in them: once you fix what propositions are true in a certain world, you have thereby fixed what entities exist in that world.

Similarly for (ST): necessarily if a certain entity *e* exists, then there is some true proposition, namely that *e* exists, that would be false were *e* not to exist (and some false proposition, namely that *e* does not exist, that would be true were *e* not to exist).

Thus principles (ST) and (ST*) do not capture the idea that truths have truthmakers. There is more to truthmaking than the idea that truth supervenes upon being. So (ST) and (ST*) are not what the friends of truthmakers should propose or defend.

But although truthmaking is more than the supervenience of truth upon being, the supervenience principles follow from (TM). If there can't be a truth without a truthmaker, then there can't be two worlds with the same entities but in which different propositions are true. Thus (ST*) follows from (TM). Similarly, if there can't be a truth without a truthmaker, if a proposition is true there must be an entity that would not have existed if the proposition in question had been false. Thus (ST) follows from (TM).

3. DODD AGAINST THE TRUTHMAKER PRINCIPLE

As I said, Dodd argues that (ST) lacks sound motivation. But even if (ST) does not capture the idea that truths have truthmakers, I have to meet Dodd's challenge. For if (ST) is wrong, then so is (TM), which entails it.

Dodd challenges (ST) with a simple counter-example. Imagine a world w_1 in which a certain rose is red. In that world the proposition that the rose is red is true. Now imagine a possible world w_2, where exactly the same entities as in w_1 exist, but in which the rose in question is white. In w_2 the proposition that the rose is red is false. These worlds, if possible, are a counter-example to (ST), for they are ontologically equivalent—exactly the same entities, other than propositions, exist in them—but the proposition that the rose is red is true in w_1 and false in w_2.

Dodd's counter-example is not based on a nominalistic stance. One may be a full realist about properties and so believe in the existence of properties over and above particular things like roses. If so, the proposition that the rose is red is true just in case the rose instantiates the property of *being red*, or the universal *redness*. One may even believe in the relation of *instantiation* as an entity over and above the particulars and the properties they instantiate. But, Dodd argues, it does not follow from the fact that the rose instantiates the property of being red that there is a further entity, over and above the rose, the property of *being red*, and the relation of *instantiation*, namely the *fact* or *state of affairs* that the rose is red.

So even if the properties of *being red* and *being white*, and the relation of *instantiation* exist both in w_1 and w_2, these two worlds constitute a counter-example to (ST). For they contain the same entities but different propositions are true in them. So what the worlds show is that truth does not supervene upon what entities exist or, what is the same, that truth does not supervene upon *whether* things are. And so (TM) must go, for (TM) makes truth depend on, and supervene upon, what entities exist.

Yet the counter-example is consistent with a weaker supervenience of truth upon being: the supervenience of truth upon *how* things are. For there is no possible world w_n in which things are as they are in w_1 but which differs from w_1 as to what is true in it. In effect, although Dodd rejects that truth supervenes upon whether things are, he accepts that truth supervenes upon how things are. A similar conclusion is reached by Lewis (1992: 216; 2001*a*: 612–14).

4. TRUTH IS GROUNDED

This shows that (TM) is in need of justification. How can we justify it? One way would be to derive it from a plausible and compelling idea. And this is what I shall do.

For the root of the idea of truthmakers is the very plausible and compelling idea that the truth of a proposition is a function of, or is determined by, reality. Thus suppose that the proposition that the rose is red, which makes reference to a particular rose, is true. Then the truth of this proposition is a function of reality in the sense that the truth of the proposition is determined by reality or a portion of it. Indeed, it is a relevant portion of reality, namely the rose, or perhaps that the rose is red, that determines the truth of the proposition.

Thus the insight behind the idea of truthmakers is that truth is grounded. In other words, truth is not primitive. If a certain proposition is true, then it owes its truth to something else: its truth is not a primitive, brute, ultimate fact. The truth of a proposition thus depends on what reality, and in particular its subject matter, is like. What reality is like is anterior to the truth of the proposition, it gives rise to the truth of the proposition and thereby accounts for it.[7]

Thus the idea that truth is determined by reality sounds grand, but in itself it is a very minimal idea: it is simply the idea that the truth of a truthbearer is determined by its subject matter, or some feature of it, no matter what the nature of the subject matter may be.

That truth is determined by reality is a compelling idea, especially when one notes that it does not commit to any kind of substantive realism. For idealists can accept that truth is determined by reality—they will simply add that this reality is not mind-independent or language-independent.

There is an asymmetry implicit in the idea that truth is grounded, namely that while the truth of a proposition is grounded in reality, reality is not grounded in the truth of propositions. Thus although the truth of the proposition that the rose is red is determined by the rose's being red, the rose's being red is not determined by the truth of the proposition that the rose is red. One explains the truth of the proposition that the rose is red in terms of the rose's being red but not vice versa.

The idea that truth is grounded in reality can be expressed in many different ways. One can say, as I have now been doing it, that the truth of a proposition is *determined* by reality. But one can also say that a proposition is true *in virtue of* reality, or *in virtue of* what reality is like, or *because of* reality. For instance, the proposition that the rose is red is true *in virtue of* what reality is like, namely that the rose is red or the rose's being red, and it is true *because* the rose is red. I take all these locutions to express the idea that the truth of the proposition that the rose is red is grounded, but from now on I shall use mainly the formulation in terms of 'because'.

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[7] This is not true of all propositions. The truth of the proposition that bachelors are not married does not depend on what reality is like—whatever reality is like, bachelors are not married. In general analytic propositions are not grounded in reality. And there may be some non-analytic truths that are not grounded in reality. Nevertheless a vast number of synthetic truths, like the truth that the rose is red, are grounded in reality. But since, as I have said, my aim here is not to defend the idea that all truths have truthmakers, but only that a significant class of them, including inessential predications, have, that some truths are not grounded will not affect my thesis.

5. AGAINST THE PRIMITIVENESS OF TRUTH

The idea that truth is grounded is so compelling that has seemed acceptable to philosophers like W. V. Quine, Paul Horwich, and Crispin Wright, who cannot be suspected of trying to advance the cause of truthmakers.[8]

The plausibility of truth's being grounded in reality is better appreciated when one compares it with the alternatives. For suppose truth was primitive. If so, the following are different possibilities: (a) the truth of the proposition that the rose is red and the rose's being red have nothing to do with each other, and (b) the rose is red because the proposition that the rose is red is true.

(a) is not good. Surely, the rose's being red and the truth of the proposition that the rose is red are connected in some way. The proposition that the rose is red is about the colour of the rose, and so if it is true, it must have to do with the rose's being red.

But (b) is not better than (a). The idea that the colour of the rose depends on the truth of a certain proposition about the rose, duly generalized, commits us to a radical semantic idealism in which reality depends on truth. Propositions, on this account, would be reality-makers and to make the rose red one should just try to make the proposition that the rose is red true. There is no support for either (a) or (b), and there is a lot of evidence against them.

There is a third alternative that consists in the idea that truth is grounded in reality and vice versa. There are a few cases in which the truth of a proposition depends on its subject matter *and* vice versa. One such case is the proposition ⟨this proposition is true⟩. If true, it is true because of what its subject matter is like, i.e. because ⟨this proposition is true⟩ is true. But if its subject matter is true, it is what it is like, namely true, because the proposition ⟨this proposition is true⟩ is true.

But putting this and similar cases aside, in the vast majority of cases the truth of a proposition determines in no way its subject matter. All truths about our rose and all flowers, as well as all truths about non-truthbearers are like that: their truth depends on what their subject matter is like without their subject matter depending in any way on whether they are true or not.[9]

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[8] Quine (1970: 10), Horwich (1998: 105), and Wright (1992: 26) accept that 'snow is white', or the proposition that snow is white, is true because snow is white and try to explain this in terms of their respective theories of truth.

[9] The case of ⟨this proposition is true⟩ shows that strictly speaking grounding is a non-symmetrical relation rather than an asymmetrical one. But since I am not interested in cases like these I shall continue to speak as if grounding were asymmetrical.

6. WHY TRUTHMAKERS, I

Yet it seems that the idea that truth is grounded in and determined by reality is insufficient to ground (TM). For while what (TM) requires is that truth is determined by whether things are, that truth is grounded in and determined by reality is compatible with truth's being grounded in *how* things are, not in *whether* things are. Thus, it seems, Dodd's counter-example undermines the controversial (TM) but leaves untouched the uncontroversial idea that truth is a function of reality. But I shall argue that the idea that truth is grounded commits us to the idea that truths are made true by entities.

So, can one really maintain that truth is determined by reality without maintaining that there are truthmakers? In other words, can one really maintain that the proposition that the rose is red is made true by how things are but not by whether things are?

Suppose the proposition that the rose is red is made true by how the rose is. But the rose is not only red: it is also light, soft, fragrant, long, thin, etc. This is how the rose is. But if being how it is is what makes the proposition that the rose is red true, being how it is is also what makes the proposition that the rose is light true, the proposition that the rose is fragrant true, and so on.

But this is wrong. For what makes true that the rose is red is not what makes true that the rose is light. What makes true that the rose is red is that it is *red*, while what makes true that the rose is light is that it is *light*. The idea that truth is determined by reality is the idea that different truths are determined by different portions of reality, or by different features of reality, and so different truths about the same subject matter are determined by different features of the subject matter in question.

So the rose is many ways. One way the rose is, is to be red; another way the rose is, is to be light, and so on. Once we have distinguished different ways the rose is, we can say that the proposition that the rose is red is true in virtue of the rose's being a certain way, namely being red, while the proposition that the rose is light is true in virtue of the rose's being a different way, namely being light. If so, what makes true a certain predication of the rose is a certain way the rose is.

But to distinguish ways presupposes that we can identify them, count them, and quantify over them. But if one can identify, count, and quantify over ways, then ways exist. That is, ways, which are truthmakers, are entities. So we are back to (TM), which claims that true propositions are made true by *entities*, and which entails that truth supervenes upon *whether* things are.[10]

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[10] This argument may remind one of an argument for possible worlds once advanced by Lewis. Lewis argued *roughly* like this: it is uncontroversially true that things could have been different in many ways; ordinary language permits the existentially quantified paraphrase: there are many

But perhaps one can account for what makes the proposition that the rose is red true without reifying ways? It might be thought that one could say that the proposition that the rose is red is true because the rose instantiates the property of being red, while the proposition that the rose is light is true because the rose instantiates the property of being light. And one could insist that this does not mean that there is an entity over and above the rose, the properties of *being red* and of *being light*, and the *instantiation* relation. If so, the rose can be said to be many different ways because it instantiates many different properties, but ways are not a kind of entity, and there are no entities that make any propositions true.

But this only helps if for the rose to instantiate the property of *being red* is not for it to instantiate the property of *being light*. And this should not mean that there is an entity, the-rose-instantiating-*being-red*, distinct from another entity, the-rose-instantiating-*being-light*. For that means reifying how things are. And reifying how things are is admitting truthmakers.

But if it does not mean that, what does it mean? It might simply mean that the rose could have been red without being light and vice versa. If so, how the rose is could have made true that the rose is red without making true that the rose is light, and vice versa. But this is irrelevant, for the problem is not to account for the fact that what makes true the propositions that the rose is red and that the rose is light could have made true either but not both of them. The problem is to account for the fact that the propositions that the rose is red and that the rose is light are, in the actual world, made true by different features of reality without reifying those features.

Some might suggest that, since there are possible worlds in which the proposition that the rose is red is true and the proposition that the rose is light is false and vice versa, the rose's being red consists simply in that the actual world is one of the worlds where the rose is red, and the rose's being light consists simply in that the actual world is one of the worlds where the

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ways things could have been besides the way they actually are; permissible paraphrases of truths are true; therefore, there are many ways things could have been, i.e. there are many possible worlds (Lewis 1973: 84). But my argument is not like this. Firstly, I do not appeal to permissible paraphrases. Secondly, I argue for the claim that the rose is many ways: for unless the rose is many different ways we get the result that what makes true that the rose is red is the same as what makes true that the rose is light, which is wrong.

One might think that although strictly different from Lewis's argument, mine fails for the same reasons as his. For, it will be said, what besets Lewis's argument is that it does not follow from the fact that things could have been different ways that there are possible worlds. But what does not follow is that there are possible worlds *understood à la Lewis*, i.e. sums of concrete entities. It does follow, however, that there are ways things could have been. These ways could be uninstantiated abstract properties, sets of propositions, etc. In each case these ways are entities. And all *I* need for my argument to go through is that the ways the rose is, which make propositions about the rose true, are entities. This follows from the fact that the rose is many ways. Thus my argument does not fail in the way Lewis's does. But what kind of entities (facts, tropes, etc.) ways are is something I shall not discuss here.

rose is light. If so, that truths are made true by how things are means, in the case of the rose, that both the proposition that the rose is red and the proposition that the rose is light are made true by how the world is, since it is both one of the worlds where the rose is red and one of the worlds where the rose is light. This amounts to saying that the truth about the rose, and the truth about everything, is determined by how the *world* is. But this is not satisfactory, for it does not account for the idea that truth is determined by subject matter since according to it all truths, whatever their subject matter, are determined by how the world is.

It may be said that this position still makes room for the idea that truth is determined by subject matter. For the truth of the proposition that the rose is red is determined by how the world is, namely by the world's being one of the worlds where the rose is red, and this in turn is determined by how the rose is. But how the rose is also determines that the world is one where the rose is light, the rose is fragrant, etc. Thus this does not avoid the false idea that the propositions that the rose is red, that the rose is light, that the rose is fragrant, etc., are all true in virtue of the same, namely how the rose is.

7. WHY TRUTHMAKERS, II

Thus I cannot see how one could maintain that the propositions that the rose is red and that the rose is light are true in virtue of different features of reality without reifying those features and thereby introducing truthmakers. But perhaps some are willing to insist that all inessential predications about the rose are made true by, or merely supervene upon, how the rose is. Still, a commitment to truthmakers is unavoidable, provided one accepts that truth is grounded in reality, as the following argument shows:

(1) Truth is grounded.
(2) Grounding is a relation.
(3) Relations link entities.
(4) Therefore, truth is grounded in entities.

I have stated the argument in a slogan-like fashion to facilitate discussion of the key premises. But a brief gloss will suffice to make clear exactly how the argument must be taken. The import of the second premise is that to be grounded is to be a *relatum* (of the grounding relation). Since the import of the first premise is that every true proposition is grounded, it follows that for every true proposition to be grounded is for it to be a *relatum* of the relation of grounding. The import of the third premise is that all *relata* of a given relation are entities. It follows that the grounding relation links some entities to true propositions. The entities linked by the grounding relation to true propositions are their grounds.[11] Therefore true propositions are grounded in entities, i.e. truth is grounded in entities.

The argument is valid and I have already argued for the first premise of the argument. And as I have said, even people like Quine and Horwich are prepared to accept the first premise. This is surely because they believe they can accept it without accepting truthmakers. But given this argument, any one who wants to maintain premise (1) while denying the conclusion (4), will have to find fault with either premise (2), or premise (3), or both.

Premise (3) is undeniable. It says about relations what the following claim says about properties: properties are had or instantiated by entities. Even Platonists, who believe properties can exist uninstantiated, will agree that if a property is instantiated, it is instantiated by an entity. Surely if a relation is instantiated, if it links anything to anything, then there are some things that it links, and so it links entities. This point is generally recognized. Mellor (1995: 156), for instance, says that for '*Obd*' to be a relational statement, *b* and *d* must exist, 'since nothing relates anything to nothing'.

This leaves premise (2), which I take to be the favourite target of the foes of truthmakers. But I shall now argue that premise (2) is also true.

As we saw, the proposition that the rose is red is true because the rose is red, but it is not the case that the rose is red because the proposition that the rose is red is true. In general, $\langle p \rangle$ is true because p but it is not the case that p because $\langle p \rangle$ is true. Thus if grounding is a relation then it is an asymmetrical relation. This asymmetrical relation, which we report when we say that the proposition that the rose is red is true because the rose is red, holds between a true proposition and a thing in the world, e.g. the fact that the rose is red, in virtue of which the proposition is true. The relation in question, which holds between certain entities in the world and propositions, is no other than that of *making true*, or that of *being true in virtue of*.

If grounding is a relation, then truth is a relational property of propositions.[12] Relational properties are those that are had in virtue of an entity's bearing a certain relation to some thing or things. Thus Diego Maradona has the relational property of *being famous* in virtue of a relation that links him to the millions who have heard of him. Likewise, truth is a relational property that is had by a proposition in virtue of bearing a certain relation to a certain entity, its truthmaker. This does not mean that being a relation is part of the meaning of the truth predicate. All it means is that it applies in virtue of a relation obtaining between that to which it applies and something else.

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[11] Nothing in the slogan-like argument corresponds to this claim. This is because the claim that what the grounding relation links to true propositions are their grounds is controversial only to the extent that the claims that grounding is a relation and that relations link entities are controversial. Once these claims, which I shall discuss and defend below, have been granted the claim that what the grounding relation links to true propositions are their grounds is obvious.

[12] This is why the truthmaker principle is often associated with the correspondence theory of truth. For the correspondence theory of truth makes truth a relational property based on the relation of correspondence between a truthbearer and a worldly item—normally a fact.

But if grounding is not a relation—what is it? That is, how can the truth of the proposition that the rose is red be grounded in the rose's being red if grounding is not a relation? What is it, then, for the proposition that the rose is red to be true because the rose is red?

One thing it could be said is that for the truth of the proposition that the rose is red to be grounded in the rose's being red is for that proposition to be true if and only if the rose is red. But this is wrong, for it does not respect the asymmetry of grounding. Indeed, if all it takes for the proposition that the rose is red to be grounded in the rose's being red is that it is true if and only if the rose is red, then we should conclude that the rose's being red is no less grounded in the truth of the proposition than the truth of the proposition is grounded in the rose's being red.

Another thing it could be said is that for the truth of a proposition to be grounded is for the truth of the proposition to be deducible from, and therefore explainable by, premises including the truth condition of the proposition. For instance, from a premise stating that the rose is red, by using the T-biconditionals, we deduce, and thereby explain, that the proposition that the rose is red is true. This is the line taken by Paul Horwich (1998: 105).

But this is wrong. For deducibility does not amount to explanation. Indeed, using the T-biconditionals we can also deduce from a premise stating that the proposition that the rose is red is true that the rose is red. But neither is the rose's being red grounded in the proposition's being true, nor do we explain that the rose is red in terms of the truth of the proposition that the rose is red.

It might be suggested that the rose's being red explains the truth of the proposition that the rose is red because certain counterfactuals hold: if the rose had not been red then the proposition that the rose is red would not have been true.

But this is wrong. First, that the relevant counterfactuals hold is simply that they are true. And so this approach attempts to explain truth by truth, which is not very illuminating. Second, that if the proposition that the rose is red had not been true then the rose would not have been red is no less true than that if the rose had not been red the proposition that the rose is red would not have been true. So that the rose's being red explains that the proposition that the rose is red is true cannot be a mere matter of certain counterfactuals holding. For the relevant counterfactuals hold in both directions.

But perhaps saying that the proposition that the rose is red is true because the rose is red simply means that we explain the truth of the proposition in terms of the rose's being red rather than the other way round? According to this, the proposition that the rose is red is true because the rose is red *because* we explain the former in terms of the latter. But this is wrong. We explain the truth of the proposition that the rose is red in terms of the rose's being red *because* the proposition that the rose is red is true because the rose is red. Explanation is not and does not account for grounding—on the contrary, grounding is what makes possible and 'grounds' explanation.

Not only that. As David-Hillel Ruben says, what makes explanation possible is the presence of certain determinative relations between entities (Ruben 1990: 210). He puts it like this: 'explanations work only because things make things happen or make things have some feature' (Ruben 1990: 232). So invoking explanation of the truth of the proposition that the rose is red will not save us from postulating a relation (namely grounding) between some entity and the proposition.

But, one might say, all there is behind the fact that the proposition that the rose is red is true because the rose is red is a move of semantic descent. Consider, for instance, the view that the truth predicate is simply a disquotational device. Here the function of the truth predicate is not to ascribe a property to something but simply to cancel linguistic reference so that reference to objects like the rose is restored. So to say that 'The rose is red' is true is simply to say that the rose is red.

In the same pages where he was putting forward the disquotational view, Quine admitted that truth is grounded: 'No sentence is true but reality makes it so' (Quine 1970: 10). Can Quine account for the groundedness of truth without making grounding a relation? It might be thought he can: all it takes for 'The rose is red' to be true because the rose is red is that given that the rose is red we can legitimately apply the disquotational device to 'The rose is red'.

Quine's view is meant to apply to sentences rather than propositions, which I assumed as truthbearers at the beginning of this paper. But something like it could be modelled for propositions. One could simply say that the function of the truth predicate is to cancel propositional reference in order to restore reference to non-propositional objects or entities. So to say that the proposition that the rose is red is true is simply to say that the rose is red. The truth predicate thus functions as a mere device of semantic descent. And, it might be thought, the proponent of this view will say that all it takes for the proposition that the rose is red to be true because the rose is red is that given that the rose is red we can legitimately apply the device of semantic descent to the proposition that the rose is red.

Maybe that is the point of the truth predicate. The predicate is useful because it allows us to indirectly speak about the world even in cases when, due to certain technicalities, we must perform semantic ascent. Paraphrasing Quine (1970: 12), by calling the proposition true, we call the rose red. Perhaps that is what we do and what we need the truth predicate for.

But that this view accounts for the idea that the proposition that the rose is red is true because the rose is red is illusory. This view gets the order of explanation wrong: that the proposition that the rose is red is true because the rose is red accounts for the fact that given that the rose is red we can legitimately apply the device of semantic descent to the proposition that the rose is red—not the other way around.

But, it might be said, the importance of semantic descent lies in that it allows us to speak about what we really want to talk about: the world of roses, snow, and cats. As Quine said, the truth predicate 'serves as a reminder that though [propositions] are mentioned, reality is still the whole point' (1970: 11).[13] This is surely true, but one should avoid trying to explain that the proposition that the rose is red is true because the rose is red in terms of our interests in roses rather than propositions. That we are interested in roses rather than propositions about them does not explain why propositions about roses are grounded in roses. The more likely thing is that the fact that the rose's being red grounds the truth of the proposition that the rose is red plays some part, even if a modest one, in an explanation of why we are more interested in roses than in propositions about them.

One might try to reject the idea that grounding is a relation from the identity theory of truth, according to which true propositions *are* facts. One could argue thus: (a) what grounds the true proposition that the rose is red is the fact that the rose is red; (b) the true proposition that the rose is red = the fact that the rose is red; (c) if a relation, grounding is an irreflexive relation (at least in the case of propositions about non-truthbearers like roses); therefore, (d) grounding is not a relation (at least in the case of propositions about non-truthbearers like roses).[14]

The problem with this argument lies in the conjunction of (a) and (b), which leads to the abandonment of premise (1) of my argument, i.e. to the abandonment of the idea that truth is grounded. For (a) and (b) entail that the proposition that the rose is red is true because it is fact that the rose is red, and that it is a fact that the rose is red because the proposition that the rose is red is true. This, as we saw in §5, is absurd and represents an abandonment of the idea that truth is grounded.

It might be replied that this *sounds* absurd because one is implicitly presupposing that the proposition and the fact that the rose is red are not the same entity. But, the objector will say, given that the fact and the proposition are one and the same, there is no absurdity in claiming that the proposition that the rose is red is true because it is a fact that the rose is red, and that it is a fact that the rose is red because the proposition that the rose is red is true. For given the identity between proposition and fact one is not thereby claiming of two entities that they are *mutually* grounded. So, the objector will continue, all (a) and (b) entail is that a true proposition is grounded *in itself*.

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[13] The bracketed word 'propositions' replaces Quine's word 'sentences'.

[14] I am not claiming that the identity theory of truth is committed *per se* to claims (a) and (c) in the argument. An identity theorist could maintain that grounding is a reflexive relation, or that truth is not grounded, or that truth is not grounded in facts (e.g. that truths about the rose are grounded in tropes of the rose, or in how the rose is. The latter is very close to Dodd's view that truths about the rose supervene upon how the rose is, and Dodd is an identity theorist of truth (see his 2000)). The only premise of this argument the identity theory is committed *per se* is (b). All I am doing here is devising an argument against the idea that grounding is a relation that is based on the identity theory of truth.

But this *is* abandoning the idea that truth is grounded, for it amounts to taking truth as primitive. The proposition that the rose is red is true because it is a fact that the rose is red, but given the identity theory of truth this amounts to saying that it is true because it is true. That it is true is then a primitive fact about the proposition that the rose is red. Saying that the proposition that the rose is red is grounded in itself, and saying that it is not grounded, are one and the same thing.

We can see more clearly the errors that an identity theorist incurs in conjoining (a) and (b). There are two versions of the identity theory, a modest one and a robust one (Dodd 1999*c*: 227). A robust identity theory takes facts to be entities from the realm of reference whose totality makes up the world. If the world is the totality of facts, they must have things, and perhaps also properties, as their constituents. But if so, given the identity between proposition and fact, what makes the rose red is that the proposition that the rose is red is true, which is absurd.[15]

A modest identity theory takes facts to be entities in the Fregean realm of sense. We do not encounter facts in the world of roses, atoms, houses, and people—facts are not made up of these things. On this version of the identity theory to say that the true proposition that the rose is red is grounded in the fact that the rose is red, i.e. to say that the proposition is grounded in itself, means to deny that the proposition is grounded in anything about the rose. The modest identity theory, when coupled with the idea that true propositions are grounded in facts, leads to the view that the truth of the proposition about the rose is independent from the rose's being red. This is also clearly wrong.

Thus it is difficult to see what grounding could be if not a relation. But it is easy to see that it is a relation. For consider again the proposition that the rose is red. If the truth predicate applies to it, then it applies in virtue of, or is grounded in, something. Either it is grounded in an intrinsic feature of the proposition, or it is grounded in something else. If it is grounded in an intrinsic feature of the proposition then we lose the connection between truth and the world and we are left with some version of primitive truth—something I have already rejected. So it is grounded in something else. So the proposition and that something else that grounds it are related—if they were not related, how could one be true in virtue of the other? And the way in which they are related is that one grounds the other. Therefore grounding is a relation.

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[15] This absurdity is a manifestation of a more basic absurdity of robust identity theories, namely their identification of facts, understood as having things (and perhaps properties) as constituents, and propositions, understood as thinkables, which are entities of different ontological categories. This absurdity is also at the root of the difficulties robust identity theories find in accounting for falsehood. Dodd (1999*c*: 227) sees a robust identity theory in Hornsby (1997), but Hornsby (1999: 242) rejects the charge.

8. CONCLUSION

As I have said, analytic truths and some other truths, are not grounded. But the idea that most synthetic truths, including inessential predications about things like roses, cats, planets, and molecules are grounded is a very plausible idea that most philosophers want to retain. But there is no escape from truthmakers once the groundedness of truth has been admitted. It is not possible to maintain that truth is grounded in how things are without maintaining that truth is grounded in whether things are. Thus (TM) and the idea that truths have truthmakers have been vindicated.

The idea that truths have truthmakers has important and problematic ontological consequences. Not only does one have to admit an extra entity, over and above the rose, to account for what makes true that the rose is red—one also has to find a truthmaker, for instance, for negative existential truths, like the truth that there are no penguins in the Northern Pole. What that truthmaker is, I don't claim to know. All I claim is that there must be one.[16]

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[16] Versions of this paper were read at a conference in the University of Manchester in 2002, a seminar in Universidad Torcuato Di Tella, a seminar in Oxford, and a colloquium at Bariloche, Argentina. I thank those audiences. I thank the Leverhulme Trust, whose generous Philip Leverhulme Prize made it possible to complete this paper. Finally, I also thank the Philosophy Department at CUNY, where I started writing this paper in 2001, and Universidad Torcuato Di Tella, where I finished it in 2002.

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3 *Truth without Truthmaking Entities*

JENNIFER HORNSBY

Advocates of truthmakers have two different agenda, I think. Sometimes their project is to conduct a specifically ontological enquiry of a wide-ranging sort. Here the question is: *What exists in reality*?, and the assumption or argument is that truth depends upon being. Sometimes their project is to aid our understanding of truth. Here the question is: *What is truth*?, and the assumption or argument is that a good answer will invoke a relation of *making true*. Some of truthmakers' advocates are engaged in only one of these two projects—some in one, some in the other. Gonzalo Rodriguez-Pereyra's manner of defending a truthmaker principle makes connections with projects of both sorts.[1] I find myself interested in his paper in part because it helps us to see how the two projects may be related.

Rodriguez-Pereyra thinks that the intuitions that have inspired theories of truthmaking cannot be accommodated without commitment to truthmaking *entities*, and he advances arguments in support of such things, of truthmakers. In responding to his arguments here, I shall make a suggestion about why we should be apt to have the intuition that truth is grounded and thus to think of 'truth *making*', even if there are no entities which make propositions true.

Rodriguez-Pereyra tells us that he seeks to establish a restricted version of a truthmaker principle. With the restriction made explicit—here in italics—the principle is this:[2]

> (TM) *So long as* $\langle p \rangle$ *belongs to an important class of synthetic true propositions that includes inessential predications:* necessarily, if $\langle p \rangle$ is true, there is some entity in virtue of which it is true.

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[1] In 'Why truthmakers' (this volume). My reply has been based on Rodriguez-Pereyra's conference presentation and a draft of his paper printed here. I have not attempted to cover everything in Rodriguez-Pereyra's final version.

In discussion of Rodriguez-Pereyra's paper at the conference, Simon Blackburn joined me in saying that there were explanations of asymmetry of which Rodriguez-Pereyra took no account, and his remarks have influenced what I say in §4. Julian Dodd's comments on a draft of the present paper were extremely helpful. I thank the Arts and Humanities Research Board for support: I held an award under the Research Leave Scheme at the time of the conference and writing my first draft.

[2] Rodriguez-Pereyra assumes, as I shall, that propositions are the truth-bearers. And he uses angle brackets, as I shall, to form names of propositions. Angle brackets surround a sentence, or, in the case of a schema, a letter which is to be replaced by a sentence in an instance of it.

Rodriguez-Pereyra has two main arguments. One is the argument which he gives in his §6 for the reification of how things are. The other is an argument which he gives in his §7 whose conclusion is (OntG).

(OntG) Truth is grounded in entities.

(OntG) looks to be an informal statement of an *unrestricted* version of (TM) (got by removing the italicized clause). And indeed the argument for (OntG) rests upon a general, unrestricted premise. This is the premise (G):

(G) Truth is grounded

It seems that the conclusions of Rodriguez-Pereyra's two arguments differ in their generality. The argument in his §6 is aimed at (TM); it treats the proposition ⟨the rose is red⟩; and it relies upon intuitions about propositions of a particular sort. The argument in §7, by contrast, is aimed at (OntG); and it relies upon an intuition about *truth* which has application to propositions in any class whatever.

It is surely a good question exactly how comprehensive Rodriguez-Pereyra's claims about truthmakers might be supposed to be. Do they support truthmakers for an important class of synthetic true propositions, or for all propositions? I shall start with considerations that bear on this question. Thus in §1, I look at the various statements of Rodriguez-Pereyra's crucial premise (G) which we find in his §4. I think that examination of the variants may make us suspicious of whether any can do quite the work that (G) is supposed to do. I also think that once we are clear about what general claim (G) commits us to, we shall be in a position to explain its force without having recourse to truthmakers. This is what I attempt to show in §§4 and 5 below. In §§2 and 3, I take the arguments of Rodriguez Pereyra's §§6 and 7 in turn.

1. THE IDEA OF TRUTH AS GROUNDED

When he outlines his argument for truthmakers, Rodriguez-Pereyra considers a single proposition, and expresses his crucial premise in various ways: he uses all of (G_1)–(G_4) to say what it is for the truth of ⟨the rose is red⟩ to be grounded.[3]

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[3] I have extracted (G_1)–(G_4) from Rodriguez-Pereyra's text, quoting *verbatim* as far as possible, but introducing small capitals in each of the formulations for ease of making comparisons. There are further variants which I haven't attended to.

(G_1) ⟨The rose is red⟩ is true BECAUSE the rose is red.
(G_2) The truth of ⟨the rose is red⟩ IS EXPLAINED [/DETERMINED] BY the rose's being red.
(G_3) The truth of ⟨the rose is red⟩ DEPENDS ON what reality is like.
(G_4) ⟨The rose is red⟩ is true IN VIRTUE [/BECAUSE] OF reality.

The formulation (G_1) is the one that Rodriguez-Pereyra mainly uses. But it will be important to recognize that it can make a difference which of these various ways of expressing (G) one plumps for. This is what I hope to show in the present section, starting with the difference between (G_1) and (G_2).

1.1. (G_2) would seem to be the version Rodriguez-Pereyra needs, given that (OntG) is his target. In his view 'the rose's being red' denotes an entity of whatever sort should be settled on as the truthmaking sort;[4] and the nice thing about (G_2), from his point of view, is that it appears explicitly to mention such an entity. (G_1), by contrast, doesn't so much as appear to mention or to introduce any state of affairs: there is a sentence on its right hand side—'the rose is red'. Now some people maintain that talking of the rose's being red is often just a way of affirming the proposition expressed by that sentence. Since these people deny that the rose's being red is an *entity*, they might appeal to (G_1) to show why the appearance of mention of a truthmaking entity in (G_2) is not to be taken seriously. They think that (G_1), for its part, commits us only to an ontology of propositions and to whatever other entities 'The rose is red' had already committed us to before 'is true' appeared on the scene.

The nominalization in (G_2) is demanded by the syntax of 'is explained by'. And the approximate equivalence (AE)—in which 'nom(p)' is to be so understood that what replaces it in any instance is a nominalization of the sentence at the place of 'p'—shows why it is possible to move between the different formulations:[5]

(AE) Nom(s) IS EXPLAINED BY Nom(t) ╫ s BECAUSE t.

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[4] Henceforth, having acknowledged Rodriguez Pereyra's agnosticism about the sort to which the entities in question belong, I shall say 'state of affairs', as Rodriguez-Pereyra himself sometimes does (although he sometimes speaks of facts in this connection).

[5] I rely here, as I could not rely in a more detailed treatment, on an intuitive notion of a nominalization of a sentence. Rodriguez-Pereyra's own formulations show that there can be more than one way to nominalize a sentence. Perhaps he could have used 'the redness of the rose' (which would seem to be a match for his 'the truth of ⟨p⟩') where he actually uses 'the rose's being red'; and perhaps he could have used '⟨p's being true⟩' (which would seem to be a match for his 'the rose's being red') where he actually uses 'the truth of ⟨p⟩'. I assume that such differences as these don't affect the present arguments, and I stick with the nominalizations that Rodriguez-Pereyra used himself.

An example of (AE) is: 'My shirt's being blue is explained by my having dyed it' is approximately equivalent to 'My shirt is blue because I dyed it'. (AE) can help us to understand why (G_2) and (G_1) may strike us—as they strike Rodriguez-Pereyra—as different ways of expressing the same claim.

The formulation using 'IS EXPLAINED BY' exhibits ontology if Rodriguez-Pereyra is right. Rodriguez-Pereyra's opponent holds that the 'BECAUSE'-formulation gives the lie to the idea that ontology is exhibited. It can seem then that a question that separates Rodriguez-Pereyra from his opponents is which of these approximately equivalent formulations to put one's money on.

1.2. If entities are uncovered in the reformulation of (G_1) effected by (AE), then in (G_2) a phrase denoting a state of affairs occurs on its left-hand side as well as on its right. In that case 'the truth of ⟨the rose is red⟩' (not just 'the rose's being red') denotes a state of affairs (or whatever). Is that a consequence that Rodriguez-Pereyra would welcome?

'The truth of ⟨the rose is red⟩' might be thought to denote a state of affairs additional to any to which someone who says that the rose is red is committed, or it might be thought simply to denote the same state of affairs as 'the rose's being red' does. On the first alternative, a proposition's truth is an entity different from that which makes the proposition true (it is to be conceived of as involving the proposition, as it were, not just the rose). One then appears to be committed to an unending hierarchy of truthmakers in respect of each proposition: the truth of ⟨*p*⟩, the truth of ⟨⟨*p*⟩ is true⟩, the truth of ⟨⟨⟨*p*⟩ is true⟩ is true⟩, and so on.[6] On the second alternative, the entity mentioned on the left-hand side of (G_2) is identical to that mentioned on the right. But then the relation it expresses is symmetric (granted the correctness of (G_2)). And that cannot be what Rodriguez-Pereyra wants. (There is more on the asymmetry upon which he relies in §4 below.)

Of course Rodriguez-Pereyra may simply deny that 'the truth of ⟨the rose is red⟩' denotes: he may accord unequal treatment to 'the truth of ⟨the rose is red⟩' and 'the rose's being red'. Then he will acknowledge that finding a nominalization in an approximate equivalent of a sentence doesn't *in general* reveal an ontology to which one would be committed by affirming the corresponding proposition. And he will probably acknowledge also that no *general* support for (OntG) can be made with the claim (G). For even in a favourable case, where it may be plausible to think of ⟨*p*⟩'s truth as grounded in an entity, it leads to something implausible (to the unending hierarchy) to suppose that we find an entity which grounds the truth of $\langle\langle p\rangle$ is true$\rangle$.[7]

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[6] This assumes that we can generalize what is said in (G_1) and (G_3): see the text below for the relevant generalizations.

1.3. There is no need to think about propositions about propositions in order to see that not all of (G$_1$)–(G$_4$) survive generalization. For it is far from clear that one wants to say of every true proposition that it is true ‘in virtue of reality’, or that its truth ‘depends upon what reality is like’.

We need to consider schematic counterparts of Rodriguez-Pereyra’s (G$_1$)–(G$_4$) in order to be able to think generally about the various ways of expressing (G). Thus:

(GSch$_1$) $\langle p\rangle$ is true BECAUSE p.
(GSch$_2$) The truth of $\langle p\rangle$ IS EXPLAINED [/DETERMINED] BY Nom(p).
(GSch$_3$) The truth of $\langle p\rangle$ DEPENDS ON what reality is like.
(GSch$_4$) $\langle p\rangle$ is true IN VIRTUE [/BECAUSE] OF reality.

These schemas bring to notice that whereas in (G$_1$) and (G$_2$) what occurs on the right-hand side serves only for the particular proposition mentioned on the left, in (G$_3$) and (G$_4$) we find on the right-hand side something which is independent of any particular proposition and talks about ‘reality’. Rodriguez-Pereyra says that truthmakers are ‘features of reality’. Perhaps his idea is that the true propositions which possess truthmakers are those that ‘tell us about reality’. Perhaps, then, (GSch$_3$) and (GSch$_4$), in which reality is mentioned, are what we need to focus on if we want to spell out (G) in such a way that it can lend support to (OntG).

We could test this idea using examples. We can consider various true propositions along with their nominalizations, and see whether we are disposed to assent to instances of (GSch$_3$) and (GSch$_4$), as well as of (GSch$_1$) and (GSch$_2$), in respect of them. Consider, then, these five.

(A)	⟨Dodd is not both in his office and not in his office⟩	Dodd’s being not both in his office and not in his office[8]
(B)	⟨The rose is not blue⟩	the rose’s not being blue

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[7] Rodriguez-Pereyra might say that even if the terms ‘the truth of $\langle p\rangle$’, ‘the truth of $\langle\langle p\rangle$ is true$\rangle$’, etc. do not denote states of affairs, nonetheless $\langle\langle p\rangle$ is true$\rangle$, $\langle\langle\langle p\rangle$ is true$\rangle$ is true$\rangle$, etc. are all grounded in an entity, namely the entity which is $\langle p\rangle$’s truthmaker. If that is the line, then in order to settle how terms like ‘the truth of $\langle\langle p\rangle$ is true$\rangle$’ behave, one will need to decide whether or not $\langle p\rangle$ has a truthmaker in some instance. And of course what we need to be persuaded of in any particular case is precisely that $\langle p\rangle$ has a truthmaker: see further §1.4.

[8] At §8 Rodriguez-Pereyra says ‘As I have said, analytic truths, and some other truths, are not grounded’. So it is safe to assume that he does not intend to argue for a truthmaker for ⟨Dodd is not both in his office and not in his office⟩. But my present purpose is to raise a question about how the class of propositions having truthmakers might be supposed to be defined.

(C) ⟨The rose is red or yellow⟩	the rose's being red or yellow
(D) ⟨A rose is red⟩	a rose's being red
(E) ⟨Michael Meacher will be named as a member of Britain's delegation to the earth summit in Johannesburg despite fears that the respected environment minister would be left at home⟩	

Intuitions here may vary. Probably few will say that the truth of the proposition shown at (A) depends upon 'what reality is like'. But many will allow that all of the other propositions in the (A)–(E) list do depend for their truth upon 'what reality is like' (although in order to accommodate (E) we must be allowed to say that 'Reality includes future reality' or some such). And probably also it will be agreed that even if (A) is a counter-example to both (GSch$_3$) and (GSch$_4$), (B), (C), and (D) yield truths when instantiated in *all* of the schemas. (When it comes to (E), it is hard to be sure how the relevant instance of (GSch$_2$) might be meant to be written.) It seems, then, that give or take the odd qualification or misgiving, it would be reasonable for Rodriguez-Pereyra to tell us that a test for which propositions have truthmakers can turn upon our intuitions about 'reality' and what it 'is like'. (We might then wonder why a proposition about a proposition should be thought *not* to tell us about reality: cp.§1.2. But let that pass.)

Even if we now have a rough and ready idea of what the class of true propositions possessing truthmakers might be supposed to be, we still need to think about the motivation for (OntG). It is one question how widely Rodriguez-Pereyra's claims about true propositions might be supposed to have application, and another question whether we are apt to accept truthmakers' existence wherever those claims apply. We may ask, then, whether the nominalized phrases shown alongside the propositions in (A)–(E) are all equally good candidates for denoting truthmakers. This question introduces the many controversies there have been surrounding states of affairs, and it would take us far afield to go into these here. But we can note that we don't retract our assent to the relevant instances of the putatively ontologically revealing (GSch$_2$) even where talk about reality goes missing (in the case of [A], that is). And we should remember that there are friends of states of affairs who doubt the existence of negative or disjunctive ones, and thus will deny that (GSch$_2$) is ontologically revealing when (B) and (C) are run through it. (D) is less than straightforward. Rodriguez-Pereyra speaks of the rose as the subject matter of 'the rose is red'; but we may not be confident that 'A rose is red' has any 'subject matter' in the intended sense. When it comes to (E), we could concoct a nominalization such as 'Michael Meacher's being such that he will be named . . . '; but unless we have some further argument that this denotes an entity, commitment to entities will seem to come very cheaply. All in all, it is doubtful that whatever Rodriguez-Pereyra has to say to persuade us of a truthmaker for ⟨The rose is red⟩ could carry much weight when it comes to true propositions more generally.

1.4. I have been pressing questions that Rodriguez-Pereyra didn't attempt to answer in his paper. Still, two points emerge from these considerations about how (G_1)–(G_4) might generalize.

I suggested that Rodriguez-Pereyra puts his money on the left-hand sides of (AE)'s instances where there are nominalizations, his opponent on the right-hand sides where there are sentences. But this difference cannot be the nub of the real disagreement between Rodriguez-Pereyra and an opponent. We know now that moving from right to left in an instance of (AE) is not always ontologically revealing. And we have seen that there must be doubts about the extent to which this move is ontologically revealing insofar as there can be doubts about whether there are negative, disjunctive, future, complex, etc. states of affairs. It seems, then, that all one can safely say is that ontology is exhibited in an instance of ($GSch_2$) if what appears on *its* instances' right-hand sides do indeed denote entities. But it is unclear how the question whether a nominalization there denotes something could be settled except by discovering whether the proposition in question has a truthmaker. And that means that the fact that 'the rose's being red' appears to denote in (G_2) could not on its own convince us of anything. (Not that Rodriguez-Pereyra tried to convince us in this way himself.)

The second point is that *truth* cannot really be the crucial notion in settling the ontological questions to which Rodriguez-Pereyra's paper provides us with a part of his answer. It seems that he relies on claims which require for their endorsement thoughts about 'reality' and not just a conception of *truth*. (At any rate if he did mean to rely only upon *truth*, then he would have to say that the nominalization made from *any* sentence expressing a true proposition denotes a truthmaking entity. We have already seen that it is something Rodriguez-Pereyra refrains from saying in endorsing only the restricted (TM).)

2. THE ARGUMENT FOR THE EXISTENCE OF THE ROSE'S REDNESS

We have looked at Rodriguez-Pereyra's different ways of expressing the idea that truth is grounded—his spellings out of (G)—in order to see what general claims he may be committed to when he advances it. We should look now to the argument that Rodriguez-Pereyra uses in attempting to persuade us of one specific instance of his ontological claim (OntG).

The argument takes off from the need to acknowledge that there is more than one way the rose is: as well as being red, it is light, and it is fragrant, for instance. Rodriguez-Pereyra's claim is that this cannot be acknowledged unless *ways the rose is* are reified and taken to be those entities which make propositions about the rose true.

Well, our response to this claim is likely to be that talk of 'ways' in this connection requires endorsement at most of *properties*. We think that the way that the rose is in virtue of which ⟨the rose is red⟩ is true is a way that ripe tomatoes are—namely *red*. And here, where 'red' is used to say what different things have in common, it can hardly stand for the *rose's* redness. So let us allow that *being red* and *being light* are properties, both of them ways of the rose. (This is not to deny that there may be other sorts of use of 'way of the rose' or 'how the rose is').[9] To allow the existence of properties at this point is to concede very little—as one sees if one considers that we have no grasp on the existence or non-existence of the property of (for example) redness independent of its being possible or impossible meaningfully to say of things that they are or are not red.[10] We then seem to have everything we need to explain why one is able to distinguish between what makes for the truth of ⟨the rose is red⟩ and what makes for the truth of ⟨the rose is light⟩. Dressed up in the language of instantiation, the explanation is that ⟨the rose is red⟩ is true because the rose instantiates the property of *being red*, and ⟨the rose is light⟩ is true because the rose instantiates the property of *being light*.

Rodriguez-Pereyra imagines a response along these lines from an opponent. But it leaves him unsatisfied. He issues a further challenge. His opponent must say what the following means:

For the rose to instantiate the property of *being red* is not for it to instantiate the property of *being light*.

Rodriguez-Pereyra considers various accounts of what this means, and tells us that they all either fail to convey its import or succeed in reifying features of reality so as to introduce truthmakers. What isn't clear, however, is why an opponent cannot say that it is *obvious* what this means. Certainly some explication of it may be given in the light of the conception of a property in play here. Given that conception, we know that for any object to instantiate the property of *being red* is for that object to be red, and that for it to instantiate the property of *being light* is for it to be light. And we surely know that what it is for an object to be red is not what it is for it to be light. (Some red objects are heavy, some blue ones light.) It seems not only to be obvious what it means to say that for the rose to instantiate the property of *being red* is not for it to instantiate the property of *being light*, but also to be obvious that this is true.

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[9] Indeed, I agree with Rodriguez-Pereyra that there is an understanding of 'way the rose is' correlative with 'the rose's redness', so that if his point were only that 'how [/a way] the rose is' seems to denote a state of affairs in some occurrences, then I should have no quarrel with it. But this is not the point around which the argument of his §6 revolves. (I raised the question how seriously the seemingly denoting uses of 'the rose's redness' should be taken in §1, and I return to it in §5.)

[10] Of course controversies about properties' existence may be answerable to different theoretical concerns from any in play here. Then more substantial requirements on their existence will be imposed. And demands for explanation may be issued beyond any that Rodriguez-Pereyra issues in 'Why Truthmakers'. Here I confine myself to responding to the arguments for the particular ontology of this particular paper.

3. THE ARGUMENT THAT TRUTH IS GROUNDED IN ENTITIES

I turn to the general argument that Rodriguez-Pereyra gives to get from the thought that truth is grounded to its ontologically loaded counterpart:

(G) Truth is grounded.
(2) Grounding is a relation.
(3) Relations link entities.
(OntG) Truth is grounded in entities.

The controversial step here is that which takes us to (2). One is entitled to (2) only if a relation is employed in the proper explication of the claim (G). But the investigations in §1 above have given reasons for doubting whether any relation is introduced in the spellings out of (G) which Rodriguez-Pereyra offered and which were examined there.

(GSch$_3$) and (GSch$_4$) didn't appear to be correct in general. (Examples like (A) of §1.3 seem to provide counter-examples to them.) So let us confine consideration to (GSch$_1$) and (GSch$_2$). In (GSch$_1$) the notion of grounding shows up as the sentential connective 'because', and not as a relation. So in order to get to his premise (2), Rodriguez-Pereyra must rely on (GSch$_2$), in which the notion of grounding shows up as 'is explained by'. But we saw a number of reasons why he cannot rely on that. First, his opponent will want to appeal to the equivalence (AE) in order to explain away any appearance of truthmaking entities in the nominalizations that come into (GSch$_2$)'s instances. Secondly, a treatment of 'is explained by' as a genuine relation would require that terms for entities occur on both sides of (G$_2$), and we saw that it leads to trouble to say that there are always such terms on the left. Thirdly, for very many instances of (GSch$_2$) there are bound to be serious doubts (to some of which Rodriguez-Pereyra himself is evidently party) whether terms for entities occur on the right-hand side, which is where Rodriguez-Pereyra needs to find them, given that is there that we have to look for mention of truthmakers.

It is no good saying that there may be instances in which the argument from (G) to (OntG) would work as Rodriguez-Pereyra wants it to. For what he offers here is a general argument, supposedly based in our conception of truth, and our knowledge of what a relation is. And that means that Rodriguez-Pereyra has to rely on the *form* of an acceptable version of (G) if he is to reach (OntG).

4. HOW TO UNDERSTAND THE ASYMMETRY IN OUR THINKING ABOUT TRUTH

I have criticized both the argument that Rodriguez-Pereyra gives for believing in a truthmaker for ⟨the rose is red⟩, and an argument which, if it worked, would give us reasons for believing in truthmakers generally. There is now a further point to attend to. Rodriguez-Pereyra says that grounding is, if a relation, an asymmetrical one. I agree:[11] a certain asymmetry in our thinking about truth needs to be explained. I shall attempt to show that whatever the explanation may be, there cannot be any need to call upon an ontology of truthmakers in order to provide it (§4.1). And I shall indulge in some speculation about the proper explanation (§4.2). Doing these things will put me in a position to attend again to the principal, ontological matter to which Rodriguez-Pereyra's paper was devoted (§5).

4.1. The asymmetry in our thinking about truth requires a general explanation. It is an asymmetry which shows up in thinking about the truth of *any* proposition, as reflection on these schemas shows:

(GS) ⟨*p*⟩ is true BECAUSE *p*.
(ConGS) *p* BECAUSE ⟨*p*⟩ is true.

(GS) is Rodriguez-Pereyra's preferred formulation of the idea that truth is grounded: it is (GSch$_1$) of the variants we looked at in §1. (ConGS) is its converse. We need to know why the first is correct, the second not.

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[11] One might wonder whether my agreement with the claim that grounding is asymmetrical if a relation could amount to anything more than my denial that grounding is a relation between entities. A different example can help to show that it does amount to more. The example is the word 'by', as it is used in 'She poisoned them by tampering with their water supply'. If one sides with Anscombe and Davidson and thinks that 'her poisoning them' and 'her tampering with the water supply' may denote one and the same event, then, given that she didn't tamper with their water supply by poisoning them, it leads to inconsistency to suppose that 'by' expresses a relation between events. (The inconsistency is one to which, in §1.2, we saw that Rodriguez-Pereyra would be led if he were to identify the states of affairs of ⟨*p*⟩'s being true with a state of affairs that is ⟨*p*⟩'s truthmaker.) 'By', one might say, is not a relation but an adverb-former; but one still understands the claim that it behaves asymmetrically. (I think that many philosophers have wrongly thought that the asymmetrical behaviour of 'by' shows that it must express a relation. That is another story.)

Rodriguez-Pereyra does not think that this asymmetry can be explained by the fact that instances of (GS) involve a step of semantic descent, whereas instances of (ConGS) do not. The trouble is that (ConGS) involves semantic ascent every bit as much as (GS) involves semantic descent; and both semantic ascent and descent are made possible by instances of the T-schema, which, for its part, seems to be perfectly symmetrical.

(T) ⟨*p*⟩ is true iff *p*

But this is too quick. Consider that we accept instances of (SS), but do not accept instances of its converse (ConSS):

(SS) The set whose sole member is *a* has a member that is *F* BECAUSE *a* is *F*.

(ConSS) *a* is *F* BECAUSE the set whose sole member is *a* has a member that is *F*.

Yet there is a principle in the offing here too which seems perfectly symmetrical, namely:

(M) {*a*} has a member that is *F* iff *a* is *F*.

Like (T), (M) gives us biconditionals in which substitution of 'because' for 'iff' brings asymmetries to light.

Rodriguez-Pereyra takes it that the correctness of an instance of (GS) is to be understood by making reference to a sort of entity additional to propositions (and additional to anything else to which using '*p*' had already committed us before 'is true' appeared on the scene). Would he want to say that the correctness of instances of (SS) is to be understood by making reference to a sort of entity additional to sets (and additional to anything else to which using '*a*' and '*F*' had already committed us before 'has a member' appeared on the scene)? It seems an extraordinary idea that the (SS)/(ConSS) asymmetry has an explanation that invokes any special ontology. But it is quite a natural idea that explanations of this asymmetry should work along roughly the same lines as that of the (GS)/(ConGS) asymmetry upon which Rodriguez-Pereyra relies.

4.2. To suggest that one ought to be satisfied with an explanation different from Rodriguez-Pereyra's is not yet to give one. But perhaps with this analogy in play, an explanation can be attempted.

For the rose to be red, it isn't required that there should be anything meaningful to say or to think; in particular it isn't required that the proposition that the rose is red should be propounded. Again, for the rose to be red, it isn't required that one should be able to speak or to think of a set whose sole member is the rose. Thus when we say that the proposition that the rose is red is true, or that the set whose sole member is the rose has a member that is red, we say more than what is required for the rose to be red. If we simply say that the rose is red, by contrast, then we say no more than that which is required for the rose to be red.

The foregoing shows that in a certain sense more is required to endorse what comes before the 'BECAUSE' in either of the schemas (GS) and (SS) than to endorse what comes after the 'BECAUSE'. Here then there is an asymmetry. Moreover, we are well placed to reach an explanation of the asymmetry that Rodriguez-Pereyra would wish to explain. We have only to point out that sometimes it is no good answering the question *Why s?* by saying *BECAUSE t* unless *s*'s being the case requires something more than *t*'s being the case. To take the example of concern here—its being the case that $\langle p \rangle$ is true requires more (in the sense elicited) than that *p* should be the case; and it is no good answering the question *Why p?* by saying *BECAUSE* $\langle p \rangle$ *is true*, even though one may answer the question *Why is* $\langle p \rangle$ *true?* by saying *BECAUSE p*.[12] Thus (ConGS) is incorrect, and (GS) correct. Semantic ascent and semantic descent are, in the relevant sense, asymmetrical moves.

This explanation exploits something like the intuition upon which Rodriguez-Pereyra trades, which he expresses at one point by saying that truth depends on reality, not reality on truth. Another way to put it—more consonant with I have just said—would be this: How things are truly said or thought to be depends upon how they are, but how things are does not depend upon how they are said or thought to be; and since things can *truly* be said or thought to be some way only insofar as they are *said or thought* to be that way, how things are does not depend upon how they are truly said or thought to be.

4.3. Evidently this little account of '$\langle p \rangle$ is true BECAUSE *p*' partakes of a certain modesty, a modesty that goes hand in hand with a so-called modest identity theory of truth. If a notion of grounding is introduced now to play the role of the 'because', and if one speaks of the true propositions as the facts, then one may find oneself saying that the truth of $\langle p \rangle$ is grounded in the fact that *p*. (To ensure modesty, one might point out that ⟨*p*⟩'s being a fact requires no more and no less than its truth.) Rodriguez Pereyra takes exception to this, telling us that it 'means to deny that the proposition is grounded in anything about' the objects mentioned when the proposition is propounded. He says that it leads 'to the view that the truth of the proposition about the rose is independent from the rose's being red'.

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[12] I don't pretend to give necessary or sufficient conditions for the application of 'because' here. I acknowledge that even the little I do say is likely to be denied by anyone who thinks (a) that it is always the presence of determinative relations between entities that makes explanations work (as Rodriguez-Pereyra cites Ruben as saying), and (b) that there is an explanation that works wherever there is a 'because'-sentence that is true. It seems plain that acceptance of (a) and (b) must lead to a deficient account of 'because'.

Rodriguez-Pereyra endorses (a) in the course of arguing against what Horwich has to say about (GS) [or actually—for reasons that Horwich doesn't reveal—about the sentential counterpart of (GS)]. My disagreement with Rodriguez-Pereyra on this point should not be taken to show that I side with Horwich.

But here one needs to make distinctions between different thoughts that can be expressed using notions of 'grounding' or 'dependence'. Of course questions about whether some proposition about the rose is true turn upon how the rose is. For instance, the rose must be *red* if the proposition ⟨the rose is red⟩ is to be true. In one good sense, then, the truth of ⟨the rose is red⟩ depends upon the rose's being red (cp. §2 above). One can put this by saying that the truth of ⟨the rose is red⟩ is grounded in the rose's being red. But this can now be a different claim from the claim that the rose's being red is an entity, which, given ⟨the rose is red⟩'s truth, stands to ⟨the rose is red⟩ in a relation of grounding.

5. ONTOLOGY AND TRUTH

We have seen a tension in Rodriguez-Pereyra's thinking about truthmakers. On the one hand he calls them *entities*, he speaks of our needing to *reify* features of reality, and he shrinks from saying that any old sentence nominalization denotes such a thing. It appears then that their *entityhood* is something that one may have to fight to establish and could not hope to establish across the board. On the other hand, Rodriguez-Pereyra's main argument for truthmakers can seem to show that every proposition has a truthmaker. For he believes that the existence of truthmakers is required to explain the correctness of (GS), and in any instance of this schema, one might simply nominalize the sentence that expresses ⟨*p*⟩ to say what ⟨*p*⟩'s truthmaker is. It appears then that it ought to be rather easy to establish the existence of truthmakers, and to establish this across the board.

We should surely join with Rodriguez-Pereyra in shrinking from saying that the existence of an entity can always be inferred from a sentence nominalization's having a use. In §1.2, we saw examples in which the existence of the entities has been doubted—'the rose's not being blue' and so on. But there are other examples where the doubts will be greater. It is no wonder that Rodriguez-Pereyra sees fit to place restrictions on his claims about the truthmakers that exist.

If we are satisfied that we no more need to invoke a special ontology to explain the (GS)/(ConGS) asymmetry than to explain the (SS)/(ConSS) asymmetry, then we shall side with those opponents of Rodriguez-Pereyra who hold that moving from right to left in an instance of (AE) is not ontologically revealing. Enquiring into our ontological commitments in the mood of a metaphysician, then, (G_2) has no more to tell us than (G_1). We carry on using sentence nominalizations, but refuse to dignify their denotations with the status of entities.[13] In taking this stance, we can relieve the tension we find in Rodriguez-Pereyra's thinking. For we recognize the denoting phrases which Rodriguez-Pereyra treats as names of truthmakers, but we resist the impulse to make the claim that their denotations *exist*.

This stance also puts us in a position to avoid the dilemma for Rodriguez-Pereyra we saw back in §1.2. The question for him there was whether ⟨*p*⟩'s truth is an entity different from that which (supposedly) makes ⟨*p*⟩ true, or whether ⟨*p*⟩'s truth just is the (putative) truthmaker for ⟨*p*⟩. The choice presented by this question appeared to be a choice between reaping an infinite hierarchy of entities and losing the very asymmetry on which Rodriguez-Pereyra wants to rely. But allowing that thinking about the truth of ⟨the rose is red⟩ involves conceiving a proposition (not just the rose), we can acknowledge an asymmetry without seeming to be committed to infinitely many *entities*. Thinking about the truth of ⟨⟨*p*⟩ is true⟩ (say) involves conceiving of something additional to what thinking about the truth of ⟨*p*⟩ involves (in a thin sense of 'something additional', elicited in §4.2). But there is no pressure to conclude that there is one *entity* for which 'the truth of ⟨*p*⟩' stands and a *distinct entity* for which 'the truth of ⟨⟨*p*⟩ is true⟩' stands.

To some people, it will seem that a fundamental question in ontology is evaded by taking this stance. They want to know: 'Ought truthmaking states of affairs to be reified or do they not really exist?' But my idea is that once we see that there is no need to fight for such things, we shall not find this question pressing. We shall see that indeed they come cheap, and without any disputable metaphysics. We might compare the denotations of sentence nominalizations to properties of the kind admitted in §3. To allow their existence is to admit very little, as one sees if one accepts that we have no grasp on their existence or non-existence independent of its being possible or impossible meaningfully to use sentences and make some syntactic transformations. They come cheap, I think, because their price is one that we have already paid in taking propositions to be the truth-bearers.

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[13] I don't here broach the difficult question what semantic treatment is to be given of examples such as ($GSch_2$)'s instance provide, which, it must be acknowledged, appear to be of the form '*aRb*', where '*R*' is a term for a relation. If that is their form, then one must give up premise (3) of Rodriguez-Pereyra's argument—'Relations link entities'—or one must allow that there is a thinner conception of an entity than that which lies behind Rodriguez-Pereyra's argument for '*reification*' discussed in §2.

I note that there is a reason not to speak of *truthmakers* beyond our not wanting to dignify the putative candidates with entityhood. Consider (a) 'The rose's being red explains nothing, since the rose is not red', and (b) '*z*'s being red might have made it true that a rose was red'. (a), (b), and examples like them suggest that that which Rodriguez-Pereyra calls a truthmaker is sometimes introduced without affirmation of the proposition in question. (Compare: A proposition can be propounded without being asserted or thought of as true.)

The two lines in Rodriguez-Pereyra's thinking about truthmakers, between which I have suggested there is a tension, go hand in hand with the two different projects of the advocates of truthmakers that I mentioned at the outset—concerned, respectively, with the questions *What exists in reality?* and *What is truth?*. When Rodriguez-Pereyra argues for the restricted (TM), an ontological question is at the fore. When he argues for the unrestricted (OntG), a question about truth is at the fore. To the extent that I have made objections, I believe that they might rebound on projects of both sorts.

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4 *Realism beyond Correspondence*

MICHAEL MORRIS

1. TWO COMMITMENTS OF ARMSTRONG'S

David Armstrong presents a very clear version of the classical correspondence theory of truth (Armstrong 1997). He commits himself to two fundamental claims:

(A1) The world consists of states of affairs;
(A2) States of affairs are not the 'tautological accusatives' of true statements and true propositions (1997: 19).

(A1) is a statement of one aspect of the classical correspondence theory of truth: more on this in §2. What is the motivation for (A2)? The immediate reason is this: Armstrong thinks that there is not a distinct state of affairs corresponding to each true statement or proposition. But why does he think *that*? I suggest for this reason: one cannot simply read the nature of the world off ordinary statements and propositions. Why not? Because then the nature of the world could not really *explain* the truth of those statements and propositions. And why should we insist on such explanation? Because, I suggest, it is a basic commitment of realism. What I want to argue is that this basic realism is in tension with the idea that the world consists of states of affairs.

2. CORRESPONDENCE AND REALISM

But isn't the correspondence theory of truth the very paradigm of a realist theory? Well, what is the correspondence theory? Consider the classical version. Loosely put, it holds that truths are true because they correspond to the facts. But the relation between truths, in general, and facts may be many-many, and this obscures the true nature of the theory. So first let us distinguish between basic and non-basic truths; then we can say that the non-basic truths are true because of the basic truths, and the basic truths stand in a one–one correspondence relation with the facts.[1] This enables us to express two crucial features of the classical theory:

(C1) There is a correspondence between the *elements* of basic truths and *elements* of the corresponding facts (so facts have propositional structure);
(C2) The correspondence holds between items in different realms: the realm of representations (roughly speaking), on the one hand, and the world on the other.

And what is realism? I'm concerned with what might be called *absolute realism about the world*, which I'll characterize as follows:

(R) The nature of the world as it is in itself is not in any way determined by the categories in terms of which it is represented.

This formulation contains the familiarly frightening phrase 'in itself'. What does it mean here? The issue of realism I shall be concerned with has to do with the relation between the world and representations of it; this is because the correspondence relation holds between the world and representations of it. In this context, 'the world as it is in itself' means *the world as it is as independently of the categories in which it is represented as is possible*. Why not just say that the world as it is in itself is the world as it is *independently of the categories in which it is represented*? In order to allow the claim of an idealist to be properly heard: the idealist claims precisely that the nature of world *as it is in itself* is dependent on the categories in which it is represented, so talk of the world as it is in itself can only be concerned with what is *as* independent of such categories *as is possible*. The idealism which (R) denies can be formulated like this:

(I) The nature of the world as it is in itself is in part determined by the categories in terms of which it is represented.

Two things are worth noting here. The first is that I take the dispute between idealism and realism to be a dispute about explanation: the idealist (of whatever kind) claims that the nature of the world is (at least partially) explained by something to do with representations, or the mental, or our capacities for knowledge; the corresponding realist denies the relevant explanatory dependence. The second is that, as I use the phrase, 'the world as it is in itself' does not mean *the world as it is non-relationally*.[2] It is not relations in general which are relevant to the issue of realism and idealism which I am concerned with, but a particular kind of explanatory relation to a particular kind of thing—representations.

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[1] This structure deals with the cases which Armstrong considers in showing that his correspondence relation is many-many (1997: 129–30); it also obviously accommodates the view of the early Wittgenstein (Wittgenstein 1922).

(C2) expresses a realism which falls short of (R). For (C2) to be true, there must be at least something about the nature of the world which is not explained by our representations of it. But this is compatible with (I), the negation of *absolute* realism about the world, since (I) requires only a *partial* determination of the nature of the world by representational categories. This means that, on the face of it at least, a classical correspondence theory seems to be consistent with idealism in the sense of (I).

3. THE EXPLANATION OF PROPOSITIONAL STRUCTURE

I think that any theory which accepts (C1) *should* be idealist. (C1) commits the classical correspondence theory to this *isomorphism thesis*:

(IT) Sentences and facts have the same kind of structure (propositional structure).

I assume that, since facts are supposed to be in the world, this is meant to be a claim about how the world is in itself: the world in itself has propositional structure.

I think that if we aren't already deeply immersed in some form of correspondence theory, this will strike us as a surprising claim, and will seem idealist in spirit. Here is a rough, intuitive explanation of that surprise and the thought that (IT) involves some kind of commitment to idealism. Surely propositional structure is fundamentally the structure of propositions; that is, of sentences. What (IT) does is simply read the structure of sentences into the world. But that can only be legitimate if the nature of sentences somehow determines the nature of the world; and that is an idealist thesis. I think this rough, intuitive argument is on exactly the right lines.[3] Indeed, it seems to be a worry about the possibility of just such an argument which leads Armstrong to deny that states of affairs are merely the 'tautological accusatives' of true statements. Let's try to elaborate the argument more carefully.

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[2] This is the conception of the world as it is in itself which Rae Langton attributes (a little eccentrically) to Kant (Langton 1998).

[3] Something of the character of this argument appears in this remark of Strawson's: 'Of course, statements and facts fit. They were made for each other' (1950: 168).

(IT) can only be true if one of the following is true:

(A) There is no reason why sentences and facts have the same structure.
(B) Sentences have propositional structure because facts have propositional structure.
(C) Facts have propositional structure because sentences have propositional structure.
(D) Sentences and facts both have propositional structure because of some third thing.

(A) and (B) are consistent with (R); (C) is not; (D) is not if the third thing is something like its being the case that thoughts have propositional structure.

We can dismiss (A) immediately. It seems that it can't be rational to believe (IT) and (A), because the only reason for believing (IT) seems to be this:

(E) Language can only represent reality if (IT) is true.

But to believe (E) one must believe that the nature of reality makes demands upon language, or that the nature of language makes demands upon the nature of reality, or that something else makes demands upon both language and reality; and these are all incompatible with (A). Once one has recognized that there is only reason to believe (IT) if one also accepts that there is an explanatory connection between sentences and facts having propositional structure, two arguments can be offered in favour of adopting idealism.

I. An argument against believing (B). (B) claims that the propositional structure of sentences derives from the propositional structure of facts. There is perhaps a way of understanding this which allows that the propositional structure of facts may also derive from the propositional structure of sentences: that is, that the two kinds of structure are mutually interdependent. But we cannot accept such a mutual independence and hold on to (R); so we have to think that the propositional structure of facts is independent of the structure of sentences—that it explains, but is not explained by, the structure of sentences. We have to think that the world just comes in proposition-shaped units, which sentences are perfectly fitted to represent.

But if we think this, we ought to expect to be able to characterize that propositional shape in some way which does not depend essentially on reference to the structure of sentences. Why should a structure which was in fact wholly independent of sentences be only describable as the kind of structure which sentences have? We can compare the problem here with a familiar kind of position about colours. Suppose that someone claimed that the fundamental nature of redness was wholly independent of anything to do with visual experience: in effect, that our visual systems were tuned to a property whose fundamental nature was not essentially visual. In that case, we would expect to be able to offer some characterization of the nature of redness (for example) which did not make essential reference to experiences of things as *looking red*. And, in fact, those who hold that the nature of redness is wholly independent of anything to do with visual experience do, characteristically, offer such alternative characterizations: in terms of the surface-reflectance properties of objects, for example. In the same way, if the propositional structure of facts was wholly independent of the structure of sentences, as the realist reading of (B) requires it to be, we should expect to be able to characterize it in some other way than as just the kind of structure which sentences have.

But no such alternative characterization is available. And this is not merely a poverty of vocabulary. We have no idea of what it would be for the world just to come in proposition-shaped units. We can use such words as 'fact' or 'situation' or 'state of affairs' or 'circumstance', but we have no idea of what these things are other than as things which are represented by whole sentences. Moreover, we have no idea of what articulation within propositions—between subject and predicate, for example—would be as something in the world independent of sentences. There is no joint between grass and its greenness, except in the grammar of sentences.

This does not show that it could not be *true* that the world comes in proposition-shaped units; but it does show that it is *irrational to believe* that it comes like that, unless we have a compelling independent reason to believe (B). If we accept (B) on the terms that realism requires, we are committing ourselves to something which we can make no sense of. Such a commitment might, in certain circumstances, be right; but we need some good independent reason for believing in (B) if it is to be rational to accept it. In this respect, belief in (B) is like belief in God. Belief in God, like belief in (B), is belief in something which we can make no sense of; we might accept that such a belief is irrational, but if we want to claim that it is rational, we need some good independent reason for it.

II. An argument in favour of believing (C). While we have no idea of what it would be for the world just to come in proposition-shaped units, we can make quite deep sense of propositional structure as the structure of sentences. This is not the place to engage in a full discussion of the famous problem of the unity of the proposition, but at least this can be said. Propositional structure in sentences depends on the idea of the *completeness* of a sentence as a unit: only some combinations of words count as complete units, and only some additions to complete units will leave us with complete units. Furthermore, no structure counts as propositional structure unless it is structure within such complete units. The core notion here is that of completeness or wholeness. And crucially, it is a kind of wholeness or completeness which has a normative dimension: certain combinations of parts produce *well*-formed units; others do not. There is something *awry* with what is ungrammatical: it needs *correction*. Now let us ask: how is it that there are things which are whole or complete in this way? We cannot begin to imagine an answer to that question if we look at facts or circumstances. On the other hand, we can offer the familiar (broadly Wittgensteinian) beginnings of an answer in the case of sentences. Speaking a language, we can say, is engaging in a kind of rule-governed activity: rather like playing a kind of game. It is a kind of game in which there are valid moves, and the notion of a valid move requires there to be such a thing as an end to a move. We can then explain the completeness of sentences in these terms. A sentence is something whose production constitutes a valid move in a game of this kind; the completeness of a sentence is a mark of a legitimate end of a valid move.

This is only the beginning of an explanation, of course: but look how much more it offers than we can even gesture at if we try to do the same thing with facts and circumstances. We seem to be able to understand how there could come to be such a thing as propositional structure in the case of sentences, but can offer no such explanation in the case of what might be represented or expressed by sentences. This surely shows, if anything can, that the notion of propositional structure has its home in sentences, and not in the world independent of sentences. We can understand how the concept of such structure might be derivatively applied to the world, on the basis of its ready and intelligible application in the case of sentences. And this gives us reason to believe (C), if we think that the world as it is in itself has propositional structure at all. Indeed, the case seems rationally compelling, in the absence of strong independent reason for denying (C).

Is there compelling independent reason for someone who holds (IT) to accept (B) or deny (C), despite the mystery such positions would leave us in? Perhaps someone might claim (in favour of (B)) that we have (through evolution, perhaps) chosen a particular style of representation because it has proved fruitful; and then a good explanation of that fruitfulness might be that the world in fact has the kind of structure to be found in that style of representation. But this is not very convincing. What is the fruitfulness which language is supposed to have? Presumably it rests on the fact that we can communicate with each other, and can say things (to others and ourselves) which are true. Now why is it a good explanation of this that the world as it is in itself has propositional structure? In the first place, since we have no idea at all of what it would be for the world as it is in itself to have propositional structure, it is hard to see how anything can be explained by supposing that it does. Secondly, and largely because of that, we have no idea of how evolution, or any other process, might tend to favour a representational system whose structure 'matched'—whatever that might amount to—the structure of the world. Thirdly, it is quite unclear how an 'explanation' of the fruitfulness of language which appeals to an isomorphism between language and the world is *better* than a view which offers no such explanation, and simply claims that we can communicate and say true things, even though there is no structural isomorphism between language and the world. We can hardly claim that the view which believes in isomorphism is more explanatory: the core problem is that it offers no genuine explanation at all. We might as well appeal to magic.

We may contrast this kind of appeal to evolution with one which attempts to explain how we might have ended up with most of our important beliefs being true. That might involve wishful thinking of more than one kind, but we can at least understand how beings with too many false beliefs might get into trouble. In contrast, it is completely obscure how a being whose representations were structurally isomorphic with the world would have an evolutionary advantage over one whose representations were not structurally isomorphic with the world, provided that this latter being was also able to communicate and say true things.

In the end, then, it seems that the case in favour of (B) will have to depend on the bald claim that it would have been impossible to talk about the world if the world as it is in itself had not had the same structure as language. This is a very ambitious claim, which has been given no serious support. Indeed, since it is not at all clear what it would be for the world as it is in itself to have propositional structure in a way which is more than a mere reflection of the structure of language, it is hard to see how it could be supported. But without such support, this ambitious claim can provide no independent reason for believing (B). (I will return to the issue, in the context of outlining the beginning of an alternative view, in §7 below.)

Is there compelling independent reason to deny (C)? The only reason, surely, is just that idealism is unpalatable. But this cannot be brought fresh into the debate in favour of the correspondence theory. The position seems to be this: the correspondence theory seems to provide us reason to accept (C), and with it a form of idealism. For the structure which the correspondence theory finds in the world as it is in itself seems only capable of getting there as a reflection of the structure of language. If we find this idealism unpalatable, we should question (IT) and the correspondence theory.

If these arguments are sound, they show that it's rational to accept (C), and irrational to accept (B), if one also accepts (IT). They don't show that it's impossible for (IT) and (B) to be true and (C) false, of course. The ambition of the arguments is more modest: they aim merely to show what it is rational to believe. But a classical correspondence theorist certainly aims to be rational, so the fact remains that a classical correspondence theorist ought to be an idealist.

4. OBJECT, PROPERTY, AND THOUGHT

If the notion of propositional structure derives from language, then so do other notions which are not intelligible without propositional structure. Obvious candidates here are the notions of *substance* (or Fregean *object*), *property* and *relation, fact, thought*, and *concept*. An object (in Frege's sense, which corresponds to one aspect of the traditional notion of substance) can be defined as something to which a singular term refers; a property or relation as something which corresponds to a (monadic or polyadic) predicate (even if there is not a distinct property or relation for every predicate); a fact or state of affairs as something which corresponds to a whole sentence; a thought as something expressed by a whole sentence; and a concept as a component of a thought, expressed by a component of a sentence.

This means that if a classical correspondence theorist ought to be an idealist, then so ought a lot of other people. Anyone who thinks that to describe the world as containing (Fregean), objects, properties, relations, thoughts, and concepts is to describe the world as it is in itself ought to be an idealist too, if the arguments of the last section are sound.

And the point also seems to apply to those other correspondence theorists who think that the things which make truths true are *tropes*, or particularized properties;[4] but the issue is less obvious here because of the variety of different kinds of trope theory,[5] and because of the differences between tropes and facts, at least on a natural understanding of facts. If tropes are to be used as alternatives to facts or states of affairs in a correspondence theory of truth they have to be non-transferable (so nothing other than me can have *my* love for my children), and also unstructured. If they were transferable they could exist without the corresponding propositions being true (so my love for my children—that very love—could exist without it being true that I love my children); and if they were structured, they could not easily be distinguished from states of affairs. Some may doubt that anything could really satisfy both of these demands, but we can leave that worry to one side here. Taking tropes to be unstructured might seem to deflect the argument of the last section, since it means that they cannot have propositional structure. Moreover, each trope seems intuitively to correspond to many more sentences than any comparable fact: the sinking of the Titanic can be described by many more different sentences than the fact that the Titanic sank can naturally be thought to correspond to. Nevertheless, it still seems true that the notion of a trope is unintelligible independently of the idea of a complete proposition. A trope seems to be essentially something which is referred to by nominalizing transformations of whole sentences. If that is right, it means that anyone who thinks that to describe the world as containing tropes is to describe it as it is in itself ought to be an idealist, if the arguments of the last section are sound. And that surely means that non-classical, trope-theoretical correspondence theorists ought to be idealists.

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[4] For a famous expression of this kind of correspondence theory, see Mulligan, Simons, and Smith 1984.

[5] e.g. Campbell 1990; Metz 1996; Williams 1953.

5. REALISM OR IDEALISM? THE EXPLANATORINESS CHALLENGE

Let us call all those who think that to describe the world as containing objects, properties, facts, thoughts, concepts, or tropes is to describe the world as it is in itself *correspondence theorists in the broad sense* (since they think that the world in itself contains things which can be described as corresponding in the relevant ways to linguistic expressions). The arguments of §3 seem to show that correspondence theorists in the broad sense ought to be idealists. But does that count in favour of idealism, or against correspondence in the broad sense?

I think it counts against correspondence in the broad sense, but I have no decisive argument for that view. Instead, I will present a challenge, which evidently *must* be met by anyone who accepts either of the forms of correspondence theory of truth I have mentioned, and which, I think, ought to be met by all correspondence theorists in the broad sense.

One of the main motives for correspondence theories of truth (whether of the classical or trope-theoretical kind) is the so-called 'truthmaker principle'. Here's an informal version:[6]

> (TP) For every (contingent) truth, there is something which makes it true.

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[6] A more formal version is provided by Dodd (2000: 3):

> (TM) For $\langle p \rangle$ to be true, there must exist at least one entity, distinct from $\langle p \rangle$, whose existence entails that $\langle p \rangle$ is true.

Dodd then worries about whether there are *entities* of the appropriate kind (I think this is a misdirected version of my worry about whether description in terms of facts is description of the world as it is in itself); and others have worried about whether entailment is the right relation; moreover, some truthmaker theorists have withdrawn from commitment to (TP) (or (TM)) in full generality because of difficulties with certain propositions (such as negative existentials). My informal version is meant to lead us to the fundamental motivation for the idea of truthmakers, without too much distraction, and I shall not worry here about problems with accepting such principles in full generality.

What is informal about this formulation is that it makes no big issue of ontology: whatever it is that makes a truth true is not claimed to be an 'entity'. The advantage of not pressing too hard on the question of ontology is that it reveals what I think is the fundamental motivation for truthmaker principles in general. That motivation can be explained as follows. Judgements are subject to rational constraint. This means that not just anything goes. It's natural to think that to make sense of the idea that not just anything goes, we have to suppose that there is something which *stops* just anything going. This may be controversial in the case of necessary truths (or at least, necessary a priori truths): to suppose that there is something which *stops* just anything going in the case of these truths (as opposed to its simply being the case that not just anything goes) might seem to be adopting a questionable form of Platonism. But in the case of contingent truths (or at least, contingent a posteriori truths) we seem to have a natural and uncontroversial candidate: it is the way the world is which stops just anything going. This is why experience provides a rational constraint on judgement: in experience we are confronted with what stops just anything going.

Talk of *stopping* just anything going, or *making* something true implies an explanatory asymmetry. Much (though perhaps not all) of the point of the notion of making true can be understood by thinking about the idea of explaining why particular truths are true. The general form of explanations of truth can be expressed in a schema like this:

(TE1) It is true that *p* because, in fact, *q*.

We may want to explain some truths by means of other truths (for example, the truth that some people are philosophers by means of the truth that Armstrong is a philosopher). In that case the substitutions for '*p*' and '*q*' will be different, and we can use, instead of (TE1), a schema like this:

(TE1*) It is true that *p* because it is true that *q*.

For these cases, any difference there may be between (TE1) and (TE1*) is unimportant.

But if we want to express the idea that the truth of some contingent truth is explained by the way the world is, we will want to use the same sentence in place of both '*p*' and '*q*' in (TE1). That is, we will want explanations of truth which have this form:

(TE2) It is true that *p* because, in fact, *p*;

But now it does matter that we can find a difference between (TE2) and the following schema:

(TE2*) It is true that *p* because it is true that *p*.

For (TE2*) can have no true instances.

So here is the challenge (I call it *the explanatoriness challenge*): how can we make sense of the difference between (TE2) and (TE2*)? Everyone who accepts the correspondence theory of truth must meet this challenge, because it arises from the kind of truthmaker principle which is the motivation for such a theory. And I think everyone ought to meet it anyway, because the idea of something which makes things true is compelling, at least in the case of contingent (or contingent a posteriori) truths.

I have argued that all correspondence theorists in the broad sense ought to be idealists. The difficulty for an idealist view of the kind we are considering is that it seems to have no conception of what it is for it to be the case that *p* which is deeper than this: the world is such as to be correctly described by using this sentence—*p*. But that looks exactly the same as what it is for it to be true that *p*. The crucial thing is that, on the idealist correspondence view, the fundamental nature of the relevant part of the world is *wholly captured* by saying that it is such as to be correctly described using that sentence. There is nothing here which distinguishes (TE2) from (TE2*).

A realist anti-correspondence view, on the other hand, thinks of the world as in itself non-propositional. So for it actually to be the case that *p* is for the world to be a certain way non-propositionally, which non-propositional way of being I now describe using this sentence—*p*. The realist non-correspondence view opens up an explanatory gap between a sentence and its non-propositional ground. This is because on the realist anti-correspondence view, the fundamental nature of the relevant part of the world is *not* wholly captured by saying that it is such as to be correctly described using that sentence. The fundamental nature of the world is non-propositional, and that fact is not revealed by saying that the world is such as to be correctly described using a certain sentence. This entitles us to say that the world provides the non-propositional *ground* of correct description, and therefore to claim that there is an explanatory gap between its being true that *p* and its actually being the case that *p*; and this explanatory gap allows us to distinguish between (TE2) and (TE2*).

Without such a gap, it is hard to make sense of the idea that it is the *world* which makes contingent truths true. Unfortunately, if we can't make sense of the idea that it is the world which makes contingent truths true, we must find it hard to make sense of (C2), the claim that the correspondence relation holds between items in two different realms. And (C2) is surely common to all correspondence theories. So it looks as if the idealist tendency of (C1) tends to undermine (C2); and a similar idealist tendency in non-classical (for example, trope-theoretic) correspondence theories leads in the same direction. Earlier (§2), it seemed that a classical correspondence theorist could consistently be idealist. Now it is unclear that one can consistently hold any kind of correspondence theory. The tension which I felt in Armstrong (between (A1) and (A2)) seems to be integral to the correspondence theory itself.[7]

6. THE NON-PROPOSITIONAL AND BRUTE ALIEN FORCE

I have just hinted at a kind of realist non-correspondence view. That view is committed to these two claims:

(R1) The world is not in itself propositional.
(R2) It is possible to describe the world as it is in itself.

(Remember that 'in itself' is for our purposes specifically defined in terms of independence of representational categories; so (R2) is not immediately related to other (perhaps Kantian, for example) issues about the possibility of describing things as they are in themselves.)

McDowell has offered two kinds of consideration which, if sound, would tell against any view which was committed to both (R1) and (R2) (McDowell 1994). One consideration is this. McDowell wants to make sense of the idea that judgement is constrained by the world; but he claims that if we think of this as a constraint of the conceptual by something which is non-conceptual, we make judgement subject to the wrong kind of constraint—a constraint of brute, alien force, rather than one of justification (1994: 8).

Being propositional is not quite the same as being conceptual, but anything non-propositional will certainly be non-conceptual. A description of the world is clearly something which has to be capable of being constrained by the world, if it is to be able to be sensitive to the way the world is; and presumably we will hope that a judgement that some given description is true will then itself be constrained by the world. So this claim of McDowell's would tell against the conjunction of (R1) and (R2).

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[7] This suspicion is reinforced by the difficulty of deciding whether Wittgenstein's 1922 is realist or idealist; on the one hand, Wittgenstein imagines a correlation between language (or pictures in general) and reality, which looks realist enough; but on the other he is prepared to say 'In fact, what the solipsist *means* is quite correct, only it cannot be said', on the basis, apparently, of his view of the form of language (1922: 5.62).

But is there any reason to believe the claim? McDowell himself offers none. It is true that the justification of a description by the way the world is cannot be anything like an inference, if (R1) is true; but to insist that it must be inferential would be to beg the question against non-correspondence realism. Also it may well be true that we cannot *explain* how the world constrains description, if (R1) is true. Certainly the difficulty of providing such an explanation is clear enough: we will want to describe how the world, which is not in itself propositional, can constrain description, which is propositional; such a description will hope to show the non-propositional world as being such as to warrant certain descriptions; but, of course, that description of the constraining, warranting world will already have to have been subject to the very constraint which we are trying to explain. Suppose this problem is insurmountable: suppose that we really cannot explain how the world constrains description, if (R1) is true. What does that show? Only that we cannot *explain* how the world constrains description; this doesn't yet mean that description is not constrained, or is only constrained by brute, alien force.

It's important to emphasize that there is no mystery here: there is no suggestion that the constraint is magical. If we cannot explain how the world constrains description, the problem arises simply because explanation is itself linguistic, like description. And we should note that the demand for explanation is seldom metaphysically neutral.[8] Insisting that everything be explicable is already taking a step towards a general idealism; insisting that we must be able to explain (in language, of course) how language itself is constrained by the world must risk begging the question against linguistic realism.

In fact, what McDowell himself does suggests that taking the world to be *conceptual* is more likely to give us the wrong kind of constraint than taking it to be non-conceptual is. What we want is constraint on judgement provided by the world. The kind of constraint we want is *rational* constraint, which makes judgements true, rather than making anything happen or stopping anything from happening. On McDowell's account the world constrains judgement in two stages. First, the world constrains experience. This is a constraint which limits freedom: it exerts 'an external control on our freedom in empirical thinking' (McDowell 1994: 24). Secondly, experience provides a rational, justificatory constraint upon judgement. The difficulty with this account is that the first stage, the constraint of experience by the world, looks like just the wrong kind of constraint: it is hard to see how it can both limit freedom and be a rational constraint.[9]

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[8] The principle of sufficient reason surely must lead to idealism, if it's not combined with theism (and perhaps even if it is, if God is supposed to create the world by thinking).

[9] The point is obviously Kantian (to be found, for example, in the third section of his 1997), and, ironically enough, underlies McDowell's own argument against the 'Myth of the Given'.

I suspect that what creates the difficulty is something like the explanatoriness challenge raised in the last section. I suggest that the reason McDowell does not offer a rational constraint of experience by the world is that there is no explanatory gap between conceptual world and conceptual experience, if it is rational explanation we are concerned with. This means that if we are to have an explanatory gap, we are forced to make the first stage some form of non-rational constraint, and the explanation some form of non-rational explanation. So it looks as if it will actually be easier to stop the constraint of our judgement by the world being a constraint of brute, alien force, if we recognize that the world is in itself non-propositional, since this allows there to be an explanatory gap of the right sort in the right place.

7. THE NON-PROPOSITIONAL AND INEFFABILITY

The other consideration which might seem to tell against non-correspondence realism is expressed in this remark of McDowell's (in his description of what he calls 'the Myth of the Given'):

> The idea is that . . . there is still one more step we can take: namely, pointing to something that is received in experience. It can only be pointing, because *ex hypothesi* this last justification comes after we have exhausted the possibilities of tracing grounds from one conceptually organized, and so articulable, item to another. (1994: 6)

This looks like an assertion of something like (E): we can only talk about what is already propositional (note the phrase 'and so' in this quotation). So if there were something non-propositional, it would be ineffable: we could only point to it. Again, McDowell offers no argument for his claim, but it seems to be widely accepted. We need to try to understand its motivation if we are to dispose of it, but this may be a lengthy task. What I say here can only be the beginning of a defence of non-correspondence realism.

I suspect that there are several strands of motivation for a claim like McDowell's. I shall consider just two. One is provided by a simple misunderstanding, which we might express as a misconstrual of a scope ambiguity. We might take the 'as' in (R2) as qualifying the manner of description, rather than the object of description. So we might suppose that (R2) demands that the description be like the world—that is, non-propositional, if (R1) is true. Obviously, no description could be non-propositional; but equally obviously, this cannot be what is required of a non-correspondence realism. (Indeed, it's a form of correspondence theory applied to a non-propositional world.) What non-correspondence realism requires is simply that the *object* of description be non-propositional: that is, descriptions, which are propositional, are rationally constrained by the way the world is, which is not. The muddle between these two construals of (R2) might be expressed in the loose claim which is sometimes heard that we cannot, in language, get outside language. If this means that we cannot produce a non-linguistic description, that is true, but trivial, and denied by no one. If it means that we cannot describe linguistically anything which does not have a linguistic form, that simply begs the question against non-correspondence realism.

We can approach a second strand of motivation for McDowell's claim by noting that the non-correspondence realist faces what looks like an awkward choice, between the following two claims:

(R)(a) The world as it is in itself contains objects, properties, relations, facts, thoughts, and concepts, but the description of these things in terms of corresponding aspects of language does not describe them as they are in themselves.
(R)(b) The world as it is in itself does not contain objects, properties, relations, facts, thoughts, or concepts.

Bearing this choice in mind, consider a sample sentence: 'This cup is three inches high'. Let us accept (for the sake of argument, merely) that this sentence describes the world as it is in itself if anything does. It seems that (R)(a) allows us to count the cup as an object, and then demands that we find some non-linguistic characterization of object-hood; but this demand seems unfulfillable. On the other hand, (R)(b) forces us to deny that the cup is an object, if we're to allow that in describing it we are describing the world as it is in itself.

In fact, the choice is not as bad as this makes it seem. For the difficulty over (R)(a) is created by ignoring an alternative, and better, reading of it. On the alternative reading, (R)(a) says this: the world as it is in itself contains the things which are objects, properties, etc., but to describe them *as* objects, properties, etc., is not to describe them as they are in themselves. This might seem just to throw us over onto the problem which arose over (R)(b): aren't we now forced to deny that the cup is an object, and is that not ridiculous? But the non-correspondence realist doesn't need to accept this. The solution for a non-correspondence realist is to say that the cup is indeed an object, but is not *in itself* an object; which is to say that although it can correctly be described as an object, describing it as an object is not describing it as it is in itself.

But this is just the point where what I think is deepest about the second strand of motivation for (E) kicks in. It will be claimed that we cannot make sense of the cup *not* being an object; it is surely *essentially* an object. Given that, it seems absurd to suppose that the cup is not *in itself* an object.

If this is the motivation for someone's acceptance of (E), then the non-correspondence realist need not be disturbed, since his position already incorporates what is needed to undermine it. For the non-correspondence realist, what it is for something to be an object, a property, a fact, or any of the rest, is always a (partially) linguistic matter. This does not mean that it is trivial, or even a priori. But it is enough to allow us to avoid the problem.

The point is best explained by reconsidering particular ontological categories. For each category, we can imagine different accounts which range along a scale: at one end the category becomes little more than the 'tautological accusative' of the relevant linguistic type; at the other end, something much more explanatory is demanded.[10] The point can be made in a way which accommodates each of these two extremes. A minimally demanding account of what it is for something to be an object says just that to be an object is to be the referent of a family (an extendable family) of singular terms. A more demanding account insists that the only things which are really objects are things which are acknowledged by some fundamental explanatory theory, such as physics. To capture this we need to claim that for something to be an object is for it to be a referent of a family of singular terms which are, in some sense, suitably related to a fundamental explanatory theory. There might be different views of what would count as being suitably related to a fundamental explanatory theory: we would naturally include terms which actually belong to such a theory; we might also include terms whose use was deferential to the discoveries of experts in the field of the theory. However this may be, we cannot explain what it is to be an object, on either the minimally demanding view or the more demanding view, without mentioning the fact that objects are what are referred to by singular terms. A similar point applies in the case of properties and relations. A minimally demanding account of what it is for something to be a property (or a relation) says that it is for it to be the kind of thing which is introduced by a family of monadic (or polyadic) predicates; a more demanding account would insist that the relevant predicates be suitably related to a fundamental explanatory theory, such as physics.

Now recall our sample sentence, 'This cup is three inches high'. If we maintain our assumption that this sentence describes the world as it is in itself, and accept that the phrase 'This cup' is a singular term, we seem bound to think that the cup is an object. With those assumptions held constant, we may also say that the cup couldn't but have been an object. But according to the non-correspondence realist, this is really a metalinguistic claim. It simply means that the phrase 'This cup' is a singular term, as are all terms which are co-referential with it, that it is essentially a singular term, and (if we hold a more demanding conception of what it is to be an object) that this singular term could not fail to be suitably related to the appropriate kinds of explanatory theory without the cup ceasing to exist. If such claims as that the cup couldn't but have been an object are really metalinguistic, they provide no objection to claiming that the things which are objects (such as my cup) are not in themselves objects.

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[10] Armstrong, of course, insists on the more explanatory conception. His is a version of the form of correspondence theory known as 'scientific realism'. Frege is the most famous advocate of the less explanatory conception; it was on basis just the minimally demanding account of what it is to be an object that he claimed that numbers are objects: see Frege 1950.

There are, no doubt, different ways in which someone might try to claim that it is a deep fact about something that it is an object, or a property, or that it belongs to one of the other traditional ontological categories. But provided we are convinced that these ontological notions are intelligible in terms of linguistic structure, and only in terms of linguistic structure, we must think that all descriptions of things in terms of these ontological categories involve something metalinguistic; which means that we can legitimately say that they do not describe the things as they are in themselves.

In responding like this to those who accept (E), we can feel frustrated because we seem to be stuck in a system of representation which cannot but represent the world in terms which are not a reflection of the world as it is in itself. To find this frustrating, however, is to hope for a system of representation which is not a system of representation, since every system of representation must have peculiarities of its own which are not a reflection of what is represented. Even so, wouldn't it be liberating if we could find a way of conceiving of or representing the world which did not represent it in terms of the traditional ontological categories of object, property, fact, and thought? Well, if it would, liberation is at hand. For I can represent the world in paint: I can paint my cup, for example. Since painting does not use propositional structure, it does not represent things in terms of the traditional ontological categories.[11]

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[11] I am very grateful to Helen Beebee, Julian Dodd, and the participants in the Truthmakers conference in Manchester for their comments on an earlier version.

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5 *Truthmaking without Truthmakers*

JOSEPH MELIA

1. INTRODUCTION

Eschewing such things as universals, properties, tropes, and states of affairs, nominalism is attractive to those who value parsimony in their metaphysics. But what sense is the nominalist to make of sentences such as 'there are three properties *a* and *b* have in common'? In this paper I show how the nominalist can help himself to a theory of truthmaking without truthmak*ers*, and how such a theory enables the nominalist to allow for our everyday quantification over properties without having to complicate his metaphysics. Finally, I shall outline how the theory of truthmaking can be developed so that it has ontological implications well beyond the nominalist's project by showing how the theory can help us understand certain problematic modal sentences without having to postulate an ontology of possible worlds.

2. SENSIBLE NOMINALISM

I call the kind of nominalism that I prefer *sensible nominalism*. The sensible nominalist believes that the world is a world of *individuals*—as a nominalist, there is no room for universals in his ontology. As well as universals, our sensible nominalist also wishes to eschew other metaphysical entities: there is no room for classes, states of affairs, tropes, and possibilia in our sensible nominalist's ontology. From a metaphysical point of view, our sensible nominalist is parsimonious indeed.[1]

The sensible nominalist is, in Armstrong's terms, an ostrich: even for basic truths of the form '*a* is *F*' the sensible nominalist thinks only the name—not the predicate, not the sentence—harbours ontological commitment. Armstrong has accused the sensible nominalist of not taking predicates as seriously as he takes names. Not true, protests the sensible nominalist, predicates *are* taken seriously, indeed, they are essential: one could not truly

[1] Though later we shall see reason to question the extent of the sensible nominalist's parsimony.

say what the world is like *without* using predicates. For one does not describe the world just by listing all the things that there are: one must also *describe* these things correctly, one must say which things are green and which things are red, one must say which things are five metres away from which other things, etc. Names denote things, but predicates *describe* them and this is a serious role. However, the sensible nominalist insists on distinguishing description from reference. There is no reason to think that in order to describe something truly the predicate must refer or must carry any ontological commitment—even in the fundamental or basic truths.

Indeed, the sensible nominalist thinks the idea that fundamental predicates refer is positively misguided as is witnessed by the problems realists about universals[2] have with their own primitive predicate 'instantiates'. Instantiation is needed because it is not enough for *a* to be *F* that *a* and *F*-ness exist—they must be related to each other in a certain way. 'Instantiates' is the realist's predicate for such a relation. But now, how is the realist to understand this predicate? '*a* instantiates *F*-ness' may be a fundamental truth, not grounded on anything more basic and so, even by Armstrong's lights, the realist ought to take this predicate seriously. Yet few realists want to introduce a *universal* of instantiation. Some say instantiation describes a 'non-relational tie' or a non-mereological mode of composition but even setting aside the obvious problems (what is a 'non-relational tie'? What is a non-mereological mode of composition?), the very move itself grants the sensible nominalist all he needs: there can be predicates that play a meaningful role in sentences stating basic truths about the world which do not harbour ontological commitment. The sensible nominalist simply adopts this attitude to familiar predicates such as 'is charged', 'is square', and 'is five metres from' rather than the realist's unfamiliar predicate 'instantiates'.

Even if the realist feels forced to postulate a universal of instantiation, it is still true that the semantic function of the predicate 'instantiates' cannot *merely* be to denote the universal, for otherwise the string '*a* instantiates *F*-ness' would be nothing more than a list of denoting terms. Even the realist must say that, as well as denoting, its use in such contexts also implies that *a* and *F*-ness are related by the instantiation relation, though this phrase is *not* to be understood as introducing a genuine universal. But now the sensible nominalist can argue that the predicate 'instantiates' has two different functions: to denote and describe. Since the predicate doesn't describe *by* denoting (again, a list is not a sentence) it's not at all clear how denoting plays a significant role in the descriptive act. But without some argument that to describe one must somehow denote, the sensible nominalist is free to say that we could, if we wish, have two words, 'instantiates*' which performs the denoting function and ‘instantiates^’ which performs the describing function. The sensible nominalist’s predicates just have the latter function.

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[2] From here on realism about universals shall simply be called 'realism'.

As well as being an ostrich about predicates the sensible nominalist also sees no reason to think that *sentences* harbour ontological commitment, that there must *always* be some thing that makes a sentence true. I say ‘always’ because, trivially, the sensible nominalist will admit truthmakers for certain truths. Joe, who is nothing more than an individual and so very much part of the sensible nominalist’s ontology, is himself the truthmaker for ‘Joe exists’. And should it turn out that Joe is necessarily human, then Joe again will also be the truthmaker for ‘Joe is human’. However, the sensible nominalist wishes to stay neutral over questions of modality. His key point is that, just as we have a perfectly good understanding of how predicates can describe individuals without believing that they must harbour ontological commitment, so we have a perfectly good understanding of how sentences can be true without thinking that whole sentences too harbour ontological commitment. The insistence that truthmakers must be postulated to account for truths seems to the sensible nominalist at best unmotivated, at worst based on a confusion about the semantic function of sentences.

The truthmaking project also faces well-known objections. The view that ‘to every truth a truthmaker’ quickly runs into trouble. It is simply wrongheaded to think that there should be a truthmaker which corresponds to negative existential sentences. Intuitively, what makes a sentence such as ‘There are no *F*s’ is a *lack* of *F*s. Armstrong tries to account for such truths by postulating states of affairs of totality. Besides the bizarre necessary connections that such states of affairs entail (how can something’s mere existence necessarily prevent an object d from being *F*), and besides the implausible nature of the Totality relation itself, it is just confused to think that we must account for a *lack* by postulating the *existence* of something else (Lewis 1992). Such truths are truths because certain things *don’t* exist, and it is wrong to try and understand this in terms of the *existence* of something new. Perhaps such problems could be overcome by restricting the truthmaker principle. Perhaps general sentences do not need truthmakers. Perhaps the only sentences that need truthmakers are quantifier-free. However, aside from avoiding the kinds of troubles outlined above, it is not clear what the motivation for such a restriction should be. After all, the intuitions behind postulating truthmakers apply equally well for sentences that a restricted truthmaker principle excludes. It’s just as natural to say that it’s a fact that grass is green as it is to say that it is a fact that these are *all* the blades of grass in my garden. Insofar as the postulation of truthmakers is supposed to tap into such intuitions there appears to be no motivation for limiting the principle to quantifier-free truths.

How does the sensible nominalist distinguish himself from other nominalists? Although all nominalists believe that the world is a world of individuals, different kinds of nominalist are typically distinguished by the analyses they give (or reject) of sentences such as '*a* is *F*' and '*a* resembles *b*'. So, for example, predicate nominalists analyse these truths in terms of the predicates that individuals satisfy whilst class nominalists analyse these sentences in terms of the classes that *a* and *b* are members of. But the project of analysis can be understood in two different senses. On the one hand, an analysis may be offered as a semantic thesis about what a certain part of language does or should mean. On the other hand, an analysis may be offered as a metaphysical or constitutive thesis. For instance, Tarski's analysis of '*A* logically implies *B*' as 'for all models in which *A* is true, *B* is true' can be interpreted either as a proposal about how we should define 'logical consequence', or a proposal about what the relation of logical consequence really is. Although different nominalisms are frequently distinguished by the analyses they offer, we must be careful to ask whether the nominalist is offering his analyses in a metaphysical or semantic spirit.

Our sensible nominalist rejects any *metaphysical* analyses of '*a* is *F*' in terms of the predicates that *F* falls under, or the sets that *a* is a member of, or the other objects that *a* resembles. Similarly, the sensible nominalist rejects any *metaphysical* analyses of '*a* resembles *b*' in terms of the predicates that *F* falls under, or the sets that *a* is a member of. Perhaps, semantically, such reductions are possible, but the sensible nominalist thinks no *metaphysical* lessons should be drawn from this. Most categorically, the sensible nominalist denies that *a*'s being *F* is in any way *determined* or *constituted* by the fact that *a* falls under certain predicates or is a member of certain sets. From a metaphysical point of view, that *a* is *F* may simply be a brute truth for which no metaphysical or constitutive story can be given.

Some of Armstrong's objections against nominalism work only against those who put forward their analyses of '*a* is *F*' and '*a* resembles *b*' in a metaphysical or constitutive spirit rather than a semantic one. For instance, Armstrong complains that 'According to Predicate Nominalism, an object's possession of (say) the property, *being white*, is completely determined by the fact that the predicate "white" applies to this object' (1978*a*: 17); 'according to the Class Nominalist, its whiteness is constituted by membership of that class' (1978*a*: 37); 'On the resemblance analysis, *a*'s being *F* is constituted by *a*'s relations of resemblance to other objects' (1978*a*: 50). Now, insofar as such nominalists put forward their analyses as constitutive accounts of what it is for *a* to be *F*, or for what it is for *a* to resemble *b*, the sensible nominalist sides with Armstrong. It's just wrong-headed to think that *a* is charged in virtue of *a*'s falling under a certain predicate, or that *a* resembles *b* in virtue of *a* and *b* being a member of the (natural) class of charged things. Similarly, if resemblance nominalists think that '*a* resembles *b*' is not just semantically primitive but *metaphysically* primitive, if they think that it is a fundamental truth for which no constitutive account can even be given, then that too is wrong-headed. Truths of resemblance are not fundamental in this sense. It's not a primitive truth that this post box and that blushing face resemble each other—rather, the resemblance holds *because* each is red. It's not a primitive truth that this electron and that electron resemble each other—rather, the two resemble each other *because* each has a particular charge; it's not a primitive truth that this set and that number resemble each other—rather, the two resemble each other *because* each is abstract.

In one sense, then, the sensible nominalist is like the resemblance nominalist: neither offers a *semantic* analysis of the predicate 'resembles' and neither embraces a Goodmaniac's relativism about truths of resemblance. However, while the sensible nominalist is happy to allow objective truths of resemblance he does *not* say that such truths are *brute* or *primitive* truths. For each and every particular resemblance truth there will be some constitutive story to be told: *a* and *b* may resemble each other in that *each is charged*; or *a* and *b* may resemble each other in that *each is square*, or *a* and *b* may resemble each other in that *each has mass*. The story to be told will be different in different instances, but there always will be such a story. The sensible nominalist believes that a resemblance truth is never brute. Now, as we have already seen, '*a* is charged', '*a* is square', and '*a* has mass' may all report metaphysically primitive truths—there may be no interesting constitutive account that can be given of such truths. Another way of putting this is that, for the sensible nominalist, there just are charged things, square things, and massive things, and there is nothing more to be said about the matter (and note that this poses no difficulties for the sensible nominalist: charged, square, and massive things are all individuals). But now we see that the sensible nominalist's ontology is already rich enough to support truths about resemblance. He already allows that there can be two charged things, or two square things, or two massive things. Accordingly, the sensible nominalist sees no need to make any metaphysical or ontological concessions, no need to postulate anything over and above his individuals in order to account for truths about resemblance.

The sensible nominalist's ontology appears to be a sparse and parsimonious one, and indeed, nominalism is often preferred by those who have a taste for desert landscapes. Insofar as the nominalist thinks that the world is a world of individuals only, and can dispense with universals, sets, tropes, states of affairs, and the like, the sensible nominalist is indeed parsimonious. Still, this appearance of parsimony is somewhat misleading. For although the sensible nominalist has dispensed with these *metaphysical* entities, the *individuals* that the sensible nominalist postulates are themselves many and varied. Insofar as he thinks that some things have mass, other things have charge, other things have spin, and there is no unifying or constitutive account of these truths in terms of something more fundamental, he has postulated many different kinds of individuals. Yes, the sensible nominalist avoids a complicated *metaphysics* but, because of the richness and variety of his individuals, his overall ontology may still be unparsimonious. By contrast, predicate, class, and resemblance nominalists who offer their analyses as constitutive or reductive accounts rather than semantic ones, who think that *what it takes* to be red just is to fall under the predicate 'is red', or to be a member of the class of red things, might be said to be *more* parsimonious than the sensible nominalist. Whereas the sensible nominalist believes in massive things, square things, charged things, spinning things and, without breakthroughs in science, finds no way to reduce this plurality any further, nominalists who offer constitutive accounts of these truths might be said to have offered their own ontological reductions.

By contrast to other nominalisms, then, our sensible nominalist may not be as parsimonious. However, although the nominalist is often represented as welding Occam's razor at every possible moment, the sensible nominalist here reminds us that we should prefer the most parsimonious theory only when all else is equal. On this issue, the nominalist sides with Armstrong: a theory on which *a*'s having mass is a matter of what other things it resembles, for example, is simply less plausible than a theory which thinks that *a* simply has mass.

We can see now that the nominalists' individuals should *not* be identified with the realists' particulars. To think that the difference between the realist and the sensible nominalist is that the realist believes in particulars AND universals, whilst the sensible nominalist believes only in what is left once the universals are stripped away misrepresents the nature of the sensible nominalist's individuals. The sensible nominalist's individuals are not like Armstrong's thin particulars, featureless blips, bare pin-cushions needing to instantiate universals to give them shape and size and colour. Individuals are far richer things than these. The individuals postulated by the sensible nominalist are many and varied: there are green things, there are square things, there are fat things, and there are heavy things. Of course, such apparent ontological diversity *may* one day be explicable in terms of a simpler ontology—perhaps an ontology of massive objects, charged objects, and spinning objects, or maybe an ontology of vibrating strings. But whether such a reduction can be effected depends upon serious theoretical and empirical work—if such work cannot be done, the sensible nominalist accepts the extra ontological commitment.

3. QUANTIFICATION AND TRUTHMAKING

Although the sensible nominalist's ontology is an attractive one, it seems to lack the resources to deal with our everyday thought and talk. For in such thought and talk we find ourselves quantifying over properties. Sentences such as the following are entirely natural and plausible things to say:

(1) There is a property that you and I share.
(2) There is a colour that *a* and *b* have in common.
(3) There are at least three properties that *a* and *b* both possess.

How is the sensible nominalist to make sense of these sentences without properties in his ontology? If all that exists are the individuals, then, even though these individuals may be many and varied, they cannot be what the quantifiers range over in sentences (1)–(3). Without a domain of quantification, the sensible nominalist faces a dilemma: either he must paraphrase away our quantification over properties (no easy task) or he must admit properties into his ontology.

It turns out that the sensible nominalist is not the only philosopher who faces this dilemma: Armstrong's theory of universals has the very same trouble. For (1) may be true because you and I are both bald, but the universal *being bald* is no part of Armstrong's ontology. Armstrong's universals are sparse and natural: they cut nature at the joints and *only* at the joints. So what is *Armstrong* to make of (1)? Since we frequently quantify and refer to properties that are nowhere near being perfectly natural it seems that Armstrong too must either find paraphrases for (1)–(3) or complicate his ontology further.

Armstrong does not show us how to paraphrase away our talk of properties, but does he accept the less than perfectly natural properties (such as *being bald*, and *being white*) into his ontology? It is not clear. Sometimes Armstrong seems to disavow such things: 'We shall see . . . that there is good reason to think that, even if realism is true, there is no such objective property as whiteness' (1978*a*: 17). Sometimes, he seems more sympathetic: 'From time to time it is necessary to talk about properties and relations which . . . have little claim to be universals' (1997: 44). Maybe allowing *talk* about properties and relations is not the same as allowing the properties and relations themselves? Armstrong calls such properties and relations *second-class* and tells us: 'The second-class properties of particulars have the following necessary and sufficient conditions. They are not universals, but when truly predicated of a particular, the resultant truth is a contingent one' (1997: 44). But this tells us virtually nothing about the nature of the second-class properties. Are they multiply located? Are they abstract or concrete? Are they as bountiful as the sets? Armstrong seems ambivalent about the existence of the second-class properties. He asks 'will it be said that they do not exist?', and replies 'that will be a difficult saying, since it can hardly be denied that innumerable statements in which these property and relation-words appear are *true*' (1997: 44). But to call a saying 'difficult' is not quite to call it false!

Armstrong does tell us this much: second-class properties require second-class states of affairs. But given all the first-class states of affairs, all the second-class states of affairs *supervene*. So Armstrong's handling of the problematic sentences involves his project of *truthmaking*—whatever his views about the ontology of second-class properties, sentences which refer or quantify over them are made true by states of affairs that do *not* involve these properties. Added to this is the thesis of the ontological free lunch: 'what supervenes in this strong sense is not something that is ontologically anything more than what it supervenes upon' (1997: 45). Armstrong concludes that the second-class properties are not properties ontologically additional to the first-class properties.[3] Even so, Armstrong warns us that these properties are indeed real: they cannot be talked away and they can properly be said to bestow causal efficacy on particulars. However, again he qualifies this, writing 'even if such speech must be taken with a pinch of salt' (1997: 45).

What are we to make of all this? It's not clear to me why second-class properties are an ontological free lunch. Why, just because an entity supervenes, is it no addition to that which it supervenes on? For instance, those who believe that set-theory (with ur-elements) is necessarily true think that *a*'s singleton, *a*'s singleton's singleton, *a*'s singleton's singleton's singleton . . . all supervene upon *a*'s existence. Necessarily, once *a* exists, all these other sets exist also. But it is just plain wrong to say that such supervenience renders the set-theorist's ontology innocent, or to conclude that the set-theorist who thinks sets necessarily exist and the nominalist who believes only in the existence of *a* share the same ontology. Only in the special case where the supervening entity is *constituted* by the entities it supervenes upon is there any plausibility to the idea that the supervening entity is no addition to reality. For it may be the case that constitution is really a form of partial identity; if so, it begins to make sense how the supervening entity could be no addition to ontology: in some sense, it *just is* its parts.[4] However, whether constitution is understood mereologically or otherwise, I can see no natural way of understanding the relation between second-class properties and universals as a constitutive one. Consider, for instance, disjunctive properties such as *being F or G* where *F* and *G* are genuine universals. Such properties are clearly second-class, whether or not a particular instantiates this disjunctive property depends upon the genuine universals it instantiates. But it is not at all obvious how a *disjunctive* property could be constituted from *F* and G. After all, if *a* is to instantiate the composite of *F* and *G* then one would expect *a*'s instantiation of *F*-or-*G*-ness to involve *both* the universals *F* and *G*, but as a disjunction, *a*'s being *F* or *G* can involve just *one* universal. Without a compositional account of such disjunctive properties I can see no reason at all to think that they are no real addition to our ontology.

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[3] This may explain why he feels no detailed account of the nature of second-class properties is needed.

[4] I say only that this idea begins to make sense—I myself remain uncertain whether composition can be understood as partial identity.

Though I reject the idea that supervening entities come for free there is nevertheless something very attractive about Armstrong's insight that once one has truthmakers for sentences such as (1)–(3) then one has done all the genuine metaphysical work that needed to be done. After all, as soon as we see what the truthmakers for statements such as '*a* instantiates *F*-ness or *G*-ness' are like, the demand for a theory of disjunctive properties, their nature and their constitution, suddenly seems misplaced. Once one has postulated the state of affairs *a's being F*, say, there is no further question as to whether *a* instantiates a disjunctive property. The state of affairs *a's being F* alone is enough to make it true that *a* is *F* or G. We do not need to postulate anything over and above the original state of affairs to account for this truth. In particular, the realists do not need to postulate such *things* as disjunctive properties over and above the universals. So, strictly speaking, disjunctive properties do not have to be part of the ontology to account for the truth of the original sentence. Accordingly, we can have a statement—'*a* instantiates *F*-or-*G*-ness'—referring to a disjunctive property which is made true by a state of affairs that does not involve this property at all![5] There is, therefore, a sense in which we do have an ontological free lunch—the disjunctive properties do not have to be added to our ontology. But our conception of this free lunch is quite different from Armstrong's. It's not that we have postulated a new kind of entity which, because this new entity is supervenient, somehow comes for free. Rather, we have found a way of accounting for certain sentences, certain quantificational and referential *talk* about properties, without having to postulate the entities that the statement seemed to refer to.

With this in mind, let us consider how the truthmaking project can be used to deal with sentence (1): 'there's a property you and I have in common'. As mentioned, this might be true because you and I are both bald. And we can accept that you and I might both be bald without having to postulate a universal or property of *baldness*. Rather, what is true is that you and I, or at least our parts, *do* instantiate genuine universals and relations and that, in virtue of our instantiating these genuine universals and relations, it is true that you and I are both bald. Unless you are incredibly similar to me, the particular universals and relations our parts instantiate will be different. There may even be *no* genuine universals that you and I both instantiate. Nevertheless, as soon as our parts instantiate the genuine universals and relations it will be true that we are both bald. And once it is true that we are both bald, it follows that that we have a property in common. Thus we have accounted for the truth of (1) without having to postulate any such things as second-class properties. By looking at the *truthmakers* for (1) rather than the domain of quantification, we account for (1)'s truth without having to go beyond the genuine universals and relations.

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[5] In Simons's useful words, such truths have alien truthmakers. See Simons 2000: 67.

One might worry whether the theory of truthmaking is doing the ontological work in the above examples—after all, the talk of disjunctive properties can be paraphrased away quite easily. One can grant that any sentence involving a disjunctive predicate can be made true by a state of affairs that doesn't involve any disjunctive properties. But it is also the case that disjunctive predicates can easily be paraphrased away. The correct logical form of sentences such as '*a* instantiates *F*-ness or *G*-ness' is really '*a* instantiates *F*-ness or *a* instantiates *G*-ness'. Clearly, this paraphrase involves no disjunctive predicates and so does not force us to postulate any disjunctive properties.

It is true that, in this particular case, a paraphrase is available. But the truthmaking project works even when such paraphrases are not available. Consider sentence (2): 'There is a colour that *a* and *b* share'. This sentence would be true if, for example, *a* and *b* were both red. But redness is disjunctive: what makes it true that *a* is red is not that *a* instantiates the universal redness but that *a* is in one of many possible physical states. Whatever genuine universals *a* might instantiate for it to be in one such state, the resultant state of affairs will be a truthmaker for '*a* is red'. Similarly, whatever genuine universals *b* might instantiate for it to be in one such state, the resultant state of affairs will be a truthmaker for '*b* is red'. Finally, the existence of the two states of affairs will be a truthmaker for the original sentence. As before, we can see that the truthmakers themselves will not involve such *entities* as the colours; instead they will involve only the particulars *a* and *b*, their parts, plus the genuine universals that *a* and *b* and their parts instantiate. So (2) has been accounted for without including in our ontology such entities as *the colours*. However, we have no paraphrase here. Firstly, fundamental science is not complete, so we do not know what the genuine universals are. Just as the apparently natural colours turned out to be disjunctive, perhaps one day the spins and charges and masses of modern science will themselves turn out to be disjunctive too. But if we do not know what the genuine universals are, we are not able to paraphrase away our talk of disjunctive properties. Secondly, (2) can be true whilst *a* and *b* are some colour other than red. They might both be white or blue or green. So even if science were complete and we knew what the genuine universals were, a sentence giving the actual truthmaker for (2) would still not be a paraphrase for it's possible that (2) be made true by a different truthmaker.

The moral is this: even in cases where a paraphrase is not possible, it is still possible to recognize that the truthmakers for certain sentences, whatever they may be, do not involve the entities which the sentence apparently refers to or quantifies over. In this sense, Armstrong's truthmaking project gives us a way of accounting for sentences (1)–(3) without dismissing them as false or meaningless, without having to find a paraphrase, and without having to accept the entities that the sentence apparently quantifies over and refers to into our ontology.

Earlier I distinguished a semantic from a metaphysical analysis. Armstrong's truthmaking project is certainly a metaphysical one. Moreover, his truthmaking relation might be understood as a way of fleshing out the idea that a certain truth is constituted by or determined by another set of truths. And it is natural to understand a metaphysical analysis of '*a* is *F*' as giving us a constitutive account of the truth. But there is an important difference between the two projects. A successful metaphysical analysis of '*a* is *F*' is normally taken to be true *whenever* the original sentence is true. There is a necessary equivalence between the two: in all possible situations, the two should be true or false together. But this doesn't carry over to truthmakers. For instance, in a particular case, the states of affairs, *a's being F* and *b's being G* may be the truthmakers for 'there is a disjunctive property that *a* and *b* share'. But '*a* is *F* & *b* is *G*' is not true whenever for 'there is a disjunctive property that *a* and *b* share' since the former can be false whilst the latter is still true—the disjunctive property that *a* and *b* both share may be one distinct from *F* v *G*. The existence of the truthmakers entails the truth of the sentence, and the truth of the sentence entails the existence of *certain* truthmakers, but *which* particular truthmakers might exist can be different on different occasions.

Lewis has complained that Armstrong has an unfamiliar notion of ontology: '*Pace* Quine, his question is not: what is there? But rather: what does it take to provide truthmakers for all the truths?' (Lewis 1992: 203). It may be unfamiliar, but in certain respects, Armstrong's way seems a very good way of doing ontology. After all, if we find a set of states of affairs that makes sentence *S* true, and if those states of affairs do not contain some particular kind of object *K*, nor contain things which jointly constitute an object of kind *K*, then we have found a way of accounting for *S without* postulating any entities of kind *K*, *even where S* quantifies over a kind of entity *K*. And certainly, we do take the obtaining of the two states of affairs *a is red* and *b is red* to make true the sentence 'there is a colour that a and b have in common'. Where the obtaining of such states of affairs can be understood without postulating such properties as colours, we have a way of accommodating the quantificational statement which does not involve an ontological commitment to the colours. From this point of view, Quine's ontological methodology looks incorrect—his question was not 'what is there?' but 'what must we quantify over?' Armstrong teaches us that, just because we must quantify over colours it does not follow that we must accept such things into our ontology.[6]

4. TRUTHMAKING AND TRUTHMAKERS

We have seen that if one follows Armstrong into the truthmaking project, one can account for certain quantificational sentences without paraphrasing the quantifiers away and without accepting the entities the sentence quantifies over. But this project seems to be of no help at all to the sensible nominalist, for it seems to require truthmak*ers*. Whether truthmakers are taken to be states of affairs composed from particulars and universals or whether they are taken to be tropes or true propositions there appears to be no way to get the relevant truthmakers without an ontology richer than the sensible nominalist's.

Fortunately for the sensible nominalist, there appears to be nothing in the ontological applications of truthmaking that forces him to take truthmaking as a *relation* holding between truthmak*ers*. For Armstrong, the state of affairs *a's being red* makes true the sentence '*a* is coloured'; the state of affairs *a's being red and b's being red* makes true the sentence 'there is a colour that *a* and *b* both share'; the state of affairs *a's being red*, *a's being square*, *b's being red and b's being square* makes true the sentence 'there are at least two properties that *a* and *b* share'. In all these cases, the phrase 'makes true' is treated as a *predicate*, a predicate which takes names of states of affairs on one side and names of sentences on the other. But this is not the only way to understand 'makes true', nor is it forced upon us. In these cases, 'makes true' could just as well be taken as an *operator*, a non-truth-functional connective whose basic form is '*A* makes true sentence *S*'. Thus the sensible nominalist could report such cases of truthmaking as follows: *a* is red *makes true* the sentence '*a* is coloured'; *a* is red and *b* is red *makes true* the sentence 'there is a colour *a* and *b* both share'; *a* is red, *a* is square, *b* is red and *b* is square *makes true* the sentence 'there are at least two properties *a* and *b* share'. Since the sensible nominalist is an ostrich about sentences, he thinks there is no reason to believe that '*a* is red' or '*b* is red' alone require *truthmakers*. Nor does the fact that these sentences appear within sentences containing operators give us reason to think that they must require truthmakers. Just as we can use and understand sentences involving the familiar truth-functional connectives, themselves a family of operators, without treating '&' and ' → ' as predicates, without treating them as *relating* entities, and without treating the atomic sentences which may flank these operators as names for states of affairs, and just as we can understand the operator □ without having to think it ascribes necessity to any such things as states of affairs, so we can also understand 'makes true' as a connective which, although not truth-functional, is not something which should be thought of as having *relata*. The ontological commitments of the sentence

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[6] Such a line of attack against Quine is also developed, albeit not through the theory of truthmaking, in my 1995.

> *a* is red makes true the sentence 'there is a colour *a* and *b* both share'

are nothing more than the object *a* and the sentence 'there is a colour *a* and *b* both share'. Understood this way, *makes true* is as ontologically innocent as *and, or*, and *not*. Understood this way, the sensible nominalist can have truthmaking without truthmakers.

Armstrong frequently treats truthmaking as a supervenience relation holding between different states of affairs, rather than a relation holding between states of affairs and sentences. The sensible nominalist makes room for such uses of truthmaking by introducing a genuine two-place operator '*makes it true that*' which can be flanked by two sentences. Indeed, the sensible nominalist should be sympathetic to extending the idea of truthmaking in this way. After all, even if there never had been any humans, even if no sentence had ever been written down, it is plausible to believe the following: that *a* is red and *b* is red would still make it true that there is a colour *a* and *b* both share. But under such circumstances, that *a* is red and *b* is red would not make true the sentence 'there is a colour *a* and *b* both share', for under such circumstances, there would be no such sentence.

For Armstrong, truthmaking is a form of necessity: the truthmaker *T* makes true the sentence *S* if *T entails S*. If so, then the development of modal logic supports the sensible nominalist's claim that 'makes true that' is best understood as an operator, not a predicate. For it is quite natural to understand the claim '*A* entails *B*' as expressing a *modal* thesis: necessarily, if *A* then *B*. And, as is witnessed by the development of modal logic, the most natural way to treat 'Necessarily' is as an operator of the language rather than a predicate.[7] The sentence '$\Box(A \rightarrow B)$' is *not* to be understood as saying 'Necessarily, the sentence "$A \rightarrow B$" is true'. *If* truthmaking is a species of necessity, as Armstrong would have it, then the above examples of truthmaking would be reported as following:[8] 'Necessarily, if grass is green then grass is coloured', 'Necessarily, if *a* and *b* are both red then there is a property that they both share', 'Necessarily, if *a* and *b* are red and *a* and *b* are square then there are at least two properties that *a* and *b* share'. And, as should be familiar by now, none of these sentences commits us to the existence of such things as states of affairs, or such things as truthmakers at all.

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[7] Of course, Quine's animadversions about such a reading are well known—the best prospects for understanding □ and ◊ are as predicates of sentences. So, insofar as the sensible nominalist will have to treat these as operators, the sensible nominalism is not a position that Quine could happily hold.

[8] Although, in the next section, I shall question whether truthmaking should be understood in terms of necessity.

If, as the above discussion suggests, it is legitimate to have truthmaking without truthmakers, then the way is clear for the sensible nominalist to deal with the problematic quantification and reference to properties in much the same way that Armstrong himself does. We illustrate this by considering two examples. Recall (2): 'There is a colour which *a* and *b* have in common.' As we have seen, the *sensible* nominalist believes in red things, in green things, in blue things, and so on. The sensible nominalist offers no constitutive account of what it is for *a* to be red or green or whatever in terms of which predicates *a* falls under, which sets *a* is a member of, or which other things *a* resembles. It may be the case that *a* is simply red, and that there is no such constitutive account to be given. Accordingly, as far as the sensible nominalist is concerned, it may be the case that *a* may be simply red and that *b* may be simply red, but the sensible nominalist thinks that this does not entail the existence of anything other than the two red objects *a* and *b*: no states of affairs, no universals, no properties, no truthmakers. Like Armstrong, the sensible nominalist agrees that the truth of (2) *supervenes* upon whether or not *a* and *b* are both red, are both blue, are both green... and so on. If it has been established that *a* is red and *b* is red, then there is no further question as to whether or not there is a colour that *a* and *b* have in common. Of course they do: they're both red. Similarly, if it has been established that *a* is red and *b* is blue, again there is no further question as to whether or not there is a colour that *a* and *b* have in common: of course they don't—one is red and the other is blue.

Putting the point in terms of truthmaking, *a* is red and *b* is red *makes it true that* there is a colour that *a* and *b* have in common. If the nominalist can make sense of *a* and *b* both being red, then the truth of (2) simply follows. But of course, that *a* is red and *b* is red causes no ontological problems for the sensible nominalist. That *a* is red and *b* is red ontologically commits us to nothing more than the existence of two red things, and the sensible nominalist is quite happy with *that*. In particular, that *a* is red and *b* is red does *not* entail the existence of properties, universals, states of affairs, tropes, or truthmakers. But if all it takes to account for (2) is that *a* is red and *b* is red then, even though (2) quantifies over properties, the sensible nominalist has accounted for (2) without including such *things* as properties in his ontology.

What about cases of numerical quantification, sentences which seem to count the properties, such as (3): '*a* and *b* have at least three properties in common'? As before, for the sensible nominalist, what it is about the world that makes this sentence true does not involve there being such things as properties. For instance, in a particular instance, what may make this sentence true is that *a* is green, *a* is square, and *a* is charged AND that *b* is green, *b* is square, and *b* is charged. As before, the sensible nominalist has no problem believing in green things or square things or charged things. As before, as soon as it is established that *a* is green, *a* is square, and *a* is charged AND that *b* is green, *b* is square, and *b* is charged we naturally infer the truth of the sentence 'there are at least three properties that *a* and *b* have in common'. It is no *further* fact, no new thing that has to be added that, as well as *a* and *b* both being green, square, and charged, there are at least three properties that the two things have in common. But, as the sensible nominalist has urged, that *a* and *b* are both green, square, and charged ontologically commits us to nothing more than *a* and *b*—there is no need for such things as properties, universals, or truthmakers. Accordingly, the sensible nominalist's metaphysics is rich enough to account for the truth of such numerical quantification.

Of course, the question remains whether the sensible nominalist can deal with *all* such problematic quantification and reference to properties. That remains to be seen. What is true is that, by buying into the project of truthmaking, he has a new way of dealing with some of these problematic sentences.

5. TRUTHMAKING, SUPERVENIENCE, AND BRUTE NECESSITIES

In this final section, I turn away from the particular concerns of the sensible nominalist and argue that truthmaking properly understood can be used in areas quite separate to the nominalist's particular concerns.

The idea that one can have truthmaking without having to postulate the existence of truthmakers already has a respectable precedent in the literature. For Armstrong, truth supervenes on being: what there is determines what is true. Lewis, himself dubious that sentences such as '*Fa*' need such things as truthmak*ers*, modifies this slogan: 'I want to construe "being" broadly: it covers not only *whether* things are, but also *how* they are' (1992: 218). Thus what is true supervenes not only on what there is, but which of these things have spin, which have charge, which are five metres from which other things, and the like. Since one can understand such truths without having to postulate truthmakers, we have a form of truthmaking without truthmakers. Nevertheless, I wish to avoid spelling out the truthmaking project in Lewis's terms. For one thing, the apparatus that Lewis uses to analyse supervenience uses an ontology both of possibilia and of natural classes, both of which the sensible nominalist would like to avoid. But my two main reasons for wishing to avoid Lewis's version are independent of the sensible nominalist's particular concerns.

First, the truthmaker principle understood in Lewis's way rules out brute truths which are not tied to the existence of *things*. In Lewis's hands, objectivity becomes tied to the existence of objects. Thus, brute contingent counterfactuals are ruled out, for you cannot have two worlds which are qualitatively alike yet differ only over which counterfactuals are true; Prior's presentism is ruled out, for there are brute past and future tensed truths which do not supervene on what exists *now* and what those things are like *now*. However, I do not share the intuition that there is something illegitimate in brute counterfactuals or brute truths about the past and the present, any more than there is something illegitimate about the idea that there are brute truths about what is necessary and possible. Nor do I share the intuition that objectivity should be tied to the existence of objects. Fortunately, the theory of truthmaking can be understood in such a way that it remains neutral on these questions. As truthmaking was spelled out above '*makes it true that*' was understood as a two-place operator taking sentences to form a new sentence. For all that has been said so far, there is no requirement that the sentences flanking the operator should say something about what things there are and what those things are like, or that these sentences should be expressible in first-order predicate calculus, or that these sentences should contain no modal operators. Until primitive truths about the past and the future are somehow ruled out as illegitimate or unsatisfactory, I am happy that sentences such as 'That there will be a sea battle in seven days *makes it true that* there will be a sea battle' state perfectly respectable examples of truthmaking.

Secondly, in both Armstrong's and Lewis's hands, truthmaking is a form of necessity. It's a matter of certain truths *entailing* other truths, or of these truths *supervening* on other truths. The necessity seems to be metaphysical, but I doubt whether *metaphysical necessity* is the right notion to use here for the relationship between a truth and its truthmaker seems more intimate than the relationship of necessity. If *a* and *b* are both red then there is no further question as to whether or not *a* and *b* are the same colour. In some sense, that *a* and *b* are both red is just constitutive of the truth that *a* and *b* are the same colour. When providing *metaphysical* analyses, that which makes a truth true should be *constitutive* of the truth. But necessary connections are not always constitutive connections. For instance, since $2+2=4$ is necessary, it supervenes upon anything that you like—necessarily, if I am bald then $2+2=4$. But to say 'I am bald makes it true that $2+2=4$' seems incorrect. My being bald is in no way constitutive of $2+2$'s equalling 4.

As remarked, truthmaking in Lewis's hands rids us of brute counterfactuals and brute truths about the future and the past. You might also have thought that truthmaking would rid the world of brute necessities—after all, if everything is grounded on what there is and what natural properties these things instantiate, what room is there for brute necessities? Yet Lewis must omit brute necessities from his list of views ruled out by his truthmaking principle. The reason that brute necessities are not ruled out is because such truths quite *trivially* supervene on what things there are and what those things are like. Since brute necessities are themselves necessary, and since necessary truths are true no matter what the world is like, brute necessities trivially supervene on what things there are and what those things are like. Necessarily, if I am bald then necessarily I am human. However, one would scarcely take the fact that I am bald to be constitutive of the fact that I am necessarily human. But I think the search for truthmakers for necessary truths makes sense and should not be trivialized in this way. It is best not to take the operator 'makes it true' as expressing simply a metaphysical necessity but as in fact expressing a more intimate connection.

With these comments in mind, we can now examine how the truthmaking project can have deflationary ontological consequences in the philosophy of modality.[9]

A key question in the study of modality is this: should modality be understood in terms of brute truths about what is possible and necessary, or should modal claims be understood in terms of what kinds of *possible worlds* there are?[10] Those in the former school think that one does not exhaust reality simply by saying what there is and what those things are like. One must also say something about the *mode* in which things exist and the *mode* in which they stand in certain relations and possess certain properties. On this view, it is not enough to say that Socrates is human—there is a further irreducible, brute truth: that Socrates is *necessarily* human. Now, one difficulty facing this position is that, in our ordinary thought and talk about modality we make claims which cannot be expressed in terms of the vocabulary of $\Box$ and $\Diamond$, but which can be expressed by quantifying and referring to possibilia. Consider, for instance, numerical quantification: 'there are three ways Joe could win his chess match'. This is a modal thought: it tells us something about how the world *might* be. But it is unclear how this quantification over possible ways can be captured by a language that uses only $\Box$ and $\Diamond$. Of course, there's no problem if one believes in possible worlds—then the possible ways can simply be identified with sets of worlds and we have the ontology to make sense of the relevant quantification. Or consider cross-world comparatives: 'My car *a* could have been the same colour as your car *b* actually is'. Again, this sentence cannot be expressed in a predicate language containing only $\Box$ and $\Diamond$. Opponents of such sentences have tried to capture such cross-world comparatives by enriching their language to contain superscripted $\Box$ and *Actually* operators[11] but there are some doubts as to whether these operators can really be understood as primitive or whether they are nothing more than disguised quantifiers over possibilia.[12]

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[9] For an illustration of how truthmaking could also be used to have deflationary consequences in the philosophy of time see Melia 2000.

[10] Or, in other words, in terms of what there is and what these things are like.

[11] See, e.g. Forbes 1985 and 1987.

[12] As I argue in Melia 1992.

But if one gives up on the search for *paraphrases* and urges, along with Armstrong, that all that is required is that one's metaphysics be rich enough to *make true* such sentences, then it seems that one can give the truthmakers for these truths in a way which neither requires possible worlds, nor requires conceptual resources that go beyond what can be captured by a standard first-order modal language. Consider 'there are three ways in which Joe could win his chess match'. Now, insofar as it's possible for Joe to swap off material and win the ensuing endgame, and it's possible for Joe to castle queenside and launch a winning attack on the kingside, and it's possible for Joe to play *Nd5* forking king and queen and winning material—insofar as all this is possible it follows that there are three ways in which Joe could win his chess match. But these truths can be reported using nothing more than ordinary $\Box$ and $\Diamond$: all three are simply of the form $\Diamond\varphi$. What makes the quantified sentence true is nothing more than that $\Diamond P$ and $\Diamond Q$ and $\Diamond R$, but those who accept that there are brute modal truths about the world of this form, who think that *these* such statements can be understood without recourse to possible worlds, can now say what it is about the world that makes such sentences true *without* having to believe in possibilia. Of course, '$\Diamond P$ & $\Diamond Q$ & $\Diamond R$' is no *paraphrase* for 'there are three ways in which Joe could win his chess match'—on another occasion, he may have to win by quite different means. But, as is now familiar with truthmaking, in this particular instance the sentence *is* made true by $\Diamond P$ & $\Diamond Q$ & $\Diamond R$.

Now consider our cross-world comparative 'my car *a* could have been the same colour as your car *b* actually is'. It's hard to analyse away the cross-world comparative, but it's not hard to see how this sentence could be true *without* postulating possibilia: it would be true if my car *a* could have been green and your car *b is* green. Again, there's nothing particularly problematic about writing this truthmaker in a familiar modal language: $(\Diamond Fa)$ & Fb. That it's possible that *a* be green and that *b* is green make it true that my car *a* could have been the same colour as your car *b* actually is. And insofar as the ontology of $(\Diamond Fa)$ & Fb is unproblematic, the modalist has a way to accommodate such sentences without the need to appeal to possibilia.

Where the theory of truthmaking began as a branch of Armstrong's own metaphysics I hope to have convinced the reader that the theory of truthmaking may have philosophical applications that are of interest to those who do not share Armstrong's metaphysics.[13]

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[13] Thanks to Chris Daly, John Divers, Julian Dodd, Bryan Frances, Rosanna Keefe, and Andy McGonigal for many helpful comments.

6 *So Where's the Explanation?*

CHRIS DALY

1. WHAT'S AT ISSUE

There are stronger and weaker versions of the truthmaker principle. A stronger version says that for every truth, there is some entity which makes it true. A weaker version says that the truths at a world supervene on what exists at that world. A still weaker version says that at least some of the contingent truths at a world supervene on what exists at each world. (Perhaps a counterfactual truth at *w* supervenes not on what exists at *w* alone, but on what exists at *w* and at a sphere of suitably similar worlds.) An orthogonal distinction is between versions of the truthmaker principle which are restricted, or unrestricted, in scope in one or both of the following respects: at which worlds the principle holds, and which classes of truths the principle applies to. Take these in turn. Consider worlds. An unrestricted version of the principle concerns every truth at every world. A more restricted version concerns every truth at some selected sphere of worlds. (The truthmaker principle might be a contingent truth about the actual world and worlds hereabouts, much as the thesis of Humean supervenience might be.) (For the thesis of Humean supervenience, and how it might be a contingent truth, see the introduction to Lewis 1986*a*.) Consider classes of truths. An unrestricted version of the principle concerns all classes of truths. Restricted versions might exclude necessary truths (of mathematics, or logic, or metaphysics) or true negative existentials ('there is no bogey-man') or general truths ('all the children have calmed down') or . . .

Following standard presentations of the truthmaker principle, I have taken truthmakers to be existents. But perhaps this involves a tacit restriction in scope in another respect. The respect in question concerns whether or not there is a distinction between what there is and what exists. Quine says no (see Quine 1948). Meinong and Routley say yes; they say that there are some things which do not exist (see Routley 1980). Perhaps the distinction is not explicitly marked in discussions of the truthmaker principle to date, because the discussants tacitly side with Quine and formulate the truthmaker principle accordingly. For instance, Fox moves without comment from talk of what there is to talk of what exists (1987: 189): ‘By the truthmaker axiom I mean the axiom that for every truth there is a truthmaker; by a truthmaker for *A*, I mean something whose very existence entails *A*.’

We might formulate a version of the principle, however, which uses only Meinongian quantification. (And we need also to assume that the truths expressed using Meinongian quantification are not made true by actual and existing entities. This further assumption is needed to block a suggestion to the contrary made by Nolan (2002: 54).) On this formulation, for every truth there is a truthmaker, but it does not follow that any such truthmaker exists. Perhaps the work of Meinong and Routley can be interpreted—for purposes of philosophical illumination, if not historical accuracy—in terms of their positing non-existent truthmakers for truths about fictions, about abstracta, and so on for all the other truths which they applied their theories of the non-existent to. One temporal part of David Lewis, although sceptical of the truthmaker principle, thought that the principle captures something ‘right and important’, namely ‘that truths must have things as their subject matter’ (1992: 218–19). The Meinongian can accept that claim; it’s only that he further thinks that many truths are about things which do not exist (much as Lewis thinks that many truths are about things which are not actual). For similar reasons, Lewis’s ersatz truthmaker principle—that ‘no two possibilities can differ in what’s true unless they differ in what things there are, or in how they are’—is acceptable to a Meinongian (Lewis 1992: 216).

Having charted some of the logical space occupied by the truthmaker principle, I will turn to the issue that will chiefly concern this paper. To identify that issue, distinguish between two questions:

(Q1) What is the truthmaking relation?
(Q2) What are the *relata* of that relation?

I will set aside (Q2) for two reasons. First, I am not interested here in in-house disputes between truthmaker theorists about what kinds of entities best qualify as truthmakers, whether these are tropes, states of affairs, particulars having properties, or whatever. What I am interested here in is an issue about which truthmaker theorists seem of one mind, namely that the truthmaker principle does explanatory work. Second, it is not to the point here to assess such sceptical claims as that the notion of (say) a state of affairs or of a trope is unintelligible, or that there is no good independent reason to posit such entities. If either such claim is correct, the truthmaker theorist will just have to make do with a more meagre ontology. Consider the parallel case of truth-bearers. It is not to the point here to assess such claims as that the notion of (say) a proposition is unintelligible, or that there is no good reason to posit propositions. If either such claim is correct, the truthmaker theorist will have to look elsewhere for better candidates for truth-bearers. (Bigelow 1988*a*: 126–7 seems to bear this out.) In each case—truthmakers or truth-bearers—whether we downsize our ontology or not, the issue of whether the truthmaker principle is explanatory will remain, and that is the issue of concern here. In this paper I am interested in (Q1), and, in particular, in the connection (if any) between the notions of the truthmaking relation and explanation.

Quine distinguished between what he called the ontology and the ideology of a theory (see Quine 1951). A theory's ontology comprises each type of entity that exists if what the theory says is true. That is, each type of entity that the theory is, as Quine put it, ontologically committed to. A theory's ideology comprises each term that the theory uses. (A theory's primitive ideology comprises each term that the theory takes as a primitive term.) Philosophers who accept the truthmaker principle increase the ideology of their philosophical theory by introducing the dyadic term '. . . makes true . . . '. It is often thought to be permissible to increase a theory's ideology if this provides a commensurate gain in the theory's explanatory power, i.e. if increasing the stock of terms which a theory uses enables it to explain more, or better, than it would otherwise. The question then arises as to whether introducing the term '. . . makes true . . . ' (and cognate terms such as '. . . is a truthmaker of . . . ' which are definable in terms of it) provides a compensating explanatory gain. Some philosophers think that it does. They think that describing certain entities as truthmakers for certain sentences explains why those sentences are true. Thus John Bigelow writes that:

> [Truthmakers] are entities whose *raison d'être* is to explain what makes a linguistic item true.' (1988*a*: 121)

Ian McFetridge suggests that talk of truthmaking:

> should have been seen as expressing the thought that for every sentence which is true there must be some explanation of why it is true. (1990: 42)

Some philosophers think that the principle that every truth has a truthmaker explains why certain phenomena obtain, and that they would not obtain were the principle false. Bigelow pays the following homage to the (alleged) explanatory power of the truthmaker principle:

> I have sometimes tried to stop believing in the Truthmaker axiom. Yet I have never really succeeded. Without some such axiom, I find I have no adequate anchor to hold me from drifting onto the shoals of some sort of pragmatism or idealism. And that is altogether uncongenial to me; I am a congenital realist about almost everything. (1988*a*: 123)

David Armstrong thinks that the principle undermines the redundancy theory of truth and vindicates the correspondence theory of truth:

> the conclusion that there really is no truth relation that holds between the true proposition and the world . . . challenges the realistic insight that there is a world that

> exists independently of our thoughts and statements, making the latter true or false. One is driven back to the Correspondence theory . . . [which] tells us that, since truths require a truthmaker, there is something in the world that corresponds to a true proposition. The correspondent and the truthmaker are the same thing. (1997: 128)

Gonzalo Rodriguez-Pereyra writes that:

> [O]ne way of explaining how some fact *S* is possible is by invoking the existence of something which entails it. If '*E* exists' entails *S* then *E*'s existence necessitates the fact that *S*, which means that, given *E*, the fact that *S* cannot fail to obtain . . . *E*'s existence rules out the real excluders of the fact that *S*: what necessitates the fact that *S* thereby 'impossibilitates' its excluders and so explains how *S* is possible. But if *E* is a truthmaker of *S* then '*E* exists' entails *S*. (2000: 261)

Lastly, while discussing theories of properties, Chris Swoyer links the notion of explanation with various notions used to express the truthmaking relation:

> The word 'explain' often figures explicitly in arguments for the existence of properties . . . But even when the word 'explain' is absent, we often find claims that some phenomenon holds *in virtue of*, or *because of*, this or that property, that a property is the *ground* or *foundation* of [some] phenomenon, or that a property is (in part) the *truth maker* for a sentence describing the phenomenon. The role of such expressions is to give reasons, to answer why-questions, and this is a central point of explanation. (1999: 108–9 (his italics))

To see what is being claimed in the above passages, consider the following two questions:

(Q3) Does the truthmaker principle have an explanatory purpose? If so, what is it?
(Q4) Does calling something a truthmaker serve an explanatory purpose? If so, what is it?

Bigelow answers (Q3): yes, the truthmaker principle explains why pragmatism and idealism are false, and realism is true. Armstrong answers (Q3): yes, the truthmaker principle explains why the redundancy theory of truth is false, and what is right about the correspondence theory of truth. Swoyer and Rodriguez-Pereyra answer (Q4): yes, invoking truthmakers solves such ontological problems as the Problem of Universals. I will evaluate these several answers. But before doing so, however, it will be useful to say something about the place of explanation in metaphysics.

2. THE MYSTERY OF METAPHYSICAL EXPLANATION

There is a tradition found in Plato (see Cherniss 1936 for a valuable discussion) and recently explicitly maintained by Swoyer (1983 and 1999), Armstrong (1989*b*: 39, *n*.1, and 1997: 235), and Bigelow and Pargetter (1990: 344–5) which credits metaphysical theories with a central role in providing explanations. There is also a tradition that looks askance at this explanatory project. Hans Reichenbach wrote that in a pre-scientific era:

> Superficial analogies, particularly analogies with human experiences, were confused with generalisations and taken to be explanations. The search for generality was appeased by the *pseudo explanation*. It is from this ground that philosophy sprang. Such an origin does not make for a good record. (1951: 8 (his italics))

More recently Alex Oliver has remarked on 'the elusive idea of metaphysical explanation which is often invoked but never clarified' (1996: 75), and Robert Kraut comments on the product of certain recent metaphysical theories that 'whether this is real explanation, and if so what kind of explanation, remains to be seen' (2000: 171).

Philosophers wanting to provide metaphysical explanations might follow one of two ways: the way of innovation or the way of emulation. (It is open for someone to attempt to form a hybrid of these two ways.) The way of innovation involves introducing a type of explanation unique to metaphysics. If there are genuine, distinctively philosophical problems, perhaps their solution calls for a unique, distinctively philosophical type of explanation. Whenever an alleged explanation is provided in philosophy, however, its proponent needs to show that what has been provided is genuinely explanatory. It needs to be shown how the alleged explanation has explanatory power. A disadvantage of the way of innovation is that the metaphysician is left to his or her own devices. In this case the metaphysician cannot appeal to instances of the same type of putative explanation which are found outside of philosophy, and which his opponent might antecedently be more willing to concede are genuine cases of explanation. *Ex hypothesi*, there are no non-philosophical instances of explanations belonging to the way of innovation. To that extent it may not be apparent that what the metaphysician offers are genuine explanations, and so the task of showing that they are explanatory is correspondingly more difficult. Now anything drawn from philosophy as an illustration of this problem will be controversial. So here is an uncontroversial illustration drawn from the history of science, followed by two cases in recent philosophy in which the same kind of problem is thought by some to arise.

A contemporary opponent of Galileo, Francesco Sizi, offered the following explanation of why Jupiter did not and could not have moons (the quotation is from Holton and Roller 1958: 160):

> There are seven windows in the head, two nostrils, two ears, two eyes and a mouth; so in the heavens there are two favourable stars, two unpropitious, two luminaries, and Mercury alone undecided and indifferent. From which and many other similar phenomena of nature such as the seven metals, etc., which it

were tedious to enumerate, we gather that the number of planets is necessarily seven.

Here Sizi appeals to a certain correspondence between the number of natural openings in the head and the number of planets, and again between the number of metals and the number of planets, as a way of explaining what the number of planets must be. Some philosophers think that certain philosophical theories have much the same standing as Sizi's: that the alleged correspondences the theories draw are questionable, and that even if the correspondences were to obtain, they would not explain their respective *explananda*.

Now let's consider the two illustrations of allegedly similar cases from recent philosophy. First illustration: putative explanations have been offered of word- and sentence-meanings (and of much else) in terms of *possibilia*. But some ask why we should think that there is a correspondence between the two. For example, Michael Friedman complains:

> But in possible-worlds semantics the postulated semantic structure appears to be totally divorced from the psychological process of language acquisition and use. How do *we*, as finite creatures in *this* world, relate to entities (and sets of entities, and sets of sets of entities . . .) in *other* possible worlds? (1981: 13 (his italics). For similar complaints, see also Stalnaker 1988: 121, Jubien 1989: §2, and Shalkowski 1994.)

Second illustration: putative explanations have been offered of the regularity that all *F*s are *G*s in terms of a higher-order nomic relation, *N*, between the universals *F* and *G*. But some ask why we should think that there is a correspondence between the two—between how any universals are related, on the one hand, and what regularities obtain, on the other. Thus David Lewis complains: 'Whatever *N* may be, I cannot see how it could be absolutely impossible to have *N*(*F, G*) and *Fa* without *Ga*' (1983*a*: 40). (See also van Fraassen 1989, especially 96–104.)

The two suggested illustrations have a common form. In each case an (alleged) explanation is offered, but the complaint is made that the putative *explanans* seems wholly irrelevant to the *explanandum*. In general, any attempted explanation which belongs to an innovative type of explanation—a type of explanation which is peculiar to philosophy—may face such a complaint and would need to meet it. (Here are two more examples: for irrelevance objections against Platonism in mathematics, see van Fraassen 1975 and Field 1980: 43, and against counterpart theory, see Kripke 1972: 344–5, footnote 13, and Blackburn 1993: 73.)

The way of emulation involves philosophy using types of explanation successfully used outside philosophy, and especially in science. Russell went this way when he wrote:

> What I wish to bring to your notice is the possibility and importance of applying to philosophical problems certain broad principles of method which have been found successful in the study of scientific questions. (1918*b*: 96)

In similar vein, Swoyer thinks that many scientific inferences are inferences to the best explanation, and that inferences to the best explanation from certain truths about mathematics, semantics, or the laws of nature warrant philosophical conclusions about the existence of properties (understood as universals) (Swoyer 1999, especially §§5–7). Armstrong, and Bigelow and Pargetter follow suit. Yet in so far as putative explanations in metaphysics are modelled on those in science, how do they compare?

Just what scientific explanation is remains an open and much disputed question. Still, sometimes we can recognize some things as *K*s even if we cannot say what a *K* is. (You can separate goats from sheep, but perhaps you can neither say what a sheep nor a goat is.) And, as van Fraassen and Swoyer have noted, there is substantial agreement that certain theories in the history of science provided clear cases of theories with explanatory power (van Fraassen 1989: 31, and Swoyer 1999: 127). Galileo's theory of the pendulum, Newton's theory of planetary motion, and Maxwell's theory of electromagnetism provide (or perhaps would provide if they were true) paradigms of explanation. Yet there is no comparable agreement about the explanatory success of any metaphysical theory (as Swoyer (1999: 127) concedes). So if philosophers seek to emulate successful types of explanation, it is moot whether they should emulate the putative explanations offered by other philosophers. Moreover, as we will see, it is also moot whether their attempts sufficiently emulate successful scientific explanations.

Some philosophers suggest that redescribing a variety of apparently diverse kinds of phenomena in the same terms can provide unification, and thereby explanatory power (see Friedman 1974). Attempts to formalize the notions used by the unification model of explanation, such as the notion of independently acceptable phenomena, have not been successful to date (see Salmon 1989: 94–101 for a critical discussion of these attempts). But the intuitive idea remains. For example, Newton redescribed the behaviour of planets, tides, terrestrial projectiles, and colliding bodies in terms of inertial and gravitational mass, and thereby provided a unified explanation of these apparently diverse kinds of phenomena. Following this lead, Swoyer suggests that philosophical theories of properties 'offer unified and integrated accounts of the items on the lists of our mathematical, semantic and nomological *explananda*' (1999: 126; see also Armstrong 1997: 235–6). Again, part of David Lewis's case for modal realism is the theoretical unification that he thinks that it achieves and that cannot be otherwise achieved (1986*a*: 3–5).[1] Now unification may be a feature of some redescriptions, but some redescriptions may masquerade as unifications, and not be genuinely explanatory. (Alternatively, if any redescription that is apparently unifying thereby *is* unifying, then not all unifications are explanatory.) The astrologer redescribes apparently diverse kinds of phenomena, such as political assassinations, floods, and births, in terms of the workings of fate, yet he presumably does not explain any of these phenomena. Swoyer and Lewis think that the more applications that they can put their theories of *abstracta* to, the more illuminating those theories. But we might wonder how their theories are better placed than the astrologer's. If realism about properties, or realism about possible worlds, are obscure doctrines and poor explanations, then applying the same poor explanation in different domains will not enhance the quality of the explanation. Instead, it will only be using the same dubious explanation more extensively. That isn't shedding illumination on different issues. That's like muck-spreading—it's making what was already obscure even more obscure. Thus Friedman:

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[1] Rosen (1990: 338, fn. 18) replies to Lewis's argument:

> Lewis grants that there is no necessary connection between a theory's being useful, elegant, etc. and it's being true . . . [Those considerations may give reason to hope that the theory is true] . . . The trouble is that reason to hope is not a general reason to believe. To suppose otherwise is to countenance wishful thinking as a sound policy for fixing belief in metaphysics.

> If anything, possible-worlds semantics makes it harder to connect linguistic theory with psychological and social theory than it was before. Possible-worlds semantics appears to lead away from, rather than towards, theoretical unification. (1981: 13–14)

Perhaps a theory is explanatory if its unification of various kinds of phenomena is supplemented by its providing correct descriptions of physical mechanisms causally responsible for the phenomena it explains. (Salmon (1984: 259–60) thinks that this supplementation is a necessary condition on a theory's being explanatory. Like others (e.g. Grimes (1993: 25)) I find Salmon's suggested requirement too demanding.) But neither Lewis's modal realism nor Swoyer's realism about properties will count as explanatory by this requirement. Neither possible worlds nor properties are hooked up by causal mechanisms with word-meanings or laws of nature or any of their other would-be *explanantia*.

The metaphysician's appeal to inference to the best explanation faces difficulties of its own. Inference to the best explanation consists in taking

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Two comments. First, the reference to reasons to hope is a red herring. That was no part of Lewis's argument. Second, grant that p's having utility has no necessary connection with p's being true. What Rosen's argument leaves open is whether it has some non-modal connection with p's being true. Consider perception. Arguably, having a perception that p has no necessary connection with p's being true. If Rosen would say that having a perception that p only gives reason to hope that p is true then he is relying upon a very demanding epistemic standard (in both the perceptual and the model cases). The defence of warranted belief in modal realism ought not to be required to meet an epistemic standard which commonsense perceptual beliefs about the external world do not meet.

It might be suggested that the greater the utility of a hypothesis, the higher its a priori plausibility. If hypotheses H1 and H2 have the same testable consequences, but H1 is a priori much more plausible than H2, then we should believe H1 rather than H2 (cf. Putnam 1975: 352). Rosen might reject appeal to a priori plausibility as spurious, or as begging the question, but he needs to say something against such a non-demonstrative basis for rational belief-fixation.

a pool of potential explanations, and inferring the truth of that member of the pool that, if it were true, would provide the best explanation of some target phenomenon. Inferences to the best explanation can be taken in one of two 'directions'—call them horizontal inferences and vertical inferences. Horizontal inferences are inferences from entities of one kind to other entities of the same kind. Typically, these are inferences from a sample of *K*s having some common feature *F* to the conclusion that the population of *K*s each have *F*. For instance, a horizontal inference might be made from the fact that the observed spatial locations of a planet are found to lie on a constant curve to the conclusion that every one of the planet's spatial positions—its orbit—lie along a constant curve. But since horizontal inferences are inferences from entities of one kind to entities of the same kind, then at least our illustrative philosophical examples—of nomic necessitation relations and of (irreducible) possible worlds—are not instances of them. The justification offered for entities of those kinds involve inferences from entities of relatively familiar kinds—regularities in events and word-meanings, respectively—to entities of different and less familiar kinds—nomic necessitation relations and (irreducible) possible worlds, respectively. Such examples seem more appropriately modelled as vertical inferences: inferences from entities of one kind to entities of a distinct kind. But where vertical inferences are made in science, as, for example, in inferences from observed events to the existence of (say) gravitation, Uranus, or Brownian motion, the entities of the postulated kinds are ones that, if they exist, are causally efficacious. Plainly, if gravitational force existed, it would make a causal difference to the behaviour of terrestrial and celestial objects. It is otherwise with the postulation of nomic necessitation relations or (irreducible) possible worlds. For these reasons, insofar as metaphysical explanations are inferences to the best explanation, they imperfectly emulate their scientific counterparts. (See Earman's scepticism about nomic necessitation in his 1984: 199.)

In an inference to the best explanation in metaphysics, the pool of potential metaphysical explanations may be 'unfiltered' and include all possible candidate explanations, no matter how crazy, or 'filtered' and include only promising candidate explanations. Assuming that the pool is unfiltered would markedly deviate from theory-selection in actual scientific practice. In the latter case we do not begin by considering all possible theories about some phenomenon, because the pool would be too large to generate or handle (Lipton 1991: 119). But if the pool is filtered, so that only plausible candidates are admitted, then certain familiar metaphysical theories are in danger of being excluded at the outset. (This worry is shared by Nozick 1981: 12.) For instance, the 'incredulous stare' facing modal realism shows how implausible some philosophers find that theory. Excluding modal realism from the pool for that reason would be to disqualify it as a candidate for explaining modality and much else. The modal realist might take issue with the ‘setting’ on the filter that excluded his theory from the pool. But if the argument between the modal realist and his opponents occurs at this early stage, it forestalls our going on to the next stage of taking the pool of admitted candidates and inferring the best potential explanation of the phenomena to be explained. Accordingly, inference to the best explanation in metaphysics would have to wait upon a prior resolution of the dispute between the modal realist and his incredulous opponents, rather than itself provide that resolution. This would leave the role of inference to the best explanation in metaphysics much less useful and interesting than it had promised to be. It would be a ‘bystander’ to the crucial argument between Lewis and his opponents, and that argument would have to be conducted along independent lines. (For other reasons to query the use of inference to the best explanation in metaphysics, see van Fraassen 1995: §iv.)

This section has offered only an interim report. Much more on the topic of explanation in metaphysics needs to be said, and the final verdict on it remains open. But I draw the provisional lesson that the cautionary remarks by Oliver and Kraut on the topic of metaphysical explanation are well-taken. We should bear them in mind when considering claims about the explanatory role of truthmakers and the truthmaker principle.

3. THE TRUTHMAKER PRINCIPLE AND EXPLANATION

In this section I consider (Q3)—Does the truthmaker principle have an explanatory purpose? If so, what is it?—and Bigelow’s and Armstrong’s answers to it. To start with, it is helpful to distinguish between an intuition about correspondence and an intuition about explanation. (The distinction is also drawn by Wright 1992: 23–4.) As we will see, Armstrong for one thinks that the truthmaker principle captures both intuitions. The correspondence intuition is as follows (cf. Wright 1992: 27):

(CI) $\langle p \rangle$ is true if and only if things are as $\langle p \rangle$ says they are,

(where ‘$\langle p \rangle$’ symbolizes ‘the proposition that p’). The explanation intuition is (cf. Horwich 1998: 104):

(EI) $\langle p \rangle$ is true because p.

I take it that (EI) is intended to express an explanatory asymmetry; that p explains why $\langle p \rangle$ is true, but $\langle p \rangle$’s being true does not explain why p.

Just what kind of equivalence (CI) states—material, necessary, or analytic—is a matter of debate. But whatever kind it states, (CI) does not explicitly state an explanatory claim. Armstrong says that 'the truthmaker is the "correspondent" in the correspondence theory of truth' (2000: 150). Perhaps so, but it must be more than that if the explanation intuition is to be captured. Correspondence is an equivalence relation, whereas an explanatory relation is asymmetric and non-transitive. (EI) is more to our interest. Does the truthmaker principle articulate the explanatory claim made by it? David Lewis reminded us that merely calling a relation something doesn't make it so (1983*a*: 40). Calling a relation the *truthmaking* relation, or the *in-virtue-of* relation, or an *explanatory* relation, or . . . does not thereby make it any of these relations. A name can be bestowed without its being deserved, however familiar and frequent the name-calling might be. What friends of truthmakers need to do is (1) to single out some relation (or perhaps some family of relations), (2) show that the relation singled out deserves the name 'the truthmaking relation', and (3) show that this relation holds between ordered *n*-tuples of entities and truths. Task (2) requires establishing that the relation singled out satisfies the explanation intuition. We will see how well friends of the truthmaker principle undertake that task.

The literature on the truthmaker principle operates chiefly with a stronger and a weaker formulation. Drawing on Fox (1987: 189) and Bigelow (1988: 126), we might formulate the strong truthmaker principle as:

> (TM) Necessarily, if $\langle p \rangle$ is true, there exists at least one entity α such that $\langle \alpha$ exists$\rangle$ entails $\langle\langle p \rangle$ is true$\rangle$.

Bigelow also offers a weakened truthmaker principle. According to it, what is true supervenes on what exists: there could not be a difference in what is true without a difference in what exists (1988: 132). That principle might be formulated as:

> (ST) Necessarily, if $\langle p \rangle$ is true, it would be impossible for $\langle p \rangle$ to be false unless at least one entity which does not exist were to exist, or at least one entity which exists were not to exist. (Bigelow 1988: 133; Dodd 2002: 73)

With these various formulations of the truthmaker principle in place, we can address (Q3)—the question of whether the truthmaker principle has an explanatory purpose, and, if so, what it is. Consider Bigelow's claim as quoted in §1 that he needs the truthmaker principle or some such principle to avoid 'drifting onto the shoals of some sort of pragmatism or idealism'. The puzzle is how he thinks that the truthmaker principle performs that function. The principle is compatible with idealism. An idealist might consistently claim that every truth has a truthmaker, where a truthmaker is an (actual or possible) experience or collection of experiences. Likewise, the principle is compatible with pragmatism. A pragmatist might consistently claim that every truth has a truthmaker, where a truthmaker is what would be believed by everyone at the end of all rational inquiry. (If you wish, replace these fast-and-loose statements of idealism and pragmatism with your preferred, more nuanced versions. I think that the point will stand.) Bigelow seems to be assimilating the principle that for every truth, there is an entity which is its truthmaker, with some other principle which claims that realism holds for at least some entity. But those principles are logically independent, and it is only the latter principle that is necessary and sufficient for Bigelow's rejection of idealism and pragmatism.

Consider Armstrong's claim, also quoted in §1, that without the truthmaker principle 'there really is no truth relation that holds between the true proposition and the world', and that that consequence 'challenges the realist insight that there is a world that exists independently of our thoughts and statements, making the latter true or false' (1997: 128). What is called here the realist insight consists of two claims: first, that there is a world that exists independently of our thoughts and statements, and, second, that this world makes our thoughts and statements true or false. In discussing Bigelow, I argued that the truthmaking claim—the second of the above claims—is compatible with idealism and is also compatible with pragmatism, and so is not a distinctively realist claim. That leaves us with the first claim. Let *that* be our statement of realism. We do not need to make the second claim when stating realism. Indeed, denying that there is a truth relation of the sort that Armstrong wants—a truthmaking relation—is not obviously incompatible with our statement of realism. So I do not see that denying that there is a truthmaking relation 'challenges' (to use Armstrong's phrase) our statement of realism. Now perhaps our statement of realism can and should be developed. Even so, we have been given no argument that it needs to be developed in terms of the notions of truth or of truthmaking. (See also Horwich 1998: 52–6.)

The correspondence theory of truth faces a standard objection that if the correspondence relation is simply what is expressed by (CI):

(CI) $\langle p \rangle$ is true if and only if things are as $\langle p \rangle$ says they are

then the theory is vacuous. So understood, talk of truths corresponding to reality is compatible with any supposed rival theory of truth, such as the coherence, pragmatic, or epistemic theories (see Blackburn 1984: 225 or Lewis 2001*b*: 277). Armstrong thinks that the truthmaker principle can be used to say more about the correspondence relation than (CI) does, thereby establishing the correspondence theory as a significant theory—indeed, as one deserving our allegiance (1997: 128). He takes the truthmaker principle to be formulated by (TM) above. He further takes truthmakers to be states of affairs, where a state of affairs is an individual having a property or an (ordered) *n*-tuple of individuals standing in an *n*-place relation, where these properties and relations are universals. I think that the conjunction of the views just stated, however, is compatible with each of the coherence, pragmatic, and epistemic theories of truth. So I do not think that Armstrong's appeal to the truthmaker principle establishes with respect to the correspondence theory what he thinks that it does. Consider the coherence theorist. He may consistently say, 'If $\langle p \rangle$is true, it has a truthmaker. $\langle p \rangle$ corresponds to a state of affairs, namely the state of affairs which consists of a relation of coherence holding between $\langle p \rangle$ and the other members of a maximal set of propositions'. Consider the pragmatist. He may consistently say, 'If $\langle p \rangle$ is true, it has a truthmaker. $\langle p \rangle$ corresponds to a state of affairs, namely the state of affairs of $\langle p \rangle$'s having the property of being useful to believe'. It is controversial whether there exist states of affairs. Let that pass. My point here is that the coherence theory and the pragmatic theory are each compatible with the admission of states of affairs. Furthermore, each of these theories is compatible with the admission of states of affairs standing in a correspondence relation to truths.[2] It follows that Armstrong's appeal to his ontology of states of affairs fails to show that the correspondence theory of truth is not vacuous.

The weakened truthmaker principle, (ST), is no better placed. Even if (ST) holds, it does not thereby articulate the explanation intuition. For, in general, even if there could not be a difference in how it is with *J*s without a difference in how it is with *K*s, it does not follow that how it is with *K*s explains how it is with *J*s. Consider cases which are joint effects of a common cause. The heat and the light emitted by a light-bulb are joint effects of electrical flow through the bulb's filament. There could not be a difference in whether the bulb was emitting light without a difference in whether the bulb was emitting heat. Nevertheless, the bulb's emitting heat does not explain the bulb's emitting light. Perhaps it is no surprise that (ST) is no better placed than the stronger truthmaker principle (TM). Arguably, some philosophers have given good independent reason to think that supervenience theses in general are not explanatory. These philosophers conclude that supervenience theses do not provide explanations; they require them. (For supporting argument, see Blackburn 1984: 186, Schiffer 1987: 153–4, and especially Kim 1993: 165–9.) A supervenience thesis is supposed to state some kind of dependency between the members of the supervening class and those of the base class. But it does not say what kind of dependency it is. Nor does it say how the dependency explains the modal covariation between the target properties of the supervening entities, e.g. propositions' truth or falsehood at a world, and the properties of the base entities. Little wonder then that the weakened truthmaker principle does not capture the explanation intuition.

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[2] Lewis (2001*b*: 278) thinks otherwise. According to him, admitting states of affairs in Armstrong's sense 'does conflict with the coherence or pragmatic or epistemic theories, since it is manifestly not a priori, for example, that there exists something such that the existence of that thing implies that cats purr if and only if it is useful to believe that cats purr'. While I would concede that it is not manifestly a priori that there exists something such that the existence of that thing implies that cats purr if and only if it is useful to believe that cats purr, that is compatible with what I say in the text. I do not see Lewis's (logically stronger) claim, and regrettably he provides no supporting argument for it.

To sum up, my reply to Bigelow tried to show that the truth of the truthmaker principle is not a sufficient condition for realism's being true, and my reply to Armstrong tried to show that the truth of the truthmaker principle is not a necessary condition for realism's being true. Nor does the truthmaker principle save the Correspondence theory of truth from vacuity. The upshot is that the truthmaker principle does not serve the explanatory goals which Bigelow and Armstrong set it.

4. TRUTHMAKERS AND THE PROBLEM OF UNIVERSALS

In this section I will consider (Q4)—does calling something a truthmaker serve an explanatory purpose? If so, what is it?—and Rodriguez-Pereyra's answer. Rodriguez-Pereyra endorses (TM): he accepts the following principle (2000: 262):

(T*) If *E* is a truthmaker of *S* then '*E* exists' entails *S*

and focuses on the alleged explanatory power of truthmakers. In particular, his paper considers the Problem of Universals: the problem of explaining how it is possible that distinct particulars have the same properties. He takes this problem to be a request for an explanation for which truthmakers provide the *explanantia*.

Rodriguez-Pereyra makes two claims of special interest to us. First, he sharply distinguishes between giving a conceptual analysis and giving truthmakers, and he claims that conceptual analysis cannot provide the required *explanantia*:

> [C]onceptual analysis is not what the Problem of Universals demands . . . I take the Problem of Universals to be an ontological problem, an answer to which should tell us something about what there is, whereas all a conceptual analysis can tell us about is the content of the concepts and words we use to think and speak about what there is. (2000: 260)

Second, he claims that the Problem of Universals is solved by positing truthmakers for true sentences of the form '*a* is *F*' or '*a* and *b* are *F*':

> [O]ne way of explaining how some fact *S* is possible is by invoking the existence of something which entails it. If '*E* exists' entails *S* then *E*'s existence necessitates the fact that *S*, which means that, given *E*, the fact that *S* cannot fail to obtain . . . *E*'s existence rules out the real excluders of the fact that *S*: what necessitates the fact that *S* thereby 'impossibilitates' its excluders and so explains how *S* is possible. But if *E* is a truthmaker of *S* then '*E* exists' entails *S*. (2000: 261)

(Rodriguez-Pereyra's talk of facts might be a little misleading: sometimes he is talking of truths, at other times of what makes those truths true. Fortunately, context seems to identify which sense is intended in each given case. I will follow his usage in this section.) Our *explanandum* is of the form: how is some fact *S* possible? Rodriguez-Pereyra requires of the *explanans* only that it is some existing thing that entails the *explanandum*, i.e. entails that the fact *S* is possible. But this requirement seems too weak. For instance, the fact that *S* obtains (i.e. the fact that *S* is actual) entails that *S* is possible, but it does not thereby explain how the fact that *S* is possible. This is especially apparent in cases of putative metaphysical explanation. To illustrate the *explananda* of metaphysical explanation, Rodriguez-Pereyra cites examples originally given by Nozick such as:

(Q5) How is it possible for us to have free will, supposing that all actions are causally determined?
(Q6) How is evil possible, supposing the existence of an omnipotent omniscient benevolent God? (Rodriguez-Pereyra 2000: 257; Nozick 1981: 9).

Given his interest in the Problem of Universals, Rodriguez-Pereyra is particularly interested in the following questions:

(Q7) How is it possible that *a* is *F*?
(Q8) How is it possible that *a* has the property *F*? (2000: 265–6)

(Q7) and (Q8) do not seem to have the same logical form as (Q5) and (Q6), yet this difference goes unremarked by Rodriguez-Pereyra. Unlike (Q7) and (Q8), (Q5) and (Q6) do not merely ask how so-and-so is possible. They ask how so-and-so is possible, supposing such-and-such—where 'such-and-such' describes something apparently incompatible with so-and-so. (Nozick too does not always frame his questions in the form: how is *X* possible, supposing some apparent excluder *Y*? See Nozick 1981: 9.) Still, the traditional problem of universals can be presented as a question with the same logical form as (Q5) and (Q6), namely as (Q9):

(Q9) How is it possible that particulars have the same properties, supposing that they are distinct particulars?

(Q5)–(Q9) are each ontological questions. According to Rodriguez-Pereyra, each is to be answered by invoking truthmakers. Given the little he requires of a truthmaker, however, these questions are answered far more easily than he realizes. We are told that to explain how a fact *S* is possible is to invoke 'the existence of something which entails it'. Take (Q5). We want to explain the fact *that it is possible for us to have free will, supposing that all actions are causally determined*. Something which entails that is the fact that *we have free will and that all actions are causally determined*. For all that Rodriguez-Pereyra has said, we have done what it takes to answer the question and solve a philosophical problem. Take (Q7). To 'entail and so explain' the fact *that it is possible that a is F*, we can invoke the fact *that a is F*. The latter fact is the requisite truthmaker. If you're tempted to say that assuming that it is a fact that *a* is *F* begs the question, go ahead. But by the same token, presumably then *any* statement describing a truthmaker which entails that it is possible that *a* is *F* begs the question. Accordingly, you will find any invocation here by Rodriguez-Pereyra of truthmakers begs the question, and so his line of argument for truthmakers is blocked. Take (Q8). To explain the fact *that it is possible that a has the property F*, we can invoke the fact—the truthmaker—*that a has the property F*. Another question answered; another problem solved. Easy? Too easy. The moral I draw is that invoking truthmakers for truths does not thereby explain those truths. (I think that Nozick would have drawn the same moral. When discussing the notion of proof, he argues that proving *p* does not explain how it is possible that *p*. See Nozick 1981: 10.)

Note that my trivial answers to the above questions do not turn on an (obviously) idiosyncratic view of what entities might be truthmakers. Rodriguez-Pereyra accepts the strong truthmaker principle, but admits that it specifies only a necessary condition for truthmaking. He suggests that the notion of truthmaking can be clarified by 'showing what the truthmakers of different sorts of sentences are' (2000: 262). He offers account of the truthmakers for disjunctions, conjunctions, and existential generalizations. Now the sentences expressing the truthmakers that I have invoked to answer (Q7) and (Q8) do not have any of these logical forms. So his accounts of truthmakers for sentences of those logical forms have no bearing on them. To see this, consider his account of conjunction. He takes the truthmakers for a sentence of the form '*Fa & Fb*' not to be a conjunctive fact *Fa & Fb*, but the facts *Fa* and *Fb* jointly. As he says, 'conjunctions are jointly made true by the truthmakers of their conjuncts' (2000: 264). So be it, but then let the truthmakers which 'entail and so explain', *it is possible for us to have free will, supposing that all actions are causally determined* be the facts *that we have free will* and *that all actions are causally determined* jointly. Likewise, the truthmakers which 'entail and so explain' *it is possible for distinct particulars to have the same properties* are the facts *that some particulars have the same properties* and *that those particulars are distinct* jointly. Once again, truthmakers invoked; question answered; problem solved. So my trivial truthmaker 'explanations' survive Rodriguez-Pereyra's work at clarifying the notion of truthmaking. Truthmaking remains an apparently specious form of metaphysical explanation. What has gone wrong? Explanatory contexts are opaque. To provide an explanation it matters how we specify both the *explanandum* and the *explanans*. In the cases we are concerned with, Rodriguez-Pereyra specifies the *explanandum*, but is indifferent to how we specify the *explanans*. In his phrase, we need only to 'invoke' the *explanans*—the truthmaker. I then invoked truthmakers to answer some perennial philosophical questions, and even specified these truthmakers in a way which makes it perspicuous that they entailed their respective *explananda*. But the entailments are no explanation of the philosophical problems. They are merely restatements of what needed explaining.

Could the objection be met by placing constraints on how the truthmakers are specified? I am not sure that Rodriguez-Pereyra would want to take that route. Recall his dismissal of conceptual analysis as a means to solve ontological problems. He said that '. . . all a conceptual analysis can tell us about is the content of the concepts and words we use . . . the Problem of Universals is an ontological problem, not a conceptual one . . . [It is a problem] whose solution should instead "tell us something about what there is" ' (2000: 260). Different specifications of one and the same truthmaker consist in using different contents to describe that entity. But we are told that the solution to the Problem of Universals is not found at the level of content, but at the level of ontology. Whether that view is well advised or not, it involves rejecting as irrelevant features, such as content, which are pertinent to the treatment of opaque contexts.

Another apparent option would be to build the notion of explanation into the notion of the truthmaking relation, so that, by stipulation, a truthmaker, *E*, of a sentence *S* is something which explains why *S* is true. (This option might draw upon McFetridge 1990, especially §II.) But, whatever its merits in explicating the notion of truthmaking, this option seems only to shift the problem. To solve the Problem of Universals, Rodriguez-Pereyra invoked certain entities. Originally I granted that sentences reporting the existence of such entities entailed that certain other sentences were true, but there was a question whether the former sentences explained the truth of the latter sentences. The option now under discussion fuses the notion of truthmaking with the notion of explaining in such a way that whatever makes a sentence *S* true explains why *S* is true. An entity *E* makes true a sentence *S* only if *E* explains why *S* is true. Taking this option by itself makes no progress in showing that the entities that Rodriguez-Pereyra posits have the required explanatory power. To show that they do will require more than showing the sentences stating such entities exist *entail* the *explananda*. Furthermore, if a truthmaker just is whatever it is that provides an explanation of (say) the fact *that it is possible for us to have free will, supposing that all actions are causally determined*, then it is not clear that the truthmaker for such a fact is appreciably similar to what Rodriguez-Pereyra and others have taken it to be. For, according to one major line of thought, what would provide an explanation of the above fact would be a theory about action and free will. One such theory (or family of similar theories) would be compatibilism. Compatibilism is a theory about the concepts of causation and free will which purports to say enough about these concepts to show that a person's actions can both be caused and be free. Such a theory may be understood as a piece of conceptual analysis, or as an explication in Carnap's and Quine's sense of word (Carnap 1947: 7f., and Quine 1960: §51), or understood in some yet further way. The key point is that on each of these approaches what explains facts which generate philosophical problems are theories about those facts, and if we're to call whatever explains such facts truthmakers, then those theories are truthmakers for those facts. Since Rodriguez-Pereyra would find that an unwelcome result—since he wants a truthmaker not to be an entity that has content, but a non-linguistic entity—I expect that he would reject the option under consideration.

5. CONCLUSION

Why believe the truthmaker principle, whether in its strong or weakened form? I think that at least three strategies are used in the literature to support it. First, there is the strategy of arguing from examples and rebutting putative counter-examples. Here the truthmaker principle is introduced in the company of plausible-seeming illustrations, and, as the discussion proceeds, problem cases are despatched. Worried about true counterfactuals? Then posit propensities, or categorical properties, or . . . Worried about negative existentials? Then posit absences, or totality states of affairs, or . . . As Julian Dodd and I have independently argued, this method of despatch is always and easily available (Daly 2000: §4, and Dodd 2002: 81). For any truth, one is free, if one suppresses any inhibiting philosophical scruples, to posit whatever it takes to provide the required truthmaker. This is the 'Canadian mountie' theory of truthmakers: a truth always gets its truthmaker, whatever it takes. But this tactic is motivated by a prior commitment to the truthmaker principle. It does not justify that commitment. Indeed, unless justification can be found for the postulation of truthmakers for every truth whatever it takes, such postulation is *ad hoc*. There is no independent reason for accepting the postulation of such entities other than to uphold the truthmaker principle.

A second strategy says that invoking certain entities as truthmakers solves perennial philosophical problems, such as the problem of universals. We explain how it is possible for distinct particulars to have the same property by invoking a truthmaker which entails—or truthmakers which jointly entail—that it is true that at least some distinct particulars have the same property. I argued in §4 that the most explicit implementation of this strategy in the truthmaker literature fails. We should have known better though because we knew from long-standing criticisms of the Deductive-Nomological model of explanation that entailing that p, even from impeccable premises, is not logically sufficient to explain that p.

A third strategy is one of inference to the best explanation. It is said that we have the intuitions that realism about the external world is true, that idealism and pragmatism are false, that the redundancy theory of truth is incompatible with realism, and that the correspondence theory of truth seems compelling. Question: what best explains these intuitions, individually or together? Answer: the truthmaker principle. Moreover, it is an especially good explanation if it explains these intuitions together. For then a single principle offers a unifying explanation of various apparently disparate intuitions. I tried to show in §3, however, that either these intuitions are not explained by the truthmaker principle—as in the case of our intuitions about realism about the external world, idealism, pragmatism, and the correspondence theory of truth—or there is good independent reason to reject the intuition—as in the case of Armstrong's intuition that the redundancy theory of truth is incompatible with realism.

It seems that these three strategies for justifying the truthmaker principle fail. Given this, and in the absence of any more successful strategy, the principle lacks justification. What are we left with? Here is a heretical suggestion. The phrases 'truthmaking' and 'ontological ground of truth' sound deep and impressive, but perhaps they are only turns of phrase—empty metaphors without explanatory content. At any rate, this discussion has not found any reason to think these phrases amount to anything more than that.[3]

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[3] I am grateful to comments on earlier drafts of this paper by Helen Beebee, Julian Dodd, Eve Garrard, and Daniel Nolan. I am also grateful to Robert Kraut and Peter Lipton for correspondence on the topic of explanation.

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7 *Truthmakers and Explanation*

DAVID LIGGINS

Truthmaker theory promises to do some useful philosophical work: equipping us to argue against phenomenalism and Rylean behaviourism, for instance, and helping us decide what exists (Lewis 1992: 207; Armstrong 1997: 113–19). But it has proved hard to formulate a truthmaker theory that is both useful and believable. I want to suggest that a neglected approach to truthmakers—that of Ian McFetridge—can surmount some of the problems that make other theories of truthmaking unattractive. To begin with, I'll outline some of the most prominent accounts of truthmaking in the current literature. Then the second part of the paper will explain McFetridge's theory and argue for its superiority over these accounts.

1. TRUTHMAKING AS SUPERVENIENCE

1.1 *Current truthmaker theories*

A philosophical naturalist is likely to claim that our best explanatory theories can be used to determine what exists. But how is this to be done? One way of attacking the problem is to use the notion of *ontological commitment*. By this I mean the following:

> (OC) A proposition p is ontologically committed to an entity x iff p entails that x exists.

(I will ignore Quinean worries about propositions.) (OC) is supposed to be a way of drawing out what a theory says about what exists. To find out what existential claims a theory makes, we run through its assertions and note down their ontological commitments. In this way we can have empirical evidence for existence claims, admitting entities to our ontology for 'essentially scientific reasons' (Quine 1969: 97). Ontological commitment thus ties together theory and ontology. For instance, suppose you are offered a package: a theory and an ontology to go with it. Suppose that the ontology you are offered is leaner than the ontological commitments of the theory.

Then you must reject the theory–ontology pair. The theory says that there is more in the world than the ontology admits to, so together they form an inconsistent package.

Truthmaker theories also offer constraints on theory–ontology pairs. The simplest theory on the market is Armstrong's:

> (A) If a proposition *p* is true then there exists an entity *x* such that ⟨*x* exists⟩ entails *p*. (1997: 115)

Here 'entails' has its usual meaning: *A* entails *B* iff there is no possible world where *A* holds but *B* fails. An entity *x* whose existence entails *p* is said to be a *truthmaker* for *p*.

It is easy to see how *A* acts as a constraint on theory–ontology pairs. If you assert a theory which claims *p* whilst accepting Armstrong's principle, then on pain of inconsistency your ontology must contain a truthmaker for *p*. According to Armstrong, any theory which includes a proposition but provides no truthmaker for it in its ontology is contravening the truthmaker principle.

Armstrong claims that all truths have truthmakers (1997: 135). This attitude seems very strange when applied to negative existential truths like 'There are no giant pandas in Sheffield'. What entity could there be whose existence would entail the truth of this claim? It would have to be an 'anti-panda': something that exists just when there are no giant pandas in Sheffield. I find it more natural to think that statements like this 'are true not because things of some kind do exist, but rather because counter-examples *don't* exist' (Lewis 1992: 204). This suggests that negative existential truths don't need truthmakers.

One way of modifying Armstrong's theory is to exclude negative existentials from the scope of his truthmaker principle. But that seems too drastic. It is not that there is no link between truth and ontology for negative existential truths; rather, the link is of a different sort. In Lewis's words, they are 'true for lack of false-makers' (1992: 204). These thoughts spur Bigelow to revise Armstrong's theory. According to Bigelow, '[i]f something is true, then it would not be possible for it to be false unless certain things were to exist which don't, or else certain things had not existed which do' (1988*a*: 133). Taking 'certain things' to mean 'one or more things', this becomes

> (B) For any proposition *P* and any worlds *W* and *V*, if *P* is true in *W* but not in *V*, then either something exists in *V* but not in *W* or else something exists in *W* but not in *V*.[1]

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[1] I have taken this formulation from Lewis 2001: 610.

Bigelow sums up his theory in the claim that 'truth is supervenient on being' (1988: 132).

Bigelow's view entails that the only differences between possible worlds are existential ones, a feature which David Lewis thought counterintuitive. Could there not be two different possible situations where exactly the same things exist, differing simply in what properties they have? This thought led Lewis to assert that

> (L) For any proposition *P* and any worlds *W* and *V*, if *P* is true in *W* but not in *V*, then either something exists in one of the worlds but not in the other, or else some *n*-tuple of things stands in some fundamental relation in one of the worlds but not in the other. (2001*a*: 612)

Lewis suggests that principle (L) distils what is right in truthmaker theory (1992: 206–7). Josh Parsons also hints at a theory like this when he suggests that 'every true sentence's truth supervenes on the nature of some thing' (1999: 327).

It should be clear that the theories of Bigelow and Lewis act as constraints on theory–ontology pairs. Principles (B) and (L) are both conditional in form: in each case, the first part talks about what is true in which world, and the second part talks about what exists or what properties it has. For Bigelow and Lewis, truths have ontological implications.

Before we see these theories at work, I should note that some philosophers think that some of these views do not merit the name 'truthmaker theory' at all. For instance, Dodd (2002: 74 n.9) denies that Parsons's theory deserves to be called this; Lewis (2001*a*) seems unsure whether his does. Dodd also thinks that McFetridge's theory (explained below) shouldn't count as a truthmaker theory (2000: 16 n.10). I am suspicious of any claim to have found the 'true meaning' of a term of philosophical art like 'truthmaker', but the issue is unimportant anyway. Irrespective of what we call these principles, they promise to deliver philosophical results, and that is why they are worthy of our attention. Let us turn to see how these principles can be used in philosophical arguments.

1.2 *Truthmaker theory in action*

One important application of truthmaker theory has been in opposing phenomenalism. I will take phenomenalism to be a thesis about the meaning of sentences about physical objects coupled with an ontological thesis. Phenomenalists claim that sentences about physical objects should be analysed as conjunctions of counterfactuals about experience. These counterfactuals are not made true by physical objects, as we conceive of them, for according to phenomenalists no such physical objects exist. Nor are they ontologically grounded in the properties of human minds—that would be to confuse phenomenalism with idealism. But phenomenalism is not an error theory: sentences about physical objects are often true. Whilst phenomenalism has its advantages from some epistemological perspectives, there is something unsatisfying about it which truthmaker theorists seek to exploit. One philosopher goes so far as to accuse phenomenalists of 'ontological murder' (Armstrong 1993: 187).

How can we use truthmaker theory to argue against phenomenalism? Take a true sentence, *P* say, concerning a physical object. Suppose that *C* is a counterfactual which forms one conjunct in the phenomenalist analysis of *P*. Then *P* entails *C*, and so *C* is true. On Armstrong's theory, *C* is committed to the existence of some truthmaker for itself. But the truthmaker cannot be a physical object as we ordinarily conceive them; neither can it be a human mind. To take either of these lines would be to abandon phenomenalism in favour of realism or idealism. So the phenomenalist is beggared to explain just what in the world serves to make the counterfactual true. The truthmaker principle has detected a mismatch between theory and ontology, and condemns phenomenalism on the strength of it. And we can run the argument just as well using Lewis's or Bigelow's theory. The phenomenalist will be unable to name an entity on whose existence the truth of the counterfactual supervenes. Neither will it be possible to name a property whose instantiation is linked in the appropriate way to the counterfactual's truth. For what entity would display this property? Phenomenalism dispenses with any candidates. (Compare Armstrong 1989*c*: 8–10; Lewis 1992: 207.)

It is easy to mount parallel arguments against Gilbert Ryle's brand of behaviourism: the view which says that truths about the mind can be analysed as conjunctions of counterfactuals about behaviour, but that these dispositions have no 'categorical bases', that is, that there are no mental properties underlying them. As Parsons says, 'If my beliefs were Rylean dispositions, I could cease believing something without any real change taking place in me or indeed anywhere in the world' (1999: 327). This possibility is just what truthmaker theory rules out.

1.3 *Justifying supervenience theories*

We have seen one way of using truthmaker theory to get philosophical results. But why should we trust this sort of thinking? Armstrong does little to persuade his readers that his truthmaker principle is right: he says that it seems 'fairly obvious once attention is drawn to it' (1989*a*: 89), but admits that he has no argument to offer. Bigelow also looks to intuition to support his theory: 'I have sometimes tried to stop believing in the Truthmaker axiom. Yet I have never really succeeded' (1988*a*: 123). He offers a justification of his view, which has been forcefully criticized elsewhere

(Dodd 2002: 79–81). Armstrong and Bigelow have nothing more powerful to offer those of us who, like Alex Oliver, worry that 'the explanation of truth making in terms of necessitation is richer and more controversial than anything supplied by common sense' (Oliver 1998: 539).

The difficulty of justifying Armstrong and Bigelow's theories has sometimes inspired gloom about the prospects for a defensible theory of truthmakers.[2] But it seems that we might be able to justify Lewis's version of truthmaker theory using premises that are much harder to reject. According to Lewis, we can know a priori that (L) is true. Elsewhere he suggests an argument for (L), based on a deep-seated intuition about *aboutness*. According to Lewis, Armstrong's theory is 'an over-reaction to something right and important and under-appreciated. What's right, roughly speaking, is that truths must have things as their subject matter' (1992: 206). Here 'a proposition is *about* a subject matter . . . iff the truth value of that proposition supervenes on that subject-matter' (1988: 113). Put together, these claims offer an interesting argument for Lewis's theory:

> (1) All truths have entities as their subject matter.
> (2) For any proposition *p* and subject matter *M*, *p* is about *M* iff *p*'s truth-value supervenes on the existence and nature of *M*.
> Hence
> (3) For any true proposition *p*, there exists an entity *M* such that *p*'s truth-value supervenes on the existence and nature of *M*.

(By 'the nature of *M*' I mean 'which properties *M* has'. *M* might be a collection of entities rather than an entity in its own right, but the structure of the argument would be unaffected by this change.) Now (3) is just (L). So have we found an argument which makes a useful truthmaker theory believable?

1.4 *Supervenience and necessary truths*

This attempt to justify truthmaker theory provokes two worries. First, we might think that (1) is less than obvious, for perhaps logical truths are not about *things*. But a defender of the argument could ask what advantages that view has over the belief that logical truths are about *everything*. Since it is difficult to decide whether the subject matter of logical claims is really *nothing*, or just *nothing in particular*, I will grant for the sake of argument that a Lewisian could reply to the objection in this way.

The second worry is that Lewis's definition of *aboutness* (2) does not capture the way that word is usually used. Let *p* be a necessary truth. Then, because necessities are entailed by all truths, *p*'s truth-value trivially supervenes on the existence and nature of any entity. But would we want to say that necessary truths are about everything?

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[2] e.g. Dodd 2002 argues that there is no good reason to accept (B), and concludes that future research into truthmakers is 'pointless' (70 n.2).

We might in some cases. For instance, we have just conceded that the laws of logic might be about everything. But suppose that 'All vixens are foxes' is necessary. It seems to concern vixens rather than penguins or light bulbs. Philosophers of religion have often taken 'God exists' to be either necessary or impossible without feeling they have to claim that its subject matter is anyone apart from God. The philosophy of mathematics furnishes some counter-examples as well. Many Platonists have held the existence of numbers to be necessary;[3] but they have not denied that arithmetical propositions (for instance) concern numbers alone. And it would seem objectionably *ad hoc* to ask them to give this up.

I conclude that (2) does not have the obviousness it requires if Lewis's argument is to succeed. This is by no means a devastating objection: the argument could be rescued by weakening the 'iff' in (2) to 'only if'. But these thoughts might inspire scepticism about whether the argument's conclusion really captures all that is of value in truthmaker theory. For just the same reasoning will tell us that any necessarily true proposition will satisfy (L) irrespective of the ontology it is coupled with. And this seems far too easy. If arithmetical propositions are true in virtue of the necessary existence of numbers and the relations in which they necessarily stand, then it is not trivial at all that these statements are true. Surely a Platonist should say that their truthmakers are not just any entities, but some entities connected with the abstract objects they concern: numbers themselves (whatever sorts of entities they are) or states of affairs concerning numbers, or numbers and the universals they instantiate, or number properties perhaps, but not just *anything*.

Another way to put the worry is this: Lewis's truthmaker principle does not act as a constraint on theory–ontology pairs in the way we would like it to. Contingent existential claims must have truthmakers: we cannot say that 'There is a penguin in world *W*' is true unless there is a penguin in our ontology for world *W*. And Lewis's supervenience principle requires this, in effect. But suppose we claim that penguins necessarily exist. Surely that means we should say that there is a penguin in the ontology of each world. But Lewis's principle is powerless to enforce this requirement. (L) begins 'for any proposition *P* and any worlds *W* and *V*, if *P* is true in *W* but not in *V*, then . . . '. Given that *P* is necessary, the antecedent of this material conditional will always be false, so (L) will be satisfied irrespective of what exists. Hence necessary truths satisfy (L) merely in virtue of their modal status; you can make any existential claim you like without facing its ontological consequences *provided you say your claim is necessary*. For all (L) says, it could be true that there necessarily exist penguins even if there were no penguins at all in any possible world.[4]

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[3] Though Platonists convinced by Quine's indispensability argument might not, e.g. Colyvan 2001.

Bigelow's principle begins in the same way as Lewis's, so the argument we have just given indicts his theory as well. Indeed, it indicts any theory that takes this form.

Armstrong's theory has a different structure but suffers from a related problem: it is well known that according to (A) any entity can serve as truthmaker for a necessary truth. As Greg Restall puts it: 'Why should my refrigerator count as a truthmaker for the Goldbach conjecture (or its negation)?' (1996: 334). In short, none of the supervenience theories of truthmaking deals correctly with necessary truths.

2. McFETRIDGE: TRUTHMAKING AND EXPLANATION

2.1 *McFetridge on truthmakers*

Seeing the problems that supervenience theories of truthmaking face, several authors have concluded that no truthmaker theory that relies on classical logic can succeed (for example Restall 1996: 336). Instead, we need to use 'more finely-honed tools' (Gregory 2001: 427). McFetridge's theory accepts this, invoking the notion of *explanation*. It is easy to see that this is a more discriminating relation than entailment: that '$2 + 2 = 4$' is true is entailed by every truth (assuming arithmetical truths to be necessary), but, crucially, it not *explained* by every truth. Knowing that Sheffield is in Yorkshire, for instance, doesn't help at all in explaining why it's true that $2 + 2 = 4$. We will return to this point later.

McFetridge introduces his theory by considering the question 'What makes a statement true?' He criticizes Davidson's claim that this is merely a confused variant of 'What is it for a statement to be true?' (McFetridge 1990: 37–9). McFetridge points out that correspondence theorists of truth have seen themselves as telling us what makes statements true. The answer, according to Russell and Austin, is *facts*. However, we cannot answer 'What is it for a statement to be true?' with 'A fact'. As McFetridge says, this is 'gibberish' (1990: 38).

To unpack this a little, consider the question 'What makes "The apple is red" true?', to which the correspondence theorists' reply is 'The fact that the apple is red'. If the question could be paraphrased into 'What is it for "The apple is red" to be true?', then the correspondence theorists would be saying that what it is for that sentence to be true is a fact. And that doesn't make sense: we cannot answer 'What is it for "The apple is red" to be true?' by giving the name of an entity.

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[4] Lewis recognizes this problem (Lewis 2001*a*: 604).

To ask for the truthmaker of a statement, then, is not to ask for an explication of the concept *truth* as applied to that statement. So what does the demand for a truthmaker amount to? McFetridge considers exchanges of the following form:

> 'What makes the (English) sentence "Snow is white" true?' 'The fact that snow is white.'
> 'What makes the (English) sentence "Grass is green" true?' 'The fact that grass is green.' (1990: 38)

He immediately goes on to claim that

> these questions, and their generalization into 'What makes a (any) sentence true?' are not requests for *definitions* (etc.) of 'true' (the concept of truth etc.); but rather requests for (partial) *explanations* of *why* certain particular sentences are true. (1990: 38–9)

Seen in this light, the idea that a statement is true only if it has a truthmaker turns into the following principle:

> (E) For every sentence which is true there must be some explanation of why it is true. (McFetridge 1990: 42)

I suggest that McFetridge's reasoning here is not wholly convincing. We can grant that truthmaker theory isn't a way of analysing the concept *truth* without having to concede that requests for truthmakers are requests for explanations. Armstrong, for example, would agree that truthmaker theory doesn't seek to define 'true'[5] but maintains that a request for a truthmaker is not a request for an explanation, but rather a request for an entity whose existence entails that the statement in question is true. The exchanges McFetridge considers could well be understood in this fashion. I agree with McFetridge (1990: 39) that explanation-seeking questions beginning 'What makes . . . ' are most naturally answered by a reply beginning 'The fact that . . . '. But this fails to prove that requests for truthmakers *are* explanation-seeking questions. Thus the shift from explication to explanation is undermotivated.

I am not going to consider repairs to McFetridge's argument. Even if it cannot be derived through thinking about the question 'What makes a statement true?', McFetridge's principle (E) is, I claim, powerful enough to do some of the work that the supervenience theories can. I will argue for this in §2.3. It also overcomes their difficulties with necessary truths (§2.4). And, just as importantly, it is plausible.

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[5] He merely says that it 'tell[s] us something true about the nature of truth' (1997: 128).

2.2 *The plausibility of McFetridge's principle*

I am not sure how to argue for (E); I hope no argument is needed. Whilst (E)'s utility in truthmaker theory has been neglected, the truth of (E) has often been recognized. For instance, Paul Horwich (1998: 104) calls it 'undeniable'—he identifies it as the intuition motivating correspondence theories of truth—and Crispin Wright thinks it 'platitudinous' (1992: 25; see also 27). Its scope clearly extends without problem to negative existentials, an advantage of McFetridge's theory over Armstrong's.

One way of motivating the principle is to appeal to the intuition that much of our language is used to describe an antecedently existing reality. This is the idea that the world comes first and our talk about it second; in other words, the way the world is takes explanatory priority over the semantic properties of our descriptions of it. This means that not only should we look for explanations of the truth-values of our assertions, but that we should be suspicious of explanations which don't refer to the way that prelinguistic reality stands. For instance, we should be wary of accepting as fundamental an explanation of '*p* is true' that merely points out that another sentence is true.[6] And we should equally be wary of explanations that invoke entities we don't believe in. (Suppose a disbeliever in modal realism were to tell you: 'It is true that *P* is possible, because there is a possible world where *P*.' What kind of explanation would that be?)

2.3 *Demanding explanations: McFetridge's principle in action*

In this section I want to indicate how (E) can be used to argue against phenomenalism and Gilbert Ryle-type behaviourism. To begin with, recall that phenomenalists deny the existence of physical objects, paraphrasing statements about them into conjunctions of counterfactuals about experience. McFetridge's principle demands that phenomenalists explain why some sentences about physical objects are true. The realist about physical objects can do this by appealing to the properties of physical objects: ' "The book is square" is true because an independently existing lump of matter, the book, is square.' This route is closed to the phenomenalist, who doesn't believe in lumps of matter. The idealist's explanation, which will refer to the way that human minds are, will also be blocked. It seems there is nothing in the world for the phenomenalist to appeal to in explaining why true sentences about physical things are true. (For a more detailed argument along these lines, see Dancy 1985: 160–3.) This reasoning seems at least strong enough to put the burden of proof onto supporters of phenomenalism.

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[6] Explanations may refer to linguistic reality if the statements they explain are about language; e.g. if *p* is '*q* is true', then it is fine to explain why *p* is true by pointing out that *q* is.

The argument against behaviourism runs parallel. The Rylean behaviourist claims that there are true counterfactuals about behaviour which have no ‘categorical bases’, and this cuts off the possibility of explaining these truths as we usually do: by mentioning mental properties. McFetridge’s principle presses the behaviourist for an explanation. But it is very hard to see what else there is to appeal to in accounting for the truth of these counterfactuals; we can certainly say that any explanation the behaviourist offers will have to be totally counter-intuitive.

Standing back from these examples, we can see how (E) operates as a constraint on theory–ontology pairs. Imagine that *P* is a sentence whose semantics are as follows:

> *P* is true iff *X*.

Since this is a statement about what it means for *P* to be true, we will be able to explain why *P* has the truth-value it does by saying whether *X*. But, in order to do justice to our intuitions, a satisfying explanation of why *P* is true must talk about the world: it must mention how some entities in our ontology stand. This acts as a constraint upon *X*: roughly speaking, *X* has to concern entities we take to exist. (This is why the sceptic about possible worlds can’t rest content with possible worlds semantics.) So every claim in the theory must have implications for its ontology. McFetridge’s principle challenges phenomenalists and behaviourists to produce a semantics of this sort. The burden lies with the theorist to explain exactly which parts of the world he or she is talking about.

2.4 *Explaining necessary truths*

As I hinted at the start of §2.1, McFetridge’s use of the notion of explanation allows him to sidestep the problems that the supervenience theories face when dealing with necessary truths. Exactly how does McFetridge escape the Restall’s Refrigerator problem?

Remember that the problem arose when considering necessities, arithmetical truths for example. Supervenience theories which invoke classical entailment make it far too easy to provide a truthmaker for necessities.

On McFetridge’s approach, the claim that truths have truthmakers is cashed out as a request to explain why true sentences are true. And it is clearly not the case that we can explain why the Goldbach conjecture is true (if it is!) by talking about refrigerators. We need to talk about the entities invoked by whatever is the right semantics for mathematical discourse. Platonists think this will be a realm of abstract objects; on their account, ‘$2 + 2 = 4$’ is true because the abstract objects 2 and 4 are related in a certain way.

Assuming that statements about God are noncontingent, and that they concern an eternal, infinite, aspatial (etc.) being, we will only be able to explain why 'God exists' has the truth-value it does by talking about this being—by saying, in fact, whether or not God exists. This is very different from the supervenience theories of truthmaking. According to Armstrong's theory, any entity will serve as truthmaker for 'God exists'. For all that the theories of Lewis and Bigelow say, 'God exists' might have no ontological implications at all. McFetridge's demand for explanation does not make truthmaking so easy.

Other responses to the problem of necessary truths drop the classical notion of entailment, using *relevance logic* instead (see Restall 1996). McFetridge's solution has the virtue of not requiring such a change. That said, it does rely on the concept of explanation. Some people might hold that *explanation* is an unpleasantly murky or controversial concept, best excluded from our philosophical theories. In reply to this, I would claim that the confusion and controversy concern what it is to be an explanation; the notion itself is intuitively clear. After all, who could doubt that the truth of 'Grass is green' is explained by the colour of grass rather than the flavour of pineapples?

2.5 *Coda*

We have seen that McFetridge's principle is intuitively plausible, powerful enough to argue against behaviourism and phenomenalism, and immune to some of the difficulties faced by supervenience theories of truthmaking. I have not discussed Armstrong's truthmaker argument for an ontology of states of affairs, or whether (E) is, or should be, capable of replicating it. But I hope I have said enough to indicate that McFetridge's theory is an alternative to the standard theories of truthmaking that merits further investigation.[7]

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[7] Many thanks to the editors, Chris Hookway, Rosanna Keefe, Sue Lock, Esa Díaz-León, and an anonymous referee for comments and discussions. And thanks also to audiences in Sheffield and at the Manchester conference.

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8 *Lewis's Animadversions on the Truthmaker Principle*

FRASER MACBRIDE

1. INTRODUCTION

What kinds of things are there? It's an easy enough question to ask. It's easy enough to say that it is the fundamental question of ontology. But what are we supposed to do with it? How are we to go about answering this question?

Quine is celebrated for the thesis that 'to be is to be the value of a variable'. His view amounts to this: the objects to which we are committed by our use of language fall within the range of the quantifiers employed therein. In 1948 Quine recommended that the debate over what kinds of thing there are be adjudicated by determining the ontological commitments of language (see Quine 1948). This suggested one way of approaching the fundamental ontological question. Simply settle upon the quantificational structure of the sentences that comprise a language. Then there must be the kinds of things to which the true sentences of this language (if there are any) are ontologically committed.

Since 1948 Quine's conception of ontology and ontological commitment has proved to be a dominating, perhaps overbearing, influence. There have been voices of dissent, however isolated they may have sometimes been (see for example Strawson 1959, Sellars 1960, and Marcus 1972). Closest to Quine are those who grant that quantification provides the locus of ontological commitment but also hold there are more varieties of quantification—sentence, predicate and so on—that are intelligible and indispensable to our scheme than Quine was ever willing to countenance. It is with the aid of these quantifiers that ontological commitment to different kinds of thing—propositions, properties, and so on—may be expressed. Others stray further from the Quinean fold, denying that it is locutions of quantification that carry the burden of ontological commitment. They affirm instead that other forms of subsentential expression perform the role (for example, demonstratives, definite descriptions, and so on). But those who would make a more radical departure seek to negotiate an alternative route from language to ontology.

Their aim is to establish the existence of the kinds of things responsible for the truth of the different types of sentences there are. Such are the truthmakers: the things whose existence entails the truth of sentences. The so-called truthmaker principle says that every truth must have a truthmaker. It is this principle (or restricted versions of it) that lie behind this most radical revision to the dominant conception of ontology and ontological commitment.[1] On the basis of the truthmaker principle the existence of kinds of thing—states of affairs, tropes, and voids—have been determined, and determined in a way that Quine would never have admitted.

There are two significant components to the revision. First, it declares not only subsentential expressions, whether these be quantifiers, singular terms, or predicates, but also whole sentences to be a significant locus of ontological commitment: what kinds of things there are include not only what we quantify over or refer to but also entities the existence of which is responsible for the truth of sentences. Second, it 'reverses' the direction of commitment in the following sense. Whereas the existence of the kinds of things to which we refer or which we quantify over by the use of a sentence *S* provide a *necessary* condition of the truth of *S*, a truthmaker for *S* provides a *sufficient* condition. There are weaker and stronger versions of the view. According to the weaker view, whole sentences provide an additional locus of language-world interaction: sentences stand alongside other more familiar types of ontologically committing expression (quantifiers, singular terms, etc.) but no type of commitment or language-world relation is assigned a significant priority. According to the stronger view, it is sentences—and not any other kind of expression—that stand significantly at the interface between language and reality; it is ultimately the truth of entire sentences that register the kinds of things there are.[2]

The Truthmaker Movement has had its critics. But none has been stauncher, more incisive in their criticism or influential than David Lewis. Over a period of 15 years he has trenchantly argued the truthmaker principle to be false and advanced in its place his own contrary conception of the relationship between the truth of propositions and the things there are.[3] I do not think it would be an exaggeration to say that Lewis has succeeded in articulating what most of us believe on instinct about truthmaking. And he has given us powerful and compelling reasons for what we believe. But Lewis eventually came to 'withdraw' his doubts about the truthmaker principle (see Lewis 2003; Lewis and Rosen 2003). Lewis came to believe after all that every truth has a truthmaker. Yet Lewis also denied (*modulo* certain modal assumptions) that the truthmaker principle carries any distinctive ontological commitment in its wake. He held instead that the kinds of thing whose existence is sufficient for the truth of an entire sentence are the very same things to which we refer or quantify within it.

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[1] See Mulligan *et al.* 1984: 314; Fox 1987: 189; Bigelow 1988*a*: 122; Armstrong 1989*a*: 41–2 and 1997: 116; Martin 1996; and Mellor 1995: 19–28.

[2] Charles Parsons advocates the weaker view (1971: 48–9). Armstrong (1997) edges towards the stronger, more radical version.

[3] See Lewis 1986*a*; 1989: 487; 1992: 201–7; 1994*a*: 225; 1994*b*: 292; 1998; and 2001*a*. Lewis builds on some earlier suggestions made by John Bigelow. See his 1988*a*: 132–3 and 158–9; 1988*b*: 38.

There are important lessons to be learnt from this intriguing change of view. But if we are to appreciate them then it is with Lewis's original animadversions on the truthmaker principle that we must begin.

2. LEWIS I: TRUTH SUPERVENES ON BEING

Lewis focused his attention upon a version of the truthmaker principle spelled out in entailment terms. So understood the principle says that for any true proposition *P*, there exists something *T* such that the existence of *T* strictly implies or necessitates *P*.[4] Framed in these terms the truthmaker principle falls easy prey to the paradoxes of strict implications: necessary truths are made true by every thing, and things with contradictory features (if there are any) make true every proposition. But, intuitively, not every thing is a truthmaker for every necessary truth (nor does every contradictory thing make true every proposition).[5]

Whilst Lewis noted the problems with strict implication he did not risk distraction by them. He sought different quarry. Call *T* a truthmaker for proposition *P* just in case in every world where *T* exists *P* is true. Lewis then expressed the truthmaker principle in the following terms (2001*a*: 606):

> (TM) For any proposition *P* and any world *W*, if *P* is true in *W*, there exists something *T* in world *W* such that for any world *V*, if *T* exists in *V*, then *P* is true in *V*.

Lewis found (TM) plausible enough if restricted to positive existential and essentialist truths. The positive existential truth that there are dogs is made true by dog Harry provided he is a dog in every possible world where he exists. And provided it is an essential truth that Harry is a dog then Harry makes that proposition true too. But problems begin to crop up when the principle is applied to negative existentials (see Lewis 1992: 203–6; 1998: 219–20; 2001*a*: 610–12).

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[4] See Fox 1987: 189, Bigelow 1988*a*: 125 and Armstrong 1997: 115.

[5] The hope is frequently expressed that these difficulties can be surmounted by redefining the principle in relevant, perhaps paraconsistent terms (see Restall 1996, Read 2000, and Armstrong 2000: 151). I am inclined to be less sanguine about the prospects of successful redefinition here. Who knows what disputes will arise between the relevant metaphysician and the classical mathematician over which structures make which theories true.

Ask yourself: what makes it true that there are no chimeras? What's the intuitive answer, the natural thing to say? Well, what makes it true is just that there aren't any. There is simply a deeply regrettable lack of chimeras here in this world. And, intuitively, this lack of chimeras is not some further kind of thing that somehow takes the existential place of these marvellous creatures. The negative existential is true not because some things do exist but because some don't—the things that don't exist being the chimeras that if only they had existed would have happily made the negative existential false. In Lewis's terminology: negative existentials are true not because something exists but for lack of falsemakers.

There is another, related concern. Take the most encompassing of negative existentials. Suppose nothing exists, nothing whatsoever. Then it is true that nothing exists. But the truthmaker principle says something must exist to make it true that nothing does. So there must be something. In other words it is a consequence of the truthmaker principle that there cannot be sheer nothing. Maybe you believed all along that there must be something rather than nothing. Maybe this only serves to confirm your suspicions. But the truthmaker principle hardly provides a credible basis for the view.

Undaunted, the advocate of the principle may continue to insist—whatever surface appearances and common sense suggest—that negative existentials are possessed of truthmakers.[6] Various candidate truthmakers have been proposed. For example, it may be the thing labelled 'the absence of chimeras' that is responsible for the truth that there are no chimeras. Or, it may be 'the negative fact that there are no chimeras'. Alternatively, the culprit may be 'the general state of affairs of everything being other than a chimera'. It is against suggestions of this sort that Lewis voices a different complaint. If these things are to be eligible truthmakers for negative existentials then they *cannot* exist in any world where there are chimeras. They *must* also exist in every world where there are none. It is precisely this capacity to *exclude* the existence of other distinct things that makes them candidates to be truthmakers for negative existentials. But this offends against what Lewis takes to be the master principle governing our thought about modality: Hume's denial of necessary connections between distinct existences.

These considerations motivate Lewis's first emendation to the truthmaker principle. According to his view, existential propositions depend upon the existence of something to make them true—just like (TM) says. But negative existentials depend upon the absence of the things that exist at the worlds where they are made false. Lewis therefore recommends a weakening of

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[6] See Armstrong 1989*a*: 92–7; 1997: 197–201; 2000: 151–3; and Martin 1996.

(TM) to (TM-) (see his 2001*a*: 610):

> (TM-) For any proposition *P* and any worlds *W* and *V*, if *P* is true in *W* but not in *V*, then either something exists in *W* but not in *V*, or else something exists in *V* but not in *W*.

However, Lewis denies that (TM-) provides a comfortable resting place for the truthmaker theorist. This time it is the truth of contingent predications that prove to be troublesome (see Lewis 1992: 203–6; 1998: 219–20; 2001*a*: 610–12).

Suppose Dog Harry is golden but only accidentally. He might have had some other colour coat instead. Now what makes it true that Harry is golden? *Harry* cannot make it true he has that colour. There are worlds in which Harry exists but the proposition that Harry is golden is false, worlds where Harry has a different coat. But nor can the property *being golden* bear responsibility. There are worlds aplenty where other things are golden, but not Harry. This suggests another kind of thing must play the truthmaking role in these cases: the state of affairs, the fact or factum that Harry is golden. More generally: where *a* is a thing, *F* a property and it is contingent whether *a* is *F*, the truthmaker for the proposition that *a* is *F* can be none other than the state of affairs that consists in *a*'s being *F* (see Armstrong 1989*a*: 41–2 and 1997: 115–16; Mellor 1995: 24).

However, Lewis denies that states of affairs can be satisfactory truthmakers for contingent predications. For states of affairs also offend against the Humean prohibition on necessary connections between distinct existences. Since they are capable of existing even in its absence, *a* and *F* must be distinct from the state of affairs that *a* is *F*. But, necessarily, the state of affairs exists just in case *a* and *F* exist, and *a* is *F*. Lewis therefore dismisses states of affairs as candidate truthmakers for contingent predications.

He does not say but presumably Lewis thought that an analogous argument would undermine the candidature of tropes to serve as the relevant truthmakers. The problem is that tropes cannot serve as truthmakers for contingent predications unless they are 'non-transferable'. Let *t* be *a*'s *F-ness*, a particularized property. If *t* was 'transferable', if it could exist when *a* lacked *F* or *a* was absent, then the existence of *t* could hardly be sufficient for the truth that *a* is *F*. To be sufficient *t* must exist only when *a* is *F*. But observing this requirement entangles *t* in necessary connections between distinct existences. *t* is distinct from *a*; *a* might have existed without this trope. Nevertheless, *t* exists just in case *a* exists and *a* is *F*. Non-transferable tropes thus offend—just like states of affairs—against the Humean denial of necessary connections. And since there are no other plausible candidates for making contingent predications true this leads to the conclusion that contingent predications lack truthmakers.

It is because of these difficulties that Lewis developed his own alternative conception of the relationship between truths and the things there are.[7] He began by tracing one branch of the truthmaker movement back to its origins in 1950s Adelaide. There Armstrong's defence of the truthmaker principle owed its original motivation to what Charlie Martin then took to be lacking in the doctrine of phenomenalism. Martin was concerned to undermine the view that the physical world is a construction out of sense-impressions. The most serious obstacle that faces a credible phenomenalism is the need to make sense in sense-impression terms of the many true claims we ordinarily make about the unobserved world. Martin noted that the phenomenalist could only appeal to brute, ungrounded counterfactuals about possible experience to do so. What was wrong with this position? Counterfactuals do not float free in a void. They must be responsible, responsible to an underlying reality, the reality that makes them true. For Martin this was the phenomenalist's fatal mistake. The phenomenalist had failed to supply, and was beggared to provide, any truthmakers for truths about unobserved objects.[8] But, from Lewis's point of view, the demand for truthmakers represented an overreaction to what was indeed a critical and revealing flaw in phenomenalism. For everything that was credible in Martin's critique could be captured by a weaker doctrine, the thesis expressed by the slogan 'truth is supervenient on being', a doctrine that demanded no truthmakers.

We have seen Lewis argue that there could be no truthmakers for accidental predications. If this is right there is precious little to be said about what makes these predications true, little more to do than rehearse the familiar deflationary formula that the statement *a* is *F* is true because *a* is *F*. Nevertheless, Lewis pointed out, it is imperative to bear in mind that propositions do have a *subject matter*. They are *about* things in the world. And whether or not propositions are true or false depends on how those things stand. This near truism induces a supervenience relation between propositions and the things they are about: *there cannot be a difference in the truth-value of a proposition without a difference in its subject matter*. This difference in subject matter may consist in an increase or decrease in the population of things that fall within the subject matter. But it may also consist in something else, an alteration in the pattern of fundamental properties and relations those things instantiate. This led Lewis to take a second step back from the full-strength truthmaker principle

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[7] See Lewis 1992: 206–7; 1998: 219; 2001*a*: 612–14; and 2003: §1. See Dodd 2002 for further arguments in favour of the doctrine that truth supervenes upon being.

[8] See Armstrong 1989*c*: 8–11. This style of argument is to be glimpsed from time to time in Armstrong's work in the philosophy of mind. See, e.g., Armstrong 1968: 85. Although there are intimations in his earlier metaphysical work (see Armstrong 1978*a*: 16; 1980:103, 111) it was not until some years later that Armstrong fully articulated the demand for truthmakers in ontology (see his 1989*a*: 89).

(see his 2001*a*: 612):

> (TM =) For any proposition *P* and any worlds *W* and *V*, if *P* is true in *W* but not in *V*, then either something exists in one of the worlds but not in the other, or else some *n*-tuple of things stand in some fundamental relation in one of the worlds but not in the other.

It is with this principle—that spells out the doctrine that truth supervenes upon being—that Lewis proposed to capture everything sane and sensible in Martin's critique of phenomenalism. For what the phenomenalist fails to provide is precisely an account of the things upon which the truth of phenomenalist counterfactuals supervene. This was not to be Lewis's final word upon the matter. But it is with the adoption of this weakened truthmaker principle that he believed a stable conception of the relationship between truths and their subject matters had finally been achieved. Moreover, (TM =) was for Lewis a conception with the conspicuous advantage that it did not rest upon any contentious modal metaphysical assumptions; (TM =) did not, for example, rest upon Lewis's own favoured thesis that possible worlds are disconnected spatio-temporal regions (Lewis 2001*a*: 614).

3. TRUTHMAKERS AND NECESSARY CONNECTIONS

Is this really a stable position? Does (TM =) really have the advantage Lewis claims? It is the contemporary Humean denial of necessary connections that has pushed us back here. It has denied us negative existences, states of affairs, and non-transferrable tropes. It has left us with nothing to fill the truthmaker role for negative existentials and contingent predications. But we should ask ourselves: is the Humean prohibition compatible with even as weak a principle as (TM =)?

In order to avoid trivialization the doctrine that truth supervenes upon being is framed in terms of 'fundamental relations'. Lewis left it open whether fundamental relations are immanent universals, natural classes of individuals, or sparse tropes.[9] He held there were no decisive considerations to be found in favour of one rather than another identification. But agnosticism cannot be maintained if the prohibition on necessary connections is to be respected.

Suppose the fundamental relations are universals. Universals are things that enter into distinctive patterns of instantiation: monadic universals are instantiated by single things, relational universals by *n*-tuples. Like metaphysical atoms they carry with them the modal valencies characteristic of their kind. This entangles universals in a web of necessary connections. If a monadic universal is instantiated then another distinct thing must exist. If a dyadic (asymmetric) universal is instantiated then two further distinct things must exist, and so on. It follows that the denial of necessary connections prohibits not only states of affairs and non-transferrable tropes but also universals. If we wish to leave it open whether fundamental relations are universals then (TM =) cannot be counted on to articulate a view on truthmaking respectable to a genuine Humean.[10]

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[9] See Lewis 1983*a*: 10–19; 1986*b*: 79; 1986*c*: 109; 1986*a*: 64–9 and 91; 2002: 7.

This leads us to a fork in the road. If we think there is genuine work to be done by universals then we must rescind the prohibition on necessary connections between distinct existences. If we do so then there we will no longer have reason to look askance at the commitments that emerge everywhere in our thinking, the commitments embodied in the concepts of chance, law, disposition, . . . to necessary connections between distinct existences. In particular, there will be no requirement to dismiss out of hand the truthmakers offered for negative existentials and contingent predications (absences, states of affairs, non-transferrable tropes, etc.). If this is our chosen path then we are free to adopt the full-strength truthmaker principle once more.

But if we are more resolute in our Humean convictions, if Humean subroutines have taken a deeper hold of the intellect, then we must take another path. If we insist that there are no necessary connections then we must also deny the existence of universals. We must deny them along with states of affairs *et al.* And just as importantly we must ensure, if we can, that the concepts *fundamental property* and *relation* may be otherwise articulated and applied in a manner that does not evince a further commitment to necessary connections.

It may seem that the choice is hardly forced upon us. After all, a monadic universal is just the sort of item single particulars instantiate independently of one another. A dyadic (asymmetric) universal is just something that relates two objects together when it is instantiated. And so on. There are no necessary connections between distinct existences concealed here. Just definitions of what we mean when we talk about different kinds of universals.

But definitions could never establish so much. Let it be granted that it is built into the sense of 'monadic universal' that whatever this expression denotes is instantiated distributively by single particulars. Suppose that corresponding requirements are built into the senses of the expressions 'dyadic universal', 'triadic universal' . . . and '*n*-adic universal'. An appeal to the senses of these expressions does nothing to establish that the universals they denote are inevitably possessed of the distinctive valencies usually associated with them. A dilemma shows this.

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[10] See MacBride 1999 and 2001 for arguments that the commitment to necessary connections built into the concepts of *object* and *property* confound any attempt at modal reduction employing sparse or abundant variants of these concepts.

Suppose that x is denoted by the expression 'monadic universal'. Then either (i) x could not have failed to be denoted by that expression or (ii) some other expression for a different kind of universal might have denoted x instead. If (i) then x could not fail to satisfy the requirements specified in the sense of the expression that denotes it. But then the Humean will be owed an explanation of the powers that mysteriously prevent x from behaving in some other way and thereby meriting denotation by some other expression (e.g. 'dyadic universal'). He or she will quite rightfully demand to know what 'magnetic forces' account for the inevitability of x's appearing in instantiation with a selected and fixed number of distinct existences. On the other hand, if (ii) then x might not have been denoted by 'monadic universal'. That means x might have failed to fit the requirements specified in the sense of this expression. So x might figure in a quite different pattern of instantiation and merit denotation by another expression for a different kind of universal.

Some of us may already have been wary of universals. Hume certainly denied them. So it may be tempting to dismiss these concerns as arising from simply another failing of an already flawed metaphysical system. But the difficulties a thoroughgoing Humeanism encounters are not confined to the case of universals. They also arise with respect to classes and mereological fusions, things that almost everyone believes in. Classes and fusions appear to be distinct from their members or parts. They enjoy properties their members or parts lack. Nevertheless, the claim of orthodoxy goes, classes and fusions have their members or parts essentially. If a class or fusion exists then its members or parts must also exist. So here too there are necessary connections between distinct existences.[11] Of course, one may respond that the Humean prohibition applies only to necessary connections between *wholly* distinct existences and, in the case of fusions at least, the wholes in question are not distinct but composed from their parts. But this hardly removes the mystery.[12] Mereological fusions are not identical (in the singular or the plural) to their parts (a fusion, for example, is one whereas its parts are many). Moreover, a commitment to a mereological fusion is a commitment to a kind of thing entirely different to the kind(s) of its parts (a fusion, for example, of cats and dogs is neither a cat nor a dog).[13] Nevertheless, things of the kind *mereological fusion* are supposed somehow to necessitate the existence of their parts. It cannot be assumed that necessary connections necessarily become intelligible—in the sense that Humeans claim more paradigmatic cases of necessary connections between distinct existences are not—because their relata are not clearly and wholly distinct.

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[11] Once counterpart theory is assumed, Lewis has a rejoinder to this difficulty (see his 1991: 37–8). Assuming counterpart theory, there is a genuine sense in which a singleton X has its member x essentially: every singleton counterpart of X has a counterpart of x as its member. But since different things count as counterparts under different counterpart relations it follows that no necessary connections result from this (qualified) endorsement of set-theoretic essentialism. This rejoinder anticipates the later development of Lewis's thought on the truthmaker principle. But, to recall the current dialectical situation, Lewis's aim is to articulate with (TM$=$) a conception of the relation between truth and being that (i) is respectable to the Humean and (ii) does not rely upon contentious modal metaphysical assumptions. Since counterpart theory is a contentious modal metaphysical assumption, this rejoinder is not available to Lewis here.

[12] Lewis makes a related complaint against Armstrong's thesis that laws of nature are higher-order states of affairs, consisting of nomic relations amongst universals (Lewis 1983*a*: 39–40). According to this account, the state of affairs consisting of a nomic relation N between universals F and G–$N(F, G)$–'necessitates' corresponding lower-order states of affairs: for example, for every state of affairs Fa, another states of affairs Ga. Lewis admits that these higher and lower-order states of affairs are not entirely distinct—they share constituents, the universals F and G.

If we are to be genuinely Humean in our metaphysics then we must acknowledge that the elements of being are, to use Hume's own phrase, 'entirely loose and separate'. There can be no half measures. We cannot deny tropes, states of affairs, or universals but then continue to maintain set-theoretic or mereological essentialism simply because those doctrines are familiar to us. We will have forsaken principle for prejudice. Seen from the perspective of a genuinely Humean metaphysic there must be possible situations in which the things we dub 'sets' or 'fusions' have different members or parts. If there were not such situations then the elements of our metaphysics would not be entirely loose and separate. It may be that we have incorporated into the senses of expressions that denote sets or fusions that they could not have had different parts or members. But this just shows that the doctrines of set-theoretic and mereological essentialism arise from an unduly restricted view. The same goes for the other essentialist claims considered: that universals could not have a different valency, that a trope could not have been transferred, that a state of affairs could not have existed without the instantiation of its constituents.

Either we are Humeans or we are not. If we cannot give up on set-theoretic essentialism, the immutable valencies of universals, and all the rest, then we must give up on the contemporary Humean programme that denies the existence, even the intelligibility of necessary connections between distinct existences. Then we are free to embrace the full truthmaker principle. But if we are Humeans then all these essentialisms must be thrown out.

If our choice between these options is to be a principled one then clearly we require an account of the underlying motivation for Humeanism.

Nevertheless, he doubts that the fact these states of affairs share these constituents renders the necessitation between higher- and lower-order states of affairs transparent.

[13] Lewis admits the first but not the second of these claims (see his 1991: 81–7). He argues that whilst mereological composition is not strictly identity, it is 'analogical' to identity. Lewis then declares that commitment to a fusion is no addition to a commitment to its parts. However, the analogy to identity may be sustained by kinds of thing that evidently are an additional commitment and arguably sustain the existence of necessary connections between distinct existences. Consider, for example, an extreme form of haecceitism that has every object uniquely and necessarily 'shadowed' by its own haecceity. For reasons of space I cannot pursue this theme here.

It may even transpire that once availed of this secret information we will be able to discriminate between different styles of necessary connections. Then perhaps some principled grounds will be supplied for accepting some whilst rejecting other necessary connections. But it is a curious fact that the proponents of the contemporary Humean programme—Lewis included—having abandoned the empiricist theory of thought that underwrites Hume's rejection of necessary connections provide precious little by way of motivation for the view. One is left wondering whether the Humean view should have been given up with the theory that inspired it, an antiquated relic.

4. LEWIS II: THINGS *QUA* TRUTHMAKERS

The doctrine that truth supervenes upon being provided what Lewis felt to be a safe fallback position. Indeed, he believed the doctrine could not be bettered so long as we remain neutral about the metaphysics of modality. But a reappraisal of the significance of modal counterpart theory made Lewis wonder whether the truthmaker principle might be advanced if neutrality is abandoned (see Lewis 2001*a*: 605; 2003: 30).

In counterpart theory an object *x* has the property of *possibly being F* iff in some possible world a counterpart of *x* has *F*. Therefore *x* is essentially *F* iff every counterpart of *x* is *F*. Here the counterpart relation is a relation of similarity rather than identity; counterparts are objects that are similar to *x* in certain respects. Different conversational contexts bring different respects of similarity to prominence. So different counterpart relations are relevant in different contexts of evaluation. This enables counterpart theory to provide a relativistic account of essentialism. A body of counterparts of *x* is selected relative to a given counterpart relation *R*. If each of these counterparts of *x* is *F* then *x* is essentially *F*. But relative to another counterpart relation *R** a different body of counterparts may be selected. Since some of these counterparts may fail to be *F x* may turn out to be only accidentally *F*. What this shows—if counterpart theory really does capture the content of *de re* modal predication—is that the truth of essentialist judgements are relative, relative to the counterpart relation conversational cues select (see Lewis 1968; 1971; 1973: 39–43; 1986*a*: 259–63).

Remember Goliath and Lumpl. According to Gibbard's famous fable (see his 1975), a lump of clay, called Lumpl, is created in the shape of a statue. The statue composed from Lumpl is called Goliath. Later, whilst still in the same shape, the clay is destroyed. Sadly Lumpl and Goliath pass simultaneously away. Now it would be metaphysically convenient to identify Goliath and Lumpl. After all, they occupy just the same spatio-temporal track. However, modal differences between Goliath and Lumpl appear to prevent identification. Lumpl (the clay) could have survived squashing whereas Goliath (the statue) could not. Unlike Lumpl, it is essential to Goliath that he has a certain shape. Does this mean we are committed to the possibility of distinct things coinciding at all times?

No. Counterpart theory comes to the rescue. Lumpl could have survived squashing because under the *lump*-counterpart relation it has counterparts that do survive squashing. Goliath could not have survived because under the *statue*-counterpart relation it has no counterparts that survive squashing. Since these different modal properties are borne relative to different counterpart relations, there is no incompatibility generated by attributing them to the same underlying subject. Goliath *is* Lumpl but when we attribute different modal properties to it we do so relative to different counterpart relations. In this case, it is the names introduced for the statue of clay that key us to the relevant relations. 'Lumpl' evokes the *lump*-counterpart relation. 'Goliath' evokes the *statue*-counterpart relation. Once this is understood counterpart theory shows us how to avoid coincident entities.

Lewis also claimed another merit of counterpart theory. Counterpart theory reveals how we might avail ourselves of truthmakers whilst avoiding untoward necessary connections between distinct existences. Recall: a *truthmaker* for a proposition *P* is a thing *T* whose mere existence necessitates the truth of *P*. This makes truthmaking an essential property of truthmakers. In Armstrong's words: 'if a certain truthmaker makes a certain truth true, then there is no alternative world where the truthmaker exists but the truth is false' (Armstrong 1997: 115). Lewis's proposal is to treat the attribution of the property *necessitating the truth of P* just like any other attribution of a modal property. It is possessed relative to some but not other counterpart relations. This, Lewis believes, serves to dispel the mystery of truthmaking that had previously prevented the adoption of the truthmaker principle.

This strategy presupposes that truthmaking is an essential feature of truthmakers. However, Josh Parsons suggests that it is contingent whether the existence of a truthmaker suffices to make a proposition true (see his 1999). If Parsons is right about this then enquiry into the nature of truthmakers would evidently have to take a different course from the one Lewis undertakes. Parsons argues in the following manner. First he defines a truthmaker* for a true proposition *P* as the thing *T* such that *P* cannot become false without a change in *T*'s intrinsic properties. Next Parsons notes there are other possible worlds where *T* has different intrinsic properties and therefore truthmakes* a contrary proposition *Q*. He concludes that *T* is not essentially a truthmaker* for *P*.

This argument is far from compelling. If someone were to redefine 'man' to mean 'animal' then we would hardly be impressed when he discovered that not everyone is a featherless biped. Parsons has redefined the notion of truthmaking so that the truthmaker* for a proposition is the thing upon whose intrinsic states the truth of the proposition supervenes. This means that if there is a truthmaker* *T* for the proposition *P* then there is no difference in the truth-value of *P* unless there is a difference in the fundamental properties of *T*. This is just to reiterate a special case of the doctrine that truth supervenes upon being, i.e. where the supervenience base is restricted to the distribution of intrinsic properties over a population. But a doctrine of mere supervenience incorporates no commitment to the existence of anything that necessitates the truth of a proposition. That is precisely what makes the doctrine that truth supervenes upon being theoretically appealing. It should therefore come as no surprise that the property of being a truthmaker* for *P* fails to be an essential feature of the things that possess it. By contrast, the far stronger truthmaker principle does not restrict itself to a supervenience claim. It characterizes things the existence of which guarantee the truth of propositions. A fortiori they are essentially truthmakers for the propositions they make true.

According to Lewis, however, counterpart theory enables us to make sense of truthmaking proper without recourse to redefinition. Let's rehearse some of the steps that brought us here. Suppose *a* is contingently *F*. *a* could not be the truthmaker for the proposition that *a is F* because *a* is only accidentally *F*. This made it appear inevitable that only states of affairs or non-transferrable tropes could be truthmakers for contingent predications. For only they appear to have the right kind of modal properties. Every world in which the state of affairs that *a* is *F* or *a*'s *F*-ness exist are worlds in which the proposition that *a* is *F* is true. But entities with these modal properties are precisely things that are involved in obscure necessary connections.

Counterpart theory facilitates an alternative account. *a* does not make it true that *a* is *F* because *a* is not essentially *F*. There are worlds in which counterparts of *a* exist where the proposition that *a* is *F* is not true. So if we want a truthmaker for the proposition that *a* is *F* then we must find something else whose counterparts only exist in worlds where *a* is *F*.

It is important to bear in mind that essential properties are relative, relative to a counterpart relation. If some of *a*'s counterparts fail to be *F* that it is because we are thinking about *a* under a relation *R* that selects counterparts of *a* regardless of whether they are *F*. But if we select some more fine-grained relation *R** that selects only *F* counterparts of *a* then *a* will be essentially *F* (relative to *R**). The operator '. . . *qua F*' may be employed to evoke this counterpart relation. Every world where *a qua F* has a counterpart is a world where *a* is *F*. *a qua F* is essentially *F*. So *a qua F* is a truthmaker for the proposition that *a* is *F*. This is not an isolated case. *a qua just as she, he, or it is* is also a truthmaker for *a* is *F*. This name evokes an especially fine-grained counterpart relation, one that selects only counterparts that are intrinsic duplicates of *a* and relative to which *a* has all its intrinsic properties essentially.

Recall Harry the dog. He could not be the truthmaker for the proposition Harry is golden. He might have been some other colour instead. But now consider Harry *qua* golden. Whereas Harry is only accidentally golden, Harry *qua* golden is essentially that colour. Every world in which Harry *qua* golden has a counterpart is a world where Harry is golden. So Harry *qua* golden is a truthmaker for the proposition that Harry is golden. And so is Harry *qua just as he is*.

What sorts of thing are these novel truthmakers denoted by noun phrases of the form '*a qua F*'? Answer: whatever *a*, the ordinary subject of the proposition *a* is *F*, denotes. 'Harry *qua* golden', 'Harry *qua just as he is*' just pick out old Harry. There's no arcane or abstruse ontology required to make contingent predications true, just ordinary, familiar objects.

This may strike us as implausible. How could *a qua F* possibly be *a*? They have different modal properties. Whereas the latter could have survived the loss of *F* the former could not. But if this is how things strike us it is because we have forgotten our counterpart theory. Remember: things have their modal properties relative to counterpart relations. So *a qua F* can be identified with *a* because when we attribute different modal properties to it we do so relative to different counterpart relations. Again it is the use of names—in this case '*a qua F*' and '*a*'—that key us to the relevant relations.

There are moreover no inexplicable connections between distinct existences involved in the suggestion that *a qua F* is a truthmaker. It is true that *a qua F* exists just in case *a* is *F*. So there is a necessary connection. But it does not fall between distinct existences. After all, *a qua F* just is *a*. Nor is it mysterious. The connection obtains because *being F* is part of what it takes to be a counterpart of *a qua F*.

Truthmakers for negative existentials are arrived at by similar means (see Lewis and Rosen 2003). Suppose there are no *F*s. This means that *F*s are absent from the world. Might then the world—the totality of things there are—serve as the truthmaker for the proposition that there are no *F*s? No. The existence of the world does not necessitate the absence of *F*s; there are counterparts of the world that include *F*s amongst their contents. But there is not far to go to find an adequate truthmaker. Take the world *qua unaccompanied by F*s. It has no worldly counterparts inhabited by *F*s. So it is essentially lacking in *F*s and its existence thereby guarantees the truth of the proposition there are no *F*s. Consider again the regrettable truth that there are no chimeras. Its truthmaker turns out to be the world *qua unaccompanied by chimeras*.

The same strategy may be applied to negative existentials more restricted in scope. Take the truth that there are no chimeras in this room. This might be true even if these creatures feature elsewhere in the cosmos. Consequently the world *qua* unaccompanied by chimeras won't do as the relevant truthmaker. Nor will the existence of this room. Any number of chimeras might have trotted through the door. But this room *qua unaccompanied by chimeras* has only counterparts that lack chimeras. So this room *qua unaccompanied by chimeras* makes it true that there are no chimeras present.

5. WHAT GROUNDS THE TRUTHMAKER PRINCIPLE?

What are we to make of Lewis's proposal that *qua*-versions of things are the truthmakers for ordinary predications? To begin with there is a significant lacuna in Lewis's proposal. He neglects to provide any account of the truthmakers for relational predications. At first sight it appears that Lewis's strategy may be extended to cover these cases too. Here goes. Question: what makes it true that a is R to b? Several (compatible) answers: a *qua* R-related to b; b *qua* a bearing R to it; a and b *qua* R-related in that order; and so on. For these things have counterparts that exist only in worlds where a is R to b. But there is a problem. Note that the counterpart relations evoked by these *qua* operators may fail to mark out intrinsic features of a, b, or even the composite $a + b$. So this suggestion stands in prima facie tension with Lewis's official policy that counterpart relations should rest 'predominantly' upon the possession of intrinsic properties (see Lewis 1968: 28 and 2003: 33).

Now this reflection may not appear critical. For, as Lewis and Rosen themselves note, the employment of such counterpart relations as are evoked by the name *qua unaccompanied by chimeras* already fail to be intrinsic.[14] So Lewis's account of the truthmakers for negative existentials already presupposes a relaxation of the demand that counterpart relations be intrinsic. Consequently, at least on this score, it appears that the provision of *qua*-version truthmakers for relational predications raises no special concern. Moreover, one might suggest that the tension in question is relieved once it is noted that the worldly *contexts* in which a and b are embedded are intrinsically similar when a is R to b and that intrinsic similarity of this extended kind suffices for the grounding of a genuine counterpart relation.

Nevertheless, there is reason to be generally concerned about the admission of counterpart relations that fail to be intrinsic. For if there are no constraints on the kind of counterpart theoretic relations evoked then it will turn out that any existing thing will turn out to be a truthmaker for any true proposition. We need merely consider an object *a* under the description Φ = 'inhabiting a world where *p* is true' where '*p*' is any truth. Since *a qua* Φ only exists in worlds where *p* it follows that *a qua* Φ makes it true that *p*. Note also, for at least a wide range of values for *p*, that the worldly contexts in which *a* is embedded when *p* is true will be intrinsically similar.

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[14] In response to the concern that the name '*qua unaccompanied by Xs*' fails to evoke any intrinsic feature Lewis and Rosen argue that the counterpart relation evoked is 'quite important' and 'nomologically linked to quite an important intrinsic property', the property of being self-contained (see their 2003: 40). After all, barring miracles, a world that is unaccompanied by Xs will not be affected by signals from them. In response it may be asked: why cannot the same reasoning, to a significant extent, be applied to the *qua unaccompanied by Xs* version of any thing? Is it not because they are unaccompanied that they will never receive a message from an X either?

There appear to be two strategies that Lewis might employ to evade these difficulties. First, he might seek to provide some principled basis for admitting some non-intrinsic counterpart relations that are acceptable (*qua* bearing *R* to *one another*) whilst rejecting others that clearly fail to be acceptable (*qua* Φ). But, unfortunately, we seem to lack any intuitive conception of a category of '*semi*-intrinsic' relations suited to provide the principled basis sought. Second, Lewis might seek to avoid admitting counterpart relations that fail to be intrinsic by introducing some *special* kind of entity that is intrinsically such that *a* is *R* to *b*. But this runs counter to Lewis's claim that it is *ordinary* things that make our predications true. So either strategy appears beset by difficulties. Of course, one might also choose to handle truthmaking for the relational case without employing the *qua* operator or appealing to counterpart relations. But if relational predications can be successfully handled without appeal to these devices then the threat arises that ordinary predications can be treated in just the same way, i.e. whatever way that may be that does not involve appeal to counterpart relations, and *qua*-versions of things will become redundant as truthmakers. In sum: it will be far from straightforward to fill the lacuna in Lewis's proposal that results from failing to address the relational case.

There is another perhaps more obvious, perhaps more basic objection that demands our attention. It's everyone's first thought, the thought that the whole thing is just some sort of cheat. Ask yourself the question: in what circumstances does an ordinary thing *a* merit the name '*a qua F*'? Well just when *a* exists and *a* is *F*. This leaves it open that *a qua F* is nothing more than a projection from the truth of the proposition that *a* is *F*, the phrase '*a qua F* exists' serving as nothing more than a cumbersome, and potentially misleading, substantival device for reaffirming the truth of the proposition that *a* is *F*. But if *a qua F* is nothing more than a projection then we can hardly say the proposition that *a* is *F* is true *because a qua F* exists. The relation reported by 'because' requires distinct relata. So *a qua F* cannot be explanatorily responsible in any non-trivial sense for the truth that *a* is *F*. If it is no more than a projection *a qua F* lacks the explanatory potential required of anything properly deserving the title 'truthmaker'.

The point deserves emphasis. By way of analogy consider the necessary equivalence:

(E) *x* is pious *iff* *x* is loved by the gods.

We are familiar with the thought expressed in Plato's *Euthyphro* that there are at least two contrary readings of (E). On the one hand, following Socrates, the equivalence may be read in such a way that a species of explanatory priority is assigned to its left-hand side. According to this reading, the gods are infallible detectors of the state of piety that some acts possess. The piety of these acts is constituted independently of the love of the gods; they love these acts *because* they are pious. On the other hand, (E) may be read so that explanatory priority is assigned to its right-hand side. According to this reading, the piety of an act is a projected state, constituted by the gods' love for it. Acts of this kind are pious *because* the gods love them.

There is doubtless a great deal of work that needs to be done to make good this Euthyphronic contrast (see Wright 1992: 108–39). Nevertheless, for present purposes, even a provisional grasp of the distinction may be employed to sharpen our sense of what it is that is lacking in Lewis's proposal. Consider the necessary equivalence:

(L) The proposition that *a is F* is true iff *a qua F* exists.

The orthodox truthmaker theorist assigns an explanatory priority to truthmakers. According to that way of thinking a proposition *P* is true *because* a truthmaker for *P* exists. However, it is at best unclear whether Lewis's proposal provides a basis for this asymmetric explanatory claim. If he is to substantiate the claim then an explanatory priority must be assigned to the right-hand side of (L). We must earn the right to say that the proposition that *a is F* is true because of the existence of *a qua F*, that *a qua F*'s existing is *responsible* in some relevant sense for the truth of the proposition that *a is F*. But Lewis's proposal does nothing to impose this explanatory priority. He establishes only the necessary equivalence of the existence of *a qua F* and the truth of the proposition that *a is F*. So for all that has been established we may as well say that *a qua F* exists because the proposition that *a is F* is true or that there is no explanatory priority to be assigned to either side of the equivalence.[15]

Does it follow (supposing this objection to be definitive) that Lewis has failed, that his proposal to capture the essence of truthmaking with the introduction of *qua*-versions of things is flawed? Not necessarily. The objection assumes that the theoretical role the truthmaker principle aims to capture is explanatorily asymmetric, that part of what it means to be a truthmaker for a proposition *P* is to provide an illuminating basis for explaining the truth of *P*. But if this assumption is mistaken—if there is no explaining the truth of propositions and it is a misrepresentation of the role articulated by the truthmaker principle to suppose otherwise—then it can be no criticism of *qua*-versions of things that *qua* truthmakers they fail to provide a basis for explaining the truth of propositions.

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[15] It may be suggested that an explanatory priority is imposed upon instances of (L) by the occurrence of a *F* term specifying an intrinsic property of *a* on its right-hand side. But there are two problems with this proposal. First, as has already been mentioned, the *F* term may fail to denote any intrinsic property. Second, it remains to be established that the occurrence of a term specifying an intrinsic property imposes any explanatory priority on (L). For until an argument is supplied it remains an open possibility that the application of any kind of property specifying term (whether intrinsic or extrinsic) fails to be prior in any significant sense to the corresponding truth of a proposition.

This suggests two distinct interpretative hypotheses that might be placed upon Lewis's 'withdrawal' of his earlier criticisms of the truthmaker principle. The most straightforward interpretation goes like this:

(A) The truth-making role is explanatorily robust and *qua*-versions of things fulfil this role just as effectively as states of affairs, only without any necessary connections between distinct existences.

But understood this way Lewis's proposal is subject to the line of criticism just made. But there may be another more cunning strategy behind Lewis's change of heart. He may instead be arguing:

(B) The truth-making role is explanatorily thin and this is revealed by the fact that the truthmaking role is performed just as effectively by *qua*-versions of things as states of affairs.[16]

Understood this way Lewis's later arguments are of a piece with his earlier animadversions on the truthmaker principle. Indeed, these arguments represent a strengthening of them.

Unfortunately it is not entirely clear what strategy Lewis had in mind. Comparing his own proposal with Armstrong's contention that states of affairs are the truthmakers Lewis writes: 'My conclusion will not be that my proposal is preferable, but rather that there is less difference between the two proposals than meets the eye—and maybe none at all' (Lewis 2003: 33). But then he finishes the section with the remark: 'Should I conclude, therefore, that despite appearances the two proposals are almost the same?

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[16] It is worthwhile noting that Lewis had long entertained argumentative strategies of this style. See, e.g. Lewis and Lewis 1970: 4. There Bargle, who advocates nominalism about holes, seeks to undermine Argle (his realist opponent who takes holes to be immaterial objects) by showing how to simulate quantification over holes whilst avoiding existential commitment: 'Agreeable fellow that I am, I wish to have a sentence that sounds like yours and that is true exactly when you [Argle] falsely suppose your existential quantification over immaterial things to be true. That way we could talk about the cheese without philosophizing, if only you'd let me. You and I would understand our sentences differently, but the difference wouldn't interfere with our conversation until you start drawing conclusions which follow from your false sentence but not from my homonymous true sentence.'

I doubt it, despite my failure to articulate the differences. Instead, I'm inclined to think that the two proposals come out alike because they are constrained alike by the goal of finding truthmakers for predications.' The apparent indecision that lurks in these remarks makes it contentious to assign any definite interpretation. Nevertheless, I will argue, it is (B) that advances the more creditable philosophical thesis. And it is (B) that plausibly tracks the trajectory of Lewis's evolving thought.

As evidence for this last claim consider Lewis's later willingness to countenance the suggestion that *qua*-versions of things serve as truthmakers for negative existentials.[17] This view appears to be in irreconcilable tension with the earlier objections that Lewis raised to the truthmaker principle. First, the view cannot tolerate, as Lewis and Rosen accept, the possibility that was taken to undermine (TM), the possibility that there is nothing. This is because Lewis conceives of worlds as *cosmoi*. A fortiori there are no empty worlds to serve as truthmakers for the proposition that nothing exists. Second, this strategy for assigning truthmakers to negative existentials runs counter to the intuitive motivation that Lewis originally provided for the rejection of the truthmaker principle, the motivation that negative existentials are true because some things don't exist not because some do (in this case *qua*-versions of worlds). But the apparent tensions in Lewis's earlier and later thought can be resolved if we assign to him the view that *qua*-versions of worlds are not truthmakers for negative existentials in any substantial sense that outstrips the explanatory remit of the doctrine that truth supervenes upon being.

How plausible then is (B) as an argumentative strategy? Is the truthmaking role explanatory thin? Do *qua-versions* of things discharge this role as successfully as states of affairs? To answer these questions we must consider the sense (if any) in which states of affairs explain the truth of the propositions they make true. And then we must establish how successfully *qua*-versions of things match the explanatory performance of states of affairs.

It is a familiar theme—familiar from criticisms of the correspondence theory of truth—that states of affairs have no explanatory potential whatsoever. The theme plays like this. The state of affairs that *a* is *F* is itself a projection from the truth of the proposition that *a* is *F*. The projection results from fabricating substantival locutions of the form 'the state of affairs that *P*', 'the state of affairs that *P* exists', 'the state of affairs that *P* obtains', and so on whose explanatory redundancy is revealed by their necessary equivalence to '*P*'. Consequently to talk 'about' the state of affairs that *a* is *F* is merely to acknowledge in a (potentially misleading) substantival idiom the truth of the proposition that *a* is *F*. This thought lies behind Strawson's famous triviality charge against the correspondence theory: 'Of course, statements and facts fit. They were made for each other. If you prize the statements off the world you prize the facts of it too; but the world would be none the poorer' (Strawson 1950: 168; see also Quine 1987: 213 and Horwich 1998: 104–17). If these criticisms are well taken, if states of affairs really make no explanatory contribution, then *qua*-versions of things will have little difficulty matching their performance.

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[17] Further corroborative evidence for this claim is provided by a remark made in response to a criticism of Martin's: 'So the proposition that there are no unicorns is true just because there are no unicorns! No explanation at all, I agree. But who says a Truthmaker Principle whether weakened or not, must yield informative answers' (Lewis 2001*a*: 611). See also Lewis's contention that the truthmaker principle may be united with a deflationary theory of truth (see his 2001*a*: 603–5; 2001*b*). Fox 1987: 204 and Bigelow 1988*a*: 127 make related suggestions. See also Lewis 1986*c*: 109 n.3 where Lewis anticipates the criticism made of his later view.

There is, however, at least one critical respect in which states of affairs may expect to steal an explanatory march upon their *qua*-version rivals and promise to be more than a projection from true sentences. States of affairs enjoy a significant internal complexity; they are *composed* from constituent objects, properties, and relations. It is precisely because they exhibit this sort of structural complexity that states of affairs have been taken to provide an ontological ground for the truth of the propositions that correspond to them. It is because of the way that they are made up from their constituents that states of affairs are capable of entailing the propositions they make true. By contrast, *qua*-versions of things may as well be, and may be structurally amorphous. It is not any internal complexity that enables *a qua F* to make the proposition *a* is *F* true. It is the fact that *a* and its counterparts are *F*.

Of course, Lewis professes not to understand how states of affairs might enjoy the relevant kind of internal complexity. States of affairs require unmereological composition from their constituents. The mereological fusion $a + F$ might exist even if the state of affairs that *a* is *F* fails to obtain. So the latter cannot enjoy the mereological composition of the former. But for Lewis mereology just is the general theory of composition so 'unmereological composition' comes out a contradiction in terms (see Lewis 1986*b*: 97; 1992: 200; 1998: 218–19; 2001*a*: 613; and 2003: 34) Nevertheless, it is this purported structural difference that makes for the ideological difference between states of affairs and *qua*-versions of things. So if there are good theoretical reasons for supposing that truths demand an ontological ground in the sense that states of affairs supply and *qua*-versions of things do not then there is reason to reject Lewis's claim that mereology is the general theory of composition.

But are there any good reasons for supposing that truths stand in need of the kind of ontological ground that state of affairs promise to provide? Is there any genuine theoretical work that *qua*-versions of things are too debilitated to undertake? We have already considered one reason for supposing that truths require some kind of ontological ground, namely

Charlie Martin's rejection of brute phenomenalist counterfactuals. But, as Lewis persuaded us, this only provides a motive for adopting the doctrine that truth supervenes upon being and not the stronger truthmaker principle. The correspondence theory of truth promoted by Russell and the early Wittgenstein provides another frequently cited source for the truthmaker principle (although shorn of the assumption that correspondence between truth and truthmaker is one–one).[18] Perhaps then a reconsideration of the intellectual forces that gave rise to the correspondence theory will reveal a more compelling motivation for demanding that truths be provided with the kind of ontological ground that states of affairs purport to supply but *qua*-versions of things cannot.

However, a rereading of Russell and Wittgenstein reveals a less straightforward picture than the cartoon histories we are prone to recall. Russell developed the correspondence theory in the 1900s in opposition to the coherence theories advocated by his Oxford adversaries, Bradley and Joachim. Russell identified three adequacy constraints on any adequate theory of truth (Russell 1912: 69–75; see also his 1906–7). First, that truth has an opposite, falsehood. Second, that truth and falsehood are properties of beliefs. Third, that truth is a relational property. It is this last constraint that is critical for Russell's purposes. He continues:

> It is to be observed that the truth or falsehood of a belief always depends upon something which lies outside the belief itself. If I believe that Charles I dies on the scaffold, I believe truly, not because of any intrinsic quality of my belief, which could be discovered by merely examining the belief, but because of an historical event which happened two and a half centuries ago . . . Hence, although truth and falsehood are properties of beliefs, they are properties dependent upon the relations of the beliefs to other things, not upon any internal quality of belief. (1912: 70–1)

Russell concludes: 'the third of the above requisites leads us to adopt the view—which has on the whole been commonest amongst philosophers—that truth consists in some correspondence between belief and fact.' By contrast, coherence theories of truth fail to meet this third constraint; all of our beliefs may cohere but still be false. Russell therefore rejects coherence theories. In contemporary parlance, truth is a wide not a narrow property of belief systems. So truth cannot be coherence. Does this provide us with an intellectual motive to take seriously the idea that truths stand in need of an ontological ground? Hardly. The constraint that truth is wide can be met even if it is only a supervenient relation. So the intellectual motive that Russell provides for adopting the correspondence theory of truth gives us no ground for adopting the truthmaker principle rather than the weaker doctrine that truth supervenes upon being. Russell therefore gives us no reason to adopt an explanatorily robust conception of the truthmaking role, a role that *qua*-versions of things cannot perform.[19]

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[18] See, e.g. Mulligan *et al* 1984: 287; Bigelow 1988*a*: 122; Armstrong 1997: 128–30; and Read 2000.

Next turn to the early Wittgenstein. He certainly believed in states of affairs with the kind of internal complexity that *qua*-versions of things lack. Moreover, there are remarks in the *Tractatus* that are *suggestive* of a correspondence theory of truth (consider for example, 'If an elementary proposition is true, the state of affairs exists, if an elementary proposition is false, the state of affairs does not exist' (Wittgenstein 1922: 4.25)). But there is scant evidence for the suggestion that states of affairs are introduced to provide an *ontological ground*—whatever that mysterious notion might amount to—for the truth of propositions. Instead states of affairs are introduced for a different purpose: to oil the wheels of a theory of representation. According to Wittgenstein, representation is possible because pictures (ultimately propositional signs) share a form (logical form) in common with reality they represent (2.18). Facts (states of affairs) are introduced because they, unlike structurally amorphous objects, are the kind of things that are capable of sharing a form. This line of thought emerges in the following sequence of remarks from the *Tractatus*.

> 2.14 What constitutes a picture is that Its elements are related to one another in a determinate way.
> 2.141 A picture is a fact.
>
> 2.15 The fact that the elements of a picture are related to one another in a determinate way represents that things are related to one another in the same way.
>
> 2.17 What a picture must have in common with reality, in order to be able to depict it—correctly or incorrectly—in the way it does, is Its pictorial form.

The important point for present purposes is this. Even if facts are required to account for the possibility of representation this does not necessitate the view that the facts that propositions represent make the propositions true in any robust sense. For all that the picture theory of meaning tells us the truthmaking role *in itself* may demand no more than a supervenience relation between truth and being. Moreover, if the picture theory of meaning is rejected and replaced by some other (perhaps causal) account of representation then Wittgenstein's specific motive for positing facts (or states of affairs) is lost. Indeed, truthmaker theorists routinely and self-consciously reject the idea that there is a 1–1 correspondence between propositions and their truthmakers, that propositions in effect picture the facts they are about. Insofar as contemporary truthmaker theorists distance themselves from the picture theory they cut themselves off from the motivation that Wittgenstein provided for admitting entities the existence of which suffice for the truth of propositions. It is consequently problematic to suppose that we inherit from our predecessors any enduring reason to adopt a conception of the truthmaking role that *qua*-versions of things are prevented from satisfying. What looked from a distance to be a substantial theory of truthmakers that our elders and betters endorsed turns out to be merely the appearance that arises from the confluence of distinct intellectual forces—a theory of representation and a critique of the coherence theory of truth.

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[19] Russell 1918*a*: 182–3 argues that it is a truism that facts exist and make sentences true. However, the motivation given there—the truism that it is by reference to facts that beliefs are either true or false—underdetermines again the theory that facts make beliefs true in the appropriately robust sense. The same kind of underdetermination applies to Russell's earlier remark from the 1913 *Theory of Knowledge* manuscript: 'a "fact" may be described as what there is when a judgement is true, but not when it is false' (see Russell 1992: 79).

6. CONCLUSION

Lewis, on my interpretation of him, has come to damn the truthmaker principle with faint praise. He shows how to simulate the apparently robust truthmaking role within a system that admits only *qua*-versions of things. He thereby reveals the truthmaker principle to be no explanatory advance on the doctrine that truth supervenes upon being.

Lewis's animadversions on the truthmaker principle also lead us in another direction. Lewis employs counterpart theory to show us that there can be truthmaker essentialism without a commitment to necessary connections between distinct existences. But he also hints that counterpart theory may enjoy wider application. Lewis writes: 'I think that some counterpart relation validates Mereological Essentialism and other equally legitimate counterpart relations do not' (2001*a*: 608). He is not explicit but the intent is obvious. Mereological essentialism says that fusions have their parts essentially. Consider the fusion $a + F$. Under the counterpart relation *being a mereological fusion* a counterpart of the fusion $a + F$ is a fusion of the counterparts of a and F. So $a + F$ essentially has the parts it actually does. Mereological essentialism is thereby validated. But since a and F may be considered under a different counterpart relation with different results necessary connections are absent.

However, if we are genuine Humeans we need not and should not stop with mereological essentialism. The same technique may be applied to the other forms of essentialism that we saw to obstruct the path to a genuine Humeanism. For example, set-theoretic essentialism is validated by (roughly) the counterpart relation under which a counterpart of set X is the set of counterparts of the members of X. Essentialist claims about the valencies of universals may be accommodated in a similar spirit. The counterpart relation for *n*-adic universals obeys the rule that their counterparts are *n*-adic. The counterpart relation for a non-transferrable trope *t* belonging to *a* obeys the rule that the counterparts of *t* belong to counterparts of *a*. And so on.

In a sense Lewis thereby leads us to a true vision of a Humean metaphysic, its elements entirely loose and separate, each enjoying a myriad of distinct counterpart relations that validate different essentialist claims. So, in a sense, Lewis appears to provide us with the means to carry the Humean programme to its logical limit. But in another sense the resulting metaphysic appears the very antithesis of Humeanism, each counterpart locked inextricably into the arrangement of its own world, unable to exist or be rearranged at any other, that if actual necessitates like a Leibnizian monad the truth of every proposition that obtains at its world. Does Lewis's extraordinary vision pay mere lip service to the theoretical underpinnings of the Humean prohibition on necessary connections—what we might call the theoretical dark matter of contemporary philosophy? Or does it indeed represent the logical culmination of the Humean programme? A more radical possibility remains for us to countenance: that, in fact, Lewis has overcome the opposition between these different perspectives, Leibnizian and Humean.[20]

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[20] Thanks to the Manchester audience for their helpful comments. I would also like to thank David Armstrong, Chris Daly, John Divers, Katherine Hawley, James Ladyman, Mike Martin, Kevin Mulligan, Alex Oliver, Laurie Paul, Marcus Rossberg, Maja Spener, Crispin Wright, and, especially, Helen Beebee and Julian Dodd. I gratefully acknowledge the support of the Leverhulme Trust whose award of a Philip Leverhulme Prize made possible the writing of this paper.

9 *Armstrong on Truthmaking*

MARIAN DAVID

Truthmakers have come to play a central role in David Armstrong's metaphysics. They are things that stand in the relation of *truthmaking* to truthbearers. In this paper, I want to focus on the relation. More specifically, I want to take a look at a thesis Armstrong holds about truthmaking that seems to be of special importance to him, namely the thesis that truthmaking is an *internal* relation. I will explore what work this thesis is supposed to do for Armstrong, especially for his doctrine of the 'ontological free lunch', raising questions and pointing out difficulties along the way. Finally, I will try to show that Armstrong's preferred truthbearers generate a serious problem for his thesis that truthmaking is internal.

1. THE TRUTHMAKING PRINCIPLE

Let us begin with the *truthmaking principle*, upheld by Armstrong; it says that for every truth there must be something in the world that makes it true (1973: 11; 1989*a*: 88f.; 1997: §8.1).

Armstrong holds that 'truth attaches in the first place to propositions' (1997: 131). So the truths mentioned in the truthmaking principle, i.e. the truthbearers, the things said to be made true by other things, are propositions, at least 'in the first place'. Later we'll see that Armstrong's second thoughts about propositions cause trouble for his views about the truthmaking relation. But initially we won't worry about propositions; we'll just take them for granted, though it might be helpful to remember that, according to Armstrong, propositions are contingent beings, if they are beings at all: there are only contingent beings according to Armstrong (1997: 1, 139).

Things that make propositions true Armstrong calls *truthmakers*. His favorite truthmakers are *states of affairs*, which are complex entities composed of particulars and properties or universals (1997: 1, 20, §8.12). States of affairs, he says, are needed as truthmakers for a large class of propositions, roughly speaking, for propositions that correctly attribute contingent properties to particulars (1997: 115). Some classes of propositions, e.g. propositions correctly affirming that a particular or a property exists, and propositions correctly attributing necessary properties to particulars or to properties, don't have corresponding states of affairs as truthmakers; instead, they are made true by the particulars and properties themselves (1997: 2, 14, 117, 119).

It should be noted that Armstrong's states of affairs differ from Chisholm–Plantinga states of affairs. Chisholm–Plantinga states of affairs are necessary beings, whereas Armstrong's states of affairs are contingent beings. Moreover, Chisholm–Plantinga states of affairs are ontological dipoles. That is, they divide into those that obtain and those that fail to obtain: the ones that obtain are facts; the ones that fail to obtain still exist, they just aren't actualized—they are unfacts. Armstrong's states of affairs, on the other hand, are ontological monopoles. They don't divide into ones that obtain and ones that fail to obtain. On Armstrong's view, to say that a state of affairs does not obtain means, at best, that there is no such state of affairs. Consequently, all of Armstrong's states of affairs are facts, although he does not like this label very much (1997: 19).

The truthmaking principle says that for every truth there must be something *in the world* that makes it true. What is the import of the requirement that a truthmaker must be something 'in the world'? Armstrong does not explicitly comment on this. I hypothesize that the requirement has a number of roles to play.

It tells us that merely possible beings, including merely possible worlds, are not allowed as truthmakers.

It is intended to keep Meinongianism at bay: non-existent things cannot be truthmakers.

The requirement that truthmakers must be in the world is also intended to safeguard the truthmaking principle from a certain trivializing interpretation: sure enough, every true proposition is *entailed* by lots of *propositions*, but that's not how we are supposed to interpret the truthmaking principle. The requirement is designed to exclude propositions from the role of truthmakers, at least from the role of typical truthmakers: propositions are not counted as typical parts of the world. This function of the requirement seems important but a bit murky. First of all, there must be a number of noteworthy exceptions (e.g. the proposition that there are propositions ought to be made true by propositions). Moreover, although philosophical talk often intimates that truthbearers don't really belong to the world—e.g. when a line is drawn between the world, on the one hand, and propositions (statements, thoughts) about the world on the other—this idea ought not to be taken very seriously: if there are propositions (statements, thoughts) about the world, then they too are in the world.

There are additional, somewhat related ways in which the truthmaking principle might be trivialized. Take some account of truth, say, a coherence account (a proposition *p* is true iff *p* coheres with some designated system of propositions), or a correspondence account (*p* is true iff *p* corresponds to some fact). Such accounts could be made to conform trivially to the truthmaking principle by simply rephrasing them: a true proposition, *p*, is made true by the state of affairs of *p's cohering with some designated system of propositions*, or by the state of affairs of *p's corresponding to some fact*. The requirement that truthmakers must be in the world is, I think, intended to exclude truthmakers of this sort; it is intended to tell us that a state of affairs that makes a proposition *p* true will typically not include *p* itself as a constituent (the problematic idea that truthbearers don't really belong to the world is again lurking in the background here).

Yet another way of trivializing the truthmaking principle might be furnished by a *T-schema*—'the proposition that p is true iff p'—which is easily rephrased so that each of its substitution instances seems to conform to the truthmaking principle: 'the proposition that p is made true by the state of affairs that p'.[1] An important consequence of this trivializing interpretation of the truthmaking principle would be that all sorts of logically complex states of affairs would count as truthmakers; viz. disjunctive, conditional, subjunctive, and counterfactual states of affairs. The 'in the world'-requirement tells us that such states of affairs are to be avoided if possible: indeed, avoiding such artificial truthmakers is one of Armstrong's main concerns.[2]

In short, the requirement that truthmakers have to be *in the world* seems intended to provide the truthmaking principle with ontological bite, excluding various sorts of unwanted entities from the role of truthmakers, and safeguarding the principle from various trivializing interpretations. I am not sure that the phrase 'in the world' is actually up to the task: the load seems a bit heavy for such a little phrase to carry. But I won't pursue this here.

I should mention that Armstrong has recently introduced the notion of a *minimal truthmaker*, which might take over some of the work of the 'in the world'-requirement. He now says that with the possible exception of some very special cases every truth must have a minimal truthmaker, where a minimal truthmaker for *p* is a truthmaker for *p* that does not include any other truthmaker for *p* (2002: 31f.).

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[1] I use regular 'p' here as a schematic letter, taking declarative sentences as substituends. Italicized '*p*', on the other hand, is an objectual variable, ranging over propositions and taking names of propositions as substituends.

[2] Armstrong tells us that he first encountered the truthmaking principle when C. B. Martin used it against counterfactual accounts of material objects advocated by phenomenalists (2002: 27f.). Armstrong himself first used the principle against dispositional/subjunctive accounts of mental states advocated by behaviorists and by Gilbert Ryle (Armstrong 1973: 11ff.).

2. TRUTHMAKING AS AN INTERNAL RELATION

Armstrong (1997: 14, 115f.) makes three crucial claims about truthmaking: (i) it is not a one-one relation—one truth can be made true by many truthmakers, and one truthmaker can make true many truths; (ii) it is not a causal relation—causal relations are external; and (iii) it is an *internal* relation. Let us look into the third claim.

There is more than one characterization of internal relations in Armstrong's works. His recent official definition is this:

> A relation is internal to its terms if and only if it is impossible that the terms should exist and the relation not exist, where the joint existence of the terms is possible;...the joint existence of the terms being possible, they entail the existence of the relation. (1997: 12)

A slight variation goes like this: 'An internal relation is one where the existence of the terms entails the existence of the relation.' (1997: 87)

Armstrong's definition of internal relations is a bit non-standard. As he defines it, such a relation is essential to, or necessitated by, at least one of its terms: the relation could only have failed to exist if one or both of its terms had failed to exist.[3] A more standard definition would proceed in terms of *intrinsic properties*, roughly: an internal relation is one entailed by the intrinsic properties of its terms. The reference to intrinsic properties is missing from Armstrong's official definition. This makes a difference. On the more standard definition, an internal relation doesn't have to be necessitated by the mere existence of its terms, because intrinsic properties don't have to be essential properties. For example, color resemblance between ordinary objects (as opposed to sense data) is often taken as an example of an internal relation grounded in intrinsic properties *not* essential to the terms—such color resemblance doesn't come out as internal on Armstrong's official definition.

There is another way in which Armstrong's definition is a bit non-standard: he talks about (the existence of) the terms *entailing* (the existence of) the relation. Armstrong isn't squeamish about using an *ontological* notion of entailment in addition to the more usual (broadly) *logical* one. The (broadly) logical notion is defined for propositions: a proposition p entails a proposition q iff, necessarily, if p is true then q is true. The ontological notion may be defined analogously, but without the restriction to propositions: any entity x entails an entity y iff, necessarily, if x exists then y exist. This definition doesn't seem any less respectable than the one for (broadly) logical entailment. (One might still wonder why Armstrong sometimes talks about mere entities entailing other entities and sometimes talks about *the existence* of entities entailing *the existence* of other entities. Why this variation? Well, when talking about logical entailment, we tend to switch back and forth between talking about a proposition entailing another and talking about *the truth* of a proposition entailing *the truth* of another. We treat these as notational variants. So, I take it, does Armstrong with respect to his formulations. In case of doubt, one can always consult the official definition of ontological entailment.)

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[3] Relations already necessitated by one of their terms count as internal. Are there such relations? Yes. Think of the relation of *having-as-constituent* that holds between the state of affairs of *a's being F* and one of its constituents, say *a*: the relation is necessitated by one of its terms, namely by the state of affairs, but not by the other, i.e. not by *a* alone.

A further point about internal relations should be noted, one that will give rise to a question later on. Note that Armstrong adheres to the Aristotelian view about properties and relations, according to which properties and relations exist only if instantiated (1997: ch. 3, §8.12). This makes a difference for internal relations. Say *R* is a relation internal to *a* and *b*. By Armstrong's definition of internal relations, combined with his Aristotelianism, the joint existence of *a* and *b* not only entails the existence of the relation *R*, their joint existence also entails that *R* is instantiated (1997: 12). Instantiated by what? Since there are no necessary beings in Armstrong's ontology, *R* must be instantiated by contingent beings whose existence is necessitated by the existence of *a* and *b*. With typical cases of internal relations these contingent beings will be *a* and *b* themselves. But they could also be, say, mere parts, or constituents, of *a* and/or *b*. There are relations that can plausibly be said to be internal to *a* and *b*, even though they do not hold between *a* and *b* themselves but only between some of their parts; that is, there are relations internal to *a* and *b* but not instantiated by *a* and *b*. However, the truthmaking relation, I take it, is not of this sort. It is, rather, one of the typical internal relations, one that always holds between the very things it is internal to—which doesn't mean that it cannot, in addition, also hold between parts of some of the things it is internal to: e.g. truthmaking holds between a conjunctive proposition and its truthmaker, but it also holds between each conjunct (part, constituent) of the conjunctive proposition and that same truthmaker.[4]

To summarize: Truthmaking is a relation between a proposition, *p*, and some entity or other, say, a state of affairs, *s*. Truthmaking, says Armstrong, is an internal relation. This tells us that the joint existence of *p* and *s* entails the existence of the truthmaking relation and entails that the truthmaking relation is instantiated. Moreover, the joint existence of *p* and *s* also entails that the relation of truthmaking is instantiated by *p* and *s* themselves, i.e. the joint existence of *p* and *s* entails that *p* is made true by *s*. Later we'll ask what sort of entailment this is supposed to be.

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[4] Armstrong usually says that an internal relation is one that is necessitated by its *terms*. This is ambiguous: it could mean 'by the things it is internal to' or 'by the things it is instantiated by'. We've just seen that these don't have to coincide. However, since the truthmaking relation is always instantiated by the things it is internal to, I will neglect this subtlety from now on.

3. TRUTHMAKING AND THE ONTOLOGICAL FREE LUNCH

What work does the thesis of the internality of truthmaking do for Armstrong? Here is one thing it is supposed to do for his ontology. On Armstrong's view, truthmaking is an 'ontological free lunch' and so is truth. What does that mean?

Armstrong's doctrine of the ontological free lunch is based on his notion of *supervenience*: an entity Y supervenes on an entity X iff it is impossible that X exists and Y does not exist, i.e. iff X ontologically entails Y, i.e. iff the existence of X necessitates the existence of Y (1997: 11). Note that Armstrong often extends this official notion of supervenience to cover cases where an entity Y supervenes on entities $X_1, X_2, \ldots$, taken together. This allows him to say, for example, that an internal relation supervenes on its terms taken together.[5] The doctrine of the ontological free lunch is, then, this:

> Whatever supervenes or, as we can also say, is entailed or necessitated, in this way, is not something ontologically additional to the subvenient, or necessitating entity or entities. What supervenes is no addition of being. (1997: 12)

On Armstrong's definitions, internal relations are just a special case of supervening entities. An internal relation supervenes on its terms; it is an ontological free lunch relative to its terms (1997: 12, 87). Truthmaking, being an internal relation according to Armstrong, is an ontological free lunch relative to its terms, viz. propositions and their truthmakers. Truth, the property, is also a free lunch, for it supervenes on the truthmaking relation: if the truthmaking relation exists (is instantiated) then the truth property must exist (must be instantiated) too. Truth supervenes on truthmaking which supervenes on propositions and truthmakers; hence, by the transitivity of supervenience, truth supervenes on propositions and truthmakers; it is an ontological free lunch relative to propositions and their truthmakers, typically, states of affairs.

Armstrong regards truthmaking theory as a version of the correspondence theory of truth. At the same time, he wants to allow for a deflationary element, enabling a reconciliation of sorts between the correspondence approach and the deflationary approach to truth (1997: §8.5). His position,

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[5] Could we reduce this plural supervenience to the official notion by saying that it is really a case of an entity Y supervening on the mereological whole, or sum, $X_1 + X_2 + \cdots$? Not obviously, for Armstrong wants to say that a mereological whole itself supervenes on its parts taken together (1997: 12); and that claim would become entirely trivial if it meant only that a mereological whole supervenes on itself.

I suggest, might be summarized in the slogan: Be serious about truthmakers but not so serious about truth and truthmaking. Armstrong is, of course, serious about truthmakers, especially about the principle that truths require truthmakers (the truthmaking principle) and about the need for states of affairs as truthmakers. This is where he disagrees with deflationists, who reject an ontology of facts or states of affairs—and they ought also to reject Armstrong's truthmaking principle itself, for it takes the form of a universal generalization about truth, whereas deflationists try to get by with the mere substitution instances of the T-schema ('the proposition that p is true iff p') which doesn't yield a universal generalization about truth. But Armstrong agrees, in a sense, with the deflationary idea that truth is not a genuine property, not a property that involves a genuine relation to the world. Truth is plausibly regarded as the relational property *being made true by something or other*. As we've seen, according to Armstrong, this relational property supervenes on the internal relation of truthmaking which itself supervenes on its terms; and such 'doubly supervening' relational properties are, as Armstrong puts it, 'usually of special *un*importance ontologically' (1997: 93). In this way, the doctrine of the ontological free lunch is, I take it, supposed to capture the deflationary idea that truth is somehow not a genuine property: it is not 'genuine' in the sense that it is a double free lunch.

I have some worries about the doctrine of the ontological free lunch. What exactly does a free lunch do for us, ontologically speaking? Does it, for example, cut down our ontology? It is tempting to think that it does. It is tempting to think that an ontological free lunch is something we are not ontologically committed to, strictly speaking, something that doesn't show up in our basic ontology. On this interpretation, we would conclude that Armstrong is not ontologically committed to the truthmaking relation and the truth property, that he is only committed to the entities they supervene on. But the interpretation doesn't seem available. Armstrong tells us that supervening entities 'are real and cannot be talked away' (1997: 45), which signals that he does take himself to be committed to supervening entities. And one can see why. It is problematic to say, first, that an entity *Y* supervenes on something, and to then go on and add 'hence, I am not committed to the existence of *Y*'. Indeed, on Armstrong's definition of supervenience, the supervening properties and relations must exist, if their supervenience bases exist. Consequently, if there are propositions, or more generally, truthbearers, and also truthmakers, then the truthmaking relation and the truth property must exist too.

Armstrong tells us that the supervenient is nothing ontologically additional to, nothing over and above, the subvenient: 'You get the supervenient for free, but you do not really get an extra entity' (1997: 13). This suggests an alternative interpretation of the doctrine of the ontological free lunch, namely in terms of identity: a free lunch would be something identical with something we're already committed to. The claim that *Y* is identical with *X* does of course carry ontological commitment, but not to anything more than *X*: if $Y = X$, *Y* really is nothing ontologically additional to *X*. So far so good. But the doctrine of the free lunch isn't based on identity, it is based on supervenience. How do they relate? Armstrong maintains that 'symmetrical supervenience yields identity' (1997: 12). Does this help?

The claim that symmetric supervenience yields identity is problematic. Take truthmaking and truth. We've already seen that truth supervenes on truthmaking. It is easy to see that truthmaking also supervenes on truth. We know this from the truthmaking principle: if the truth property exists (is instantiated) then the truthmaking relation must exist (must be instantiated) too. Truthmaking and truth symmetrically supervene on each other. Are they identical? It is hard to see how they could be. Truthmaking is a dyadic relation. Truth is a monadic property, albeit a relational one, namely *being made true by something or other*. Though it is this relational property, partly composed of the relation of truthmaking, truth is still monadic. It is hard to see how any monadic property could be identical with any dyadic relation such as truthmaking. Armstrong, it seems, would have to concur, for he holds that 'a particular universal can only have one—adicity' (1997: 85; see also his Principle of Instantial Invariance in 1978*b*: 94).[6]

Moreover, even if, for the sake of discussion, we grant the claim that symmetric supervenience yields identity, and therefore really does constitute an ontological free lunch, there is still a problem. Armstrong holds that all supervenience, not just symmetric supervenience, turns the supervening entity into an ontological free lunch. This is strange because asymmetric supervenience must yield non-identity (if the existence of *X* fails to necessitate the existence of *Y*, then $Y \neq X$). How could non-identity make for a free lunch? Doesn't it give rise to an addition of being? It looks like some 'free lunches', viz. asymmetrically supervening entities, are rather less free than others.

The truthmaking relation is a case in point. Being internal, according to Armstrong, it supervenes on its terms: if *p* is a true proposition and *s* its truthmaker, say a state of affairs, then *p* and *s*, taken together, entail the existence of the truthmaking relation. But this supervenience doesn't go the other way round. Of course, if the truthmaking relation exists, then it is instantiated by some *p*, *s* pair or other. But there is no one such pair whose existence is necessitated by the existence of the truthmaking relation.

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[6] There are more problems with the claim that symmetric supervenience yields identity. A mereological sum, $a + b$, supervenes symmetrically on its parts, *a*, *b*, taken together. So, according to Armstrong, the sum is identical with its parts (1997: 12), and indeed, we do find it plausible to say that the sum is nothing additional to its parts. However, we also feel an inclination to count to 3 in response to the question 'How many?'—1: *a*; 2: *b*; 3: $a + b$—an inclination that is difficult to reconcile with the idea that the sum is not additional to its parts. But maybe this just goes to show that, deep down, we don't really understand mereological sums.

Take any such pair: the truthmaking relation might have been instantiated by another one. The supervenience of the truthmaking relation on propositions and their truthmakers is asymmetric; and since truth supervenes symmetrically on truthmaking, its supervenience on propositions and their truthmakers must be asymmetric too. So, even if we grant the problematic claim that symmetric supervenience yields identity, we are still left wondering how truthmaking and truth, being asymmetrically supervenient on propositions and truthmakers, can plausibly be regarded as genuinely free ontological lunches.

4. IS TRUTHMAKING A UNIVERSAL?

Armstrong holds a 'sparse' theory of universals (1978*b*; 1997: ch. 3). According to this theory, we have to distinguish carefully between *universals*, on the one hand, and our *concepts*, and their associated predicates, on the other.[7] While universals are objective traits of nature, our concepts are just *our* concepts. They don't correspond one-to-one to universals: different concepts might correspond to just one universal, and vice versa. Moreover, a concept may have no corresponding universal at all, even though it can be used to express a true proposition. Our concept of identity is an example (1978*b*: 10). The proposition that *a* is identical with *a* is true, but there is no universal correlated with our concept of identity: the proposition is made true just by the particular *a* itself. How are we to tell whether *F* is a universal? Armstrong seems to be working with at least two tests: (i) for *F* to be a universal, the *F* things must have something in common, they must resemble each other in a natural way, they must form a natural resemblance class; (ii) for *F* to be a universal, it must bestow a causal power on the *F* things: whether or not something is *F* must make a difference to what the thing can cause or be caused by (1978*b*; 1997: §§ 3.2, 3.82).

It is fairly plausible to hold that truth fails both tests. The truths are an extremely varied lot, they don't seem to form a natural resemblance class; and truth doesn't seem to bestow a truthbearer with a causal power. The same can be said about truthmaking. This suggests that, for Armstrong, there are no such universals as truth and truthmaking: there are only our concepts of truth and truthmaking (and the associated predicates). They can be applied to propositions (and truthmakers) to express true or false propositions about propositions (and truthmakers), but there aren't any objective universals corresponding to them. So there are some good reasons for thinking that truth and truthmaking are not universals according to

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[7] Armstrong usually contrasts universals and *predicates*; I emphasize the contrast to our *concepts* which our predicates are designed to express. I think nothing much hangs on this in the present context.

Armstrong. However, there are also good reasons for thinking that they are: truthmaking is an internal relation, hence a relation, hence a universal; truth is a supervening property, hence a property, hence a universal. What are we to make of this?

Armstrong maintains throughout that properties and relations are universals (1997: chs. 3 and 6). If this does indeed hold with full force, then bringing in the scarce theory of universals won't make any difference to the issues raised in the preceding section. But Armstrong also indicates that philosophers sometimes use the terms 'property' and 'relation' loosely, referring to entities that are not universals (1997: 44). If this is the case here, the scarce theory of universals might offer an alternative interpretation of the thesis that truth and truthmaking are an ontological free lunch, one that would make a difference to the issues raised above. The alternative would simply be this: to call truth a 'property' and truthmaking a 'relation' is to speak loosely; there are no such universals as truth and truthmaking; there are only the concepts (and the predicates).

This suggestion looks promising, but it has repercussions. Let me note two related ones. First, Armstrong's Aristotelianism must be restricted to properties and relations in the strict sense, that is, to universals. Aristotelianism about 'properties' and 'relations' in the loose sense is obviously not tenable: our concepts (and predicates) can exist even if not 'instantiated', i.e. even if there is nothing they apply to. When it comes to concepts (and predicates), as opposed to universals, some form of idealism is a plausible analogue to Aristotelianism: in sharp contrast to universals, concepts (and predicates) are somehow dependent on us; for them, to be is to be conceived.

Second, the doctrine of the ontological free lunch says that supervenient properties and relations are no addition of being. On the present suggestion, this ought to be interpreted as talking about 'properties' and 'relations' in the loose sense, i.e. about concepts (or predicates)—roughly like this: supervenient concepts have no universals corresponding to them.[8] I wonder whether the idea of a supervenient concept makes sufficient sense, once concepts are sharply distinguished from universals along the lines intended by Armstrong. Remember the definition of supervenience: *Y* supervenes on *X* iff the existence of *X* entails the existence of *Y*. Now assume *Y* is a certain *concept*. What kind of entity could the supervenience base *X* be? It could be a concept, especially, a complex concept having concept *Y* as constituent. But what else? It is hard to see how anything but a concept could necessitate the existence of a concept; yet, Armstrong wants all sorts of particulars and universals to be able to function as supervenience bases for ontological free lunches.

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[8] Interpreted in the strict sense, the doctrine would be empty: on the present suggestion, there are no supervening universals.

Take the definition of internal relations, which is just a special case of supervenience: *R* is internal to *a*, *b*, taken together, iff the joint existence of *a* and *b* entails the existence of *R*. Now assume that *R* is a dyadic *concept*. It's hard to see how its existence could be entailed by things other than concepts. Armstrong wants to say that self-identity is a free lunch because it is internal to any object *a*. But why should the existence of our concept of self-identity be entailed by the mere existence of, say, a self-identical tree? Armstrong wants to say that truthmaking is a free lunch because it is internal to a proposition, *p*, and its truthmaker, *s*. But why should the existence of our concept of truthmaking be entailed by the joint existence of, say, the proposition that there is a tree in the forest and some tree in the forest? This does not look promising.[9]

The problem, to put it somewhat differently, is this. It is quite unclear what kind of entities concepts (or predicates) could be so that they supervene on the kinds of entities they would have to supervene on for the present suggestion to work out. Of course, if concepts were treated along Platonic-Fregean lines, as necessary beings, then their existence would be trivially entailed by anything whatsoever. But there are no necessary beings, according to Armstrong; moreover, this treatment of concepts as super-universals goes radically against the grain of Armstrong's overall views.

To sum up. Armstrong holds that truthmaking and truth are an ontological free lunch. But the doctrine of the ontological free lunch rests on his notions of supervenience and internality whose definitions make it difficult to see how truth and truthmaking could be a free lunch. There is a certain irony here. In a way, it is the doctrine of the ontological free lunch itself that makes trouble for the claim that truth and truthmaking are a free lunch.

5. TRUTHMAKING AND THE FACTS ABOUT TRUTH

There are true propositions that say about other propositions that they are true or that they are made true by certain truthmakers. Facts corresponding to such truths about truth might be called the facts about truth or, to keep more in line with Armstrong's terminology, let us call them the *truth-involving states of affairs*. Are there such truth-involving states of affairs in Armstrong's ontology?

Armstrong points out that states of affairs need to be argued for. He has such an argument. It employs the truthmaking principle (1997: 115). Assume it is true that *a* is *F*. There must be a truthmaker for this truth. The truthmaker cannot be *a* by itself; it cannot be *F* by itself; nor can it be *a* and *F* taken together, for they might both exist but *F* might be instantiated only by some other particular. Hence, the truthmaker for the truth that *a* is *F* must be the state of affairs of *a's being F*. As Armstrong emphasizes, this argument for states of affairs goes through only if *a* has *F* contingently. When *a* has *F* necessarily, *a* already suffices to make true the proposition that *a* is *F*. In this case, the truthmaking argument for states of affairs cannot get a grip (1997: 119). Now, take the truth that *p* is made true by *s*. This is one of the cases where the argument cannot get a grip—it's just that now the truth under consideration is a truth about truthmaking. Since truthmaking is internal, *p* and *s*, taken together, already suffice to make true the proposition that *p* is made true by *s*: the truth-involving state of affairs of *p's being made true by s* is not needed as a truthmaker. Since truth supervenes on truthmaking, the argument can be extended to show that *p* and its truthmaker, *s*, also suffice to make true the proposition that *p* is true, there being no need for the truth-involving state of affairs of *p's being true*. It looks as if the truthmaking argument does not generate a need for truth-involving states of affairs, hence Armstrong could maintain that his ontology is not committed to there being such states of affairs at all.[10]

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[9] Note also: Armstrong wants it that, where *R* is internal to *a*, *b*, the joint existence of *a* and *b* entails not only the existence of *R*, but also that *R* is *instantiated* (typically by *a* and *b*). Since the latter relies on Armstrong's Aristotelianism about properties and relations, it has to be jettisoned if *R* is a concept: Aristotelianism about concepts is not tenable.

The feature that keeps the truthmaking argument from generating a need for truth-involving states of affairs as truthmakers is the internality of truthmaking, which guarantees that truthmaking is a necessary link between its terms. We've already seen, towards the end of §2, that the thesis of the internality of truthmaking tells us the following: where a proposition, *p*, has *s* as its truthmaker, the joint existence of *p* and *s* already entails that the truthmaking relation is instantiated by *p* and *s*, i.e. the joint existence of *p* and *s* entails *that p is made true by s*. We may now ask what kind of entailment this is. As far as I can see, there are two options, both of which give rise to some difficulties.

On the first option, the entailment involved here is ontological: where *p* has *s* as its truthmaker, the joint existence of *p* and *s* entails the existence of the state of affairs of *p's being made true by s (=s's making true p)*. The problem with this option is evident. The very thesis of the internality of truthmaking, which was supposed to keep the truthmaking argument from generating commitment to truth-involving states of affairs, already incurs a commitment to truth-involving states of affairs.

On the second option, the entailment involved is, as Armstrong might now say, 'cross-categorial', ontological on its left, as it were, and logical on its right:[11] where *p* has *s* as its truthmaker, the joint existence of *p* and *s* entails the truth of the proposition that *p* is made true by *s*. This may well be Armstrong's preferred option: the truth-involving state of affairs *p's being made true by s* does not appear here, only the proposition that *p* is made true by *s*. However, this raises an awkward question similar to one that came up in the preceding section with respect to supervenient concepts. The joint existence of *p* and *s* is supposed to entail the truth of the proposition that *p* is made true by *s*. But a proposition can be true only if it exists. I wonder where this proposition comes from. From the joint existence of *p* and *s*? That is highly implausible. Why should the existence of a proposition, *p*, combined with some entity, *s*, necessitate the existence of the quite different proposition *that p is made true by s*? This proposition should be something like a complex concept, containing the proposition *p*, the *concept* of *truthmaking*, and the *concept* of *s*. Why should the existence of this complex concept be necessitated by the existence of just one of its constituents, *p*, in combination with the entity *s* itself? To put it differently. What sorts of entities could propositions be for this sort of entailment to work out? If propositions were necessary beings, there would be no problem; their existence would be trivially entailed by anything. But there are no necessary beings, according to Armstrong. I'll leave this as an open question for now, returning briefly to it later on.

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[10] In the first section I surmised that excluding propositions from the role of truthmakers is one of the functions of the requirement that truthmakers must be in the world. Truths about truth and truthmaking must make for an exception to this: they are made true, in part, by propositions.

[11] Armstrong mentioned 'cross-categorial necessity' (he does not call it 'entailment') in his talk at the conference.

Could Armstrong take the first option after all, but take it lightly on the grounds that truth-involving states of affairs are an ontological free lunch anyway? Not easily, for this would take us back to the sorts of problems with the doctrine of the free lunch that I pointed out in connection with the truthmaking relation and the truth property, although there are two points where the situation changes slightly when we turn to the truth-involving states of affairs.

Say *p* is made true by *s*. Truthmaking, being an internal relation according to Armstrong, supervenes on *p* and *s*, taken together. We've seen that this supervenience is not symmetric: *p* and *s* do not supervene on the relation of truthmaking. Now consider the associated state of affairs. Truthmaking being internal, the state of affairs of *p's being made true by s*, if there is such a state of affairs at all, also supervenes on *p* and *s*, taken together. But now the supervenience is symmetric: obviously, the existence of *p's being made true by s* necessitates the existence of *p* and *s*. Given his claim that symmetric supervenience yields identity, Armstrong might now say that the state of affairs of *p's being made true by s* is identical with *p* and *s*, taken together. This should leave us wondering how a state of affairs could be identical with some of its constituents taken together.

Say *p* is made true by *s*. The state of affairs of *p's being true* supervenes on *p's being made true by s* which supervenes symmetrically on *p* and *s*, taken together. But it's dubious whether *p's being true* also supervenes symmetrically on *p* and *s*, taken together, i.e. whether *p* and *s* supervene on *p's* *being true*. Of course, *p* supervenes on *p's being true*. Moreover, the truthmaking principle tells us that, if *p* is true, then it must have some truthmaker or other. But that's not enough for both *p* and *s* to supervene on *p's being true*. That would require a principle much stronger than the truthmaking principle, a principle telling us that, for every proposition *p*, there must be a certain *s* such that, necessarily, if *p* is true then it is made true by that very *s*. Can Armstrong allow for such a principle? Without it, we're again faced with an asymmetrically supervening entity, wondering how such a thing could count as an ontological free lunch.[12]

Under the second option I've asked what kind of entities propositions would have to be for the relevant entailment to work out. Now I've just asked, in effect, what kind of entities propositions would have to be for the much stronger version of the truthmaking principle to hold. It looks like the nature of Armstrong's truthbearers deserves a bit more attention. Before I turn to this topic, I want to briefly mention a further issue raised by the thesis that truthmaking is internal, one that is also tied up with the nature of Armstrong's truthbearers.

6. IS TRUTHMAKING GROUNDED?

Truthmaking, says Armstrong, is an internal relation, a relation necessitated by its terms. I mentioned earlier that on a more standard definition, an internal relation would be said to be necessitated by the intrinsic properties of its terms. In place of this more standard definition, Armstrong advances an hypothesis about relations that are internal in his sense: all internal relations are 'determined by nothing more than the *identity* or *difference*' of its terms (1997: §6.3). These words don't make entirely clear what exactly the hypothesis amounts to. But Armstrong makes a helpful remark about resemblance. He says that in the simplest case resemblance is 'a matter of the resembling particulars instantiating the same, the identical, universal'. I would add that, if we are still talking about relations that are internal in Armstrong's official sense, the universals grounding an internal relation will have to be essential, or necessary, to at least one of the terms; otherwise it would be hard to explain how the relation could be necessitated just by (the mere existence of) the terms.

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[12] Where *p* is made true by *s*, truthmaking does not supervene symmetrically on *p* and *s*, taken together, but truth supervenes symmetrically on truthmaking. Interestingly, the associated states of affairs, if there are any, behave differently. The state of affairs *p's being made true by s* supervenes symmetrically on *p* and *s*, taken together, but *p's being true* does not supervene symmetrically on *p* and *s*, nor on *p's being made true by s*. Is this odd? Probably not. At least there are other cases where states of affairs and constituent properties don't go hand in hand when it comes to supervenience. The conjunctive state of affairs *Fa&Gb* supervenes on its conjuncts taken together. But the conjunctive property *F&G* does not supervene on its conjuncts: the conjunctive property exists only if instantiated by some particular; since its conjuncts might exist being instantiated by different particulars, they might exist while the conjunctive property fails to exist.

The question arises, then, how the internal relation of truthmaking is grounded in the identity or difference of its terms. Let's take a best-case scenario. Say the state of affairs of *a's being F* is a basic state of affairs, constituted by just one particular, *a*, and one simple universal *F*. No doubt, this state of affairs is a truthmaker for a host of different propositions. Let's say that among all these propositions there is one that is intuitively the best match for this state of affairs; let's call it the proposition *that a is F*. It is made true by our state of affairs of *a's being F*. How is the truthmaking relation grounded?

One might hold that propositions and states of affairs can resemble each other exactly with respect to their structure, so that our proposition and our state of affairs instantiate the same hard-to-name universal that specifies their structure (such universals must be essential to their instances; cf. 1997: 33). Can the truthmaking relation be grounded just in this shared structure? No. For there are many propositions that have the exact same structure (e.g., the proposition *that b is G*) that are not made true by this state of affairs but by others with the same structure (e.g., the state of affairs of *b's being G*). Moreover, there are many propositions with the same structure that are false, hence not made true by anything at all.

Structure is not enough. What else could do the grounding of the truthmaking relation? One might look to the makeup of the related items. Our state of affairs is constituted by the particular *a* and the universal *F*. For constitution of propositions there are various options. On one view of propositions, our proposition is constituted by the *a*-concept and the *F*-concept. This takes us back to the case already considered, for here the proposition and its truthmaker share nothing beyond their structure. On another view of propositions, our proposition is constituted by the particular *a* and the universal *F*. On this view, the proposition and its truthmaker share their structure and their constituents: we have one thing, not two—here truthmaking would indeed be grounded in identity, in complete identity. This is a version of what is known as an identity theory of truth. It's clear from the emphasis Armstrong puts on the relation of truthmaking throughout his work that he does not accept a theory on which truthmaking would collapse into identity (see also his 1973, pp. 43f., where he explicitly rejects the identity theory of truth). On a third view, our proposition is constituted by the particular *a* and the *F*-concept. On this mixed view, there is partial identity (overlap) between the proposition and the state of affairs that makes it true. But this is again not enough to ground the truthmaking relation, for there are many other propositions that are likewise partially identical with our proposition but are made true by other states of affairs or not made true at all.

It is difficult to find any sort of identity (difference?), acceptable to Armstrong, on which the truthmaking relation could be grounded. Is he, then, content with saying that there is nothing more to say than just this: the state of affairs being what it is, and the proposition being what *it* is, the truthmaking relation must hold between them?

Note that I've picked the proposition that is intuitively the best match for our state of affairs of *a's being F*. There are many other propositions made true by this state of affairs, propositions with various different structures and different constituents. What sort of identities (or differences?) might ground the truthmaking relation between one state of affairs and the various propositions made true by it?

7. TRUTHMAKING AND TRUTHBEARERS

It is time to reconsider the question of truthbearers. As I mentioned at the beginning, Armstrong holds that truth attaches 'in the first place' to propositions (1997: 131). Why 'in the first place'? Well, it turns out that, although Armstrong usually refers to his truthbearers as propositions, he doesn't actually believe in propositions. He is a naturalist, and 'no Naturalist can be happy with a realm of propositions': propositions and other intentional objects are not to be taken with 'metaphysical seriousness' (1997: 131). This may well seem a bit unsettling: all this heavy emphasis on truthmaking and finding the right truthmakers, and then it turns out that one leg of the truthmaking relation doesn't exist anyway. Doesn't that pull the rug out under Armstrong's whole approach to metaphysics?

No. Armstrong holds that token beliefs and thoughts can be grouped together in a certain natural way, a grouping which we indicate by saying that they express the same proposition, have the same intentional object, or as I'll put it, have the same content. Talk of propositions or contents is nothing but a way of typing token beliefs and thoughts, a way of saying that they instantiate the same universal: 'What exists are classes of intentionally equivalent tokens. The *fundamental* correspondence, therefore, is not between entities called truths and their truthmakers, but between the token beliefs and thoughts on the one hand, and truthmakers on the other' (1997: 131). There is, then, a technical, but more fundamental, notion of correspondence that holds between token beliefs and things in the world. Along with this we can introduce a technical notion of truth, roughly equivalent to the ordinary notion 'expresses a truth', and a technical, but more fundamental, notion of truthmaking that holds between truths, in the technical sense, and truthmakers (1973: 46–9).

So, it looks like after some reshuffling everything stays pretty much the same. We still have the truthmaking principle: for every truth in the technical sense (i.e. for token beliefs and thoughts, everything that expresses a truth in the ordinary sense) there must be something in the world that makes it true. The argument for the need of state of affairs as truthmakers for a certain class of truths (in the technical sense) will still go through. These important pieces of Armstrong's view are still in place. But what about truthmaking? Specifically, what about the thesis that truthmaking is an internal relation?

Let me first pick up a thread I left dangling in §5. Since truthmaking is a relation internal to *p* and *s*, the joint existence of *p* and *s* entails that *p* is made true by *s*. I asked what kind of entailment was involved here. On the option on which the entailment was cross-categorial, i.e. on which the joint existence of *p* and *s* was said to entail the truth of the proposition *that p is made true by s*, I pointed out that the truth of a proposition requires that the proposition exists, and I wondered how a proposition, *p*, combined with *s*, could necessitate the existence of the proposition *that p is made true by s*. It has now turned out that Armstrong isn't serious about propositions. The serious notion of truthmaking, the technical notion, applies to belief tokens. But it is quite obvious that the necessitation must fail for belief tokens. Surely, the joint existence of some belief token, *b*, combined with its truthmaker, *s*, won't necessitate the existence of another belief token saying that *b* is made true by *s*.

Worse is in store for the thesis that truthmaking is an internal relation. I submit that this thesis may now fail and, I think, should fail, given Armstrong's naturalism and his materialism in the philosophy of mind. The point, in a nutshell, is this. As an internal relation, truthmaking has to be necessitated by its terms. But belief tokens won't have their contents essentially, so it's hard to see how they, combined with their truthmakers, could necessitate the relation of truthmaking.

Let me use 'content' terminology to illustrate the point. As Armstrong says, we can group items together in a certain way by saying that they have the same content. This also allows us to consider whether certain items have their contents essentially (or necessarily). If we did take propositions seriously, we would find that they do have their contents essentially—that's just because they are a limiting case of items with content: they have contents in the limiting sense that they *are* contents. So for propositions, we not only have the truthmaking principle, we also have the much stronger principle: for every proposition *p*, there is some entity such that, necessarily, if *p* is true, then *p* is made true by that entity. This is an 'invariance' principle. In possible-worlds language, it says that a true proposition has the same entity (or entities) as truthmaker in every world in which it is true: the truthmakers for a proposition can't vary between the worlds in which the proposition is true. That's because whether something is true is a matter of what content it has. If something has its content essentially, there is no dimension along which its truthmakers could vary between worlds.[13]

Now consider sentence tokens, inscriptions, or air-pressure waves. Let's grant that the truthmaking principle holds for them too: for every true sentence token, there must be something in the world that makes it true. But the stronger 'invariance' principle fails. Sentence tokens do not have their contents essentially. Consequently, a true sentence token could have been made true by a truthmaker different from the one that actually makes it true. In the worlds in which the sentence token is true but has a content different from the one it has in our world it can have a truthmaker different from the one it has in our world.

What about belief tokens? Are they more like propositions or more like sentence tokens? For a materialist naturalist, belief tokens will be brain-state tokens. Why should brain-state tokens have their contents essentially? According to functionalist versions of materialism, for instance, belief tokens will be brain-state tokens that play certain causal roles, causing and being caused by other tokens (maybe other brain-state tokens, or maybe tokens from the organism's environment). Why should the causal role played by a token be essential to it? Couldn't a brain-state token have played a causal role different from the one it actually plays? I submit that a naturalist, especially a materialist naturalist, especially a materialist naturalist who is a functionalist, should hold that belief tokens are like sentences in this respect, i.e. that they do not have their contents essentially. At least, he should be very much open to this possibility, for it is difficult to see on what grounds such a naturalist could convince himself that brain-state tokens have to have their contents essentially.[14]

But if belief tokens don't have their contents essentially, then the truthmaking relation that holds between true belief tokens and their truthmakers cannot be necessitated by its terms, it cannot be an internal relation in Armstrong's sense: the strong invariance principle must fail for them just as it fails for sentence tokens. Truthmaking must then be an external relation; and for Armstrong that means it must be a causal relation, or a spatio-temporal relation, or some complex external relation constituted by some internal relations together with a causal and/or a spatio-temporal relation (1997: §6.2). In a way there would be an advantage to this. For if the truthmaking relation is internal, the question raised above about how this internal relation is grounded in its terms will persist. With truthmaking external, this problem will go away. Moreover, puzzles about how this relation could be an ontological free lunch will go away too. Of course, other problems will take their place; most notoriously, the problem of what sort of causal and/or spatio-temporal account could possibly be given of the relation of truthmaking.

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[13] The difference between the truthmaking principle and the stronger principle can be brought out like this: the truthmaking principle says that $(\forall p)\Box(p \text{ is true} \rightarrow (\exists y)\,(p \text{ is made true by } y))$; the stronger principle says that $(\forall p)(\exists y)\Box(p \text{ is true} \rightarrow p \text{ is made true by } y)$. The latter requires that a truth has the same truthmaker(s) in every world in which it is true. The former allows for the truthmaker(s) of a truth to differ between worlds in which it is true.

[14] By the way, it is far from clear that things will be much easier for an immaterialist. Say belief tokens are portions of immaterial soul-stuff: Why should portions of immaterial soul-stuff have their contents essentially?

Armstrong seems to be constitutionally disinclined to allow truthmaking to be external. At one place he briefly considers this and points out that, if truthmaking were external, we would have to be 'prepared to say, echoing and parodying Hume, that to consider the matter a priori anything may be a truthmaker for any truth? Surely not', he exclaims. And he adds that, if we do add truthmaking to the external relations 'philosophers ought to turn the question of the nature of the truthmaking *relation* over to empirical science!' (1997: 198). Still, if Armstrong wants to be serious about *not* being serious about propositions as truthbearers, then he has to face up to the consequences of having belief tokens as truthbearers. I submit that one of the consequences, maybe the most important one, will be that truthmaking won't be an internal relation but an external one—probably some causal relation after all. If this consequence seems too tough to swallow, Armstrong will have to reconsider his naturalistic unhappiness with the realm of propositions.[15]

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[15] Thanks to David Armstrong, Simon Blackburn, Stefano Caputo, Julian Dodd, Jennifer Hornsby, J. B. Kennedy, Fraser MacBride, Kevin Mulligan, Josh Parsons, Gonzalo Rodriguez-Pereyra, and Peter Simons.

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10 *Truthmakers, the Past, and the Future*

JOSH PARSONS

1. INTRODUCTION

I want to join Dummett (1969) in saying that the reality of the past (and, by analogy, the reality of the future) is an issue of realism versus anti-realism: if you affirm the reality of the past, you are a realist about the past. If you deny the reality of the past, you are an anti-realist about the past. (And likewise, in each case, for the future.) It makes sense to think of these issues by analogy with realism about the external world, unobservable objects, mathematical objects, universals, and so on. These are all properly described as ontological issues.

Unlike Dummett, however, I think that ontological issues should be sharply distinguished from semantic ones. I reject Dummett's semantic definition of realism, and (therefore) his methodology for deciding the issue by investigating the competent speaker's understanding of her words. Realism about the past is (in part) the doctrine that there are dinosaurs (where 'there are' is understood in a sense appropriate for ontology). Whether there are dinosaurs, and how competent English speakers understand their dinosaur-talk, are two distinct issues—only someone who was already an anti-realist about the past would conflate them.

But if I discard Dummett's methodology, what can I replace it with? The answer comes in two steps. First, I say something more positive about what I take the realism/anti-realism issue to be; second, I propose a method for deciding the issue in the case of the past and future.

2. REALISM

Realism, I've said, is an ontological doctrine. It is conjunctive, having two conjuncts. Here is my definition: *realism* about *X* is the doctrine that *X*s exist, *and* that *X*s are not constitutively dependent on the paradigmatic non-*X*s.

Because realism is a conjunctive doctrine, anti-realism is a disjunctive one. There are two ways to be an anti-realist about some subject matter, *X*.

One way is to deny the second conjunct of realism, and say that the *X*s are really constitutively dependent on the paradigm non-*X*s, as the Berkeleian idealist says material things are constitutively dependent on ideas. I call this view *reductive anti-realism* about *X*. The other way is just to deny the first conjunct, that *X*s exist, as the eliminative materialist denies that there are any beliefs, or any believers. I call this *eliminative anti-realism*.

Let's apply all this to the past and future. The paradigm non-past and non-future things are those things that are wholly present. So realism about the past is the doctrine that past things (dinosaurs, say) exist, and are not constitutively dependent on wholly present things. Realism about the future is the doctrine that future things (an Australian republic, perhaps) exist, and are not constitutively dependent on wholly present things.

2.1 *An objection from an uncooperative 'Tenser'*

> Before I can assess your definition of realism, I need to know more about the language it's stated in. In particular, what tense is 'exists' in the first conjunct? If it is present tense, then of course realism about the past is absurd, for it is in part the doctrine that there are dinosaurs now (which is false). So is realism about the future, for it is in part the doctrine that there is an Australian republic now. But I don't see what other tense it could be. No doubt you will say that 'exists' here is a so-called 'tenseless verb'. But that begs the question in favour of realism, for no anti-realist worth his or her salt will admit that there are such verbs.

Two preliminary points: First, there's no reason why an anti-realist about the past or future shouldn't embrace tenseless verbs. The two views are orthogonal. Anti-realism of any kind is an ontological doctrine—views about the nature of verbs must be semantic doctrines. The semantic and the ontological should not be confused. That said, many realists about the past and future do, as it happens, believe in tenseless verbs, and many anti-realists deny that there are such things, or claim that they are unintelligible. The objector may at least say that I am begging the question against the latter, if not against all anti-realists.

Second, there's no point in continuing to argue with someone who won't cooperate. To cooperate, in the present situation, is to agree to a definition of realism that doesn't beg the question against *anyone* (or at least, against anyone who's a party to the debate). The objector's proposal, that we take the definition in the present tense, seems to beg the question against the realist (or at least, against that majority of realists who do not believe that there are dinosaurs still alive, or that Australia is a republic). I, at least, am prepared to cooperate: I am prepared to offer a way to understand realism that doesn't beg the question. I can do no more, in particular, I can't force the objector to accept my definition if they don't want to.

What I propose is that we agree that there's a univocal Ontological Question. We can agree to disagree about what the question is. I think, for what it's worth, that the question is 'What is there?', and that it is tenseless. But I don't ask you to agree to that. All I mean by 'exists' is 'is part of the answer to the Ontological Question', and for the purposes of this paper I remain neutral about what that Question is, including whether it is couched in tenseless terms.

I am confident, however, that whatever 'exists' means under this proposal, it must be distinct from 'exists now'. I will show this by alternatives. Suppose, for reductio, that the only possible meaning for 'exists' (in the context of the Ontological Question) is 'exists now'.

First alternative: there is nothing ontologically special about the present. But then 'What exists now?' is surely no better a candidate for the Ontological Question than 'What has existed' or 'What will exist?'. We have contradicted our initial assumption that there is a univocal Ontological Question. The really serious tenser—the person who can see no sense of 'exists' other than 'exists now', and can see nothing ontologically special about the present tense—should think that there is no univocal Ontological Question. And if you thought that, you wouldn't be interested in ontology, and would not be a party to this debate.

Second alternative: there is something ontologically special about the present (this is what Prior thought). Let's stipulatively define 'exist*' so that *X*s exist* iff *X*s exist in this ontologically special way, regardless of whether the *X*s are present or not. If this stipulation succeeds, surely the Ontological Question is the question of what exists*, not the question of what exists now.

2.2 *An objection concerning realism about the mental*

> Your definition of 'realism' is similar to Devitt's,[1] and seems to have a similar problem. According to Devitt, realism about *X* is the doctrine that *X*s exist mind-independently. The problem is that this makes nonsense of realism about the mental. Realism about the mental turns out to be the doctrine that minds exist mind-independently. That's trivially false, but surely realism about the mental is not trivially false.

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[1] In fact it is inspired by Devitt (1984: 13–22). My modifications are made to generalize the definition sufficiently to capture what seems to be at issue in debates about the past and future, and to head off the objection currently under discussion.

This isn't a problem for me just yet. For me, realism about the mental is the view that minds exist independently of anything paradigmatically non-mental. That's no trivial falsehood.

> But you face a similar problem. Every materialist believes that mental things are constitutively dependent (in some sense) on physical things. So is every materialist an anti-realist about the mental, according to you? That oughtn't to be the case: some materialists (like the Churchlands) are anti-realists about the mental, some (like recent Frank Jackson) are not.

Merely being a physical state is not enough to render a state paradigmatically non-mental. That's why there's room to identify a belief with a physical state, while remaining a realist about belief. None the less, certain physical states are paradigmatically non-mental—realism about the mental is not toothless. States of a Blockhead, or of an ordinary bucket of water are paradigmatically non-mental. Materialists normally want to avoid identifying such states with mental states. As they should: if they did, I would regard them as anti-realists about the mental.

2.3 *A problem for anti-realism about the past and future*

With the distinction between eliminative and reductive anti-realisms in hand, I can say why I think the anti-realist about the past and future is in a tricky spot. Normal versions of eliminative anti-realism come with a revisionary programme for ordinary usage: for example, eliminativists about belief think we should (and will) just stop talking about beliefs, because there are none. This suggests that an eliminative anti-realist about the past would say that we should just give up talk of (e.g.) dinosaurs, or last Thursday, because there is no such thing.

Of course, that is not what live anti-realists about the past think. They think we should continue to speak about dinosaurs, to assert 'there were dinosaurs', for example, and even that this statement is literally true. They just deny that it commits us to dinosaurs. Prior, for example, draws an analogy between tense and intensional operators such as 'believes that':

> If I allege or believe that someone has stolen my pencil, there may be no specific individual with respect to whom I allege or believe that *he* stole my pencil. There is *alleged or believed to be* an individual who stole it, but there is *no individual who is alleged or believed* to have stolen it... [W]hat I am suggesting is that the sort of thing that we unquestionably do have with 'It is said that' and 'It is thought that', we also have with 'It will be the case that' and 'It was the case that'. (Prior 1962: 12–13)

The Priorian view seems to be that propositions such as 'there were dinosaurs' are just true, without having any distinctive ontology. (If we were to take the analogy with 'it is said that' and 'it is thought that' seriously, perhaps we would think that there ought to be something analogous to utterances and thoughts for tensed language, but this is not the way Prior is normally understood.)

I have two points to make here: first, the 'tricky spot' mentioned above. Because (Priorian) anti-realists about the past and future don't offer any ersatz substitutes for past and future things—they are not offering to reconstrue the past and future in terms of the present—they don't look like reductive anti-realists. On the other hand, they don't look like eliminativists either, for the reasons mentioned above.

Second, anti-realists about the past and future, by hypothesizing perfectly good truths without any ontology appear to succumb to a 'truthmaker argument'. To put this challenge simply, if it is true that there were dinosaurs, what makes it true? The anti-realist, it seems, has no answer. Should she be bothered by this? In the remainder of this paper I will explain why she should, and what she should say.

3. TRUTHMAKER THEORY

I think of truthmakers in a somewhat non-standard way. Let me begin by unapologetically explaining what it is that I think about them, then I can say why my theory of truthmakers is legitimate for all its non-standardness.

3.1 *Defining 'Truthmaker'*

For me, the basic concept is that of an intrinsic property, or, if you prefer, of intrinsic duplication, or if you prefer, intrinsic predication. These three concepts are interdefinable in the following way:[2]

Intrinsic property in terms of duplication:

$Intr(P)$ iff $\forall x\ \forall y(Dupl(x,y) \supset (Px \supset Py))$

Informally, a property is intrinsic iff it is shared between all possible intrinsic duplicates.

Duplication in terms of intrinsic property:

$Dupl(x,y)$ iff $\forall P(Intr(P) \supset (Px \supset Py))$

Informally, *x* and *y* are duplicates iff they share all their intrinsic properties.

Intrinsic predication in terms of duplication:

$Intrinsically(Px)$ iff $\forall y(Dupl(x,y) \supset Py)$

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[2] The formal definitions below are drawn from Humberstone 1996: 227–8.

Informally, *x* is intrinsically *P* (or, *P* is intrinsic to *x*) iff all possible duplicates of *x* are *P*.

That *x* is intrinsically *P* does not imply that *P* is an intrinsic property. Things can sometimes have even an extrinsic property intrinsically. For example, the property of *being such that someone is 160 cm tall* might be intrinsic to me (because I am 160 cm tall) and extrinsic to you if you are some other height. David Lewis (1983*b*, 115) has called such properties, which are intrinsic to some things and extrinsic to others, 'conditionally extrinsic'.

These definitions might be contentious in a couple of ways. First, they require logically and metaphysically fancy versions of the universal quantifier. The definitions of intrinsic property and intrinsic predication require possibilist quantification. I hope that this could be eliminated in favour of other modal operators, but I'm not going to try to do that myself. The definition of duplication requires a second-order quantifier (or at least, quantification over properties). Perhaps that's a reason to think duplication is the most fundamental concept here, so that only the other two definitions are needed.

Second, people sometimes think that 'haecceities' such as the property of *being Josh* are intrinsic. (By comparison with *being the father of Josh*, which is not.) But such properties are presumably not automatically shared between duplicates. If they were, each thing would have only one duplicate, itself. This casts doubt on the definitions of intrinsic property and intrinsic predication. Perhaps we should forget about duplication, and deal only in intrinsic property and predication.[3] If we want to do that, we can define the former in terms of the latter without the intermediate step of duplication:

Intrinsic property in terms of intrinsic predication:

$Intr(P)$ iff $\forall x(Px \supset Intrinsically(Px))$

Informally, an intrinsic property is one that's intrinsic to all its possible instances.

Third, of course these definitions will not help someone who doesn't have one of the concepts to begin with. My purpose is not to help someone in that position; rather, it is to gain as large a base as possible for my definition of truthmaking. If you understand any of the three concepts, you can get to intrinsic predication, and from there to what I think truthmaking is:

> *x* makes *p* true iff *x* is intrinsically such that *p*.

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[3] I am using the haecceities problem to motivate discarding duplication entirely. Another strategy would be to define up a new notion of 'haecceitistic duplication' which gives the right answers for haecceities (Humberstone 1996: 242–3).

I can put this formally, though I doubt that a formal version will be more elucidating than an informal one:[4]

$$x \text{ makes } p \text{ true iff } \mathit{Intrinsically}(\lambda y(p))x.$$

The idea is this: for any proposition *p*, think of the property of *being such that p*. For example, take the proposition 'Socrates is snub-nosed', and the corresponding property *being such that Socrates is snub-nosed*. This property is a conditionally extrinsic property in the sense described above: it is intrinsic to Socrates but extrinsic to Plato. I claim that this makes Socrates a truthmaker for 'Socrates is snub-nosed' and Plato not such a truthmaker. The truthmakers for 'Socrates is snub-nosed' are whatever things are intrinsically such that Socrates is snub-nosed.

Don't be misled by the example: you can still accept my definition if you don't believe that ordinary particulars such as Socrates could suffice as truthmakers. Suppose you are David Armstrong (1997: 123–6): you think that there's a distinction between thin Socrates (Socrates *qua* Lockean substratum) and thick Socrates (Socrates *qua* Armstrongian state of affairs). Armstrong has a very simple account of intrinsicality available to him, if he wants it. He should say that *x* is intrinsically *P* iff *x* has *P* as a constituent. Plugging this into my definition of truthmaking gives appropriately Armstrongian answers to questions about truthmaking: thin Socrates is no truthmaker of 'Socrates is snub-nosed' (or of anything else, for that matter)—for that, we need the state of affairs, which has the universal, *being snub-nosed*, as a constituent.

3.2 *The truthmaker principle*

The definition tells us what it is for something to play the truthmaker role, but not what sorts of things truthmakers are. Nor does it tell us if there are any things at all that play the role. It would be nice to demand a truthmaker for every truth.

Famously, however, there is trouble for universally quantified propositions. What could the truthmaker for 'There are no perfect cubes' be? It would have to be something that was intrinsically such that there are no perfect cubes—something that was not only not a perfect cube itself, but is somehow *in itself* such that there are no perfect cubes—a kind of positive absence of cubes.

This stretches my concept of intrinsic predication. To be intrinsically *F* is to be *F* independently of the intrinsic nature of one's surroundings. This principle is a version of what is sometimes called the 'independence platitude' (Weatherson 2001: 369). If *being a perfect cube* is an intrinsic property, then no non-cube can have the property of *being such that there are no perfect cubes* independently of the intrinsic nature of its surroundings. Non-cubes, therefore must have the property extrinsically. On the other hand, no cube can have the property at all. So nothing can have the property of *being such that there are no perfect cubes*. So there can be no truthmaker for 'There are no perfect cubes'.

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[4] The λ-expression used below can be understood in the following way: '$x(\ldots)$' should be read 'the property of being an *x* such that ...'. The expression I'm using has the oddity that the variable bound to the lambda is never used inside its scope, but it is still perfectly well formed.

This isn't just a problem I've made for myself by insisting on defining truthmaking in terms of intrinsic. The problem will arise for anyone who tries to explain what it is intrinsically distinctive about truthmakers for universally quantified propositions. Take Armstrong's view (again), for example. We will need a slightly different example. Suppose that Charlie is the only cube. Armstrong thinks that 'Charlie is the only cube' (i.e. 'All cubes are identical to Charlie') would be made true by the state of affairs that brings together Charlie, the cubehood universal, and the special totalling relation (Armstrong 1997: 199). That's a description of the intrinsic nature of the state of affairs that makes true 'Charlie is the only cube'. Call the state of affairs, *S*, and the intrinsic property of *being a state of affairs that brings together Charlie, the cubehood universal, and the special totalling relation*, *P*. If *S* has *P*, then there is no cube in *S*'s surroundings. *S* can only have the structure *P* if *S*'s surroundings don't contain a cube, because *P* is the structure that's distinctive of the state of affairs that there are no more cubes. So, it's not the case that *S* has *P* independently of the intrinsic nature of *S* surroundings. But *P* is supposed to be intrinsic: it's just Armstrong's story about what the structure of a certain state of affairs is. So Armstrongian totality states of affairs violate the independence platitude regardless of how you define truthmaking.

To make this point another way, people who complain that I've defined truthmaking in the wrong way think that my definition is too weak, not that it is too strong. People think that I require too little from a truthmaker, not too much. But if even requiring the little I do—that a truthmaker for *p* be intrinsically such that *p*—leads to trouble here, requiring more won't help.

So, it is not going to be plausible to demand that all truths have truthmakers. We might say instead that, for all truths, *p*, either *p* has a truthmaker, or *p*'s negation would have a truthmaker, were it true. 'There are no perfect cubes' is true without a truthmaker, but were it false, its negation would have required a truthmaker (a perfect cube perhaps) the lack of which is responsible for the truth of 'There are no perfect cubes'.

Unfortunately, this won't quite work either. 'Either there are no cubes or there is a sphere' might be true without a truthmaker if there were neither cubes nor spheres, for nothing can be intrinsically such that there are no cubes. Its negation, however, 'There is a cube and there are no spheres' would, if true, have no truthmaker because nothing can be intrinsically such that there are no spheres.

The best we can demand is that every contingent truth either has a truthmaker, or is a conjunction, disjunction, negation, or some other more complicated Boolean function of propositions that would have truthmakers were they true.

3.3 *How my account of truthmaking is non-standard*

It's common for truthmaking to be defined in this kind of way:

> x makes p true iff 'x exists' entails p.

The role played by entailment is unnecessary here. Truthmaking is supposed to provide a link between truth and ontology—it follows that any adequate definition should be construed as a definition that tells you how x relates to p—not merely how p related to other bits of language. That is, such definitions are always intended to be read as a mere semantic ascent from the following claim:

> x makes p true iff x is essentially such that p.

I call this the 'essentialist conception of truthmaking', as distinct from my 'intrinsic conception of truthmaking'. The essentialist conception is what almost everyone else means by 'truthmaking'. Why do I not endorse it? Why confuse the issue by redefining a central term?

Well, it seems to me that the essentialist conception makes any truthmaker principle very implausible. Julian Dodd (no friend of the intrinsic conception of truthmaking, by the way) has put this very well:[5]

> [R]un-of-the-mill inessential predications appear to be counterexamples. The truth-value of 'the ball is red at *t*' seems to supervene, not on *whether* things are, but on *how* things are . . . For there would seem to be a possible world in which the ball in question is not red at *t*. The difference between these two worlds lies, not in what exists, but in *how things stand* with what exists. (Dodd 2002: 74)

I agree with this idea. The thought that there must be some essential predication somehow associated with every inessential one seems like gratuitous essentialism. By contrast, the idea that there must be some intrinsic predication associated with every extrinsic one seems platitudinous in precisely the way that truthmaker theorists believe the truthmaker principle to be.

But perhaps this very platitudinousness could be the undoing of my version of the truthmaker principle? While Dodd rejects any truthmaker principle formulated in essentialist terms, he also rejects an earlier version of my truthmaker principle, on the grounds that my principle is ‘platitudinous’ and ‘anodyne’, while the real truthmaker principle is ‘a controversial metaphysical thesis’ (Dodd 2002, 74–5*n*.).

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[5] Dodd also cites Lewis on this topic. For a recent Lewis endorsement of this argument, see Lewis 2001*a*: 612.

Dodd’s claim, is I think, somewhat misleading about the state of the literature on truthmakers. He’s right that metaphysicians haggle over the correct formulation of the truthmaker principle; and that whether any such principle is true is a matter of debate. However, those who endorse the truthmaker principle have it in mind to act as an unargued premise in metaphysical argument. Any such premise *should be* platitudinous, in the sense of easily commanding assent. This is the sense in which my principle is platitudinous where the essentialist version is not.

There’s another sense, in which the truthmaker principle should *not* be a platitude—having few consequences. Any putative truthmaker principle had better be able to pull its weight in truthmaker arguments. Elsewhere I’ve argued that intrinsic truthmaking can pull its weight in a truthmaker argument against Rylean behaviourism (Parsons 1999: 326–7); here I will argue that it pulls its weight for realism about the past and future.

4. TRUTHMAKERS AND THE PAST AND FUTURE

What should we say about truthmakers for propositions about the past and future?

Realists about the past and future have no problem coming up with truthmakers for propositions about the past and future. Past and future objects will do. Take the truth ‘there were dinosaurs’. The realist about the past can say that past dinosaur lineages are the truthmakers for this propositions. If there had not been dinosaurs, those lineages would have had to be different in some intrinsic respect—by being so much more like their non-dinosaur ancestors than they actually are, so that they would not count as a dinosaur lineage, perhaps—or by not existing at all.

To put things more simply, the realist about the past can say what would be different about the world as a whole, had the proposition ‘there were dinosaurs’ been false. The anti-realist about the past has a very hard time answering this question.

I have no proof that it is impossible for a presentist to supply an answer to the question. But it is possible to taxonomize the available answers in a way that makes them all look unattractive.

4.1 *The general no truthmakers answer*

> Why do we need to believe in truthmakers for true propositions at all? Isn’t it the case that even the best truthmaker theorists have trouble

> coming up with enough truthmakers for every true proposition? We're no worse off than anyone else.

There is a reason that truthmaker theorists try to come up with truthmakers for every true proposition: it seems to make sense to ask 'What is it about the world that would be different, were the proposition *p* false?' And it does seem natural to think that something is remiss with an alleged truth for which this question has no answer. Truthmaker theory hits the nail squarely on the head for theories that involve such truths: Rylean behaviourism about the mental; if-thenism about mathematical truth.

As we saw in §3.2, it's not possible to demand of Ryleans, or if-thenists, or anti-realists about the past or future that *all* truths must have truthmakers, but it does seem reasonable to demand nonetheless that *enough* truths should.

The admitted troubles in coming up with truthmakers for every true proposition all fall into one of two categories. First, propositions such as 'There are no cubes', where, were the negation of this proposition true, there would be no problem about its truthmaker. Problematic propositions of the first kind all have either truthmakers or falsemakers. Second, propositions such as 'Either there are no cubes or there is a sphere', which might have neither truthmakers nor falsemakers, but which are Boolean combinations involving the propositions of the first kind.

By contrast, however, the problem for presentists involves a whole domain of discourse. 'All dinosaurs were cold-blooded', 'Some dinosaurs were warm-blooded', and 'Either all dinosaurs were cold-blooded or some dinosaurs were herbivorous' are all in the same boat. Realists about the past may have the standard trouble finding truthmakers for the first and third of these, but an anti-realist has the same problem with all three.

4.2 *The specific no truthmakers answer*

> It's appropriate to ask for truthmakers for the truths of some domains of discourse, and not for the truths of other domains. It's precisely because we are anti-realists about the past that we don't need to believe in truthmakers about the past.

This doesn't seem right, for the reasons discussed in §2.3. Other types of anti-realist about *X* either reject talk of *X* (like eliminativists about the mind) or offer an alternative ontology from which we could find truthmakers for *X*-talk (like Berkeleian idealists).

The anti-realist about the past or future, therefore, stands in need of a non-question-begging reason for giving this answer to the truthmaker question, rather than a general denial of truthmaker theory. That is, they need to explain why discourse about the past and future is deficient in this way, when discourse about the present is not. At the same time, however, the presentist needs to hang onto the idea that past and future tense talk is not in any sense second class discourse, or not really true, because they don't want to just eliminate it.

4.3 *The trace answer*

> Propositions about the past and future have truthmakers; but the truthmakers are those one would associate with the propositions about the present that epistemically verify the propositions about the past and future. The truthmakers for 'there were dinosaurs' are dinosaur fossils.

This type of presentist is a Dummettian T-type anti-realist about the past and future, i.e. one who is a Dummettian anti-realist about the past and future, but a realist about the present (Dummett 1969: 366–7). There are two problems with this view.

First, there is the same problem as with the specific no truthmakers answer: the presentist needs to hold that propositions about the past and future are not true only in a deficient or second-class sense. But how else can a distinction between domains of discourse of which verificationism is true, and domains of which it is not be justified?

Second, the hypothesis of radical deception about the past or future (for example, if God created the earth in 4004 BCE complete with misleading evidence) does not seem incoherent. But it would have to be if we were verificationists about propositions concerning the past and future. Perhaps these hypotheses would seem incoherent to someone with more sympathies for verificationism than myself; but at least they should still seem *no more incoherent* than other types of radical deception hypothesis—brain-in-a-vat scenarios for example.

4.4 *The ersatzist answer*

> Propositions about the past and future have truthmakers; but the truthmakers are those one would associate with propositions about certain kinds of presently existing abstract objects, or arcane properties of presently existing concrete objects.

This suggestion might sound obscure and ad hoc, but there is a way of putting that makes it sound more natural. We might liken realism about the past and future to realism about non-actual possible worlds. This is very much in the spirit of Prior's programme, because of the analogy he wants between tense and modal operators. Just as, in the case of modality, many metaphysicians believe that merely possible worlds are 'ersatz worlds'—abstract representations of a world that can play the needed role in possible worlds semantics (Lewis 1986*b*: 137)—the Priorian might believe in ersatz times: abstract objects that can fill the role of times in the model theory of tense logic. These objects could also, perhaps, play the truthmaking role.

I'll just mention one way in which this sort of proposal could work, and why I think it fails. Start with a familiar version of ersatzism about possible worlds, due to Peter Forrest [1986]. According to Forrest, ersatz worlds are *ways a world could be*—properties that might have been the complete intrinsic nature of the world. Of these, one alone is the way this world is—the property that is the complete intrinsic nature of the world.

We might, by analogy, think of ersatz times as *ways a time might be*, properties that might have been the complete intrinsic nature of one time.[6] Of these, one is the way the present time is; others are ways past times are; others ways future times are; still others, ways no time will ever be. Now we can characterize the temporal ersatzist as believing that all of these properties are uninstantiated, except those instantiated by the present.

At this point the analogy between the Forrestian modal ersatzist and the temporal ersatzist breaks down. Forrest's world natures suffice as truthmakers for possibility claims because every world nature might have been the nature of a world. Moreover, on Forrest's view, the world natures are structural universals: each nature has a certain intrinsic structure that is responsible for its being the property that it is. So a world nature according to which there is, say, a blue swan, is intrinsically such that there might have been a blue swan.[7] But not every ersatz time, on the analogous conception of ersatz times, is a way the world was, or a way the world will be. Some ersatz times do not correspond to any past or future state of the world. Even if ersatz times are imagined to be structural universals on the Forrest model, they will not be intrinsically such that there was a dinosaur.

5. CONCLUSION

I think that I have shown that the anti-realist about the past and future has at least a case to answer in the shape of the truthmaker argument.

A proposal which, I think, puts the best slant (from an anti-realist point of view) on the difficulties about truthmakers I have been discussing is that which assimilates propositions about the past and future to another type of proposition where it has seemed that truthmakers may be lacked: propositions about dispositions.

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[6] For a similar proposal, see Bigelow 1996. See also Keller 2004 for some other ways of constructing truthmakers for tensed propositions from presentistically respectable materials.

[7] It would be going beyond the scope of this paper to assess Forrest's theory completely. However, I note that it might be a good account of the truthmakers for modal claims, even if, as Lewis(1986*b*) complains, it doesn't analyse modality in non-modal terms.

In my 2002, I suggest that if the A-theory of time were true—that is, if pastness, presentness and futurity were intrinsic properties of times (called A-properties)—then it would be natural to analyse the past and future tenses in terms of what would have been, were a time that is actually past or future present. For example, 'Caesar was bald' is given the analysis 'There is a past time *t*, such that if *t* were present, Caesar would be bald.' This analysis gets the right answer for iterated tenses: 'Caesar was future' comes out as 'There is a past time *t*, such that if *t* were present, Caesar would be future.'

We could think of these counterfactuals as expressing dispositions. Caesar is not in fact bald now. But he has the unactualized disposition to be bald, were only the right time present.

It takes a little work to make this idea compatible with anti-realism about the past and future. There is the problem that the analysis quantifies over past and future times; but perhaps these can be replaced with ersatz past and future times. And then there is the problem that the proposed analysis of 'Caesar was bald' does not eliminate Caesar. To deal with this, we should analyse past and future tense sentences in two steps: first, replacing talk of past or future objects (such as Caesar) with world natures, then applying the counterfactual/dispositional analysis recommended above.

So 'Caesar was bald' becomes 'The world had the property of *being such that Caesar is bald*', which in turn becomes 'There is an ersatz time *t*, such that, were *t* present, the world would have the property *being such that Caesar is bald*', which is to say 'There is an ersatz time *t*, such that the world has the disposition to be such that Caesar is bald, which would be actualized were *t* present.'

There is a tradition of worries about whether propositions asserting that an object possesses an unactualized disposition can be really, non-deficiently, true. In Dummett's example (1978: 148): can a person who dies without having been in danger be truly said to be brave? The truthmaker problem for presentism could be seen as a variant of that problem, if the presentist is prepared to accept the dispositional analysis of the past and future tenses I described above.

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