THE LEAST DISCERNING AND MOST PROMISCUOUS TRUTHMAKER

By Jonathan Schaffer

I argue that the one and only truthmaker is the world. This view can be seen as arising from (i) the view that truthmaking is a relation of grounding holding between true propositions and fundamental entities, together with (ii) the view that the world is the one and only fundamental entity. I argue that this view provides an elegant and economical account of the truthmakers, while solving the problem of negative existentials, in a way that proves ontologically revealing.

I. TRUTHMAKER MONISM

When theorists first gloss the relation between truths and their truthmakers, they are apt to say things such as 'No sentence is true but reality makes it so', 'Truth supervenes on being', and 'Must there not be *some way that the world is* in virtue of which these truths are true?'.[1] Thus as Ross Cameron notes, 'a familiar thought among metaphysicians is that truth ought to be grounded in the world'.[2] I propose to treat this familiar thought literally, as telling us *everything* about the truthmakers. That is, I propose to defend the following form of *truthmaker monism*:

M. For all worlds w: the one and only truthmaker at w is w.

On (M), worlds are the only truthmakers. There is only one truthmaker per world, and it is the world, the whole world, and nothing but the whole world.

   (M) has received little consideration in the literature. Molnar calls it 'true but trivial', dismissing it in but two sentences:

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[1] W.V. Quine, *Philosophy of Logic* (Englewood Heights: Prentice-Hall, 1970), pp. 10–11; J. Bigelow, *The Reality of Numbers* (Oxford UP, 1988), p. 132; D.M. Armstrong, *Truth and Truth-makers*, hereafter *TTM* (Cambridge UP, 2004), p. 1 (attributed to C.B. Martin).

[2] R. Cameron, 'Truthmaker Necessitarianism and Maximalism', *Logique et Analyse*, 48 (2005), pp. 43–56, at p. 43.

> The maximally coarse-grained theory of truthmaking specifies one and the same truthmaker for every truth, positive or negative, namely, the World. This is a true but trivial conception of truthmaking.[3]

Similarly, Armstrong (*TTM*, pp. 18–19) labels the world 'the least discerning' and 'most promiscuous truthmaker', dismissing it as 'an uninteresting truthmaker, mentioned here just for theoretical completeness', and immediately moving to the notion of a *minimal truthmaker*, which is said to be 'more interesting, and of quite special importance for metaphysics'. Likewise Rodriguez-Pereyra rejects a related doctrine on the ground that 'without discriminating which entities make which propositions true, truthmaker theory has no purchase'.[4]

In what follows I shall defend (M) by discussing the following four objections:

- *(M) is uninteresting*: (M) provides one and the same truthmaker for every single truth of each world, which renders it trivial (§II)
- *(M) omits partial truthmakers*: some truths about the intrinsic properties of proper parts of worlds have partial truthmakers, which (M) omits (§III)
- *(M) omits negative truthmakers*: some negative existential truths require negative truthmakers, which (M) omits (§IV)
- *(M) is metaphysically monistic*: given that 'the complete range of truthmakers admitted constitutes a metaphysics' (Armstrong, *TTM*, p. 23), (M) yields an implausible metaphysical monism (§V).

What I hope will emerge from this discussion is an elegant account of the truthmakers, which helps solve the problem of negatives, in a way that proves ontologically revealing.

Before beginning the defence I should flag some peripheral assumptions. To begin with, (M) quantifies over possible worlds in a way that assumes

A1. *There are possible worlds*: worlds may be quantified over
A2. *Truthmakers are things*: the truthmakers are big concrete objects (*cosmoi*).

(A1) is perhaps not as contentious as it may appear, since it is neutral as between modal realism and various actualist reductions. Presumably it could even be employed as a useful heuristic by those who only admit possible-worlds talk as a useful heuristic. (A2) will play no role in the discussion. It is merely grammatically impossible to speak of the truthmakers in a category-neutral way. The fan of facts may substitute a fact, namely, *the way the world*

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[3] G. Molnar, 'Truthmakers for Negative Truths', *Australasian Journal of Philosophy*, 78 (2000), pp. 72–86, at p. 83.
[4] G. Rodriguez-Pereyra, 'Truthmaking, Entailment, and the Conjunction Thesis', *Mind*, 115 (2006), pp. 957–82, at p. 964.

is (which is the fact that the fusion of all thin particulars instantiates the conjunction of all natural properties). The fan of tropes may substitute the global tropes, namely, *the ways that are the world*.[5]

Further, (M) is only a theory of the *truthmakers*. It says nothing about truth, or the truthmaking relation. As to truth, I make two main assumptions, the first of which is

A3. *Truth relates propositions to worlds*: truth is a two-place relation between a proposition *p* and a world *w*.

(A3) is a fairly anodyne formal assumption, adopted largely for definiteness. It says little of the nature of truth. It merely specifies that the truth relation may be expressed as '*p* is true at *w*'. (Equivalently, (A3) specifies that the relational property of *being true at a world* is borne by propositions.) (A3) and (A2) together serve to identify the twin relata of the truthmaking relation, as (i) the truth of a proposition *p* at a world *w*, and (ii) certain things (the truthmakers for *p* at *w*, which on (M) is just *w* itself).

Moreover, I assume that *every* truth has a truthmaker:

A4. *Truthmaker maximalism*: every truth has a truthmaker.[6]

(A4) is largely an expository convenience. The full theory (T) of truthmaking sketched below takes an outer quantifier ranging over *all* propositions. The anti-maximalist may restrict the full theory as preferred, by restricting its outer quantifier as preferred.

Finally, as to the truthmaking relation, I here impose some heavyweight metaphysical assumptions. To begin with, I work within a neo-Aristotelian framework, which posits *substances* and *posteriors* related by *ontological dependence*. The substances are the ground of being. In other terms, they are fundamental, independent, brute, irreducible, sparse, and primary. The posteriors are what need grounds. They are derivative, dependent, explicable, reducible, abundant, and secondary. What is posterior is grounded in

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[5] Other commitments are possible as well. For further discussion, see J. Parsons, 'There is no "Truthmaker" Argument against Nominalism', *Journal of Philosophy*, 77 (1999), pp. 325–34; Armstrong, *TTM*; P. Bricker, 'The Relation between General and Particular: Entailment *vs* Supervenience', in D. Zimmerman (ed.), *Oxford Studies in Metaphysics*, Vol. II (Oxford UP, 2006), pp. 251–88.

[6] For defence of maximalism see Armstrong, *TTM*. Some have preferred to restrict the scope of truthmaking in various ways, for instance, to *synthetic propositions* – Rodriguez-Pereyra, 'Why Truthmakers', in H. Beebee and J. Dodd (eds), *Truthmakers: the Contemporary Debate* (Oxford UP, 2005), pp. 17–31; to *contingent propositions* – B. Smith, 'Truthmaker Realism', *Australasian Journal of Philosophy*, 77 (1999), pp. 274–91; to *positive propositions* – D.H. Mellor, 'Metaphysics: Replies', in H. Lillehammer and G. Rodriguez-Pereyra (eds), *Real Metaphysics* (London: Routledge, 2003), pp. 212–38, at p. 213; and to *qualitative propositions* – D.K. Lewis, 'Things *qua* Truthmakers', also in *Real Metaphysics*, pp. 25–38, at p. 26.

(derivative from, dependent on, because of, based in) the substances. I shall not offer analyses of these correlative notions.[7] But I trust that they will at least be familiar.

Perhaps the most natural explication of truthmaking within this neo-Aristotelian framework is that *truth is grounded in the substances*. Truth is *dependent*. Truth is not a basic constituent of reality, and like all dependent abstractions, truth must be *made* from the fundament.[8] Thus I assume that the truthmaking relation is to be identified with certain instances of the dependence relation, namely, those which relate substance to truth:

A5. *Truthmaking is truthgrounding*: the truthmaking relation is the relation of grounding between substance and truth.

(A5) is thus a twice-heavy assumption, for invoking a neo-Aristotelian metaphysical framework, and for explicating truthmaking within this frame-work as truthgrounding.

(A5) serves to give (M) metaphysical hold. Metaphysics is about the ground of being,[9] and (A5) entails that truthmakers are grounds. It is via (A5) that (M) yields a form of metaphysical monism (§V below), by rendering whole worlds as grounds. The sceptical reader may regard what follows as a defence of the package deal of (M) plus (A5). This package might equally be described as *a theory of the truthmakers plus metaphysical monism*. But I should emphasize that (A5) itself is perfectly neutral – there is nothing inherently

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[7] See K. Fine, 'The Study of Ontology', *Noûs*, 25 (1991), pp. 263–94, 'Ontological Dependence', *Proceedings of the Aristotelian Society*, 95 (1994), pp. 269–90, and 'The Question of Realism', *Philosopher's Imprint*, 1 (2001), pp. 1–30; E.J. Lowe, 'Ontological Dependences', in E. Zalta (ed.), *Stanford Encyclopedia of Philosophy*, http://plato.stanford.edu/entries/dependence-ontological, and *The Four-Category Ontology* (Oxford UP, 2006); J. Schaffer, 'On What Grounds What', in D. Chalmers *et al.* (eds), *Metametaphysics* (Oxford UP, 2009), pp. 347–83.

[8] The intuition that truth depends on being stems from Aristotle himself: '... if there is a man, the statement whereby we say that there is a man is true, and reciprocally – since if the statement whereby we say that there is a man is true, there is a man. And whereas the true statement is in no way the cause of the actual thing's existence, the actual thing does seem in some way the cause of the statement's being true: it is because the actual thing exists or does not exist that the statement is called true or false': 'Categories', in J. Barnes (ed.), *The Complete Works of Aristotle*, Vol. I (Princeton UP, 1984), pp. 3–24, at p. 22. The intuition that truth requires grounding in the fundamental is implicit in Armstrong's question 'Must there not be something about the world that makes it to be the case, that serves as an ontological ground, for this truth?': Armstrong, *A World of States of Affairs*, hereafter *WSA* (Cambridge UP, 1997), p. 115. This intuition is fully explicit in the following passage from Rodriguez-Pereyra: '... the insight behind the idea of truthmakers is that truth is grounded.... If a certain proposition is true, then it owes its truth to something else: its truth is not a primitive, brute, ultimate fact': 'Why Truthmakers', pp. 20–1.

[9] As Aristotle puts it, 'Substance is the subject of our enquiry; for the principles and the causes we are seeking are those of substances. For if the universe is of the nature of a whole, substance is its first part': 'Metaphysics', in Barnes (ed.), *The Complete Works of Aristotle*, Vol. II, pp. 1552–1728, at p. 1688.

monistic (or pluralistic) about it. The monistic impetus is all coming from the holism of (M), on which whole worlds are truthmakers. (A5) would as readily transform a less holistic account of the truthmakers into a more pluralistic metaphysic.

(M) together with (A3)–(A5) yields a full theory of truthmaking, reached in two stages. The first stage is to treat worlds as truthgrounds for all true propositions:

W. For all propositions p and all worlds w: if p is true at w, then p's truth at w is grounded in w.

(W) is the literal treatment of Cameron's 'familiar thought' that 'truth ought to be grounded in the world'. The second (less familiar) stage is to treat worlds as the *only* such truthgrounds:

T. For all propositions p and all worlds w: if p is true at w, then (p's truth at w is grounded in w, and for any x such that p's truth at w is grounded in x, $x = w$).

My focus is on defending (M), and my primary focus is on defending the *holistic aspect* of (M). (A1)–(A5), and the resultant (W) and (T), are assumptions which I cannot defend here.

Before I turn to a defence of (M), it may be worth noting three ways in which (T) diverges from the usual account of truthmaking as necessitation:

N. For all propositions p and all worlds w: if p is true at w, then there exists some x in w such that necessarily, if x exists then p is true.

(N) identifies truthmakers for p with entities whose existence necessitates the truth of p. (T) differs from (N) in at least the following three ways: (i) (T) requires truthmakers to be fundamental entities (grounds), while (N) allows truthmakers to be any old entities; (ii) (T) treats truthmaking as grounding, while (N) looks to necessary entailments from existence propositions to truth; and (iii) (T) only allows one truthmaker per world, namely, the world itself, while (N) is indefinite as to the number of truthmakers. These differences will play a role in the solution I offer to the problem of negative existentials (§IV).

II. IS (M) UNINTERESTING? (OR IS IT ECONOMICAL?)

As was mentioned above (§I), Molnar dismisses (M) as 'true but trivial', Armstrong scorns (M) as 'uninteresting', and Rodriguez-Pereyra rejects (M) as 'without purchase'. But what exactly is the complaint?

To begin with, the complaint cannot be that (M) outfits multiple truths with the same truthmaker. For virtually every truthmaker theory on the market does this.[10] Thus presumably the two different truths (i) <the ball is round> and (ii) <the ball is shaped> have one and the same truthmaker, presumably something that includes the physical state of the ball. Likewise, the different truths (i) <the ball is round> and (ii) <the ball is round or square> presumably have one and the same truthmaker. It is true that (M) provides multiple truths with the same truthmaker in an even more extreme way. It provides every truth at a world with one and the same truthmaker. But it is unclear what is objectionable in this further extreme.

Furthermore, the complaint cannot be that (M) vitiates the claim of truthmaker theory to capture a sense of correspondence. For (M) does provide an ontological correspondent for truths. The correspondent is the world. It is true that (M) provides the same ontological correspondent for every truth at a world, but that is a correspondent all the same.

Moreover, the complaint cannot be that (M) undermines the claim of truthmaker theory to 'catch cheaters'.[11] For what enables any truthmaker theory to catch cheaters is the restrictions on the truthmakers. For instance, if the truthmakers are restricted to categorical entities, then theorists who posit brute dispositions will count as 'caught'. If the world is treated as a categorical entity, such theorists still count as caught, given (M). Their brute dispositional truths are not properly grounded, in a categorical world.

So far (M) seems able to do all that a theory of truthmakers is asked: it connects truth to being, gives a sense of correspondence, and permits cheater detection. Hardly trivial!

Indeed, it is highly non-trivial that (M) employs just one truthmaker per world. Fundamental entities should not be multiplied without necessity. (M) tells us that truthmaking only requires worlds as fundamental – there is no need for any fundamental *partialia*, at least with respect to truthmaking. This is an elegant and economical result!

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[10] For instance, compare Armstrong, *TTM*, pp. 24–5.

[11] According to Sider, 'the point of the truthmaker principle and the principle that truth supervenes on being is to rule out dubious ontologies': T. Sider, *Four-Dimensionalism: an Ontology of Persistence and Time* (Oxford UP, 2001), p. 40. Among the theories which have stood accused of cheating are Millian phenomenalism for its brute possibilities of sensation (Armstrong, *TTM*, pp. 1–2), Rylean behaviourism for its brute behavioural dispositions (Armstrong, pp. 2–3), the Molinist account of freedom for its ungrounded counterfactuals (Lewis, 'Truthmaking and Difference-Making', *Noûs*, 35 (2001), pp. 602–15, at p. 614), Priorian presentism for its un-grounded truths about past and future (Sider, pp. 36–7), and Quinean nominalism for its non-committal predications (Armstrong, *WSA*, p. 115). I doubt that all these cases are alike, but I cannot discuss the matter here. In the main text I maintain neutrality on who is really cheating, and I shall only try to show that (M) preserves such neutrality.

Three points of clarification may be in order here. First, I think the proper rendering of Ockham's razor should be 'Do not multiply *fundamental* entities without necessity'. Derivative entities are, in Armstrong's terms, an ontological free lunch. The economy of (M) consists in minimizing the number of fundamental truthgrounds. Secondly, economy is really a feature of a total ontology. Still, individual theories may be assessed for economy *to the extent that they impose total requirements*. (M) requires only one fundamental entity, and is to be praised for imposing so little. Thirdly, exactly how economical (M) is depends on one's fundamental ontology for possible worlds. For those like myself who favour an actualist reduction of possible worlds, (M) plus reduction tells us that truthmaking ultimately requires only one fundamental entity, *the actual world*.

It may be worth comparing the triviality objection with Armstrong's line on negative and general facts. Armstrong (*TTM*, p. 58) concedes that he needs to acknowledge such creatures of darkness, but celebrates the economy of using just one fundamental *totality* fact per world:

> A very great ontological economy has been effected. We get rid of the ontological nightmare of either a huge number of negative properties or a huge number of negative states of affairs, and substitute for them a single *all* state of affairs. It is a state of affairs, one that will serve as a truthmaker for the huge number of negative *truths*.

Well and good, I say (though I shall attempt to effect an even greater economy in §IV, by doing without any negative facts at all). I only add that (M) effects this same sort of 'very great ontological economy' for the positive truths. That is a good thing.

III. DOES (M) OMIT PARTIAL TRUTHMAKERS?
(OR PROVE THEM NEEDLESS?)

Perhaps (M) is an interesting thesis after all, and even an elegant and economical one. But it might still be objected that (M) omits partial truthmakers. Truths about the intrinsic properties of parts of a world do not seem to require the whole world as truthmaker, and so it may be objected that there are more truthmakers than are dreamt of in (M). For instance, supposing that shape is an intrinsic property, and that this carpet in my living room is square, it may be objected that the truthmakers for <this carpet is square> include not just the world, but also the earth, my house, and this carpet. Indeed, this carpet may be singled out as a *minimal* truthmaker (the smallest partial truthmaker included in all the other truthmakers), a notion Armstrong (*TTM*, p. 19) claims to be 'of quite special importance to metaphysics'.

I reply that there is neither any guarantee of nor any use for these partial truthmakers (minimal ones included). They are best abandoned. To begin with, there is certainly no guarantee of finding minimal truthmakers. As a first example, suppose there are denumerably many electrons e_1, e_2, ... If all the electrons would serve as a truthmaker for <there are denumerably many electrons>, then every second electron (e_2, e_4, ...) would serve equally well as a truthmaker, as would every fourth electron (e_4, e_8, ...), and every eighth electron, *ad infinitum*.[12] As a second example, suppose the ice cube is gunky (every part of it has proper parts), and every part of it is homogeneously pink. If any part of the ice cube would serve as a truthmaker for the truth <something is homogeneously pink>, then so would any proper part of that part, and so on without limit.

Indeed, for ordinary claims featuring commonplace sortals, there are no partial truthmakers at all (much less minimal ones). Commonplace sortals involve an externality requirement which Sider calls *maximality*, which is (roughly) the idea that the entity is not a big proper part of another of that sort.[13] For instance, <this carpet is square>, if it is to have a 'partial truth-maker' (such as this carpet, my whole living room, or the Milky Way), has a truthmaker that ignores some part of the cosmos. But assuming that there can be scattered carpets, it is possible that the ignored part of the cosmos contains a further swathe of the carpet. Thus the candidate 'partial truthmaker' for <this carpet is square> need not be a carpet (it might merely be a big proper part of a carpet), and the whole carpet (including the further swathe) need not be square. So much for our 'partial truthmaker'!

More formally, one may take <this carpet is square> with any candidate partial truthmaker, with respect to either truthmaking as necessitation as per (N), or truthmaking as grounding as per (T). With (N) the existence of the candidate must entail the truth of <this carpet is square>. But since what the candidate encompasses need not itself be a carpet, nor need the whole thing be square, the existence of the candidate is compatible with the falsity of <this carpet is square>. So necessitation fails.

Turning to (T), many of the candidate partial truthmakers (such as this carpet, and my living room) are not fundamental on anyone's ontology, and so cannot possibly serve as grounds. Indeed, on the ontology I prefer (§V),

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[12] See Armstrong, *TTM*, p. 21 (attributed to Greg Restall).

[13] Thus Sider provides the following example: 'when seamlessly embedded in a larger rock, a rock-like thing is not a rock, no matter how intrinsically similar it is to a genuine rock': Sider, 'Maximality and Intrinsic Properties', *Philosophy and Phenomenological Research*, 63 (2001), pp. 357–64, at p. 362. He adds (p. 357) 'Maximality is everywhere. Very large proper parts of houses, tables and chairs, rocks and mountains, persons and cats, are not themselves houses, tables, chairs, rocks, mountains, persons, or cats. These properties are all maximal, and thus are extrinsic.'

none of the *partialia* can be fundamental – necessarily, the only fundamental entity is the world. So grounding fails too.

Can there be partial truthmakers? (N) is compatible with the existence of partial truthmakers for truths not involving commonplace sortals. But much of the intuitive support for partial truthmakers is undermined if they do not ground the ordinary claims where the intuitions arose in the first place. (T) is also compatible with the existence of partial truthmakers if there can be fundamental *partialia*. But given (T) and the ontological claim that only whole worlds can be fundamental (§V), partial truthmakers are not even *possible*.

So who needs these 'partial truthmakers'? What would go wrong if we followed (M) and did without them? *Do not say* 'then we would have gone wrong by omitting partial truthmakers'. What is at issue here is whether there are any partial truthmakers to omit. *Do say* 'partial truthmakers play a useful role'. Then say what the role is, and what its use is.[14]

I can imagine three useful roles which partial truthmakers might be thought to play, the first two of which require not just partial but minimal truthmakers. First, minimality might be thought to be playing the useful role of *constraining ontology*. The worry is that without minimality one could toss on irrelevant additions into the truthmakers, in such a way as would lift any constraints from ontology. For instance, the worry might be expressed that without minimality one could take the truthmaker for <this carpet is square> to be this carpet plus Santa Claus, and thus be committed to Santa Claus. That would be bad.

I reply that (M) already provides the needed constraints. (M) only allows for worlds as truthmakers, and so does not allow for this carpet plus Santa Claus as a truthmaker.

So I do agree that constraints are needed, but am offering a rival account of these constraints: do not require minimality, instead require only the world. My account is not only more economical, it is also more generally applicable. For if minimality were all that is keeping Santa Claus out, the truthmaker theorist would find Santa sliding down the ontological chimney in the cases above where minimality fails.

The second useful role that I can imagine posited for minimality would be that of *isolating subject-matters for propositions*. The worry here is that without minimality there is no clear limit to what a proposition is about, so that one would lose intuitive distinctions concerning which propositions are about

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[14] While Armstrong does say that minimal truthmakers are 'of quite special importance to metaphysics' (*TTM*, p. 19), when he connects truthmaking to the enterprise of ontology (pp. 23–4) he does not mention minimality. So I am unsure what 'quite special importance' he has in mind. What follows in the main text may be taken as speculation in this regard.

what. Indeed, the objection might continue, on (M) every proposition is about the world, and so all subject-matters at a world collapse. For instance, the worry might be expressed that <this carpet is square> is intuitively about this carpet, while <that rock is massive> is intuitively about that rock, but on (M) this distinction is lost since both propositions wind up being about one and the same world.[15]

I reply, first, that the notion of a subject-matter is better understood as applying to *sentences* (which after all have subjects) than to *propositions* (mere sets of worlds). Intuitively, the subject of the sentence 'Billy ate the cookies' is Billy, while the subject of the sentence 'The cookies were eaten by Billy' is the cookies. Yet presumably both sentences express the same proposition. This suggests that the subject-matter is not given by the proposition expressed, but rather by the sentential expression itself. Different sentential vehicles place different subjects in the driver's seat. With sentences one need only look to *the denotation of the subject term*. Truthmaking is beside the point.

I reply, secondly, that subject-matters for propositions can still be distinguished without minimality. As Lewis has shown, one can distinguish the subject-matters of propositions, at least up to intensional equivalence, by means of *partitions over worlds*.[16] For instance, there is a cell in logical space comprising the worlds in which <this carpet is square> is true. For each world in this cell, this proposition is true because of how that world is. Further, in each of these worlds there is indeed this carpet (at least via counterpart), and it is indeed square. This may provide a sense in which the proposition is *about* this square carpet, if such a sense is wanted.

So I doubt that there is a need to isolate subject-matters for propositions, but I can fall back on the Lewisian account if otherwise. On the Lewisian account one does not look to minimal parts of the world, one looks instead to groups of worlds (don't look smaller, look bigger!). The Lewisian account is not only more economical, it is also more generally applicable. For if minimality were the only consideration that is keeping the proposition 'about' this carpet from also being 'about' that rock, the truthmaker theorist

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[15] In this vein, Smith argues that the truthmaker must be 'part of that which the judgement is *about*' ('Truthmaker Realism', p. 279), and provides (p. 285) the following objection to worlds as truthmakers, as per (M): 'The thesis that the universe as a whole might serve as truthmaker for all true judgements threatens further our principle to the effect that truthmaking should be constrained by a factor of relevance'. Likewise Merricks, though no friend of truthmaking, proposes to supplement the usual necessitation account of truthmaking (N) with an aboutness requirement: Merricks, *Truth and Ontology* (Oxford: Clarendon Press, 2007), p. 96.

[16] Thus Lewis writes 'What, in general, *is* a subject-matter? The answer is anything that somehow encodes the distinction between pairs of worlds that are just alike with respect to the subject-matter in question and pairs that are not. A partition of the possible worlds would do, or equivalently an equivalence relation on worlds': 'Things *qua* Truthmakers', p. 25; cf. Lewis, 'Relevant Implication', *Theoria*, 64 (1988), pp. 161–74.

would not be able to knock that rock off topic in the cases above where minimality fails.

The third useful role that I can imagine posited for partial truthmakers would be *explaining truth-values*.[17] The idea is that truths are true because they have a truthmaker, while falsehoods are false because they lack one. But if there are no minimal or even partial truthmakers as per (M), the worry is that falsehood can no longer be explained as the lack of a truthmaker, since a world is never lacking. Where p is false at w, there is still w around as a candidate truthmaker for p. So what is left to explain p's falsity?

I reply, first, that adding partial truthmakers only makes matters worse. The friends of partial truthmakers do not deny the existence of worldly truthmakers. They merely posit *extra* partial ones. (Indeed, truthmakers are generally thought to obey an *expansitivity* principle, according to which any larger thing containing a truthmaker for p is itself a truthmaker for p.) But then the friends of partial truthmakers equally face the worry (if worry it is) that a truthmaker is never lacking because a worldly truthmaker is never lacking. The extra partial truthmakers only make matters worse, since they only *add* candidate truthmakers into the mix.

I reply, secondly, that (M) does explain truth-values. Where p is false at w, w is around as a candidate truthmaker for p, but it is by hypothesis a *failed* candidate. Truths are true because they have a *successful* truthmaker – not because they have a failed candidate. Falsehoods are false because they lack a *successful* truthmaker – not because they lack a failed candidate. What explains the difference between failed and successful candidate truthmakers for a given proposition? Well, this is a difference between the truthmakers. One world w might make p true, and another world w' might make p false. This is a difference between the worlds w and w'. The difference between truth and falsity is due to the world.

So I do agree that truth-values need explaining, and I do maintain that truths are true because they have a (successful) truthmaker, while falsehoods are false because they lack a (successful) truthmaker. But (M) provides *exactly* this sort of explanation. Truths are true because they have a successful truthmaker in the world, while falsehoods are false because they lack a successful truthmaker in the world.

Pending some other reason for wanting partial or minimal truthmakers, I say *good riddance*. Anything minimality can do, (M) can do better.

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[17] My thanks to an anonymous referee for this suggestion.

IV. DOES (M) OMIT NEGATIVE TRUTHMAKERS? (OR DOES IT SLAY THE DRAGON OF NEGATIVES?)

So far I have argued that (M) provides an economical and elegant account of the truthmakers, none the worse for doing without partial truthmakers. But it may now be objected that (M) fails for not including negative truthmakers. For instance, given that there are no actual dragons, <there are no dragons> is true in actuality, but has been thought to require not just the actual world, but also the further negative fact that *there is nothing more*.

Let an *expanded world* contain an intrinsic duplicate of the actual one, plus an extra part (off to the side, as it were) containing a dragon. Since this expanded world contains a duplicate of the actual world, it seems that the actual world is present there (at least by counterpart). Yet there is also a dragon there. This shows that the mere existence of actuality does not necessitate the truth of <there are no dragons>. Thus the world *fails* as a necessitating truthmaker as per (N) – the existence of the world is compatible with the falsity of <there are no dragons>. So is (M) dragon fodder?[18]

Supposing that (M) were dragon fodder (which I am about to contest), one might still consider three lines of retreat. First, one might supplement (M) with an Armstrongian totality fact:

M*.   For all worlds w: there are exactly two truthmakers at w – (i) w, and (ii) the fact that w is all there is at w.

Secondly, one might maintain (M) but revise (W) (and (T) accordingly), via amending (A5) into a Lewisian supervenience claim:

W*.   For all propositions p and all worlds w: if p is true at w, then p's truth at w globally supervenes on w.

Thirdly, one might maintain (M) but revise (W), and (T) accordingly, by restricting (A4) so that it does not cover negative or general claims:

W**. For all positive singular propositions p and all worlds w: if p is true at w, then p's truth at w is grounded in w.

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[18] Russell took the possibility of expansion to require fundamental negative and general facts: 'The Philosophy of Logical Atomism', in D. Pears (ed.), *The Philosophy of Logical Atomism* (La Salle: Open Court, 1985), pp. 35–155, at p. 103. Armstrong (*WSA*, p. 135) accepts Russell's conclusion, though he does manage with only one totality fact (§II). Lewis, 'Truthmaking and Difference-Making', and Bricker, 'The Relation between General and Particular', suggest weakening truthmaking to supervenience. Molnar, 'Truthmakers for Negative Truths', p. 85, claims 'an *impasse*' out of which he 'cannot see the way out'; and Parsons speaks in epic terms of attempts 'to have slain that dragon of truthmaker theory, the problem of negative facts': Parsons, 'Negative Truths from Positive Facts?', *Australasian Journal of Philosophy*, 84 (2006), pp. 591–602, at p. 591.

I do not intend to sacrifice to the dragon of negatives in these or any other ways, though these manœuvres might tempt the less errant knight.

I say instead that (M) itself is armed and ready to slay the dragon, via three connected manœuvres in (T). The first manœuvre is to restrict truth-makers to *substances*. This restriction was loaded into (T) via (A5). Not just any old entity will do. The usual formulations of truthmaking as necessitation, such as (N), make do with any old entity. No concern is evinced over whether a 'truthmaker' is fundamental or derivative.[19]

But truthmakers need to be restricted to fundamental entities, for three reasons. First, I take the core of truthmaking theory to be the idea that truth is a derivative aspect of reality, and thus needs grounding, as per (A5). But if the truthmakers are not themselves fundamental, then the ground has not been reached.

Secondly, the truthmakers need to be restricted to fundamental entities to ensure the right order of explanation. To illustrate how the order of explanation can go wrong otherwise, suppose God exists in every world, watching over it, with belief states which reflect the truths: for all propositions *p* and worlds *w*, *p* is true at *w* iff God believes *p* at *w*. God's beliefs would exist. So there would then be a necessitating existent for every true proposition at every world, namely, God's belief in that proposition. But this would get the order of explanation backwards. (I am not imagining a scenario in which God's beliefs make the propositions true, but rather a scenario in which the true propositions inform God's beliefs.) The requirement that the truth-makers are fundamental ensures that the order of explanation is right.

Thirdly and finally, the restriction to fundamental entities is needed if any 'cheaters' are to be caught. An example is Rylean behaviourism, with its *brute dispositions*. So long as (i) Ryle and Armstrong agree that there are dispositions (disagreeing only over whether these are brute or reducible), and (ii) any old existents will do for truthmakers, then both Ryle and Armstrong would have truthmakers enough for behaviourism. The truthmakers for mental-state ascriptions would be the behavioural dispositions which both sides agree exist. What Armstrong has all along wanted to say is that these behavioural dispositions cannot be *fundamental* (because he thinks the world is fundamentally categorical), and that their *non-fundamentality* disqualifies them from serving as truthmakers.

(What if one did not require *fundamentality* but only *priority*? That is, what if the truthmakers were not required to be absolutely basic, but only relatively

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[19] For instance, Fox says 'by a truthmaker for A, I mean something *whose very existence* entails A': J. Fox, 'Truthmaker', *Australasian Journal of Philosophy*, 65 (1987), pp. 188–207, at p. 189; Bigelow (*The Reality of Numbers*, p. 125) writes 'Whenever something is true, there must be something whose existence entails that it is true'.

more basic than the truths? Such a suggestion might even be touted as not needing to presuppose that there *is* absolute basicness. This suggestion would handle the first two concerns above: (i) the truths would still be grounded in some sense, albeit relatively rather than absolutely; and (ii) the order of explanation would come out right, with prior explaining posterior. But the third concern would remain: there is no reason to think that the derivative dispositions must be prior to the derivative dispositional truths. Both might be equally co-derivative from the categorical world. Most crucially, given that the point of truthmaking is to get from truth to being, and that some truths can be relatively prior to some others, relative priority will not guarantee that we reach being. We are only guaranteed to get to being at the root.)

The second manœuvre is to revise the truthmaking relation from necessitation to grounding. This revision was loaded into (T) via (A5). The usual formulations of truthmaking, such as (N), require necessitation. But necessitation is the wrong sort of relation to express the dependence of truth on being, for three reasons. First, necessitation is an intensional relation. As such, it does not distinguish any necessary truths – indeed, every proposition will necessitate every necessary truth. There are substantive truthmaking issues for necessary truths. For instance, there are substantive issues concerning the fundamental grounds for mathematical truths. A necessitation requirement would trivialize such issues.

Secondly, necessitation is reflexive and non-asymmetric, while dependence is irreflexive and asymmetric. Necessitation is a relation of modal co-variation, holding between a set of worlds and a superset. It is not a relation of ontological dependence.

Thirdly, necessitation is a relation between propositions. As such, necessitation requires that beings, if they are to serve as truthmakers at all, must be put into propositions. Thus the use of 'there exists some x' in (N), to put x into an existentially quantified proposition. But this seems arbitrary, as there are many ways to put beings into propositions. It also seems to ignore the features of the being, for instance that x happens to be F. The dependence of truth on being has been mistaken for the dependence of truth on existentially quantified truth.

The dependence of truth on being is better captured through grounding. Grounding is a hyperintensional relation, and as such permits substantive questions concerning the grounds of various necessary truths. For instance, there is a substantive question whether the truths of mathematics are grounded in abstract forms, concrete material instances, or human conceptual activity. Grounding is irreflexive and asymmetric, and as such has the right features to capture the dependence of truth on being. Grounding,

finally, is separable from necessitation. For instance, one of the classic paradigms of grounding is the relation between *substance* and *mode*.[20] The redness of the rose is a dependent modification of the rose. But obviously the rose does not 'entail' its redness. Indeed the rose is a thing, not a proposition, and so is in the wrong ontological category to do any entailing. Likewise the redness is a mode, not a proposition, and so is also in the wrong ontological category to be entailed.

The third and final manœuvre is to advance the *monistic thesis* that necessarily there is only one fundamental entity. That is, I hold that every possible world has exactly one fundament: that world itself. Monism was loaded into what (T) adds to (W). For (T) adds that the *only* ground of being, or at least the only ground of being which plays a role in truthmaking, is the world.

I expect that many readers will be sceptical about the monistic thesis. Whether there is reason for scepticism is the topic of §V. In the rest of this section I shall explain how fundamentality, grounding and monism together 'slay the dragon' of negatives. For if it does, surely that already counts as *some justification* for the monistic thesis.

So having restricted the truthmakers to fundamental entities, reunderstood truthmaking as grounding, and restricted the number of fundamental entities to one, it remains to face the dragon. It is true that the existence of our world does not *necessitate* the truth of <there are no dragons>. But the crucial question is whether by fixing the list of possible truthmakers at one, and filling the list with *actuality*, the truth of <there are no dragons> has found *ground*.

Here is a reason to think the truth of <there are no dragons> has indeed found ground. While our world is contained in the expanded world (by counterpart), the expanded dragon world also has a dragon part. Thus our world cannot be *the one fundament* of the expanded world, because the one fundament there must also make a dragon. In general, any expansion (any *more* to the world) requires a different unique fundament – if the worlds in question did not differ, then they would be indiscernible, rather than contracted and expanded. So <there are no dragons> is true at actuality, in virtue of actuality's being the unique actual fundament. Once actuality is listed as the one fundamental entity, ground for the absence of dragons is assured.

Another way to put the point: any difference in the truth of <there are no dragons> must stem from some difference in what is fundamental. If there can only be one fundament, and it is the world, then any difference in the truth of <there are no dragons> can only possibly stem from a difference in

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[20] For classic discussions see Descartes, *The Philosophical Writings of Descartes*, Vol. 1, ed. Cottingham *et al.* (Cambridge UP, 1985), p. 210; also Spinoza, *The Collected Works of Spinoza*, ed. Curley (Princeton UP, 1985), p. 408.

the world. Fixing the one fundament as *actuality* fixes the world, and in so doing fixes the truth of <there are no dragons>.

With this in mind, it may be worth returning to Russell's famous argument for negatives ('The Philosophy of Logical Atomism', p. 103):

> I do not think one can doubt that there are general facts. It is perfectly clear, I think, that when you have enumerated all the atomic facts in the world, it is a further fact about the world that those are all the atomic facts there are about the world, and that is just as much an objective fact about the world as any of them are. It is clear, I think, that you must admit general facts as distinct from and over and above particular facts.

Russell's *pluralism* is driving the argument, by rendering the number of fundamental entities as *open-ended*. It is only because Russell embraces such open-endedness (following Hume's pluralistic dictum that 'all events seem entirely loose and separate'), that he faces the question about whether any list of such entities is complete.[21] If one instead demanded exactly a single fundament, and were delivered it, no further question of completeness could arise. One would know from the start that the list has but a single slot to fill. Having filled it, one would know that the list was complete.

Strictly speaking, the solution under consideration requires that there is some *fixed finite number* of truthmakers. The number need not be one. But there are special reasons to prefer the monistic solution (§V).

So now perhaps I have told the tale of how the dragon was loosed in our lands in the first place. It was those pluralists Russell and Moore, who broke from the monistic teachings of their fathers and their fathers' fathers, who loosed these negatives upon us. They did so by treating the number of fundamental grounds as open-ended.

Solutions live and die in competition with other solutions. My solution is to maintain (M) but make three emendations to the usual account of truthmaking, via (T), the first two supported by the fundamentality in- tuitions which truthmaker theorists had all along, and the third by monistic metaphysics. Though I lack the space to discuss alternatives, I might note that I have not needed to introduce negative or general entities, dredge up positive proxies, involve extrinsic properties, invoke essential properties, implicate counterparts, or retreat to supervenience. I have needed to embrace monism. Perhaps it is time to ask whether that is such a bad thing.

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[21] Likewise Armstrong's presentation of the argument is driven by pluralism. Armstrong (*WSA*, p. 135) imagines a world with four fundamental states of affairs, and considers the possibility of expansion: '... these states of affairs could obtain in a bigger world, and there is nothing in the four states of affairs that entails that they are all the states of affairs. So it seems that we are stuck with a second-order state of affairs, the state that these four states of affairs are all the first-order states of affairs.' It is because Armstrong has gone open-ended on the number of fundamental states of affairs (could be four, could be five, could be more) that he finds himself stuck with this second-order totality state.

V. IS (M) ONTOLOGICALLY TROUBLED? (OR IS IT ONTOLOGICALLY REVEALING?)

So far I have argued that (M) provides an economical and elegant account of the truthmakers, none the worse for doing without partial truthmakers, and all the better for doing without negative truthmakers. But the one truth-ground, the unique fundament, that (M) admits is the world. So (M) is metaphysically monistic (§IV). Is that not objectionable?[22]

I reply: that is no objection, *that is the theory*! At least, I want to hear *a reason* why such a monism is objectionable.

The objector might continue: did not Russell and Moore teach that monism contravenes *common sense*? As Russell (p. 36) puts the point,

> I share the common sense belief that there are many separate things; I do not regard the apparent multiplicity of the world as consisting merely in phases and unreal divisions of a single indivisible Reality.

Here is a recent echo of Russell's argument, from Hoffman and Rosenkrantz:

> Monism has an additional very serious disadvantage: it is inconsistent with something that appears to be an evident datum of experience, namely, that there is a plurality of things. We shall assume that a plurality of material things exists, and hence that monism is false.[23]

Monism has virtually disappeared from contemporary metaphysics. Perhaps, the objector might conclude, there is a reason for this?

I think there is a reason why monism has virtually disappeared from contemporary metaphysics. The reason is that monism has been *misunderstood*. Classical monism and (M) do not deny that many things exist. They merely affirm that only one thing is *fundamental*. The classical doctrine is that the whole is prior to its parts. This doctrine *presupposes* that the parts exist, for the whole to stand in the priority relation to them.[24]

One should thus distinguish between what I call *existence monism*, the doctrine that exactly one thing exists, and *priority monism*, the doctrine that

[22] Indeed, (M) may be reminiscent of the monistic theory of judgement developed by Bosanquet: 'The ultimate subject of the perceptive judgement is the real world as a whole', *Logic: or the Morphology of Knowledge*, Vol. 1 (Oxford UP, 1911), p. 78.

[23] J. Hoffman and G.S. Rosenkrantz, *Substance: its Nature and Existence* (London: Routledge, 1997), p. 78. This passage occurs in the course of a book-length discussion on substance, and constitutes the only mention of the great doctrine of monism. To be fair to Hoffman and Rosenkrantz, this is an unusually lengthy treatment by contemporary standards, and they do actually manage to present *an argument*. Monism is usually just ignored or ridiculed. Surely we should suspect some failure of charity where such a great doctrine is so summarily dismissed?

[24] For further discussion of classical monism, see Schaffer, 'Monism', in Zalta (ed.), *Stanford Encyclopedia of Philosophy*, http://plato.stanford.edu/entries/monism/index.html. As Joad

exactly one thing is fundamental. Existence monism is a crazy view. Russell was right about *that*. But the monism in (T) is priority monism, not existence monism.

Priority monism allows for the existence of you and me, tables and chairs, and pebbles and planets, *inter alia*. As Alexander says explicitly, '[The parts] are not the whole reality but they are real.... The One is the system of the Many in which they are conserved, not the vortex in which they are engulfed.'[25] This view is not in conflict with such banalities as Moore's 'Here is one hand ... and here is another'. Priority monism only says that all these *partialia* are fragments of the cosmos, shards of an integrated whole. If there is anything very objectionable about that, I have yet to hear it.[26]

I conclude that (M) offers an economical and elegant account of the truthmakers, none the worse for doing without partial truthmakers, and all the better for doing without negative truthmakers. (M) does lead back to priority monism, so I ask: why not follow (M) where it leads?[27]

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notes, 'The wholes emphasized by monistic philosophers are, therefore, logically prior to their parts. They are there, as it were, to begin with, and being there, proceed to express themselves in parts whose natures they pervade and determine': C.E.M. Joad, *Guide to Philosophy* (New York: Dover, 1957), p. 420. How could a doctrine whose core thesis explicitly invokes 'the parts' be mistaken for a doctrine that denies the existence of such?

[25] S. Alexander, *Space, Time, and Deity: the Gifford Lectures at Glasgow, 1916–1918*, Vol. 1 (New York: Humanities Press, 1950), p. 347.

[26] For a discussion of arguments for and against priority monism, see my 'Monism: the Priority of the Whole', *Philosophical Review* (forthcoming).

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