Truthmakers, Realism and Ontology[1]

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Truthmaker Maximalism and Necessitarianism

Orthodox truthmaker theory (by which I basically mean Armstrong's truthmaker theory[2]) entails two theses

- Truthmaker maximalism: that every true proposition has at least one truthmaker, and
- Truthmaker necessitarianism: that the existence of a truthmaker necessitates the truth of the proposition(s) it is a truthmaker of.

Together, these entail that for every true proposition p, there exists some thing which could not exist and p be false.

Both doctrines have been disputed, although truthmaker maximalism has proved the more controversial of the two, and has been the subject of much recent attention. Peter Simons calls it "the most tendentious of Armstrong's general truthmaking principles".[3] Particularly vexing has been the question of truthmakers for negative facts, and it has become not uncommon to see defended the claim that truthmakers are needed for positive facts but not negative facts.[4]

But I think it's a mistake to think that some truths have a truthmaker but not all. What possible reason could one have for thinking of some propositions that they need to be grounded in what there is that doesn't apply to all propositions? Why should it be okay for negative truths to go ungrounded and not okay for positive truths to go ungrounded? And if negative truths don't have truthmakers then make no mistake: they *are* ungrounded. It is no good to say that they are grounded in the *lack* of a truthmaker for the positive truth that is their negation. Unless we reify this absence of a truthmaker this is nothing but metaphysical smoke and mirrors. It's

[1] Thanks to David Armstrong, Elizabeth Barnes, Helen Beebee, John Heil, David Liggins, Andrew McGonigal, Gonzalo Rodriguez-Pereyra and Robbie Williams for helpful discussion.

[2] See Armstrong (2003), (2004), (2005) and (1997, Ch. 8).

[3] Simons (2005, p 254).

[4] See, e.g., Mellor (2003) and Cameron (2005).

doi:10.1017/S135824610800060X © The Royal Institute of Philosophy and the contributors 2008

https://doi.org/10.1017/S135824610800060X Published online by Cambridge University Press

totally disingenuous to say that ¬p is true in virtue of the absence of a truthmaker for p unless there is some thing that is this absence. And if there *is* such a thing as the absence then it is a truthmaker for ¬p, so maximalism is vindicated.

Truthmaker theory is a theory about *what it is* for a proposition to be true; it's just not the kind of theory that can apply only in a restricted domain. You might not like Armstrong's particular account of truthmakers for negative truths – that's another question. But if you don't, I think you should look for an alternative rather than reject maximalism.[5] If one ever needs to provide a reason for the truth of a proposition, then one always needs to provide a reason for the truth of a proposition. So one needs to provide a reason for the truth of <there are no unicorns> as much as one needs to provide a reason for the truth of <the rose is red>. And if we allow that <there are no unicorns> is true not because there is some thing that makes it true but just because there are no unicorns then why can't we allow that <the rose is red> is true not because there is some thing that makes it true but just because the rose is red? Any justification to think that an entity is ever needed to make a truth true would seem to suggest that an entity is always needed to make a truth true. If truthmakers are ever needed, they are always needed.

A related form of this argument for maximalism is as follows.[6] Truthmaker theory stands or falls with the correspondence theory of truth, because the truthmaker for p is just the portion of reality that p corresponds to: if we can find either the correspondence or the truthmaker relation we can define the other as its converse. As Fumerton says, perhaps a bit too strongly, "The fundamental reason that one needs truthmakers is that the correspondence theory of truth is correct."[7] (I myself tend to think that the fundamental reason we can have the correspondence theory of truth is that truthmaker theory is correct.) But if you think that only *some* propositions have truthmakers you will only be able to hold that what it is for *some* propositions to be true is for them to correspond to some portion of reality. You will have to be a dualist about truth then: there are two ways for propositions to be true – some are true by corresponding to portions of reality, some are true in some other manner. This is hardly attractive: we want a general theory of truth that will apply to *all* propositions.

[5] For some alternative options see Cheyne and Pigden (2006), Cameron (forthcoming a), (forthcoming b) and Schaffer (forthcoming).

[6] This argument is put forward by Armstrong (2006, p 245).

[7] Fumerton (2006).

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Necessitarianism is more uncontroversial; it is by far the orthodoxy[8], although it has its deniers.[9] Perhaps that is because Armstrong offers us a proof of necessitarianism. He says[10]

> If it is said that the truthmaker for a truth could have failed to make the truth true, then we will surely think that the alleged truthmaker was insufficient by itself and requires to be supplemented in some way. A contingently sufficient truthmaker will [make the truth] true only in circumstances that obtain in this world. But then these circumstances, whatever they are, must be added to give the full truthmaker.

His thought, I take it, is this. Suppose that A makes p true but doesn't necessitate the truth of p. In that case there are some possible worlds in which A exists and p is false: some set of circumstances in which the existence of A does not suffice for the truth of p. But then isn't it overwhelmingly intuitive that the truthmaker for p is not simply A but rather A together with whatever makes it true that those circumstances do *not* in fact obtain?

Unfortunately, I don't think this argument works. Let's spell it out in a little more detail, making explicit Armstrong's implicit assumptions. A first shot is:

1) A makes p true. (Assumption)
2) The existence of A does not necessitate the truth of p. (Assumption for reductio)
3) There is a possible world in which A exists and p is false. (From 2)
4) There is a (probably highly disjunctive) proposition q which is true in exactly those worlds in which A exists and p is false. (q is the proposition that describes the circumstances in which the existence of A does not suffice for the truth of p.)
5) What makes p true is A together with what makes not-q true. I.e. if not-q is made true by B, then p is made true by the sum of A and B. (Assumption)

[8] As well as Armstrong's work, see Fox (1987, p 189) and Rodriguez-Pereyra (2005, p 18).

[9] I, following Mellor (2003), argued that it held in a privileged set of cases but that it failed in special cases in Cameron (2005); but my counterexamples relied on denying maximalism, which I now think is a mistake. Necessitarianism is also denied by Heil (2000) and Parsons (1999).

[10] Armstrong (1997, p 116). He gives the same argument in Armstrong (2004, p 6–7).

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6) p is not made true by both A and the sum of A and B. (Assumption)
7) p is not made true by A. (From 5 and 6)
8) Contradiction. (From 1 and 7)

Let me make a clarificatory remark concerning the assumption at line (4). This assumption follows from the general assumption that for any set of possible worlds, there is a proposition that is true at exactly those worlds. I think everyone has good reason to believe that. Certainly if, like Lewis, you think that propositions just *are* sets of worlds[11], and what it is for a proposition p to be true at a world w is for w to be a member of p, then you should accept (4). On this view, the proposition q just will be the set of worlds in which A exists and p is false. But even if you reject this view of the ontology of propositions, I still think you should accept that for any set of possible worlds, there is a proposition that is true at exactly those worlds. I think we should reject distinct but indiscernible worlds: so for all worlds w and v, if $w \neq v$ then there is a proposition that is true at w that is not true at v (even if it is just the proposition that w is actualised). From this it follows that for any particular world, w, there is a proposition that is true at w and not true at any other world: it is the proposition that says that things are exactly as w represents them to be. And so we can conclude that for any set of worlds $\{w_1, w_2, \ldots, w_n, \ldots\}$ there is a proposition that is true at all and only the worlds in that set: it is the proposition that says that things are exactly as w_1 represents them to be, or exactly as w_2 represents them to be or, . . ., or exactly as w_n represents them to be, or . . . etc.

So is Armstrong's proof of necessitarianism convincing? Certainly not as it stands. Ask yourself: what right does Armstrong have for premise (6)? A proposition can have more than one truthmaker – you and I both make it true that there are humans – so there is no contradiction in holding that p is made true both by A and by the sum of A and B. I guess Armstrong's thought is that the sum of A and B jointly necessitate the truth of p, and that *if* there is a necessitating truthmaker for a proposition, nothing which did not necessitate the truth of that proposition deserves to be called its truthmaker. That is, it would only be reasonable to think that p had a non-necessitating truthmaker if p had no necessitating truthmaker. (That is, I think, what is behind his comment that "the alleged truthmaker was insufficient by itself".) That is a fairly plausible thought, so let us amend

[11] Lewis (1986 p 53–55).

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Armstrong's argument adding this thought in as a premise (line (6) below):

1) A makes p true. (Assumption)
2) The existence of A does not necessitate the truth of p. (Assumption for reductio)
3) There is a possible world in which A exists and p is false. (From 2)
4) There is a (probably highly disjunctive) proposition q which is true in exactly those worlds in which A exists and p is false. (q is the proposition that describes the circumstances in which the existence of A does not suffice for the truth of p.)
5) The truth of p is necessitated by A together with what makes not-q true (call it B). A and B together provide a necessitating truthmaker for p. (Assumption)
6) If p has a necessitating truthmaker, it has no non-necessitating truthmaker. (Assumption)
7) There is no non-necessitating truthmaker for p. (From 5 and 6)
8) Contradiction. (From 1, 2 and 7)

But now ask yourself: what right does Armstrong have to premise (5)? Why should we think that A together with whatever makes it true that not-q is a necessitating truthmaker for p? The only reason I can see is as follows. q is a complete specification of the possible circumstances in which A exists and p is false. So if not-q is made true then those circumstances do not obtain. So if not-q is made true then we are in a world in which the existence of A suffices for the truth of p. So, necessarily, if both the truthmaker for not-q and A exist, then p is true.

Unfortunately, this last step is no good. It is true that every world in which not-q is true is a world in which the existence of A suffices for the truth of p. There is no possible world in which not-q is true and A exists and p is false. But it only follows that the truthmaker for not-q cannot exist in a world in which A exists and p is false if we add the assumption that the truthmaker for not-q cannot exist in a world in which not-q is false (i.e. a world in which q is true). But of course we can't assume that, for that would simply beg the question. Our only reason for thinking that the truthmaker for not-q couldn't exist in a world in which q is true is if truthmakers must necessitate the truth of the propositions they are truthmakers of, and that is exactly what the argument is trying to establish.

If Armstrong is to avoid begging the question he must leave it open that B, the truthmaker for not-q, can exist in a world in which q is

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true. That is a world in which the existence of A does not suffice for the truth of p, so we have been given no reason to rule out the possibility of worlds in which A and B both exist and p is false. So we have no reason to think that A and B together are a necessitating truthmaker for p, and hence no reason to think that A is not an adequate truthmaker for p.

To focus discussion, let us consider a particular account of truthmakers according to which a truthmaker for p need not necessitate the truth of p: Josh Parsons' theory that the truthmaker for p is that which is intrinsically such that p.[12] Since an object needn't have its intrinsic properties essentially, Parsons denies necessitarianism. A can make p true and exist in worlds in which p is false provided that, in each of those worlds, A differs intrinsically from how it actually is.

How should Parsons respond to Armstrong's argument? Well, what should Parsons think the truthmaker for not-q is? q is the proposition that describes exactly the circumstances in which A exists and p is false. What are those circumstances on Parsons' theory? They are the circumstances in which A differs intrinsically from how it actually exists. So not-q is the proposition that is true exactly when A is as it actually is intrinsically. So what makes this true? That which is intrinsically such that A has the intrinsic properties it actually has – namely, A.

So for Parsons, A is the truthmaker for not-q. What makes it true that we are not in the circumstances in which A can exist and p be false is just the truthmaker for p. A can exist in worlds in which not-q is false, of course – the existence of A does not necessitate that A is intrinsically as it actually is. But that is no objection; it is part of the theory that the existence of the truthmaker need not necessitate the truth of that which it makes true. All that is required is that in the worlds in which A exists and not-q is false, A differs intrinsically from how it actually is. And that is obviously guaranteed: A cannot be as it actually is intrinsically and q be true, since q *just is* the proposition that A differs intrinsically from how it actually is. It is clear then that Armstrong's argument has no pull against someone who accepts a theory like Parsons'. The argument only works if the truthmaker for not-q must be a necessitating truthmaker, but to assume this would beg the question.

Nevertheless, even if we can't *prove* necessitarianism I think it is a pretty attractive doctrine. The truthmaker thought is that explanation only bottoms out at existence facts: for God to give a complete

[12] Parsons (1999).

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plan of the world He needs only make an inventory of what is to exist. But if necessitarianism is denied this doesn't seem to be the case; I can list everything there is and it still be an open question as to what is true. In determining what is to be the case, God can't just tell His angels what things to put in the world, He has to tell them also to make them a certain way. That goes against the whole spirit of truthmaker theory: explanation stops at what there is – the ontological inventory being as it is should not leave the truth-value of any proposition undecided.

So I think that *if* you are going to be a truthmaker theorist you ought to buy into the whole Armstrongian package and accept both maximalism and necessitarianism. (Whether you accept Armstrong's specific theory of states of affairs is a different question.) But should you be a truthmaker theorist? What is the motivation for going in for truthmaker talk in the first place?

Truthmakers and Dubious Ontologies[13]

One advantage often claimed of truthmaker theory is that it pinpoints what is bad about various ontological positions that are intuitively unsatisfying. Consider three ontological positions: phenomenalism, Rylean behaviourism and presentism. Phenomenalism says that material objects are nothing other than the permanent possibility of experience. Rylean behaviourism says that there is nothing more to being in a certain mental state than being disposed to act in a certain way. Presentism says that the only time that exists is the present (and hence that the only things that exist in time are things that exist at the present time). Many people have found intuitive the claim that these three doctrines share a common flaw: that they appeal to the truth of certain propositions without accepting an ontology rich enough to ground their truth. The phenomenalist holds that it is true that if I look outside my window I will see the view so familiar to me; but she refuses to admit the existence of an external world that makes it the case that I will see this view. The Rylean behaviourist says that if Joe is asked 'do worms typically have beards?' he will answer 'no'; but he refuses to admit the existence of any inner

[13] This section owes its existence in part to Helen Beebee. It originates from my response to her paper 'Truthmakers: Who Needs 'em?' which she gave at the Royal Institute of Philosophy conference *Being: Developments in Contemporary Metaphysics* at the University of Leeds, 1st–3rd September 2006.

https://doi.org/10.1017/S135824610800060X Published online by Cambridge University Press

mental states that account for Joe's having this belief and being so disposed. The presentist says that there were dinosaurs, but she refuses to admit that there are any past times containing dinosaurs that make it the case that there were dinosaurs. In each case the objection is against accepting truths without accepting the corresponding parts of ontology that would make that truth true; the objection is to having truths without truthmakers.[14]

The argument for truthmaker theory, then, trades on the intuition that there is something wrong in common with these three positions. Now you may not share the intuition that there is anything in common wrong with these positions. But if you do, should you then be a truthmaker theorist? We need to ask whether it is necessary to be a truthmaker theorist to provide a principled argument against these three positions; for if it's not, this undercuts the truthmaker theorists claim that what is wrong in common with these positions is the acceptance of truths without truthmakers.

One thing we can be sure of is that it's not sufficient to knock out phenomenalism, Rylean behaviourism and presentism by becoming a truthmaker theorist. That's because it's really easy to be a truthmaker theorist. I can be a truthmaker theorist by believing in the fact that p whenever I accept that <p> is true. Or I can accept the existence of the Actualiser, an entity which wouldn't exist were any actual falsehood true. But one can't avoid the intuitive problem with the above three ontological views so easily. And the worry is that whatever *else* you need to do to avoid the problem would have been sufficient on its own: there is no need to have gone in for this truthmaker talk at all. It is a serious threat. After all, the kind of principle we want to limit the acceptable truthmaker positions is presumably a principle that tells us what kinds of ontological position are acceptable: states of affairs or tropes are okay, but unstructured facts and the Actualiser are not. But if we have a principle telling us what ontological positions are okay, why can't we just use *that* to tell us that presentism, phenomenalism etc are not okay? Why bother with truthmakers?

I think the threat here is more apparent than real. The principle we want to limit the acceptable responses to the truthmaker demand is a principle that tells us *not* to believe in things of a certain kind. It's not okay to believe in an entity that wouldn't exist were any actually true proposition false; it's not okay to believe in a plenitude of facts, so that you have a one-one correspondence between facts and true propositions (at least, not without telling us more about what facts are).

[14] See, inter alia, Armstrong (2004, p 1–3) and Sider (2001, p 40).

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But the presentist, the phenomenalist, and the Rylean behaviourist can all perfectly adhere to that principle; the problem with them is not that they believe in some unacceptable things, but that they don't believe in *enough* things – their ontology is not rich enough to account for the truth of the propositions they believe in.

I agree that the truthmaker principle on its own won't rule out these dubious ontologies. But neither will the principle that delimits the kinds of things it is acceptable to believe in: you're not going to be able to object to the presentist that her ontological commitments are unacceptable if she simply denies that she *has* any ontological commitments. I see both principles as working in tandem, to catch the dubious ontologists in a pincer movement. We need a principle that forces them to accept that, say, <there were dinosaurs> is ontologically committing – that is the truthmaker principle – and we need a principle that restricts what those ontological commitments can be. Neither principle will force them away from the position on its own, but together they will.

The truthmaker principle forces the presentist, for example, to admit the existence of an entity that couldn't exist and it be false that there were dinosaurs. On its own, this is perfectly compatible with presentism, for the presentist can simply believe in the existence of properties such as *having previously contained dinosaurs*, and so can appeal to the state of affairs of the world instantiating this property as the truthmaker for <there were dinosaurs>.[15] So if we are to have an argument against presentism we must be able to say what entities it is acceptable to believe in, and properties such as *having previously contained dinosaurs* (or the state of affairs of the world instantiating this property) must not be acceptable. And again, this principle on its own is perfectly compatible with presentism: the presentist need not believe that any of the entities we rule out are ontological commitments of <there were dinosaurs> because she needn't believe that <there were dinosaurs> has *any* ontological commitments. But if we have both principles together then the presentist is in trouble. She needs to admit the existence of a truthmaker for <there were dinosaurs> and she is limited as to what things she can believe in to do this job; and the intention is that the only things she is left with on the list that can do the job are past dinosaurs, in which case she can only be in accord with the two principles if she rejects her presentism. So the truthmaker principle does indeed do serious work in the battle against dubious ontologies such as presentism, phenomenalism and Rylean behaviourism. It just doesn't do it on its own; but

[15] See Bigelow (1996).

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that shouldn't count against it. And so, insofar as we have the intuition that this is good work to be done – insofar as we have the intuition that there is something in common wrong with these three positions – this should count as justification for the truthmaker principle.

Of course, at no point above did I argue that you *should* have the intuition that there is something wrong with those positions. At best, the above argument is going to convince you that you had the truthmaker intuition all along; if you think phenomenalism etc are perfectly good views and don't feel the pull of the truthmaker objection, nothing I've said above is going to move you. So is there anything the truthmaker theorist can say to convince their opponent, or at least an agnostic?

Truthmakers and Realism

A connection is often made (by truthmaker theorists, it has to be said), between *realism* and truthmaker theory. John Bigelow, for example, says[16]

> 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.

And Armstrong argues in a similar vein[17]

> My hope is that philosophers of realist inclinations will be immediately attracted to the idea that a truth, any truth, should depend for its truth [on] something 'outside' it, in virtue of which it is true.

Similarly, Heil calls the truthmaker principle "a central tenet of realism".[18] So what connection, if any, is there between truthmaker theory and realism? One thing's for sure: it's definitely not *sufficient* to be a realist that one be a truthmaker theorist, since one can simply be anti-realist about the truthmakers ("sure there's an entity that makes it true that there are trees, but it only exists because we perceive

[16] Bigelow (1988, p 123).
[17] Armstrong (2004, p 7).
[18] Heil (2003, p 61).

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it"). One can, of course, shout at such an anti-realist truthmaker theorist "No! – you must be a *realist* about the truthmakers!", but if we are prepared to do that then we may as well just have shouted "No! – you must be a *realist*!" Truthmakers don't appear to be doing any of the work.

Is it *necessary* to be a truthmaker theorist to be a realist? Well, what is it to be a realist? Sayre-McCord[19] gives a definition of realism that is familiar from many discussions on the topic. He says that realism about a discourse is (i) to think that the sentences of the discourse are, when construed literally, literally true or false and (ii) to think that some of the sentences of the discourse are true. The idea is that the two ways to be an anti-realist are to be a non-cognitivist (denying (i)) or an error-theorist (denying (ii)).

This definition needs immediate qualification, without which the two clauses are definitely not sufficient. Suppose I think that the truth of $<2 + 2 = 4>$ requires the existence of numbers but I deny the existence of numbers. So I think $<2 + 2 = 4>$ is false (or at least not true). I am looking like an anti-realist about mathematics then; in fact I am looking like Field, who treats mathematics much like Mackie treated ethics.[20] But I might well think that *some* sentences of the mathematical discourse are, when construed literally, literally true, such as <there is no largest prime number>. There are two ways in which there could be no largest prime number: there could be infinitely many prime numbers such that for each prime number there is one bigger, or there could be no numbers at all and *a fortiori* no prime numbers. I shouldn't count as a realist about mathematics because my denial of numbers makes some of the sentences of maths come out true, so Sayre-McCord's definition should be amended. And the needed amendment is obvious: instead of demanding that the realist hold some of the sentences of the discourse to be literally true, we should demand that the realist hold some of the sentences of the discourse to be *non-vacuously* literally true.

But the amended definition still does not look right. It seems that a postulationist about mathematical entities – one who thinks that we bring numbers etc into existence by practicing mathematics – will count as a mathematical realist on this definition. Mathematical statements, when construed literally, are either true or false: the postulationist can agree with that. Some mathematical statements are (non-vacuously) literally true: they can agree with that. But the *reason* they are literally true is because there are (literally!)

[19] Sayre-McCord (1988, p 5).
[20] See Field (1980) and Mackie (1977).

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numbers[21], and the reason there are numbers is because there are humans doing mathematics. So it seems that both Sayre-McCord's conditions are met: but the postulationist shouldn't count as a mathematical realist, because of the element of mind-dependence.

Another example, albeit more controversial. It seems to me that Berkeley would count as a realist about the external world on this definition. Berkeley, I think, holds that "there are trees" (for example), when literally construed, is literally true. But Berkeley shouldn't count as a realist about the external world, because the only reason there are trees, according to him, is that there is a mind that perceives there to be trees: so again, the lack of mind-independence is what keeps Berkeley from being a realist. This example is more controversial because it is controversial whether or not Berkeley believes that "there are trees", when construed literally, is true. Lewis would say he doesn't. Given what Berkeley means by "tree", he speaks truly when we says he believes in trees, but *we* shouldn't describe Berkeley as believing in trees because he doesn't believe in the things we mean by "tree".[22] So there is no need to invoke mind-dependence to dismiss Berkeley as a realist about trees, if Lewis is right; he doesn't think it is true that there are trees (one doesn't become a tree-believer by using "tree" to mean something else), and that is sufficient.

I think Lewis is wrong here. I think that we should consider Berkeley as believing in trees; we should simply claim that he has false beliefs about what trees *are*. Lewis says that we shouldn't report someone, call him Bob, as believing in X if the thing Bob believes in doesn't deserve the name 'X', as we use that term. We can report that Bob *says* that he believes in X, but we shouldn't report him as believing in X, because that would be to report him as believing in what *we* mean by 'X' rather than what Bob means by 'X'. So, for example, if someone says that God exists, but that 'God' simply names the evolutionary-historical process that has brought us into being, then while we should report them as saying they believe in God, we shouldn't report them as believing in God; for as we use the term 'God', 'God' does not refer to this process. Likewise, "unless we can agree that a congeries of human and

[21] If Sayre-McCord claims that there aren't *literally* numbers according to the postulationist then I don't know what he means by 'literally'. The postulationist holds that there are numbers, and it's not that this is paraphrased as 'there are mathematicians who talk about numbers' or anything like that, so I don't see why they don't *literally* believe in numbers.

[22] Lewis (1990, p 153).

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divine ideas could deserve the name 'tree in the quad', we ought not to report that Berkeley holds that the tree in the quad exists, no matter how much Berkeley himself may boast of his adherence to common opinion."[23]

But it seems to me that there is an important difference between the case of 'God' and the case of 'trees'; namely, that we learn the reference of the latter but not the former by ostension. When I learnt what 'tree' picks out (if it picks out anything), I learnt that it picked out *those things over there* (if there are things over there). Not so with 'God'; no-one ever pointed to God and told me that was who 'God' was. When I learnt what 'God' picked out (if it picks out anything) I learnt that it picked out the omnipotent, omniscient, wholly good and eternal creator of everything there is (if there is such a thing). This leads to a big difference in what it takes to "deserve the names" 'God' and 'tree'. Something deserves the name 'God' insofar as it has the attributes that I learnt to associate with God when the word was introduced into my vocabulary; nothing that does not have a sufficient number of these attributes could count as the reference of 'God', as I use that term, which is why the evolutionary-historical process that has brought us into being doesn't deserve that name. But I don't learn what trees are by learning to associate with 'tree' a bunch of characteristics – being made of bark, having leaves etc – and then going out and trying to find something in the world that has a sufficient number of those characteristics. If I did, Lewis might well be right to suggest that a collection of ideas could not deserve to be called trees. I learn what trees are by being told that they are things of a kind with *that* thing (pointing to a tree)[24]. That leaves it open what *that* thing is: it might be a mereological sum of sub-atomic particles, it might be constituted by such a sum but not identical to it, it might be a congeries of human and divine ideas, or it might be something else entirely; but whatever it is, 'tree' refers to things like that. Berkeley learned how to use the word 'tree' in the same way we did. He applies the word to the same things we do. He's just mistaken about what those things are like: he thinks they are collections of ideas, but they're not (at least, so I believe). So I don't think Berkeley can be ruled an anti-realist about material objects on the grounds that he doesn't believe in them; he does believe in them – he thinks that "there are

[23] ibid.

[24] The object of ostension might be a representation of a tree rather than a tree, but the point remains: I learn that the reference of 'tree' are the things of a kind with what this representation is a representation of.

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material objects", when literally construed, is literally true – but he's an anti-realist about material objects because he believes that they're mind-dependent entities.

We should take Berkeley at his word when he claims to believe in trees, I've argued, contra Lewis. The point works in the other direction as well. Eddington claims to be an eliminativist anti-realist about tables[25], but here we *shouldn't* take him at his word. Eddington thought that physicists have discovered that there are no tables, because where we thought there were tables there turn out to be things that are mostly empty space. I don't think physicists discovered anything of the kind: if a term is introduced into the language by ostension to refer to *those* things then the one thing we can't discover is that those things exist but aren't Xs. What physics told us is what tables *are*. So we shouldn't describe Eddington as not believing in tables: he does believe in *that* thing (pointing to some table), and that is a table. Of course, he can use the term 'table' as he wishes; he is perfectly free to use it in such a way that it doesn't refer. But nevertheless, we should count Eddington among the realists about tables; he believes in what we call tables, and he believes (I presume) that they exist mind-independently.[26] He refuses to call them 'tables' as we do, and so 'there are tables' expresses a falsehood in his language, but one doesn't become an eliminativist about the Xs by using the term 'X' so that it doesn't refer; one wouldn't become an atheist by using 'God' to mean 'golden mountain', even though one would not then believe the proposition one expressed by 'there is a God'.

We should not rule out Berkeley as a realist on the grounds that he doesn't think it is true that there are trees; we must rule him out as a realist because he thinks that trees only exist mind-dependently. The insistence on mind-independence for the realist is familiar from Michael Devitt's work.[27] Devitt says that to be a realist about the Xs is to believe that the Xs exist and that their existence is mind-independent. The account seems right in many cases – two ways,

[25] Eddington (1928, p xii).

[26] Maybe that's too quick. Artefacts raise some interesting issues when it comes to mind-independence. You might think tables exist mind-dependently because they wouldn't be tables were it not for the fact that they had been fashioned with the intention that they would be used in a certain way. I would claim instead that the table exists mind-independently, but that it has the property *being a table* mind-dependently. But I don't have the space to argue for this here.

[27] See especially Devitt (1984).

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and plausibly the only two ways, to be an anti-realist about unobservable entities (say) is to not believe in unobservable entities (which is not equivalent to denying their existence: van Frassen's agnosticism counts as anti-realism[28]) or to believe that they exist in virtue of human mental activity, say because there are humans undertaking scientific enquiry. But Devitt's account doesn't seem to cover all cases of realism, for realism doesn't always amount to being a realist about some *things* (the Xs). Moral realism, for example, isn't realism about some *things*, and it seems strange to suggest that moral realism is existence entailing in the way that realism about unobservables is. Devitt suggests that moral realism is realism about moral *facts*[29], but it seems that the nominalist can be a moral realist: commitment to moral facts shouldn't be a pre-requisite for thinking that it *really is the case* that torturing babies for fun is wrong.

Devitt responds to this worry by claiming that one can paraphrase away the existential commitment to facts in the definition of moral realism. He redefines moral realism as the doctrine that there are people and acts which are objectively morally good/bad, ought to be performed etc. The existence dimension of his definition is served now by commitment to people and acts, the independence dimension by the claim that what is true about those things (insofar as morality is concerned) is true mind-independently. So there is nothing, once commitment to facts is thus paraphrased away, to prevent the nominalist from being a moral realist.

Of course this won't do on its own, as Devitt realizes. The problem is that a non-cognitivist could agree to the definition of moral realism given; Devitt says "non-cognitivists are likely to *accept* [the definition given], reinterpreting its language so that it involves no commitment to a moral reality. They are likely to agree, say, that some people are objectively honest but interpret this as simply an expression of emotion, or whatever. *Noncognitivists seem to talk like moral realists*."[30] Devitt attempts to fix this by making appeal to rights and duties; metaphysical groundings he hopes the non-cognitivist will be unhappy with. His thought, I take it, is to insist that whatever the *grounds* of the truths in question are, they exist or obtain mind-independently. That is exactly the thought I think we should be aiming to capture. What we want is to incorporate this thought into Sayre-McCord's definition, so let our definition be:

[28] van-Fraassen (1980).
[29] Devitt (2002).
[30] ibid. p 6.

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> *Realism:* To be a realist about a discourse is (i) to think that the sentences of the discourse are, when literally construed, literally true or false and (ii) to think that some sentences of the discourse are non-vacuously literally true and (iii) to think that the *grounds* of those true sentences exist/obtain mind-independently (and that this fact is itself a mind-independent matter).

This rules out the postulationist and Berkeley as mathematical and external-world realists respectively, because although they meet conditions (i) and (ii), they do not meet (iii): the grounds for mathematical truths, or for <there are trees>, are the numbers and trees respectively, and these, according to the postulationist and Berkeley respectively, exist mind-dependently.

The reason behind the second conjunct of (iii) is as follows. You don't count as a realist about <p> if you think that some feature of the world grounds <p> but are an anti-realist about the fact that it grounds <p>. Suppose A makes <p> true; then it does so because of the essential properties it has, so if you think it is a mind-dependent fact that A has the essential properties it has – if you think it is a mind-dependent fact that A couldn't exist and <p> be false – then you don't get to be a realist about the truth of <p>.[31] But we shouldn't demand that *all* of A's properties be had mind-independently for <p> to be really true: coolness is a mind-dependent property, (part of what it is for something to be cool is for people to judge that it is cool), and yet I can seemingly think that A is cool without compromising my realism about the truth of <p>.

I've been careful not to mention truthmaking in *Realism*, and not to presuppose that the grounds of true propositions are entities (hence the 'exist/obtain' distinction in the definition: and we may wish to add more disjuncts here). All that is necessary for realism, I claim, is that truth is grounded in mind-independent features of fundamental reality. Truthmaker theory comes into play because it is a theory about *what those features are*. So I don't think it is correct to say that truthmaker theory is a *commitment* of realism. It's not: all that is required for realism is that the truth of propositions be grounded in fundamental features of mind-independent reality, and one can think this without being a truthmaker theorist. But it may still be that being a truthmaker theorist is the *best way* to be a realist, if the truthmaker theorist's account of how the world

[31] For an interesting discussion of this issue see McGonigal (forthcoming).

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is at its fundamental level turns out to be better than its rivals. It is to this issue that we now turn.

Grounding Truth In Reality

An alternative to truthmaker theory has it that all that is required for realism is that what is true depends on reality, and that this can be secured without invoking truthmakers. This is the view defended by Jennifer Hornsby[32], who holds that <p> is true because p, and not vice-versa, and that that is all we need for it to be the case that reality determines what is true as opposed to the anti-realist thought that what is true determines how reality is. The asymmetry, for Hornsby, is justified by the fact that more is required for <p> to be true than is required for it to be the case that p: for <p> to be true there needs to be something that can be thought (the proposition), whereas this is not needed for it to be the case that p. That is why it being the case that p explains the truth of <p> and not vice-versa.

I don't think this is right. It is not in general true that <p> is true because p, or that what it is for <p> to be true is for p to be the case. Consider <the average family has 2.4 children>. I don't think that is true because the average family has 2.4 children; I think it is true in virtue of whatever makes it true that a certain set of families, call it 'F', contains *all* the families, together with whatever makes it true that the first member of F has n_1 children, together with whatever makes it true that the second member has n_2 children, etc, together with whatever makes it true that $(n_1 + n_2 + \ldots)$ divided by the number of items in the set F equals 2.4.

The point is simply that the explanation of the truth of the proposition <p> doesn't in general stop at it being the case that p, so it's false to claim that whenever a proposition is true it's true in virtue of the world being as the proposition says it is. The features of the world that do the explaining – and hence the portion of the world that the truth corresponds to – will often lie at a deeper level. Now, of course, Hornsby can claim simply that <p> is true in virtue of the world being *this* (deeper) way: she still doesn't need to appeal to truthmaking entities. But remember, we want a *general* account of what it takes for a proposition to be true. It's no good, for example, to say that <p> is true because q, where the world's being q is for it to be fundamentally as it needs to be for it to be

[32] Hornsby (2005).

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a p-world. That would only give us a story about what it is for <p> to be true; not what it is for a proposition in general to be true.

We need a *general* account of truth. '<p> is true in virtue of there being some entities that make it the case that p' is such an account. '<p> is true because p' is such an account, but it is false, because propositions are not in general true in virtue of the world being the way the proposition says it is – sometimes they are true in virtue of the world being some other way: a way which grounds the truth of the proposition. How could we have a general account of truth along Hornsby's lines? The only thing I can think of is '<p> is true because of how the world is fundamentally'. Truthmaking entities aren't invoked here, only the world being a certain way, so I take it this is in the spirit of Hornsby's project.

But the problem with this is that in the absence of a story about what features of the world are in fact fundamental, the proposal doesn't really say anything much of interest. I *agree* that for any true proposition, it is true because of how the world is fundamentally. And I add to that a theory of what features of the world are fundamental: the only fundamental features of the world are those concerning what there is – all other truths must be grounded in these existence facts. You can disagree with that: but then let's hear the rival account of what the fundamental features of the world are. Without such an account '<p> is true because of how the world is fundamentally' just doesn't have enough content to be worth our interest.

Furthermore, leaving the account of truth as that without offering a theory of what facts are fundamental doesn't allow us to capture the thought that different propositions are true for different reasons. One of Rodriguez-Pereyra's arguments for needing truthmaking entities is that other attempts at grounding truth don't allow for the thought that the grounding for one proposition can be different from the grounding for another.[33] <The rose is red>, intuitively, is not true for the same reason that <The rose is long> is true. The truthmaker theorist can account for this; the former truth is true in virtue of the rose's redness, the latter in virtue of the rose's length.[34] If you thought, however, that true predications of the rose were true simply in virtue of how the rose is, then you would think these propositions are true for the same reason, since being red and being long are both ways the rose is. Hornsby's original proposal avoids this problem: the first proposition is true because the rose

[33] Rodriguez-Pereyra (2005, p 23–25).

[34] I appeal to tropes here – my personal preferred truthmakers. States of affairs could obviously do the job equally well.

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is red, the second is true because the rose is long – these are different reasons. But that original proposal is false. It entails that <The rose is beautiful> because the rose is beautiful; but that proposition is *not* true because the rose is beautiful, it is true in virtue of deeper features of the rose – its colour, its shape, etc, together with the fact that these are all its aesthetically relevant features. She could avoid *this* problem by replacing her original scheme with '<p> is true because of how the world is fundamentally', but then she would no longer secure the benefit that Rodriguez-Pereyra attributes to truthmaker theory: every proposition would be true for the same reason – the world being as it is fundamentally. She could avoid both problems by offering us an appropriate theory of what facts are fundamental, as the truthmaker theorist does – but she has yet to do so.

Rival accounts of the fundamental features are out there, of course. As well as the truthmaker theorist's claim that what's fundamental are just facts about what there is, there is the claim that what's fundamental are facts about what there is together with facts about how those things are, or that what's fundamental are facts about what there is together with facts about how those things are, were or will be. Or that we need to add dispositional facts. Or that we need to add brute modal facts. And perhaps mere haecceitistic facts. And maybe moral facts. And so on.

But amongst all these rival options, I think truthmaker theory has at least a pro tanto benefit: truthmaker theory identifies a relatively *small* class of facts as being fundamental; and furthermore, it is a *natural* class of facts.

Anyone who goes in for talk of truth being grounded (and it's this that I think is the analytic commitment of realism: truth is *grounded* in the world) has to specify what the grounding base is: what is the class of brute truths? And the following seem to me like good methodological principles in answering that question: try to keep the class of brute truths small, and try to keep it natural. It would be nice if the class of brute truths was empty, but that's impossible.[35] But other things being equal, if theory T says that the brute truths are a proper subset of the truths recognized as brute by theory T*, then T is preferable to T*. Likewise, it seems preferable if the brute truths are of a kind, not some gerrymandered grouping of whatever truths we can't quite see how to ground. Truthmaker theory says the brute truths are all of a kind: they are the truths that concern only what there is. And truthmaker theory specifies a relatively

[35] If you want to know why, see Hudson (1997).

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small base of brute truths. The complaints against truthmaker theory tend not to be that it recognizes *too much* as brute, but that fixing the existence facts *isn't enough* to account for all the truths. Other things being equal, then, I think there is a good case to be made for truthmaker theory.

Of course, other things are never equal, and the opponent of truthmaker theory is going to point to its disadvantages over rival accounts of what is brute. The two main disadvantages that spring to mind are ontological profligacy and inconsistency with other popular metaphysics. The truthmaker theorist needs states of affairs, or tropes, to ground contingent intrinsic predications, thus inflating their ontology over what is needed by, say, someone who thinks that the brute truths include how things are. Truthmaker theory is, some tell us, incompatible with (sane versions of) presentism, actualism, and other independently acceptable metaphysical views. And so if we are attracted to these metaphysical views, we should think the above advertised benefits of truthmaker theory not worth the price.[36]

Well, we can always argue about how to weigh up the costs and benefits of rival theories; but what's interesting is that this is what it's come down to. Too often truthmaker theorists treat the truthmaker principle like it's a constraint on any acceptable metaphysic, while their opponents dismiss it as entirely unmotivated. Both approaches are wrong, in my opinion. There is no pre-theoretic commitment to truthmakers, and nor is truthmaker theory a consequence of something (like realism) that is a pre-theoretic commitment. But we shouldn't deny that there is something attractive about truthmaker theory: it is an elegant account of how everything about the world depends on a small and natural class of brute truths. The question, as is so often the case, is whether the benefits come at an affordable price.

But the fact that there is a pro-tanto benefit is enough to justify truthmaker theory as a research project. Given that there is some potential benefit to be had, let's try and get the best version of truthmaker theory that we can, so that when we come to weigh up the costs and benefits, we're looking at the best available options. Worried about ontological profligacy? Let's do our best to ease the pain.[37] Worried about incompatibility with other metaphysical views? Let's offer the best account we can that makes the views compatible

[36] See, e.g., Merricks (2007).

[37] For example, in Cameron (forthcoming b) I attempt to sweeten the pill in providing truthmakers for negative facts.

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and see if they're acceptable.[38] We shouldn't be either ignoring the truthmaker principle or treating it as non-negotiable; that's *never* a good idea in metaphysics. We should be working on getting the best version of truthmaker theory we can, and the best rival we can, so that we can do the hard work of deciding between them.

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[38] For example, in Cameron (forthcoming c) and (manuscript) I attempt to show that there are perfectly acceptable truthmaker accounts available to the actualist and the presentist respectively, and so attraction to those ontological positions shouldn't give you any reason to reject truthmaker theory.

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