Groundless Truth

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Published online: 26 Nov 2013.

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ABSTRACT   *We defend two claims: (1) if one is attracted to a strong non-maximalist view about truthmaking, then it is natural to construe this as the view that there exist fundamental truths; (2) despite considerable aversion to fundamental truths, there is as yet no viable independent argument against them. That is, there is no argument against the existence of fundamental truths that is independent of any more specific arguments against the ontology accepted by the strong non-maximalist. Thus there is no argument that the strong non-maximalist herself will find dialectically motivating.*

I. Introduction

It is widely held that truth depends on being. Consider the proposition <Kripke exists>. The truth of <Kripke exists> depends on ontology in a particular way: it depends on the existence of Kripke. Truthmaker maximalism is one way to do justice to the intuition that truth depends on being. According to truthmaker maximalism:

TM   For any true proposition P, there exists at least one entity E that makes P true.[1]

Although the view is popular, not every truthmaker theorist is a truthmaker maximalist. Some are moved to accept a restriction on truthmaker maximalism based on the apparent lack of truthmakers for some claims, such as negative truths, contingent predications or truths about the past.

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[1]Armstrong, *World of States of Affairs, Truth and Truthmakers*. Truthmaker maximalism is also defended by Cameron and by Rodriguez-Pereyra (who defends the view against Milne). Cameron, 'How to Be a Truthmaker Maximalist'; Rodriguez-Pereyra, 'Truthmaker Maximalism Defended'; Milne, 'Not Every Truth'.

Non-maximalist truthmaker theories reject TM. For the non-maximalist, certain classes of propositions are taken to lack truthmakers. The strongest version of this view has it that for some class of propositions, C, the propositions in C lack truthmakers *and* the truth of those propositions does *not* depend on ontology. Call this a *strong* restriction on truthmaker theory, and call a non-maximalist theory of this kind *strong* non-maximalism.[2] The phrase 'does not depend on ontology' is admittedly vague. This notion can be clarified by considering, first, what it means to say that something depends on ontology and, second, what sorts of claims about the truth of a proposition the strong non-maximalist denies. What does it mean to say that truth depends on ontology? Although we later discuss a particular precisification of this notion, at its most general to say that some x depends on ontology is to say that there is some, typically one-way, metaphysical connection between x and what exists, along with the properties and relations instantiated by existing things. Exactly what this metaphysical connection is depends very much on one's views about dependence. However, candidates include: grounding (more on this shortly), supervenience, necessitation, determination and, perhaps, some kind of essential dependence. The strong non-maximalist, then, denies that there is always a metaphysical connection between the truth of a proposition and being of this kind: in some cases, there is no such connection. Thus, for some class, C, of true propositions they deny that the members of C are grounded in what exists; are necessitated by what exists; are supervenient upon what exists; or are determined by what exists. Truth and ontology, for this class of propositions, are *metaphysically independent*.

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[2]We use the terminology 'strong non-maximalism' to differentiate the view we are targeting here from a version of non-maximalism defended by Lewis and by Bigelow. Lewis and Bigelow deny that every truth has a truthmaker, but they do not thereby accept that there are truths that fail to depend on ontology. Rather, although there are some truths that lack truthmakers, those truths nevertheless *supervene* on ontology. This supervenience is captured by a restricted version of TM, namely TM=:

TM= For any proposition P and worlds W and V, if P is true in W but not in V, then either something exists in V but not in W or else some n-tuple of things stands in some fundamental relation in V but not in W.

Because supervenience is a kind of dependence, Lewis and Bigelow are not strong non-maximalists. We might therefore call them *weak* non-maximalists. Weak non-maximalism need not be cashed out in terms of supervenience. However, there must be some kind of dependence between truth and ontology on such a view, where that kind of dependence is weaker than the kind of dependence typically found under truthmaker maximalism. For Lewis, the weakening is a modal one. But it need not be; there may be other ways to weaken the dependence between truth and ontology. At any rate, we shall not discuss weak non-maximalism any further here, except to offer it as a contrast to the strong non-maximalist view on which we will focus. Lewis, 'Armstrong on Combinatorial Possibility', 'Truthmaking and Difference-Making'; Bigelow, *Reality of Numbers*.

Is anyone a strong non-maximalist? Yes. In a recent paper, Tallant writes:

> A popular view in metaphysics is that which propositions are true depends upon how the world is.... In more evocative (as well as ontologically committing) language, truth requires ground.... Here I defend 'no-ground' cheating (NGC). The thought is that within particular domains, no ontological ground is needed in order for propositions to be true.[3]

For Tallant, there are true propositions that do not depend on *anything* for their truth. Similarly, Merricks writes that:

> this book will show that what we should say about truth's dependence on being turns on what we should say about being as much as it turns on what we should say about truth. *By the end of the book, I shall have concluded that some truths simply fail to depend on being in any substantive way at all*.[4]

Both Merricks and Tallant accept strong non-maximalism for a range of propositions, including (at least) the following three kinds: *modal propositions* (e.g. <it could have rained>); *past-directed propositions* (e.g. <Caesar crossed the Rubicon>); *negative existential propositions* (e.g. <there are no unicorns>).

Strong non-maximalism has met with resistance.[5] Concern centres around the idea that truths that do not depend on being are, in a sense to be described below, fundamental. Without this dependence upon being, the strong non-maximalist is unconstrained by the limitations of truthmaker theory. There is a strong intuition that this makes truth too easy to come by; that the strong non-maximalist is 'cheating' by merely stipulating that some class of truths is not grounded in anything.[6] Metaphysicians have long struggled to ground the truth of difficult propositions such as negative existentials (often positing outlandish ontology such as negative facts, or totality facts to do so), and this stubborn persistence indicates a general aversion to helping oneself to truth one cannot ground. Insofar as strong non-maximalism promises easy truth without the effort of locating truthmakers, it is naturally regarded with suspicion: it engages in theft over honest toil. We, too, find the idea of fundamental truths unpalatable. But this is because we find unpalatable the notion that there are truths that do not depend on being. In what follows we argue that if one is already prepared to accept truths of this form, as strong non-maximalists are, then there is no

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[3]Tallant, 'Ontological Cheats', 422–3.
[4]Merricks, *Truth and Ontology*, xiv (emphasis added).
[5]See, for example: Schaffer, 'Truth and Fundamentality'; Krämer, 'How Not to Defend'; McDaniel, 'Trenton Merricks' *Truth and Ontology*'.
[6]See, for example, Heathwood, 'On What Will Be'.

further objection to be mounted against such a view arising from the fact that it ultimately commits the view to fundamental truths.

The plan for the paper is as follows. In Section II, we explain why strong non-maximalism is committed to the existence of fundamental truths, and elucidate the connected notion of fundamentality. Section III shows that pressing the intuition that truth always depends on being has no sway upon the strong non-maximalist and identifies the need either for an argument in favour of this intuition or for an independent argument against strong non-maximalism more generally. In Sections IV and V, we consider a range of arguments against the existence of fundamental truths. We show that these arguments fail to undermine strong non-maximalism and, thus, that if there is reason to find strong non-maximalism wanting, it is not because it is committed to the existence of fundamental truths per se.

II. Fundamental Truth

The dependence of truth on being is an instance of ontological dependence. We shall understand ontological dependence in terms of *grounding*: if x depends on y, then y provides the ontological grounds for x.[7] Following Schaffer, we assume that grounding is primitive, irreflexive, and asymmetric.[8] Further, we will say that:

(A) x is fundamental $=_{df}$ nothing grounds x.
(B) x is derivative $=_{df}$ something grounds x.

We assume that if truth depends on being, then truth is *grounded in* being. Truthmaker theorists frequently suppose that truthmaking is a necessitation relation: F is the truthmaker for Y iff the existence of F necessitates the truth of Y.[9] Most proponents of grounding take whole, but not partial, grounding to be a relation of necessitation.[10] For instance, suppose a chair, C, is composed of the members of a set of atoms A, of which the members of the set of atoms A^* is a proper subset. Then, roughly put, the existence and arrangement of the members of A wholly ground the existence of C, whereas the existence and arrangement of the members of A^* are partial grounds for the existence of C. Consequently, the existence and arrangement of the members of A necessitates the existence of C, while the existence and

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[7]There are other ways to understand ontological dependence, but we set these aside for present purposes. See, for instance, Fine, 'Ontological Dependence'. Construing ontological dependence in this way is done primarily for ease of exposition and because grounding renders perspicuous the worries we have with strong non-maximalism. Nothing hangs on this way of proceeding.
[8]Schaffer, 'On What Grounds What', 373–6.
[9]See, for example, Armstrong, *Truth and Truthmakers*.
[10]See, for example, Rosen, 'Metaphysical Dependence'. For discussion, see Trogdon, 'Grounding'.

arrangement of the members of A^* does not. In the context of truthmaking, whole grounds for truths are their truthmakers, while partial grounds are some portion, part, or subset of the truthmakers. We use the term 'grounds' to pick out whole grounds, and otherwise use 'partial grounds'.

We must be careful at this point to distinguish between two different conceptions of grounding. For some, grounding is a relation and thus is best expressed predicatively. For others, grounding claims are best expressed by the use of a sentential operator, the 'because' operator as in the sentences 'X because P'. Since in these latter cases the work is done by the operator, 'because', we follow convention and call these operator approaches to grounding. We call the former approaches to grounding *predicative approaches*.

Suppose grounding is a relation. What are its relata? It is common to suppose that they are facts understood as ordered n-tuples of properties, objects and relations, (roughly speaking, states of affairs).[11] Then the view that truth depends on being is the thesis that the fact that proposition P is true, is grounded in some fact, F. Conversely, the view that truth does *not* depend on being for some true proposition P is the thesis that the fact that P is true is *not* grounded in any fact. Viewed this way, where 'the fact that F' is represented as $[F]$. This gives us:

(1)   [<there are no unicorns> is true]
(2)   [<Caesar crossed the Rubicon> is true]

The strong non-maximalist is committed to (1) and (2) being ungrounded, and hence, given (A), fundamental. Since (1) and (2) are semantic facts, the strong non-maximalist is committed to the existence of fundamental semantic facts.

Suppose that we relax the relata of grounding to include relata other than facts. Then we might say that the truth of a proposition, P, is grounded in fact F. Then grounding is a relation between truths and facts. Thus strong non-maximalism is the thesis that certain truths, such as the truth of (1*) and (2*) below have no grounds.

(1*)   <there are no unicorns>
(2*)   <Caesar crossed the Rubicon>

The defender of strong non-maximalism who accepts (1*) and (2*) in conjunction with (A) holds that the truth of both (1*) and (2*) is fundamental.

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[11]See, for instance: Audi, 'Clarification and Defense'; Rosen, 'Metaphysical Dependence'; Trogdon, 'Introduction to Grounding'.

Generalising away from (1*) and (2*), then, the strong non-maximalist accepts that for any true proposition, *P*, that is ungrounded, *P*'s truth is fundamental. Let us generalise this still further. Suppose one thinks that the dependence of truth on being is to be understood in terms of some alternative account of ontological dependence, one that is still relational in character. The same result follows. For however one thinks of ontological dependence qua relation, for any *x*, if *x* does not depend ontologically upon *anything*, then *x* is fundamental. Hence, if the truth of a proposition does not depend upon anything, then that truth is fundamental. Thus on *any* relational account of ontological dependence, propositions like (1*) and (2*) are, for the strong non-maximalist, fundamental truths.

Suppose, however, that grounding is not a relation and thus is not to be expressed predicatively. It is, rather, best expressed via a sentential operation of some kind. Then it is not so clear that the strong non-maximalist need be committed to the existence of fundamental truths or semantic facts. Consider the proposition <Caesar crossed the Rubicon>. On one version of the operator view of grounding, this proposition is true *because* Caesar crossed the Rubicon, where the 'because' here is to taken to be metaphysically light-weight. In particular, the right-hand side of the 'because' operator is not to be understood as proclaiming the existence of some entity, or some event. Rather, <Caesar crossed the Rubicon> is true because Caesar crossed the Rubicon, and that is all there is to say about the matter. If one adopts the operator view of grounding, then one can seemingly hold that the truth of <Caesar crossed the Rubicon> is grounded, but that this grounding has no implications for ontology.[12] This seems to get the strong non-maximalist everything that they want, without the need for fundamental truths or semantic facts.

This way of thinking about the view accords with Fine's recent discussion of grounding.[13] Fine argues that the entire truthmaking project has been overly restrictive in the way it approaches issues of grounding, by tying grounding too directly to particular claims about ontology. Thus, consider the proposition <Caesar crossed the Rubicon>. On the more liberal conception of grounding, this proposition is not grounded in how Caesar is, because Caesar does not exist. But the proposition is grounded: it is grounded in how Caesar *was*. Similarly, <there are no unicorns> is not grounded by a totality fact or a negative fact (as some maximalists contend,[14] it is grounded by there being no unicorns. This does not mean that there is some absence that exists that does the grounding; it is to say that the proposition's truth

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[12]Cf. Correia, 'From Grounding to Truth-Making' and Schnieder, 'Truth-Making without Truth-Makers'.

[13]Fine, 'Guide to Ground'.

[14]See, respectively, for example, Armstrong, *Truth and Truthmakers*; Russell, 'Philosophy of Logical Atomism'.

depends on there being no unicorns. Again, that is all there is to say about the matter. Thus, rather than thinking of the position that Tallant and Merricks defend as one according to which truths are ungrounded, and thus fundamental, we can think of the view as one that attempts to open up the grounding relation in order to be more liberal about what it is to ground/be grounded.

This proposal is intriguing in part because it suggests that the choice between alternative conceptions of grounding has far-reaching consequences. For present purposes, however, we set aside the operator conception of grounding and assume, with many participants to the truthmaker debate, that a proposition's being grounded or made true is a matter of there being something, *E*, in the world—an object, property, fact, or state of affairs— such that *E* makes true the relevant proposition. We thus frame our discussion in terms of a predicative account of grounding. We also assume the more permissive view regarding the nature of the grounding relation (i.e. as one that can connect facts and propositions), since this best accords with the literature on truthmaking. Thus we assume that the strong non-maximalist is committed to fundamental truths. Everything we say can be recast in terms of fundamental semantic facts and, at times, we shall have recourse to use this locution. But this vacillation is harmless since one can move between the two notions with relative ease.

III. Against Fundamental Truths

As noted, we are not sympathetic to strong non-maximalism. But where does the view go wrong? Here is one suggestion: what is implausible about strong non-maximalism is the claim that some truths are fundamental. This is objectionable because such truths are not grounded in the way the world is. However, on its own this does not constitute an objection. It is really just a restatement of the strong non-maximalist's position. To move the debate forward we need an *independent* reason for thinking that truths cannot be fundamental.

One might disagree with this diagnosis: look, there is a strong intuition here that the strong non-maximalist is forced to deny; namely, the intuition that truth *always* depends on being, and it is the denial of this intuition that makes the view implausible. We agree: there is such an intuition and it is clearly an intuition that the strong non-maximalist denies. But here is the wrinkle: the strong non-maximalist argues that denying this intuition makes for a more intuitive picture of the world overall. For example, Tallant and Merricks both contend that, by taking some truths as fundamental, one can more easily endorse a range of intuitive metaphysical views about the nature of reality.[15] One is able to accept *presentism* (the view according to which

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[15]Tallant, 'Ontological Cheats'; Merricks, *Truth and Ontology*.

only present entities exist), *actualism* (the view according to which only actual entities exist) and the view that absences do not exist. To this list one might also add various forms of *nominalism*, such as nominalism in the philosophy of mathematics. That is because, arguably, if mathematical statements can be true without requiring ontological grounds, then the nominalist can side-step many of the problems that arise from rejecting the existence of mathematical objects, and so the view becomes easier to establish.[16]

These views get a helping hand from strong non-maximalism because all four struggle to find ontological grounds for truths about the past, about possibilia, about absences or about mathematics respectively.[17] Thus, assuming that all four views accord with commonsense intuitions about ontology, the costs incurred by giving up on the intuition that truth always depends on being is, at worst, matched by and, at best, outweighed by the ability to satisfy a number of other intuitions that, one might think, carry substantial weight. Thus it is not straightforward to use accordance with intuition against the strong non-maximalist. What one requires is a powerful argument in favour of the intuition that truth always depends on being, an argument that can overturn the gains to commonsense promised by the strong non-maximalist approach to truth. We consider some arguments in favour of this intuition in Section V.

First, however, we want to explore a different approach to the issue. Rather than arguing directly in favour of the intuition that truth always depends on being, we consider arguments against the very idea that there could be fundamental truths. These arguments are based on the worry that, as Schaffer puts it: 'Semantic facts, such as the fact that a given proposition bears a certain truth-value, *are just the wrong sort of thing to be fundamental.*'[18] A similar sentiment is expressed by Sider, who argues that:

> Semantics is, like other special sciences, not fundamental. Our most fundamental level of theorizing should no more recognize distinctively semantic entities and ideology than it should recognize distinctively economic or psychological entities and ideology. This is not to say that the statements of semantics are untrue, only that they are not fundamental.[19]

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[16]More specifically, the nominalist can concede the indispensability argument and thus that propositions about mathematical entities are true, whilst nevertheless denying the existence of mathematical objects and thus Platonism. For discussion of the indispensability argument, see Colyvan, *Indispensability of Mathematics*.

[17]For an overview of the truthmaker problem for presentism, see Keller, 'Presentism and Truthmaking'; for absences, see Armstrong, *Truth and Truthmakers*; for actualism, Lewis, *On the Plurality of Worlds*; and for nominalism, Benacerraf, 'Mathematical Truth'.

[18]Schaffer, 'Truth and Fundamentality', 308 (emphasis added).

[19]Sider, *Writing the Book*, 91.

The common thread here appears to be not simply that no fundamental facts are semantic facts, but rather that of necessity no semantic fact is fundamental and thus that there are no fundamental truths. In the following section, then, we consider some options for pressing this objection. We argue that, unfortunately, there is no obvious way to do so.

We should note that throughout Sections IV and V we focus narrowly on reasons to reject the existence of fundamental truths, and so do not consider arguments for or against the four ontological views identified above. Indeed, we do not contend that investigating the issue of whether or not strong non-maximalism is viable will, in itself, tell us whether any of these ontological views is viable or not. Each view faces certain objections. Appealing to strong non-maximalism is one way they can meet those objections. But it is only one way and so even if strong non-maximalism could be shown to be a non-starter that would not put paid to any particular account of ontology such as those mentioned, though it would restrict the ways in which those views can accommodate the objections they face. At any rate, it is because of the indirect relationship between strong non-maximalism and these ontological views that we wish to focus on independent arguments against the former and steer clear of arguments for, or against, any of the latter. For, to reiterate, even if it can be shown that presentism, or the like, is false, it does not follow that strong non-maximalism is also false, and, similarly, showing that strong non-maximalism is false does not show that presentism, and the like, are false.

IV. Of the Wrong Kind

Why think that the truth of a proposition cannot be fundamental? There is an absence of a clear account of what the fundamental is like. Even those who deny the possibility of infinite chains of ontological dependence, and thus insist that such chains must 'bottom out' at the fundamental level,[20] do not provide the kind of precise account that one might want in order to evaluate whether propositions like (1) and (2) are good candidates to be fundamental truths. However, Schaffer tells us that the fundamental entities are minimally complete, metaphysically general, and empirically specifiable.[21] Based on this specification, can we muster some general reasons to think that there cannot be fundamental truths?

One suggestion is to deny that truths like (1) and (2) could be part of a *minimally complete* collection of fundamentals. Schaffer tells us that fundamentals are minimally complete iff they fully characterise reality without

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[20]See, for example, Lowe, *Possibility of Metaphysics*; Schaffer, 'Monism'; Cameron, 'Turtles All the Way Down'.
[21]Schaffer, 'Monism'.

redundancy.[22] Truths like (1) and (2) seem to be *redundant* in the following sense. Call the *minimal complete base* the set of fundamentals whose existence entails the existence of the totality of facts in a world. Call the *minimal complete derivative base* the set of fundamentals whose existence entails the totality of derivative facts in a world. Then perhaps fundamental truths are redundant in that they are not part of the minimal complete derivative base: all the derivative facts in a world are entailed by a set of fundamentals that do not include any fundamental truths.

Let us suppose that is correct. Still, it hardly seems a reason to deny the possibility that truths are fundamental. Consider some fundamental, F, (not, let us suppose, a truth) that does no grounding work. F will be included in any minimal complete base, but not in any minimal complete derivative base. Still, that is no reason to eschew the possibility of a fundamental like F, unless one is willing to presume a particular account of fundamentality according to which to be fundamental is to be *both ungrounded and to ground something else*, which is typically thought to be too strong.[23] Thus, even if fundamental truths are always like F in this regard, this is no reason to suppose that there aren't any.

Moreover, it is not obvious that fundamental truths would fail to ground anything and thus would fail to be in the minimal complete derivative base. Plausibly, on the strong non-maximalist view the truth of the proposition <Caesar crossed the Rubicon> grounds the truth of <Caesar crossed the Rubicon or Caesar was a cantaloupe>. Perhaps more controversially, <Caesar existed> might be cited as a partial ground for the truth of <Caesar was a Roman king>. But even if we focus only on the disjunctive example, the friend of fundamental truths might well challenge the assertion that every possible fundamental truth fails to be a member of the minimal complete base.

Perhaps the worry is that fundamental truths could only ground further truths. Suppose there is some subset of fundamental truths that ground further truths. Then the structure of reality is one in which there are chains of truths that are entirely disconnected from all other facts, and which bottom-out in fundamental truths. Thus, not only is it the case that some truths are fundamental, but, in addition, some chains of grounding are composed entirely of truths. Thus there are chains of truths 'hanging free' of the world in the sense that no truth in such a chain is, at any point, grounded in something that is non-semantic. Two questions thus arise. First, is there reason to accept the contention that fundamental truths can only ground further truths? If not, then the friend of fundamental truths can reject the claim that she must therefore be committed to edifices of truths,

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[22]Ibid.
[23]Cf. Paul, 'Building the World'.

disconnected from all non-semantic facts. Second, if she is committed to such edifices, how bad is that?

In response to the first question: it seems plausible to suppose that fundamental truths can only ground other truths. To see this, suppose that fundamental truths could ground facts about concrete reality. Such grounding seems to get the order of dependence between truth and being wrong. At least, this alternative way of construing the relationship between truth and being seems sufficiently heterodox that, if the strong non-maximalist were to accept it, she could be accused of having changed the subject. That brings us to the second question: is the existence of an edifice of truths grounding other truths worrying? We think it is worrying, but it is hard to turn this worry into an objection to strong non-maximalism. There is a strong presumption in favour of thinking that truths must be grounded in non-semantic facts. But this presumption is just what the strong non-maximalist denies and, as already noted, does not yet constitute an objection to the view.

Are there other reasons to be suspicious of the possibility of fundamental truths? One might argue that it is analytic that no truth is fundamental. It is a conceptual truth that fundamentals are composed of n-tuples of objects, properties and relations and that these are, by their nature, located in space-time. After all, the fundamentals are that upon which everything else stands, so they ought to either be concreta, or be constituted by concreta. Otherwise at least part of our world is standing on something that cannot, as it were, 'bear any weight'. To this we can only say that we are unclear what, if any, conceptual truths there are regarding fundamentals. We think the notion is now sufficiently technical and far from any folk notion that appealing to folk intuitions about the concept of the fundamental is dubious. Moreover, we do not think it is obvious that fundamentals need be, or be partly constituted by, concreta. Perhaps mathematical truths have truthmakers: abstract objects and structures; and perhaps these are grounded in further objects and structures. Then some fundamentals are abstracta.

Alternatively, one might suppose there to be a connection between being natural and being fundamental. Perhaps one thinks that all (and perhaps only) the fundamentals are perfectly natural. But the truth of propositions, it might be argued, hardly looks to be a good candidate to be perfectly natural. Here two responses present themselves on behalf of the strong non-maximalist. First, she might simply concede that fundamental truths are not natural, but suggest that, although every perfectly natural property is fundamental, some fundamentals are not perfectly natural: namely the fundamental truths. This would, however, require thinking that the set of fundamentals is heterodox with respect to naturalness and so would potentially represent a cost to strong non-maximalism.

Second, the strong non-maximalist might attempt to show that fundamental truths are natural on her preferred conception of naturalness. If what it takes to be natural is to be concrete, then this strategy will fail. But if being

natural is something more like simply carving what there is (broadly speaking) at its joints, then there might be scope for thinking that fundamental truths can be natural. For instance, one might suppose that the predicate 'natural' is a primitive one that applies to (some) sets of actual and possible existents. Thus, just as certain nominalists might take it as a primitive fact that certain classes of possible and actual objects are natural (or less than natural), the strong non-maximalist might extend this view to include actual and possible existents, and thus to include facts even where these facts are not individuals or objects. Then she could simply maintain that some of the semantic facts fall into the class of the natural, and some do not, and that those that do are, as it turns out, the fundamental truths. Or the non-maximalist could extend resemblance nominalism to include primitive resemblance relations holding between facts as well as between objects. Then she need only make the case that the set of fundamental semantic facts resembles one another in a way that the set of derivative semantic facts does not, and she has at least the beginnings of an account that will allow her to argue that fundamental truths are natural.

V. Truth Depends on Being

There is no obvious reason why truths cannot be fundamental. This brings us back to the intuition that truth *always* depends on being. We can see just three options for defending the intuition: (i) it is required to preserve parsimony; (ii) it is required to avoid scepticism; and (iii) it is required to avoid dubious ontologies. Let us consider these options in turn.

V.i. Occam's razor

First, one might appeal to parsimony. The basic thought is this: relinquishing the intuition that truth always depends on being forces one to posit a plethora of fundamentals, and that is worryingly profligate. Thus we should not reject the intuition at issue.[24] The trouble is that it is not clear that strong non-maximalism does flout parsimony. To see this, it is important to draw a distinction between two kinds of parsimony: quantitative parsimony and qualitative parsimony. Following Tallant, we can call these QUANT and QUAL respectively:[25]

QUANT: It is theoretically virtuous for a view to minimize the number of entities it posits.

QUAL: It is theoretically virtuous for a view to minimize the number of *kinds* of entities it posits.

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[24]Krämer presses this worry against Tallant. Krämer, 'How Not to Defend'; Tallant, 'Ontological Cheats'. For a response, see Tallant, 'Still Cheating, Still Prospering'.
[25]Tallant, 'Quantitative Parsimony'.

It is doubtful that QUAL can be used to mount the parsimony objection against strong non-maximalism. Indeed, the strong non-maximalist might claim that, if anything, her view is more qualitatively parsimonious than maximalism, since it trades in the full range of past, future, possible and, arguably, negative entities like absences for one fundamental kind: fundamental semantic facts. The maximalist could respond by arguing that these fundamental truths are actually of different kinds. For each domain in which the maximalist is committed to fundamental entities, the strong non-maximalist is committed to fundamental truths. If these truths can be unified under the umbrella of 'fundamental semantic facts' in order to achieve parsimony, then the various truthmakers the maximalist posits can be unified under the umbrella of 'fundamental entities'. Thus, strong non-maximalism might require equally many fundamental kinds as maximalism. However, we see no reason to think that it will require more, and thus the views are, at worst, matched for qualitative parsimony.

What, then, of QUANT? The strongest case against strong non-maximalism based on QUANT proceeds via a particular version of that principle, which we might call QUANT*:

> QUANT*:   It is theoretically virtuous for a view to minimize the number of *fundamental* entities it posits.

Schaffer calls something like QUANT* the 'bang for the buck' principle.[26] The idea is that the most parsimonious views are those that posit the fewest fundamental entities to do the most grounding work. In order for QUANT* to pose a problem for strong non-maximalists, their view must require more fundamentals than those posited by the maximalist to do the same grounding work. Note that the relevant comparison is between the number of fundamental semantic facts invoked by strong non-maximalism, and the number of fundamental entities needed to satisfy the intuition that truth always depends on being.

The latter number is not obviously less than the former. Consider the class of modal truths. The strong non-maximalist will say that some of those truths are fundamental: perhaps others are grounded by fundamental modal truths. Thus she will be committed to many fundamental semantic facts. Let us suppose, however, that maximalists are possibilists who posit possible worlds as the truthmakers for modal truths. Then for each fundamental semantic fact posited by the strong non-maximalist, it is plausible that her foes will posit the existence of a possible world, and for each derivative modal truth posited by the strong non-maximalist, it is plausible that her foe will point to some set or class of (centred) possible worlds. These worlds will contain at least as many fundamental entities as there are fundamental truths under strong non-maximalism, and so strong non-maximalism cannot be ruled out using QUANT*.

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[26]Schaffer, 'On What Grounds What'.

Actualists who countenance modal truths fare no better against the strong non-maximalist. Those who adopt an ersatz approach to possibility ground the truth of modal claims in abstract objects: sets. Yet once one concedes the existence of sets, there is no principled way to restrict commitment to only those sets needed to ground the truth of modal claims. Sets come on the cheap and so one must countenance sets of all kinds: sets of numbers, sets of sets, the empty set and so on. One will also require the full set-theoretic hierarchy and thus the full infinity of infinities of sets. Many of these sets will be dependent on the existence of fundamental abstract entities, such as numbers. If numbers exist, however, then the actualist who accepts the ersatz view countenances, at the very least, a countable infinity of fundamental abstract objects. So even here, it is hard to see how one can take the strong non-maximalist to task for invoking an inflated ontology of fundamentals, when the maximalist will require a similarly bloated ontology in the modal case.

In sum, then, neither QUAL, nor QUANT* provide grounds to reject strong non-maximalism. The point we are making is quite similar to a point made recently by Cameron.[27] Cameron considers the idea that parsimony considerations might speak in *favour* of strong non-maximalism over maximalism. He argues that, in fact, strong non-maximalism and maximalism are matched for parsimony: the outlay that strong non-maximalism makes on fundamental truths corresponds to a similar outlay that maximalists make on contentious fundamentals, such as totality facts or negative facts. Cameron writes: 'What Ockham's razor *won't* do is tell you to believe that historical facts are brute and deny past entities rather than accepting past entities, or present past-directed truthmakers, and believing truthmaker [maximalism].'[28] In order to determine whether we should believe strong non-maximalism over maximalism or vice versa, we must consider the over-all ontological packages with which the two views are associated. We must then weigh the costs/benefits of each package and opt for the most globally attractive view. To be sure, there may be an argument to be had once the relevant cost/benefit analysis has been successfully carried out. But that project is nothing more than the project of defending a particular package of ontological views. As noted, however, we are seeking an argument against strong non-maximalism that seeks to undermine the view directly, rather than indirectly via its implications for other views in ontology.

V.ii. Slippery slope

Thus we see no way to press a parsimony objection against the strong non-maximalist. How else might one support the intuition that all truths must be

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[27]Cameron, 'Truthmakers'.
[28]Ibid.

grounded? Notice that the strong non-maximalist believes that only *some* truths lack grounds. No-one thinks that *all* truths are fundamental. Apart from being implausible, such a view would imply a rather pernicious form of scepticism: if all truths are ungrounded, then the truth of a proposition does not have any implications for ontology. Thus one could believe truly that the external world exists, even though there exists no external world. Worse, there is nothing one could do to address this scepticism: no sound argument could defeat scepticism of this kind, because if truth never depends on being then the truth of the premises of any anti-sceptical argument is compatible with the complete absence of ontology and thus the non-existence of the external world.

A second way to defend the intuition that truth *always* depends on being, then, would be to show that rejecting the intuition would lead to the view that truth *never* depends on being. The idea would be that strong non-maximalism is an unstable position, epistemically speaking, for it is subject to a slippery slope that leads to the view that truth and being are entirely unrelated.

One might think that pressing this slippery slope argument is straightforward. Strong non-maximalists like Tallant and Merricks are holding onto ontology by a thread: they think that claims about the past and future and about the non-actual are all ungrounded. Hence, they only really think that propositions about the actual present require grounds. All that is required to put proponents of this view into an uncomfortable epistemic position is an argument for the following claim: accepting that truths about the past/future/possible are fundamental requires accepting that truths about the actual present are fundamental as well.

To mount such an argument one must first identify a similarity between claims about the past/future/possible and claims about the present/actual and then, using this similarity, show that, if claims of the former kind lack grounds, then so too for claims of the latter kind. This, in turn, requires defending a certain principle about the dependence of truth on being. This principle has it that like propositions admit of like treatment, to wit:

Likeness   For any propositions P and Q, if P and Q are alike in relevant respects, then if P requires grounds, then so too for Q and if Q *does not* require grounds, then so too for P.

We find Likeness to be a plausible constraint on truthmaking, but we are not going to defend the principle here. If one does not find the principle plausible, then we do not see how the slippery slope argument under consideration can even get started. Thus, because our aim here is to give arguments against strong non-maximalism their best showing, in what follows we concede Likeness and allow that slippery slope arguments of this kind can get off the ground. Our focus is thus on the whether there is a

similarity between propositions about the past/future/possible and the present/actual that might facilitate the slide towards scepticism via Likeness.

There seem to be just three ways in which propositions might be similar to one another. Propositions can be similar to one another with respect to (i) their logical form, (ii) what it is that they are about and (iii) their type. Let us go through these possibilities one by one. First: logical form. Consider the two propositions: <dinosaurs existed> and <penguins exist>. One might argue that these two propositions, at least at the most coarse-grained level, have the same logical form: they are both instances of existential quantification. It is just that <dinosaurs existed> is restricted to past entities, whereas <penguins exist> is not. One might go on to argue that, in virtue of this similarity, it is plausible to suppose that, if one proposition does not require grounds, then so too for the other. Specifically, if <dinosaurs existed> does not require grounds, then existential quantification is not, in the end, ontologically committing. Hence, one has no reason to take the existential quantification in <penguins exist> to be ontologically committing either, and thus there is good reason for thinking that this proposition does not require grounds.

The trouble with this way of establishing a slide from <dinosaurs existed> to <penguins exist> (and thus from propositions about the past to propositions about the present more generally) is that it requires that we first weigh in on the debate over presentism. That is because, if presentism is true, then <dinosaurs existed> and <penguins exist> do not have the same logical form, not even at the most coarse-grained level. For the presentist, the logical form of <dinosaurs existed> is not existential quantification. It is, rather, a particular kind of sentential operation. For the presentist, all quantification over the past is nested within the scope of a primitive, non truth-functional operator, the 'WAS' operator. This operator functions like the modal operators deployed by some actualists to undercut the ontological force of the existential quantification that occurs within their scope.[29]

Indeed, it is precisely this difference in logical form that prevents the slide. Because <dinosaurs existed> is not an instance of existential quantification whereas <penguins exist> is, it is reasonable to demand grounds for the latter but not the former. Similar considerations apply to <penguins exist> and <possibly, unicorns exist>. For the actualist, these two claims do not have the same logical form, since they are not both instances of quantification. Rather, the second proposition is an instance of quantification nested within a primitive, non truth-functional modal operator 'POSSIBLY'. Thus, the similarity in logical form requires taking a stand not only on the presentism/non-presentism debate but on the actualism/possibilism debate as well.

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[29]Sider, 'Presentism and Ontological Commitment'.

This brings us to 'aboutness'.[30] Consider the two propositions: <Suzy is unwell> and <Suzy was unwell>. These two propositions appear to be about the same thing: namely Suzy and her state of health. Hence, given Likeness, and given the apparent similarity in aboutness, if <Suzy was unwell> lacks grounds then <Suzy is unwell> also lacks grounds. A similar story can be told for <Suzy is unwell> and <Suzy could be unwell>. These two propositions appear to be about a similar thing, and so, if the latter lacks grounds, then, arguably, so too for the former.

As with logical form, however, pressing the objection in this way requires taking a stand on ontology. The presentist, for example, will disagree that <Suzy is unwell> and <Suzy was unwell> are sufficiently similar when it comes to aboutness to be able to deploy the Likeness principle. <Suzy was unwell> is about the *past*, whilst <Suzy is unwell> is about the present and, for the presentist, this distinction in aboutness is as serious as any aboutness distinction gets. That is because the presentist draws a substantive metaphysical distinction between the past and present, and so talking about the past is very different to talking about the present. Thus, in order to establish the claim that these two propositions are about similar things, one would need to show that the distinction between the past and the present is not as serious as the presentist takes it to be. This would, of course, constitute an argument against presentism. The same considerations apply *mutatis mutandis* to actualism with respect to <Suzy is unwell> and <Suzy could be unwell>.

This brings us to the third way in which propositions can be similar: their type. To render this option viable, some account of how we individuate propositional types is required. Clearly one cannot appeal to either aboutness or logical form to individuate types, since (as was just shown) similarity along these dimensions cannot be used to establish the kind of slippery slope needed to defend the intuition that truth always depends on being. A third option, then, might be to treat propositions as structured entities, and thus construe similarity in terms of overlapping structure. So, for example, consider the propositions: <a loves b> and <a hates b>. These propositions can be construed as the ordered triples: <loving, a, b> and <hating, a, b> respectively. There is thus a similarity in the structure of the two propositions and so we might say that they are similar (if not the same) types. A similar story might be told for <Suzy is unwell> and <Suzy was unwell> qua structured entities. Both of these propositions, one might argue, have the structure of an ordered pair: <being unwell, Suzy>, and so, by Likeness, if

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[30]The notion of aboutness we deploy here is the one advocated by Merricks. Note that there is, as yet, no rigorous definition of aboutness on offer, for which Merricks has been taken to task by Schaffer and McDaniel. Still, the idea is intuitive enough and an intuitive grip on aboutness will do for present purposes. Schaffer, 'Truth and Fundamentality'; McDaniel, 'Trenton Merricks' *Truth and Ontology*'.

<Suzy was unwell> does not require grounds, then so too for <Suzy is unwell>.

But this suggestion faces precisely the same problem as logical form and aboutness: if one is a presentist or an actualist, then one will think that *tense* or *mode* matters when it comes to the structure of propositions, and so it will not be possible to establish the kind of parity one requires to push strong non-maximalism towards full-blown scepticism. There are, of course, other ways in which one might individuate propositional types, and so there are likely to be many variations on the 'type' strategy. However, the problem that we have encountered for aboutness, logical form and structure is going to recur: no matter how one thinks about the similarity of propositions, there will be a principled way of introducing a disanalogy where it matters, between propositions about the present/actual and propositions about the past/future/possible, so long as one is prepared to take on certain ancillary ontological commitments. If that is right, however, then in order to show that a restriction on the truth/being relationship takes one towards scepticism, it seems one must first argue against presentism/actualism. Thus, an argument along these lines cannot be used to provide support for the intuition that truth always depends on being that is independent of these other ontological debates.

V.iii. Dubious ontology

There is one final suggestion available in the literature for why we should believe that truth always depends on being. We should accept that intuition because, roughly, if we do not, then there will be no way to rule out various kinds of dubious ontologies (i.e. we will not be able to catch 'cheaters'). Although initially compelling, it is difficult to develop this idea in a way that convinces. Suppose one thinks that presentism is a dubious ontology. Suppose further that one thinks – as Tallant clearly does[31] – that restricting the truth/being relationship opens the door to presentism. Then, one might argue, one should not restrict the relationship *in this way*. But this argument is worrying. First, to defend the idea that truth always depends on being in this fashion, one would need to establish that presentism is a dubious ontology. That is to get involved in the kind of ontological dispute that we are trying to avoid. Second, although this way of proceeding might motivate the idea that truth depends on being for claims about the past, it does not motivate the stronger claim that truth *always* depends on being. To establish this stronger claim, one would need to show that restricting the truth/being relationship leads, of necessity, to a dubious ontology. But it is hard to see how to defend that stronger claim, without running some version of the slippery slope argument considered in Section V.ii.

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[31]Tallant, 'Ontological Cheats'.

But perhaps we have missed the point of the current suggestion. Perhaps the point is that restricting the dependence of truth on being always leads to a dubious ontology because one must accept the existence of fundamental truths, which are dubious. This seems to be Sider's view: he thinks that restrictions on the truth/being relationship will result in brute truths, and an ontology that countenances brute truths is implausible.[32] However, as we saw in Section IV, there is nothing about fundamental truths per se that is objectionable. Maybe, then, the worry is a parsimony worry: one ought not multiply fundamentals beyond necessity and so one should not countenance brute truths. But as argued in Section V.i, it is not obvious that parsimony considerations militate against fundamental truths and thus in favour of thinking that truth always depends on being.

Perhaps some additional argument can be marshalled against the existence of fundamental semantic facts. But we do not know what it is. So we cannot see how to press the worry about dubious ontologies. So we conclude against this way of defeating strong non-maximalism. Absent some further argument in favour of the intuition that truth always depends on being (to which we can only say: tell us more), we arrive at the following (somewhat depressing) result: there is, as yet, no way to defeat strong non-maximalism other than via the substantial project of arguing against a certain package of ontological views. The (somewhat less depressing) upshot is that, if you believe truth always depends on being, then you are probably committed to a certain package of metaphysical views which, taken together, furnish you with the grounds for the full range of true propositions.

VI. Conclusion

Strong non-maximalism is surprisingly entrenched. One cannot obviously defeat that view either by arguing that truths are the wrong kinds of things to be fundamental, or by arguing in support of the intuition that truth always depends on being. So, reluctantly, the view must be given its due. This means that, if one is a maximalist and one takes umbrage with strong non-maximalism, then the battle must be fought on ontological grounds. Inparticular, to defeat strong non-maximalism, one must defeat (at least) presentism and actualism. We find that to be surprising. Strong non-maximalism looks like a cheat and so one would have thought that it should suffer from some fatal flaw, one that does not hang on a commitment to some ancillary ontological picture, like presentism or actualism. But we have failed to find any such flaw, and we are no friends to the strong non-maximalist.

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[32]Sider, *Four-Dimensionalism*.

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