The World and Truth About What is Not

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Abstract

Truthmaker says that *things*, broadly construed, are the ontological grounds of truth and therefore, that things make truths true. Recently, there have been a number of arguments purporting to show that if one embraces Truthmaker, then one ought to embrace Truthmaker Maximalism — the view that all non-analytic propositions have truthmakers. But then if one embraces Truthmaker, one ought to think that negative existentials have truthmakers. I argue that this is false. I begin by arguing that recent attempts by Ross Cameron and Jonathan Schaffer to provide negative existentials with truthmakers by appealing to the world fail. I then argue that the conditional — if one embraces Truthmaker, the one ought to embrace Truthmaker Maximalism — is false by considering small worlds where very little, if anything at all, exists. The conclusion is that thinking that negative existentials do not have truthmakers, and therefore rejecting Truthmaker Maximalism, need not worry Truthmaker embracers.

Truth requires an explanation, or ontological ground, of sorts.[1] One way of articulating this requirement is to say that *things*, broadly construed, are the ontological ground of truths and therefore, that things *make* truths true. Call the claim that things make truths true *Truthmaker*. Call the claim that *all* non-analytic truths are made true by things *Max*, which I'll formulate as follows:

> **Max.** Necessarily, for all non-analytic propositions p, if <p> is true, then there is some thing(s) E and <p> is true in virtue of E[2]

Recently, there have been a number of arguments purporting to show that if one embraces Truthmaker, then one ought to embrace Max (Mumford 2007: 49; Merricks 2007: 39-67; Dodd 2007; Cameron 2008a: 411-412). Some philosophers who

[1] For example, Aristotle (1984: 22) says "if there is a man, the statement whereby we say that there is a man is true ... And whereas the true statement is in no way the cause of the actual thing's existence, the actual thing does seem in some way the cause of the statement's being true." W. V. O. Quine (1970: 10-11) echoes this thought when he says "No sentence is true but reality makes it so".

[2] I follow custom in allowing that '<p>' stand for 'the proposition that p'.

accept this conditional do a *modus ponens* and embrace Max. Others do a *modus tollens* and reject Truthmaker.[3] It is my belief that the conditional is false. One can embrace Truthmaker without being obligated to embrace Max.

My discussion is divided into three main parts. In §1 I present arguments given in the literature in favor of accepting the relevant conditional. These arguments are given in the context of considering whether or not negative existentials have truthmakers. As such, the arguments conclude specifically that if one wants to accept Truthmaker, then one ought to posit truthmakers for negative existentials. In §2 I take a look at two recent attempts by Ross Cameron and Jonathan Schaffer to provide truthmakers for negative existentials by appealing to the world, weigh those attempts, and find them wanting. In §3, I argue that the relevant conditional is false by considering worlds where we have good reasons to doubt Max but not Truthmaker.

1 The Conditional

A much talked about reason to reject Max is the claim that negative and general truths — x does not exist, x is not F, all x are F — lack truthmakers. But many find in this rejection of Max a reason to reject Truthmaker. Trenton Merricks (2007: 40-3) gives three such arguments focusing on negative existentials. They are as follows: (i) If truthmakers could be found for negative existentials, then truthmaker theorists would accept such truthmakers. But this suggests that the only reason some truthmaker theorists reject Max is the fact that finding truthmakers for negative existentials has proved difficult. (ii) Our truthmaker intuition is that *every* truth depends on being. We do not have the gerrymandered intuition that all truths, except truths about *what does not exist*, depend on being. Truthmakers for every truth, except true negative existentials, thus "fails to be motivated by any other compelling intuition about truth's dependence on being" (2007: 41). (iii) Given that E makes <p> true, and that <p> entails, in the relevant way, some negative existential <q>, and that therefore E makes <q> true, then truthmaker theorists are committed to truthmakers for some negative existentials.[4] But then, Merricks claims, all negative existentials should have truthmakers, for "it would then be both unprincipled and

[3]For example, Mumford (2007) and Cameron (2008a) do a *modus ponens* while both Dodd (2007) and Merricks (2007) do a *modus tollens*.

[4]That <p> entails <q> in the relevant way is important. For reasons why, see Restall (1996) and Armstrong (2004: 10).

unmotivated to persist in saying that other true negative existentials lack truthmakers" (2007: 43).[5]

Arguments 1, 2 and 3 are all indictments of ad hocery. There is no independent reason to reject Max once Truthmaker is accepted.

David Armstrong argues along similar lines claiming that if one simply asserts that negative existentials do not have truthmakers, then this "seems to be nothing more than giving up on truthmakers as soon as the going gets hard" (2004: 70). Julian Dodd (2007: 394) agrees, saying

> The intuition that truth must be ontologically grounded in the sense explicated by [Truthmaker] is an intuition concerning (non-analytic) *truth in general*: it is one particular way of trying to explain the intuition that what is true is determined by how things are, but not *vice versa*. Consequently ... it would seem to be a failure of nerve to depart from this general [Truthmaker] principle in the wake of the problem of finding truthmakers for negative truths.

Finally, Ross Cameron (2008a: 411) says

> If we don't get the negative truths for free given the positive truths, then what possible motivation could there be for accepting that some truths require truthmakers but that negative truths don't? That would be to accept that the negative truths are not true in virtue of anything: but if we allow that then why do we not allow positive truths that are not true in virtue of anything?

As I see it, the central objection to accepting Truthmaker while rejecting Max just is that it is ad hoc. The truth of propositions *in general* needs to be explained. True propositions *in general* require an ontological ground. But then it would seem that negative truths require an explanation just as much as positive truths. After all, if, for example, eclipses in general stand in need of an explanation, then so do lunar eclipses and not just solar eclipses. But then if true propositions in general stand in need of an explanation, then so do negative truths and not just positive truths.

Consequently, exempting negative existentials from requiring truthmakers simply because finding such truthmakers has proved difficult just will not do. Either

[5]Merricks gives a fourth argument that presupposes the correspondence theory of truth. Since I will neither assume nor argue for the correspondence theory, I will ignore Merricks' fourth argument.

one must provide a non ad hoc reason for exempting negative existentials from requiring truthmakers or, in the absence of other reasons to reject Max, accept Max. If there is no non ad hoc reason, then those who find Truthmaker true have the burden of providing suitable truthmakers for negative existentials. It is the burden of providing suitable truthmakers for negative existentials that I turn to next.

2 The World

Three types of candidates have been offered to play the role of truthmakers for negative existentials: absences, totality facts, and the world.

The philosophical discussion over absences and totality facts is rather large and a good deal has been said both in favor of and against them. Since I have nothing new to say with respect to whether or not we should admit such entities into our ontology, and since I think that the criticisms leveled against them render their existence implausible (Molnar 2000: 80-2; Parsons 2005: 168; Dodd 2007: 388-9; Merricks 2007: 59-64), I will instead focus my attention on the world.[6]

According to Ross Cameron (2008a, b) and Jonathan Schaffer (2010b), it is the actual concrete world, which I will henceforth refer to as 'U' (for *universe*), that is the truthmaker for true negative existentials.[7] And this generalizes: since necessarily, there are true negative existentials, then necessarily, there is a concrete world that makes these negative existentials true.[8] Let's call this view *The Worldly View*, which I'll sum up as follows:

> **The Worldly View.** Necessarily, some concrete world exists such that it is the truthmaker for all true negative existentials.

[6]But for two recent defenses of negative ontology, see Zangwill (2011) and Barker and Jago *forthcoming*.

[7]Cameron seems to no longer hold this view since he has argued in favor of compositional nihilism — the view that there are no complex objects — and the concrete world, if it is the truthmaker for negative existentials, would not exist if nihilism were true (Cameron 2008c, 2010). But that the concrete world is a truthmaker for true negative existentials deserves attention regardless of who does or who does not advocate it, and this justifies my presenting and criticizing it.

[8]Cameron and Schaffer could reject this generalization and say that at other possibilities, it is something other than whatever concrete world exists that makes negative existentials true. But in the absence of independent reasons to think this, such a rejection appears ad hoc. After all, what Cameron and Schaffer seem to be providing us with is the type of truthmaker one needs for true negative existentials *in every world* and not merely the type of truthmaker one *actually* needs for true negative existentials.

I will now argue, in the remainder of this section, that we should be hesitant in accepting The Worldly View. Since, as we will soon see, Cameron's view differs from Schaffer's, and since my criticisms of their views depends on this difference, the following will require that I make explicit this difference.

Suspicious Properties

Cameron wants truthmakers to necessitate the truths they make true (Cameron 2008a: 413). If E makes <p> true, then necessarily, if E exists, <p> is true. In order then for U to make negative existentials true, it has to necessitate that they are true. And in order for it to do this, Cameron rightly says that the following has to be true of U:

> The world, I claim, is composed of the truthmakers for the positive truths, and is essentially composed of exactly them: nothing composed of any fewer truthmakers, and nothing composed of any more truthmakers, could be our world. . . [however] it's perfectly consistent with everything said above that our world could exist at another possible world where there are arctic unicorns, provided that the unicorns in that world are not a part of the thing that is actually our world. What we need to add is the claim that the world is essentially worldly: that no possible thing can be the thing that is actually our world unless it is itself a world—the biggest thing that there is. This claim, together with the above essentialist claims, secure the claim that the world couldn't co-exist with anything that doesn't actually exist, in which case it is a suitable truthmaker for any negative existential. (Cameron 2008b: 294-5)

Given that U is essentially composed of all and only the actual truthmakers for positive truths, and given that U is essentially a world, then it will necessitate the negative existential truths that it makes true. So in order for U to make negative existentials true, it has to be part of U's essence that it is composed of all the truthmakers for positive truths and no more, that it is the biggest thing there is, and that nothing exists other than what actually exists. Indeed, Cameron (2008b) is explicit in giving U this essence:

> The world is constituted from these truthmakers, and is essentially constituted from just them (295)
>
> The world is essentially maximal, in that it can't exist without being a world; that is, it cannot be a proper part of something bigger (295)
>
> Similarly, I claim that the world's essence is exhausted by it being constituted of exactly what it is actually constituted of and by its being the biggest thing that there is (296)
>
> It is of the essence of the world that nothing exists other than what actually exists (296)

Let's focus on the second quote, that the world (U) is essentially maximal in that it cannot be a proper part of something bigger. Or what amounts to the same thing, that one of U's essential properties is *not being a proper part of something bigger*. Now here's the rub: the property *not being a proper part of something bigger* shares some of the problems that plague totality facts. Briefly, a totality fact is the second-order fact that these first-order facts are *all* the first-order facts. Or alternatively, it is the fact that these first-order facts jointly have the property *being such that they are all the first-order facts*, an instance of the general property *being such that they are all the F-things*. But this property is a "no more" or "negative" property since it says that these, and no more than these, are the F-things. Such a property is branded by Merricks (2007: 60-1) and Sider (2001: 40-1) as suspicious, by Cameron (2008b: 294) himself as peculiar, while Dodd (2007: 389) and Molnar (2000: 81-2) label it, pejoratively, a negative property (or the fact of which it is a constituent a negative fact). Notice though that the property *not being a proper part of something bigger* is also a "negative" property since it says that U is such that no thing has it as a proper part. In fact, according to Cameron, *not being a proper part of something bigger* should be an uncontroversial example of a suspicious property. Why? Because this property easily satisfies Cameron's analysis of what a suspicious property is. According to Cameron (2011: 61), if a property violates Intrinsic Determination,

> **Intrinsic Determination.** For all objects x and properties F and times t, if x instantiates F at t, then x has the intrinsic nature at t that it has partly in virtue of instantiating F at t,

then that property is suspicious. The rationale behind Intrinsic Determination is captured in the following:

> Properties should make a difference to how their bearers are intrinsically: instantiating a property should make a difference to the intrinsic nature *simpliciter* of the bearer at the time of instantiation. (Cameron 2011: 60-61)

But *not being a proper part of something bigger* violates Intrinsic Determination. Instantiating this property makes no difference to U's intrinsic nature. There are plenty of intrinsic duplicates of U that are proper parts of something bigger. So by Cameron's lights, we should not admit such properties into our ontology. Such properties do no truthmaking work. But then, contra Cameron, U does not have this property as part of its essence. But then, contra Cameron, U is not a suitable truthmaker for negative existentials. Therefore, with respect to ridding oneself of suspicious properties, it would appear that not much is gained in resorting to Cameron's version of the The Worldly View over resorting to totality facts.

Are there any responses to this worry? If there are, they are going to require that it is not part of the essence of U that it is not a proper part of something bigger. For so long as U has this as part of its essence, then U has as part of its essence a suspicious property. Moreover, whatever responses there are to this worry, they are going to have to do the explanatory work Cameron wants them to do while remaining non-suspicious. For example, suppose one decided to "put into" U's essence the following property: *making true negative existentials*. If U has this property as part of its essence, then U will be both the truthmaker for negative existentials and will not require that it instantiate *not being a proper part of something bigger*. But this property will not do. For one, it appears explanatorily thin. There was a reason why Cameron says U has the essence he said it did: doing so explains why U makes negative existentials true. But in dropping Cameron's description of U's essence and replacing it with the essence of making negative existentials true, one gets the feeling that no genuine explanation for why U makes negative existentials true has been given. One has merely taken what was supposed to be explained and made it part of U's essence in order to explain it. Moreover, the property *making true negative existentials* is, at least according to Cameron's analysis, a suspicious property. For there are plenty of intrinsic duplicates of U that do not make negative existentials true since these duplicates are not worlds. They are rather proper parts of worlds. So having this property does not make a difference to how U intrinsically is. So this property should also be, according to Cameron, suspicious.

Are there any other properties we could appeal to that both explain why U, and concrete worlds in general, make negative existentials true and are non-suspicious according to Cameron's account of what a suspicious property is? I cannot think of any. And I have an argument for thinking that there are not any. Take U and an intrinsic duplicate of U, U*, where U* is a proper part of some object. If U is to make negative existentials true and U* is not (since U* is not a concrete world but merely a proper part of one), then there must be some difference in the properties that U and U* instantiate. But whatever this difference in properties is, it is not an intrinsic difference since, by hypothesis, U and U* are intrinsic duplicates. So this difference in properties makes no intrinsic difference to U. But then by Cameron's lights, it is a suspicious property. But then it cannot be used as part of an explanation for why U, and not U*, makes negative existentials true. Since this line of reasoning generalizes, then there are no properties we could appeal to that both explain why concrete worlds make negative existentials true and are not suspicious.

Non-Concreta

Jonathan Schaffer (2010a) has recently defended a view in fundamental mereology according to which the parts depend on the whole. More specifically, he defends a view according to which necessarily, there is only one fundamental concrete entity whose parts depend on it and that entity is the world. Schaffer calls this view *Priority Monism* and thinks that it, in conjunction with the claim that the world is the one and only truthmaker, can, to use his phrase, 'slay the dragon' of negative existentials. Here's how.

Intuitively, U alone will not necessitate every true negative existential (Cameron, as we've seen, must reject this intuition). Take the truth, <There are no dragons>, and consider an expanded world, U_{dr}, where U (or an intrinsic duplicate of U) and a dragon exist. Notice that, according to priority monism, in U_{dr} it is not U that is fundamental since it is not U that is the concrete world. It is rather U_{dr} that is fundamental. So we have a difference here in what is fundamental. In the actual world, it is U that is fundamental but in the possibility that contains both U and a dragon, it is U_{dr}. We also have a difference in truth. In the actual world <There are no dragons> is true but in the possibility that contains both U and a dragon, it is false. What accounts for this difference in truth? Answer: A difference in the world. As Schaffer (2010b: 321-322) says

> any difference in the truth of <there are no dragons> must stem from some difference in what is fundamental. If there can only be one fundament, and it is the world, then any difference in the truth of <there are no dragons> can only possibly stem from a difference in the world. Fixing the one fundament as *actuality* fixes the world, and in so doing fixes the truth of <there are no dragons>.

Notice that Schaffer's and Cameron's views are similar though not identical. Both say that it is U that makes negative existentials true. However for Cameron, concrete worlds are not fundamental but are essentially worlds (2008a: 419). For Schaffer, concrete worlds are fundamental but are not essentially worlds (2010b: 318). So while both say that concrete worlds are the truthmakers for true negative existentials, they put different constraints on what concrete worlds have to be like in order to play the truthmaking role.

Now perhaps the biggest problem for Schaffer's version of The Worldly View is its not being at all clear that U makes true every true negative existential. In stating priority monism, Schaffer (2010a: 33) is *very* clear in telling us what kinds of objects he is concerned with. He says

> I should stress that I am only concerned with actual concrete objects. *Possibilia*, *abstracta*, and actual concreta in categories other than *object* are not my concern (deities and spirits, if such there be, are not my concern either). When I speak of the world…I am speaking of the material cosmos and its planets, pebbles, particles, and other proper parts.

So it is only actual *concrete* objects that Schaffer has in mind in advancing the thesis that the parts depend on the whole. Possibilia, abstracta, deities, spirits, etc. play no role in Schaffer's monism. And this should be expected. For Schaffer's arguments in favor of priority monism only favor grounding things in the world when the scope of the things standing in such a relation are concrete. Schaffer's arguments for priority monism are as follows: (i) Common sense endorses the priority of the whole in cases of integrated wholes. Common sense thinks that the cosmos is an integrated whole, and therefore thinks that the cosmos grounds its parts (2010a: 46-50). (ii) Physics provides us with good evidence that the cosmos is an entangled system, and there is good reason to treat entangled systems as irreducible wholes (2010a: 50-57). (iii) Priority monism, unlike the pluralism that

postulates ultimate parts (simples) as fundamental, is consistent with the possibility of gunky worlds (worlds where everything has a proper part) (2010a: 60-65). Notice though that these three arguments in favor of priority monism are all inconclusive with respect to whether or not non-concreta are grounded in the cosmos. For that common sense thinks the cosmos is an integrated whole is neutral with respect to the grounding status of non-concreta. That the cosmos is an entangled system, and therefore an irreducible whole, is silent on how the cosmos relates to non-concreta. And non-concreta need not be grounded in the cosmos in order to have a fundament in gunky worlds. Therefore, the arguments that Schaffer adduces in support of priority monism do not support the claim that non-concreta depend on the cosmos.

And so the arguments in favor of accepting priority monism only favor grounding *concreta* in the concrete world. They do not favor grounding non-concreta, such as Cartesian egos, in the world. That is, they do not favor saying that non-concreta exist, or that non-concreta do not exist, is grounded in the world. But then they do not favor saying that truths about non-concreta are grounded, and therefore made true, by the world. And so the reasons given in favor of accepting priority monism are completely silent on whether truths such as <There are no Cartesian egos> are grounded in the world. And so these reasons do not favor saying that a difference in the truth of <There are no Cartesian egos> stems from some difference in the world.[9] So what we need is an argument for thinking that the world grounds both concreta and non-concreta alike, and therefore makes true truths about both concreta and non-concreta alike.

Here is such an argument: If all concreta (save U) are grounded in U, as they are according to priority monism, then *everything* (save U) is grounded in U. Or, what amounts to something similar, if, when it comes to concreta, grounding works such as to go from things that are not the world to the world, then this is how grounding works *tout court* — so non-concreta, which are things that are not the world, are grounded in the world. Unfortunately, I see no reason to accept this conditional *unless a relevant similarity exists between concreta and non-concreta*. But

[9] And this is precisely why it will not do to say as a response, as an anonymous referee did, that if priority monism is true, and therefore if necessarily there exists only one fundamental concrete world, then Cartesian egos necessarily do not exist. Since the arguments in favor of priority monism (at least as defended by its present champion, Jonathan Schaffer) only motivate the claim that concreta are grounded in the world, which is consistent with non-concreta not being grounded in the world, then the arguments in favor of priority monism do not motivate thinking that necessarily, there are no Cartesian egos.

that there is a relevant similarity between concreta and non-concreta is by no means obvious. Indeed, it would not at all be arbitrary to think that the cosmos grounds only concreta. Why? Because the difference between concreta and non-concreta marks a natural and sharp joint in the existence of things, unlike, to use Schaffer's example, any level of decomposition in a homogeneously pink sphere of gunk.

Of course, none of this bars someone from accepting that non-concreta depend on U.[10] But again, why believe this? As I stressed above, the arguments in favor of priority monism do not give us this conclusion. And saying that we should believe this because if we do, we can have a truthmaker for every true negative existential about non-concreta is of little help. For we can believe many things that are such that, if we do, we can have a truthmaker for every true negative existential about non concreta. If non-concreta depend on the existence of two electrons, then, for the very same reasons for thinking that U makes true all true negative existentials about non-concreta if non-concreta depend on U, two electrons would make true all true negative existentials about non-concreta. But this gives us very little reason to think that non-concreta are grounded in two electrons. What we need here are independent reasons to think that non-concreta depend on two electrons. Similarly, what we need here are independent reasons for thinking that non-concreta depend on U.

Admittedly, none of this is decisive. But it is a challenge. And the challenge is to come up with reasons for thinking that non-concreta depend on U. If such reasons are provided, then we can enter into philosophical debate concerning the adequacy of those reasons. Since I am skeptical of the whole priority monistic approach, I would, most likely, be skeptical that such reasons are compelling. But at least I would have reasons to be skeptical about! And besides, or so I will now argue, looking for truthmakers for negative existentials is misplaced. There is nothing ad hoc in accepting Truthmaker while denying Max.

[10] And it would seem that Schaffer accepts this. For he presents a view where the *partialia* are grounded in the world and then says that "it remains to ground *abstracta* (such as *numbers* and *possibilia*) in the actual concrete realm. Here matters are too complicated to discuss further within the scope of this paper." (2009: 379) So even though Schaffer does not give us reason to think that non-concreta are grounded in the world, it seems that he thinks they are.

3 Truthmaker Without Max

On the assumption that if one embraces Truthmaker, then one ought to embrace Max, and if you think that we have good reasons not to embrace Max — since we have good reasons to think that absences, totality facts, and the world are not plausible truthmakers for negative existentials — then you should think that we have good reason not to embrace Truthmaker. For those partial to Truthmaker, as I am, my advice here is to reject that if one embraces Truthmaker, then one ought to embrace Max. In order to do this successfully, a non ad hoc reason needs to be given showing that Truthmaker advocates should not feel obligated to embrace Max.

In discussing whether we need truthmakers for certain kinds of truth, and if we do, what kinds of truthmakers we need, I think the method of focusing on small and simple worlds proves extremely useful.[11] Consider then the smallest of all worlds, the *empty world*, where no concrete thing exists, and the following list of truths in the empty world:[12] <There are no Martians>, <There are no hobbits>, <There are no humans, rocks, chairs, and houses>, etc. If the empty world were actual, if there were no concrete things, then it would be true that there are no Martians, no hobbits, and no humans. But in the empty world, what entity plays the role of making all these truths true? Non ad hoc answer: No entity does. In order to motivate this, let's paint the picture as follows: It is also useful, in trying to figure out what needs to exist in order to make some truth true, to appeal to God. What does God have to create in order to make some proposition true? For example, what does God have to create in order to make it true that humans exist? Well, either you or I would do (assuming we are human!). If God created you, then <Some human exists> would be true. Now let's shift to negative existentials. What does God have to create in order to make it true that there are no Martians? Well, *nothing*. If God decided not to create, then there would be nothing (save truthbearers if there is to be truth), and so <There are no Martians> would be true and, intuitively, nothing would make it so.[13] But the world in which God creates

[11] And I am not alone. Armstrong (1997: 107) employs this method when discussing particulars, noting its usefulness.

[12] I do not like using the term 'empty world' since I do not think that at the empty world, a world exists. I prefer something like 'empty way' or 'empty possibility'. However, since 'empty world' is the standard way of referring to that non-actual way where no concrete thing exists, I will follow suit.

[13] Indeed, if God decided not to create, then there would be no concrete world. But there would

nothing just is the empty world. So the empty world provides us with a non ad hoc reason to think that at the empty world, negative existential truths do not require truthmakers.[14]

Here is another way of looking at it. Suppose that God has before him all the truthbearers. Now God wants to make some of these truthbearers, like <Some humans exist>, true. But in order to do so, God has to populate the world. In particular, God has to populate the world with humans. But what does God have to do to make <There are no Martians> true? Nothing. No effort is required on behalf of God here. Negative existentials come true for free. They are had on the cheap. Or as I like to put it, that they are true is the default position, the default truth-value. Nothing has to exist in order for them to be true. But something has to exist in order for them to be false.

Suppose though that you think the empty world is impossible (see below for more on this objection). That's fine. I only asked you to focus on small worlds. So let's move from the empty world to a world just slightly more populated than the empty world, electron world, where the only concrete thing that exists is an electron.[15] At this world, does it seem like we have a truthmaker for <There are no Martians>? If it does, then the electron must be, in some sense or other, relevant to the existence or non-existence of Martians. But this is implausible. The existence of one electron is not relevant to the truth or falsity of <There are no Martians>. To use the theological metaphor again, it would be strange to say that all God had to do to make <There are no Martians> true is create an electron. God's creating an electron is neither here nor there when it comes to the truth or falsity of <There are no Martians>.

I claim then that these small worlds make the asymmetry between positive existentials like <Some humans exists> and negative existentials like <There are no Martians> plain. If there were nothing, or only a very little something, then <There are no Martians> would be true and intuitively nothing would make it so. But it is

still be true negative existentials! So concrete worlds as truthmakers for negative existentials fail in the empty world.

[14]Mumford (2007: 69) argues that the empty world is consistent with Max by denying that negative existentials are true at it (indeed, he denies that negative existentials are in fact true). This is a big bullet to bite (though Mumford, of course, argues that it is not as big as we might think). Better, I say, if we preserve the truth of negative existentials and deny Max, as I am doing, in a non ad hoc way.

[15]The reader may be wondering what it takes for a world to be small. I do not know. And I doubt anyone else does. But I am certain that both the empty world and electron world will count as small worlds on any precisification of 'small world'.

obviously incorrect to say that <Some human exists> could be true and yet nothing would make it so. And so generalizing, there appears to be a truthmaker asymmetry between positive and negative existentials. It is precisely this asymmetry that is needed in order to show that Truthmaker theorists are not obligated to accept Max; in order to show that there is nothing ad hoc in affirming the existence of truthmakers for positive existentials but denying them for negative existentials. And so, I claim, it does not follow that if one embraces Truthmaker, then one ought to, on pain of doing something ad hoc, embrace Max.

Notice that reflecting on small worlds, like the empty and electron worlds, brings to the surface what I believe is our already existing intuition concerning negative existentials and truthmakers for them. I agree with Joseph Melia (2005: 69) when he says

> Intuitively, what makes a sentence true such as 'There are no *F*s' is a *lack* of *F*s ... it is just confused to think that we must account for a *lack* by postulating the *existence* of something else ... Such truths are true because certain things *don't* exist, and it is wrong to try and understand this in terms of the *existence* of something new.[16]

The reason that, given Truthmaker, many have not agreed with Melia is due to our considering only big and complex worlds, such as the actual world, in trying to decide if negative existential truths are the type of truth that intuitively require truthmakers. Since these worlds are heavily populated and already filled with existing concrete truthmakers for all sorts of truths, the lure of thinking that there must be truthmakers for negative existentials is quite strong. Small worlds do away with this lure by getting rid of those distracting concrete truthmakers in big and complex worlds, thereby making it easier for us to focus our attention solely on the negative existential truths, allowing us to see that which seems to be the case: that truth about what is not is not made true by what is. On now to the objections.[17]

[16]Trenton Merricks (2007: 64) says something similar when he says "For it is implausible that a claim asserting that a thing *fails to exist* is made true by — and so is appropriately about — some other *existing thing*."

[17]Upon finishing the first draft of this paper, I came across a recent article by David Efird and Tom Stoneham (2009) which also recognizes the problem that the empty world provides for Max. However, the conclusions to which Efird and Stoneham arrive at, and the intent of their paper, are different from mine. Firstly, Efird and Stoneham seem to equate Truthmaker with Max. But that Truthmaker should be so equated is precisely what I am disputing. Secondly, Efird and Stoneham invoke a totality fact in order to overcome the problem that the empty world provides for Max. But

3.1 Objections

Objection 1. Small worlds are not metaphysically possible. But then using them to motivate a rejection of Max is illegitimate.

Response. Are small worlds metaphysically impossible? I don't think so. And I am not alone. Indeed, some think that the smallest of all worlds, the empty world, is possible.[18] For those who do, my argument gives them a straightforward reason to deny Max while preserving Truthmaker. But suppose you are convinced that small worlds are metaphysically impossible.[19] If you think this, then I claim that these kinds of worlds still give you reason to deny Max. Here is why.

Consider Kit Fine's (1994) argument against a modal account of essence which says that an object is taken to have a property essentially just in case it is necessary that the object has the property if it exists. Fine argues against this account by considering Socrates and Socrates' singleton set. If an object has a property essentially just in case it is necessary that the object has the property if it exists, then since it is necessary that Socrates belong to his singleton if Socrates and sets exist, then belonging to Socrates' singleton is part of the essence of Socrates. But intuitively, this is wrong. Paraphrasing Fine, there is nothing about the nature of any person that they belong to any set or that sets exist at all (1994; 4-5). Since this seems right, then we have reason to reject the modal account of essence. And we have reason to reject the modal account *even if we reject the existence of sets*. That is, even if sets are metaphysically impossible, the fact that the modal account of essence has the consequence that if sets existed, then they would be part of our essence seems problematic. And so Fine's objection does not require the actual existence of sets in order to have the impact it does.

that there are, or could be, totality facts is implausible. Thirdly, I claim that even non-empty worlds (provided that they are small enough) provide us with just as good a reason as the empty world does to deny Max. But Efird and Stoneham only concern themselves with the empty world. And fourthly, Efird and Stoneham are primarily interested in the modal status we should accord to the empty world, hence the title of their paper "Is Metaphysical Nihilism Interesting?" In §3.1 I argue that whether or not the empty world is possible, and thus what modal status we should accord it, has little to no bearing on whether it give us a reason to deny that negative existentials have truthmakers.

[18]In defense of the empty world's being metaphysically possible, see, *inter alia*, Baldwin (1996) and Rodriguez-Pereyra (1997).

[19]Notice that a world's being metaphysically impossible is not tantamount to its being logically impossible. This is important since we can make sense of and reason with purported metaphysical impossibilities whereas this is not obviously so with logical impossibilities. Looking at the debates between nominalists and platonists, theists and atheists, modal realists and modal ersatzists, etc., makes this abundantly clear.

"But what explains" you may ask "why Fine's Socrates' singleton set example gives us reason to reject the modal account of essence if the existence of sets is metaphysically impossible?" The answer just is that whether or not the modal account of essence is true should not depend on whether or not sets are metaphysically possible. That is, the following conditional is true:

> (1) If the modal account of essence is true, then it *should* be true whether or not sets are metaphysically possible.

It sure would be strange to say that the modal account of essence is true only if sets are metaphysically impossible. The modal account of essence should be neutral with respect to the modal status of sets. (1) thus explains why even if sets are metaphysically impossible, considering scenarios where they exist gives us reason to reject the modal account of essence. But now we are in a position to explain why small worlds, even if metaphysically impossible, give us a reason to reject Max. Max's truth just should not depend on whether or not they are metaphysically possible. Its truth should be neutral with respect to the modal status of small worlds. That is, the following conditional is true:

> (2) If Max is true, then it *should* be true whether or not small worlds are metaphysically possible.

The modal status of small worlds should not, *in and of itself*, give us any reason to think that Max does not hold at these worlds. For our reasons for thinking that Max is true have to do with the nature of the relation between truth and being. That is, our reasons for thinking that some type of truth depends (or does not depend) on being in the actual world are reasons to think of that type of truth that it depends (or does not depend) on being in small worlds. So if you think that Max is actually true, then you should think that Max is true at small worlds. But I've argued that you should not think that Max is true at small worlds. And so you should not think that Max is actually true.

Objection 2. I would deny your conditional (2), for it is somewhat analogous to: "If General Relativity is true, then it should be true whether or not our world is a Newtonian world." Given that Newtonian worlds are physically impossible, then going to a Newtonian world is going to a world that conflicts with the laws of nature. Similarly, given that small worlds are metaphysically impossible, then going

to a small world is going to a world that conflicts with the laws of truthmaking. But then we have no reason to expect Max to continue to hold.[20]

Response. But why think that at small worlds, the laws of truthmaking do not hold simply because small worlds are metaphysically impossible? If you are a theist, then worlds where atheism is true are metaphysically impossible. But this should not give the theist reason to think that at atheistic worlds, the laws of truthmaking do not hold. But if not, why should we think, simply because small worlds are metaphysically impossible, that the laws of truthmaking do not hold at them? It cannot be that we think Max is true, since this would be question-begging. So there must be something about small worlds, other than there being metaphysically impossible, that would explain why the laws of truthmaking do not hold at them. But what could it be?

Objection 3. But the laws of truthmaking include Max. This is not question-begging, but is independently motivated by the argument that, metaphysically speaking, semantic features of reality are not the sorts of features of reality that can go ungrounded. It explains why we need truthmaking and why maximality must hold, in one fell swoop. And it explains why going to worlds where Max is false is to go to a world that conflicts with the laws of truthmaking.

Response. Here we have a new argument for Max: semantic features of reality are not the sorts of features of reality that can go ungrounded, so Max is true. I would reply that small worlds give us a reason to reject this argument's premise, and that they do so in such a way that should not bother us. For, as I've argued above, there seems to be nothing incoherent or nonsensical, with respect to considerations having to do with truth's dependence on being, in saying that at small worlds, <There are no Martians> is true and nothing makes it so. This is unlike metaphysically impossible worlds where <Some humans exist> is true but nothing makes it so. This does strike us as, at the very least, bordering the incoherent and nonsensical with respect to considerations having to do with truth's dependence on being. And so in these latter worlds, we do have reason to think that we are going to worlds where the laws of truthmaking do not hold. But, as far as I can see, no such reason is available when we go to worlds that are small. So, I claim, small worlds provide us with good reason to reject the claim that *all* semantic features of reality are

[20] I would like to thank Jonathan Schaffer for discussion of both this objection and the one to follow.

grounded. For small worlds are, with respect to considerations having to do with truth's dependence on being, sensible, even if (and this is a big 'if') metaphysically impossible, worlds.

Objection 4. You are only considering small and simple worlds in arguing that negative existentials do not require truthmakers. But why think that negative existentials do not require truthmakers in large and complex worlds?

Response. Why think that they do? Why think that merely adding a lot of entities to a world, resulting in a large and complex world, constitutes a reason to require truthmakers for negative existentials? If the existence of one electron is not relevant to the truth or falsity of <There are no Martians>, why think that worlds more heavily populated, like ours, require truthmakers for negative existentials?

Objection 5. One reason to believe in Truthmaker is its ability to catch cheaters, where a cheater is someone who posits ungrounded truths.[21] Truthmaker has been used to catch Rylean behaviorists, phenomenalists, molinists, and presentists.[22] But once we allow negative existentials to go ungrounded, then we have opened the door to all sorts of cheats, for it is open for them to claim that their kinds of truth are ungrounded as well.

Response. This only follows if we have no independent, non ad hoc reason to allow negative existentials to go ungrounded. I have argued that we do have an independent, non ad hoc reason, to wit, small worlds. Insofar as Rylean behaviorists, phenomenalists, molinists, and presentists do not have independent, non ad hoc reasons to allow propositions they claim are true to go ungrounded, then they will be caught.

4 Conclusion

A number of truthmaker theorists think that if you accept Truthmaker, then you ought to accept Max. I have argued against this conditional by considering worlds

[21]For example, Ted Sider says that "the point of the truth-maker principle and the principle that truth supervenes on being is to rule out dubious ontologies" (2001: 40).

[22]For truthmaker arguments against Rylean behaviorists and phenomenalists, see Armstrong (2004: 1-3); against molinists, see Adams (1977) and Hasker (1989); against presentists, see Parsons (2005: 170-4) and Sider (2001: 35-42).

where we have good reasons to doubt Max but do not have reasons to doubt the intuition undergirding acceptance of Truthmaker. And so consideration of these worlds shows us that it is not ad hoc to accept Truthmaker but deny Max. I have also argued that there are problems in appealing to concrete worlds as truthmakers for negative existentials. In particular, I have argued that of the two different appeals to concrete worlds in the literature, one seems to posit suspicious properties while the other has not given us any compelling reasons to think that non-concreta depend on the concrete world.[23]

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