THE SCOPE OF THE TRUTHMAKER REQUIREMENT

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Abstract. Truths require truthmakers, many think. In this paper I will discuss the scope of this requirement. Truthmaker maximalism is the claim that, necessarily, all truths require truthmakers. I shall argue against this claim. I shall argue against it on the basis of its implications. I shall first consider its implications when applied to synthetic, contingent propositions. If the truthmaker requirement applies to these propositions, so I shall argue, it is not possible for there to be nothing, and it is not possible for any (possibly) accompanied entity to exist on its own. I shall then consider its implications when applied to modal propositions, specifically those concerning possible existence. I shall argue that if the truthmaker requirement applies to such propositions, then there can be no relation which is equivalent to metaphysical explanation, which – I shall suggest – amounts to a denial of the existence of grounding.

0. Introduction

Truthmaker theories encapsulate the notion that truths require truthmakers. They consist of two parts. The first part concerns the scope of this truthmaker requirement: which truths require truthmakers. The second part concerns the characterization of a truthmaker: what a truthmaker is. I shall consider a truthmaker theory (**TT**) which consists of three necessitated claims. The first claim is truthmaker maximalism (**TM**): the thesis that, necessarily, all truths require truthmakers. This is the claim concerning scope. The second claim is truthmaker necessitarianism (**TN**): the thesis that, necessarily, a truthmaker is an entity which strictly implies the proposition it makes true. The third claim is truthmaker

explanatorialism (**TE**): the thesis that, necessarily, a truthmaker is an entity which explains the truth of the proposition it makes true. These are the claims concerning characterization.

I shall argue that truthmaker maximalism (**TM**) needs to be restricted. I shall first consider its implications when applied to all contingent, synthetic propositions. I shall show that **TM** entails that it is not possible for there to be nothing (Section 2) and that, given **TN**, it is not possible for any possibly accompanied entity to exist alone (Section 3). I shall then explicate truthmaker explanatorialism (Section 4) and consider its implications regarding modal truths, namely those concerning what could possibly exist. I shall argue that when applied to these truths **TM**, given **TE** and **TN**, make a picture of grounding as equivalent to metaphysical explanation untenable, which I shall suggest amounts to a denial of the existence of a grounding relation (Section 5).

1. Truthmaker Maximalism

Truthmaker maximalism is the theory that, necessarily, every true proposition has a truthmaker. *I.e.*:

$$\textbf{TM:}\ \Box\forall \mathrm{P}\ (\mathrm{P} \rightarrow \exists x\ x\mathrm{TM}P)$$

Where 'TM' is a binary relation which translates as '...makes true…', and 'P' ranges over propositions. There are many truthmaker maximalists.[1] There are also people who are almost-maximalists. Rodriguez-Pereya is the prime example, who restricts the truthmaker requirement to (a large class of) synthetic propositions.[2] And there are several who think that, if one isn't a maximalist, one ought to be.[3]

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1 E.g. Molnar, G., (2000), Lowe, E.J., (2006), Cameron, R., (2008), Schaffer, J., (2010) and, of course, Armstrong, D., (*e.g.* 2004).

2 Rodriguez-Pereya, G., (2005).

3 Merricks, T., (2007), Cameron, R., (*ibid*), Jago, M., (2012).

Truthmaker maximalists need an account of what a truthmaker is. All the aforementioned agree with the following necessary condition: x makes true P only if x's existence strictly implies P. This is called truthmaker necessitarianism (**TN**):

$$\textbf{TN:}\ \Box\ \forall x \forall \mathrm{P}\ (x \mathrm{TM} P \rightarrow \Box\ (\exists y\ x{=}y \rightarrow \mathrm{P})$$

This agreement is unsurprising, for almost everyone writing on truthmakers believes **TN**.[4] However, few (nowadays) believe strict implication is a sufficient condition for x to be a truthmaker for P. The problems with taking it as a sufficient condition are well known and I won't reiterate them here.[5] So further conditions will be needed. However, **TM** and **TN** are quite enough to make trouble, as we will soon see.

2. Empty Worlds

TM alone implies there can be no empty worlds. e is an empty world if and only if e contains no entities. Suppose – for reduction – e is a possible world. If e is a possible world, the proposition <There are no entities> is true of e. Call this proposition EMPTY.[6] This is a contingent, synthetic, proposition. **TM** implies that, if EMPTY is true, there is some entity in e which makes EMPTY true. But by hypothesis there are no entities in e. Contradiction. Therefore, e is not a possible world. **TM** implies that no possible world is an empty world: that it is not possible for there to be nothing.[7]

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4 An exception being Parsons, J., (1999).

5 See Restall, J., (1996).

6 Note EMPTY is true *of e*, not *in e*. So it is not required, *per impossible*, that an empty world contains a proposition.

7 Armstrong tentatively rejects this conclusion in his (2004), despite endorsing it in his (1989). His arguments are adequately treated in Efird, D., and Stoneham, T. (2009). They also explain why relaxing the necessity of the claims that constitute truthmaker theory is unpalatable.

Conclusion 1:

$$\text{TM} \rightarrow \Box\forall x\ (x{=}x)$$

This conclusion will not worry someone who believes in the existence of necessary beings, for if some entities exist necessarily, then there cannot be an empty world. However, a parallel conclusion arises in this context: Suppose we replace <There are no entities> with <There are no entities which exist contingently>. Call this latter proposition EMPTYc. Suppose – for reduction – *e* is a possible world which contains no contingently existing entities. Then EMPTYc is true in *e*. EMPTYc is a contingent truth, for it is possible for there to be entities which exist contingently. However, by TM, EMPTYc needs a truthmaker. Given there are no contingent entities in *e*, that truthmaker must be a necessarily existing entity. By **TN** that truthmaker strictly implies EMPTYc.

Therefore, EMPTYc is not a contingent truth. Contradiction. Hence, **TM** + **TN** entail that there is no possible world empty of contingent entities.[8] But there are such worlds so, given **TN**, **TM** is false. The truthmaker requirement cannot apply to to all the contingent, presumably synthetic propositions concerning how many entities exist.

3. Lonely Worlds

Let us consider a world, *v*, which differs from *e* in just one respect: *v* contains a single entity, *u*. Call *v* a lonely world. A world is a lonely world if and only if it contains just one entity. Now **TM** generates a problem in conjunction with **TN**. **TM** entails (given **TN**) that *u* is necessarily alone (poor *u*). This is because the proposition <*u* is the only entity> is true of *v*. Call this proposition

[8] I shall ignore the complication of necessary existents in the succeeding section, for a parallel problem emerges.

LONELY. This is another contingent, synthetic proposition. By **TM**, LONELY has a truthmaker.

The only available truthmaker is *u*, therefore *u* makes LONELY true. However, by **TN**, *u* makes LONELY true only if *u*'s existence strictly implies LONELY. Therefore, *u*'s existence strictly implies LONELY.

The remainder of this argument rests on S5, a modal logic in which the accessibility relation is symmetric and transitive.[9] Given S5, suppose – for *reduction* – that it is possible for *u* to exist in some other world, *q*, where *q* contains another entity as well as containing *u*. S5 guarantees that *q* and *v* are mutually accessible, if either is accessible from the actual world.[10] It is not true of *q* that <*u* is the only entity>. However, *u* strictly implies <*u* is the only entity>. So, given *q* is accessible to *v*, it *is* true of *q* that <*u* is the only entity>. Contradiction. Therefore, given *v* is a possible world, there is no possible world, such as *q*, in which *u* exists and which contains some entity distinct from *u*. In the modal language, **TM** (given **TN**) entails that, if it is possible for an entity to exist on its own, that entity necessarily exists on its own.

Conclusion 2:

$$\mathrm{TM} \wedge \mathrm{TN} \rightarrow ((\forall x \Diamond(\exists y\, x{=}y \wedge \neg\exists z\, z{\neq}x)) \rightarrow \Box\, (\exists y\, x{=}y \rightarrow \neg\exists z\, z{\neq}x))$$

We can adduce an interesting corollary of ***Conclusion 2.*** Namely, no entity in the actual world could exist on its own. This follows because the actual world has more than one entity in. Hence, entities in the actual world do not exist on their own. Hence, by the T-schema, no entity in the actual world necessarily exists on its own. This, by *modus tollens* on (the consequent of)

[9] Alternatively, $\Diamond P \rightarrow \Box\Diamond P$.

[10] If q is not accessible from the actual world, ***Conclusion 2*** follows straightforwardly, for then q is not possible. If v is not accessible from the actual world, then ***Conclusion 2*** follows vacuously, for then it is impossible for any entity to exist on its own.

Conclusion 2, entails that no entity in the actual world possibly exists on its own.

If q is not accessible from the actual world, ***Conclusion 2*** follows straightforwardly, for then q is not possible. If v is not accessible from the actual world, then ***Conclusion 2*** follows vacuously, for then it is impossible for any entity to exist on its own.

Corollary@:

$$\mathrm{TM} \wedge \mathrm{TN} \rightarrow \forall x\, (@\exists y\, x{=}y \rightarrow \neg\Diamond\, (\exists y\, x{=}y \wedge \neg\exists z\, z{\neq}x))$$

This corollary is a special (and particularly interesting) instance of a more general result. **TM** (given **TN**) implies that no entity which can be accompanied can also be alone. This is, to reiterate, because if said entity, call it *h*, can be alone, then that strictly implies <*h* is the only entity in this world>, which will generate a contradiction if *h* is possibly accompanied (given S5). Hence:

Corollary$_G$:

$$\mathrm{TM} \wedge \mathrm{TN} \rightarrow \Box\forall x\, (\Diamond\, (\exists y\, x{=}y \wedge \exists z\, z{\neq}x) \rightarrow \neg\Diamond\, (\exists y\, x{=}y \wedge \neg\exists z\, z{\neq}x))$$

But, of course, entities which are possibly accompanied could exist alone. And hence the truthmaker requirement needs to be restricted: it cannot apply to all the contingent, presumably synthetic truths concerning both which entities exist, *and* how many other entities exist.[11]

[11] If q is not accessible from the actual world, ***Conclusion 2*** follows straightforwardly, for then q is not possible. If v is not accessible from the actual world, then ***Conclusion 2*** follows vacuously, for then it is impossible for any entity to exist on its own.

4. Truthmaker Explanatorialism

Let us take stock. If what I have said is right, **TM** alone entails that there can be no empty worlds and combined with **TN** it entails that any individual which can exist on its own must exist on its own; it could not exist accompanied. This second conclusion has as a corollary that no actually existing individual could exist alone and no individual which can exist accompanied cannot also exist alone.

This seems bad enough. However, as has been noted, truthmaker necessitarianism cannot capture all there is for something to be a truthmaker for some proposition. This is because entities which strictly entail propositions can all the same be *irrelevant* to those proposition's truth. My thumb's existence strictly entails <2+3=5>, but my thumb is irrelevant to the truth of <2+3=5>. For this reason, it cannot make true <2+3=5>. So truthmakers need to be relevant to the truths they make. How to spell out this idea of relevance? By far the most plausible, dominant, way is by reference to explanation: the relevance truthmakers need is *explanatory* relevance; truthmakers need to *explain* the truths they make true. In this sense, my thumb is not the truthmaker of <3+2=5> because my thumb's existence is not relevant to the truth of <3+2=5>. My thumb is no way explanatorily relevant to the truths of mathematics. This leads us to truthmaker explanatorialism (**TE**): the thesis that x is a truthmaker for P only if *x's* existence explains the truth of P. *I.e.*:

$$\textbf{TE:}\ \Box\ \forall x \forall P\ (x\mathrm{TM}P \rightarrow \Box\ (\exists y\ x{=}y < \mathrm{P})$$

Here '<' is a binary operator which translates as '...explains the truth of…'. The explanation in question is metaphysical explanation. x's existence metaphysically explains the truth of P. In some cases, **TE** is quite explicit.[12] In other cases it is obviously

[12] If q is not accessible from the actual world, ***Conclusion 2*** follows straightforwardly, for then q is not possible. If v is not accessible from the actual world, then ***Conclusion 2*** follows vacuously, for then it is impossible for any entity to exist on its own.

implicit. Trenton Merricks would substitute the language of *explanation* for that of *aboutness*, but he thinks the two are equivalent.[13] Schaffer would prefer the language of grounding[14] but this is typically explicated by the notion of (metaphysical) explanation.[15] Gonzalo Rodriguez-Pereya would take *in virtue of* as the primitive, but also links this locution with explanation.[16] Even those, like E.J Lowe, who give an account of truthmaking in terms of essence (*i.e. x* makes true P only if it is essential to P that P is true if *x* exists) can be welcomed into the explanatorialist fold, for the concept of essence in play is not a modal one, but a more Finean one, in which essence itself is linked with explanation.[17]

So **TE** should be congenial to all these truthmaker theorists. It certainly seems the most natural way to extend our characterization of truthmakers.[18] In the succeeding section we will see how explanatorialism generates a further problem for truthmaker theory.

5. Modal Truths

Let us consider modal truths, in particular those which ascribe the possibility of existence. The argument in this section will rest on the B-schema. I shall argue that, given the B-schema, truthmaker theory (**TT**) makes untenable a particular picture of grounding; the picture of grounding which takes grounding relations to be *the* relations of metaphysical explanation. But grounding is almost invariably taken to be such an explanatory relation:[19] this characterization seems to fix the references of 'grounds'. As such, I

[13] Merricks, T., (2007, pg. 30).

[14] Schaffer, J., (2010a).

[15] Rosen, G., (2010), Audi, P., (2013).

[16] Rodriguez-Pereya, G., (2005, pg. 18 & 27).

[17] Lowe, E.J., (2006).

[18] Or possibly to replace **TN**. I'll make no distinction between these options, because most would agree that **TE** entails **TN.**

[19] *e.g.* Rosen, G., (2010), Schaffer, J., (2010b), Fine, K., (2012), Audi, P., (2013).

will (cautiously) suggest that this 'making untenable' amounts to denying the existence of grounding relations.

The relevant picture, as I say, takes grounding relations to be the relations of metaphysical explanation. Putative instances of grounding include realization, composition, constitution and emergence. Under the moniker 'grounding' these relations are meant to vindicate a 'layered' conception of the world, where the lower layer entities explain the higher layer entities. This picture is made precise in the following biconditional: necessarily, *x* grounds *y* if and only if *y's* existence, or some feature of *y*, is metaphysically explicable by reference to *x's* existence and features. In other words:

Grounding Biconditional (GB):

$$\Box\forall x\forall y\ (\mathrm{G}xy \leftrightarrow \exists Y\ \exists X\ (\mathrm{Y}y \wedge \mathrm{X}x \wedge \mathrm{X}x < \mathrm{Y}y))$$

Where 'G' is a binary relation which translates as '…grounds…'. The idea is simply that we have grounding in all and only those cases where we have metaphysical explanation.

That truthmaker theory (**TT)** makes this picture untenable comes out when we consider modal truths, specifically those concerning the possible existence of certain entities. **GB** entails that such truths concerning *y* can be (metaphysically) explained by a feature of *x only if x* grounds *y*.[20] Otherwise, we could – contra **GB** – have explanations detached from grounding. That is, **GB** entails the following conditional:

◊Grounding Conditional (◊GC):

$$\Box\forall x\forall y\ \exists X\ (\mathrm{X}x < \Diamond\ \exists z\ y{=}z\ ) \rightarrow \mathrm{G}xy)$$

However – as we will see – this, in combination with truthmaker theory, entails the necessary necessity of existence (**NNE**). This is a

[20] And presumably the truthmaker theorist will want to say the feature of *x* which explains that of *y* is *x*'s *existence*

disaster for truthmaker theory. I will explain why shortly, but let us first through the entailment.

I will begin by showing that **TM**, **TE** and ◊**GC** entail there could not exist entities which do not actually exist. Here's the argument; suppose – for reduction – that *l* is a possible world which contains an entity alien to the actual world, @. Call this entity *y*. *y* is alien relative to @ if and only if *y* does not exist in @. If *l* is a possible world, then it is true of @ that <Possible, *y* exists>. Call this proposition POSSIBLE*y*. This is a modal proposition, specifically one concerning possible existence. By TM, POSSIBLE*y* requires a truthmaker. By **TE**, this truthmaker must explain the possibility of *y's* existence.

However – here's the rub – ◊**GC** entails that there can be no such thing. This is because ◊**GC** says there is such a thing only if it grounds *y*. But, given *y* does not exist in @, there is nothing in @ which grounds *y;* grounding, like every relation, relates only existing entities. But then, there is nothing (in @) the existence of which explains *y*'s possible existence. Hence, given **TE**, there can be no truthmaker for POSSIBLE*y*. So, given **TM**, POSSIBLE*y* is not true of @. Contradiction.

Therefore, *l* is not a possible world after all. There can be no worlds which contain entities that are not contained in the actual world.

The remainder of this argument relies on the B-schema: a schema guaranteeing the accessibility relation is symmetric.[21] Given this, truthmaker theory also entails that there can be no possible worlds which *lack* entities contained in the actual world. For suppose – for *reduction* – that *k* is such a world. Then *k* lacks some actually existing entity, *z.* Enter the B-schema: if *k* is accessible from the actual world, the actual world is accessible from *k.*[22] Hence, if *k* is a possible world, it is true of *k* that <Possibly, *z* exists>. Call this proposition POSSIBLE*z.* But *z* is an alien entity relative to *k* , so *k* is in the exact same position *vis-à-vis*

[21] *i.e.* $P \rightarrow \Box\Diamond P$.

[22] Lycan, W., (1994, pg. 50) uses a similar argument to combat combinatorialism.

@ as was @ *vis-à-vis l*. By **TM**, POSSIBLE*z* needs a truthmaker (in *k*). But by **TE** and ◊**GC** it cannot have one. For a truthmaker for POSSIBLE*z* would need to explain its truth, and given there is nothing in *k* which grounds *z*, by ◊**GC** there is nothing in *k* which explains the truth of POSSIBLE*z*. So POSSIBLE*z* doesn't have a truthmaker in *k*. Contradiction. Therefore, *k* must not be a possible world either. There can be no world which lacks any entities which are contained the actual world.

From here, it is an easy step to **NNE;** if there are no possible worlds which contain entities extra to the actual world, and no possible worlds which lacks entities contained in the actual world, necessarily every entity exists necessarily. *I.e.*:

NNE:

$$\Box\forall y\ \Box\exists x\ x{=}y$$

As I assert above, this is a disaster for truthmaker theory. This is because, given **TM** and **TN, NNE** induces complete modal collapse; it makes truth and necessary truth equivalent. Here's how: by maximalism, every truth has a truthmaker which, by necessitarianism, strictly implies the truth it makes true. But by **NNE** every truthmaker exists necessarily. Since every truthmaker exists necessarily, and strictly implies the truths it makes true, every truth is necessarily true. That is, $P \rightarrow \Box P$. Of course, $\Box P \rightarrow P$, so $P \leftrightarrow \Box P$; complete modal collapse.[23]

Being a disaster for truthmaker theory, the truthmaker theorists must resist this argument at all costs.

What *is* the cost? Well, assuming the B-schema, the truthmaker theorist needs to deny ◊**GB**, and therefore **GB**. In fact, they need to do somewhat more then this; they need to deny there is *any* relation characterizable by equivalency with metaphysical explanation. This is simply because the word 'grounds' was not crucial to the argument; if there is some relation, 'zounds' which is characterizable by equivalency to metaphysical explanation then the argument

[23] See Williamson, T., (1999, 2013).

will go through just the same if we replace all instances of 'grounds' with 'zounds' (and 'grounding' with 'zounding'). Hence:

Conclusion 3:

$$(\mathrm{TM} \wedge \mathrm{TN} \wedge \mathrm{TE}) \rightarrow \neg\exists \mathrm{Z}\, \Box\forall x \forall y\, (\mathrm{Z}xy \leftrightarrow \exists Y\, \exists X\, (\mathrm{Y}y \wedge \mathrm{X}x \wedge \mathrm{X}x < \mathrm{Y}y))$$

From this the denial of **GB** drops out as a corollary:

Corollarygb:

$$(\mathrm{TM} \wedge \mathrm{TN} \wedge \mathrm{TE}) \rightarrow \neg \mathrm{GB}$$

And so we have a first account of the cost; the truthmaker theorist needs to deny that any relation, including grounding, is equivalent to metaphysical explanation. Let us go further. Is there any way to do this whilst keeping the tight connection between grounding and explanation? I do not think so. I will discuss such a way -the only plausible way I can think of- in the remainder of this section. I will find that it does not help truthmaker theory avoid the necessity of existence.

The way I will consider could be glossed as 'taking the modal context seriously'. The truthmaker theorist might be happy with **GB** in non-modal contexts, whilst insisting that **GB** is restricted in certain modal contexts. They might say that the *possibility* of x grounding y, is sufficient (and necessary) for explaining the possible features of y by reference to features of x. We don't need actual grounding (they could say) in these modal contexts, only the possibility of grounding. So where we restrict the range of the predicate variable Y to only modal properties, we get the following biconditional:

Grounding Biconditional* (GB*):

$$\Box\forall x \forall y\, (\Diamond \mathrm{G}xy \leftrightarrow \exists Y\, \exists X\, (\mathrm{Y}y \wedge \mathrm{X}x \wedge \mathrm{X}x < \mathrm{Y}y))$$

Which entails:

◇Grounding Conditional* (◇GC*):

$$\Box\forall x\forall y\ \exists X\ (Xx < \Diamond\ \exists z\ y{=}z\ ) \rightarrow \Diamond Gxy)$$

Rather then the actual grounding of *y* by *x* being necessary for some feature of *x* to explain *y*'s possible existence, it is the possibility of such grounding which is necessary. So **◇GC*** replaces **◇GC.**

It seems like this helps. Reconsider @ and *l.* Although *x* does not actually ground *y* (because *y* is a mere possibillia), perhaps there is some possible world -let us call it *j*- in which *x* grounds *y*. Hence, it is possible for *x* to ground *y*. If this *is* possible, then **◇GC*** does not rule out *x's* existence explaining the possibility of *y* existing, in @. As such, *x* is not ruled out as the actual truthmaker for POSSIBLEy. Hence, the previous road to **NNE** is blocked; it seems one can be a truthmaker theorist without being committed to the necessary necessity of existence.

Unfortunately, the helping is illusory. The problem is that, necessarily, ground strictly implies grounded. [24] This is called the strict entailment principle: necessarily, if *x* grounds *y*, then *x's* existence strictly implies *y*'s existence. *I.e.*:

Strict Entailment Principle (SEP):

$$\Box\ (Gxy \rightarrow \Box\ (\exists z\ x{=}z \rightarrow \exists z1\ y{=}z_1))$$

In the light of this, consider *j*; the possible world in which *x* grounds *y*. This possible world is needed for POSSIBLEy to be true of the actual world, @. Because *j* is a *possible* world, it is accessible from @. Hence, ground strictly implies grounded in *j* (by **SEP**). But, given the B-schema, if *j* is accessible from @, then @ is accessible from *j*. So ground implies grounded in the actual world.

[24] As argued for by Rosen, G., (2010), Trogdon, K., (2013).

By hypothesis, *x* exists in @; this is why it was (purportedly) able to make POSSIBLE*y* true (for non-existent entities don't make anything true). But then, given ground actually implies grounded that means *y* must exist in @ as well. And so *y* must actually exist after all: *y*'s possible existence turns out to require its actual existence. We are now on the royal road to **NNE**. Nothing which doesn't actually exist could possibly exist and, by parity of reasoning nothing which actually exists could fail to exist (given the B-schema). That is to say, necessarily everything exists necessarily; precisely the claim that **GB*** and ◊**GC*** were meant to extricate the truthmaker theorist from. So appealing to merely possible grounding relations turns out to be no help at all.

In a second accounting, then, this cost of truthmaker theory is the denial of any equivalency between grounding and metaphysical explanation. We might well wonder what *this* cost amounts to. That depends on how central one thinks some such equivalency is to the concept of 'grounds'. I would tentatively suggest it is very central indeed; that it has an irreplaceable role in characterizing the reference of grounding in the same way as 'horselike creature with just one horn' has an irreplaceable role in characterizing 'unicorn'. *If* this suggestion is correct, then this cost amounts to a denial of the existence of a grounding relation in the same way denying the existence of any horselike creatures with just one horn amounts to denying the existence of unicorns. In other words:

Conclusion 4:

$$(\mathrm{TM} \wedge \mathrm{TN} \wedge \mathrm{TE}) \rightarrow \neg\exists X\, X{=}\mathrm{G}$$

Hence if one thinks that there can be -or are- grounding relations, one better restrict the truthmaker requirement in the face of certain modal propositions.

6. Conclusion

I have argued for four conclusions. ***Firstly***, truthmaker theory implies that it is not possible for there to be nothing. ***Secondly***, truthmaker theory implies that if an entity is possibly accompanied, it is necessarily accompanied. ***Thirdly***, truthmaker theory makes an equivalency between grounding and metaphysical explanation untenable which, ***fourthly***, entails that grounding relations could not exist. I think none of these conclusions are palatable. To avoid them, we should restrict the truthmaker requirement.

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