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Not a Total Failure

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Abstract In this paper I offer a partial defence of Armstrong's totality relation as a solution to the problem of so-called "negative existentials".

Keywords Truth · Truthmakers · Armstrong · Totality relation · Maximalism · Cameron

Introduction

Suppose you think, as you should, that it's true that <there are no arctic penguins>. Familiar worries ensue once we start to consider what, precisely, *makes* that true. What is the truth-maker for the proposition? After all, the penguins at the Antarctic won't do it—the existence of those penguins is quite compatible with the existence of arctic penguins. Nor will the arctic itself serve to make true the proposition in question—the existence of the Arctic is *also* quite compatible with the existence of arctic penguins. But clearly the proposition *is* true; so what makes it true?

Perhaps it's "the world" (Cameron (2008)—though see "The Nature of the Totality Relation", below); perhaps it's the one substance (Schaffer 2010); perhaps nothing does, and negative existential propositions such as <there are no arctic penguins> get to be true simply because their negations lack truth-makers (Tallant 2010).[1] Lots of "perhaps". But another option, promoted by Armstrong, has largely, I think, been rejected.

Armstrong's proposal is that the minimal truth-maker for all talk about what there is not includes a totality relation: a relation that sums all of the first order states of affairs and then makes it true that *there's nothing else*.

[1]Perhaps, in fact, you don't think that the truth of the proposition requires any relationship at all between proposition and world. I'll ignore this view for the purposes of the paper.

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It's worth spelling out, here, rather more of the detail of Armstrong's proposal. Let us begin by considering a case. Consider an aggregate of electrons.

> The aggregate stands in a highly specific relation to the instantiated property... of *being an electron*. That property maybe said to *total* or to *all* that particular aggregate. (2004: 73)

Armstrong's thought is that we are perfectly familiar with the idea of a "totalling" property or relation. In the case just described, for instance, the property "being an electron" totals the aggregate.

This can then be developed into a more general account.

> If the world is a world of states of affairs alone, as I contend, then we have another Tot [totalling] relation holding between the very same whole and the 'property' *being any existent at all*. (2004: 74)

So, the "totality" relation is a relation that takes all of the first order states of affairs and is then sufficient for the proposition <there is nothing else> to be true.

Such putative elements of being have received an undeservedly bad press. It's not at all unusual to hear something along the following lines given as reason to deny that a totality relation exists.

> A totality relation, if it existed, would have to be in some way "negative"—it has to make it true that some things *do not* exist. But "negative" relations are reprehensible, and ought not to be admitted into our ontology. That being the case, we ought not to allow the totality relation into our ontology.[2]

My proposal in this paper is not to argue that *there are* such relations, but to argue that some of the criticisms of such relations are misplaced. I leave it to others to determine whether or not I do enough to articulate a *sufficient* defence of the totality relation, or whether such a relation remains unpalatable for other, unexplored, reasons.

Melia on the Totality Relation

Our examination of the barrage of objections to the Armstrongian proposal begins here, with Melia (2005: 69):

> It is simply wrongheaded to think that there should be a truthmaker which corresponds to negative existential sentences. Intuitively, what makes a sentence such as 'There are no Fs' is a *lack* of *F*s. Armstrong tries to account for such truths by postulating states of affairs of totality. Besides the bizarre necessary connections that such states of affairs entail (how can something's mere existence necessarily prevent an object d from being *F*), and besides the implausible nature of the totality relation itself, it is just confused to think that we must account for a *lack* by postulating the *existence* of something else.

To my eye, we might note three distinct objections here.

[2] Nothing in the ensuing argument trades upon this very informal remark.

First, we have the claim that a totality relation would require "bizarre necessary connections". Second, we have the claim that the nature of the totality relation is implausible. Third, and finally, we find the objection that we must account for a lack by postulating an existent and that *this is somehow bad*.

In what follows I'm going to use these three objections of Melia's to structure the debate. It's these three objections that will concern me here.

Necessary Connections

Let's begin, then, with a discussion of the necessary connections entailed by the totality relation: what, exactly, is supposed to be bizarre about this relation? Well, to reiterate Melia's claim, what is bizarre is presumably that it's hard to see how the existence of one object, *o*, can prevent another object, *d*, from being *F*.

But what is the objection supposed to be? I can see my way to three different ways in which we might read Melia, here. First, necessary connections are bizarre and so any ontology postulating them is to be rejected. Second, there is a certain class of necessary connections that *is* acceptable, but that the sorts of negative connections that are produced by negative properties don't fall into that class. Third, whilst remaining quiet on necessary connections *in general*, we might think that there's something very odd about the existence of one entity entailing that something else *not* exist: that there is something intrinsically odd about one thing *preventing* the existence of another.

Necessary Connections: All Bad

So, to the first claim: *all* necessary connections are theoretically suspect, and since the totality relation requires necessary connection, so the totality relation is to be rejected.

But such a claim seems both too strong and too quick. For one thing, as we'll see, not *all* necessary connections are obviously theoretically suspect. For another thing, it's not at all clear *why* we ought to think that necessary connections *are* suspect at all.[3]

Necessary Connections: Some are Good, Some are Bad; Totalities are Bad

So perhaps we might be tempted to soften the claim and be guided by Cameron's insight that "possibility is the default mode" (2010, fn 14). That looks a more palatable claim. If we're going to posit a necessary connection between two distinct particulars, then presumably we must have some reason to do so and some explanation of how and why the necessary connection arises.

But of course treating "possibility as the default" won't *necessarily* generate the conclusion that negatives are *objectionable*. It's perfectly compatible with this claim that although possibility is the *default*, there *are* situations in which we are prepared to move away from the default. And presumably, there *are* situations in which we

[3] For instance, Wilson (2010).

will permit necessary connection. For instance, even the Lewisian looks to endorse at least *some* sorts of necessary connection:

> NUS: Necessarily, if there are some things, the Xs, then there is a thing which is the sum of the Xs.[4]

Cameron (2010, p. 185) argues that NUS seems to be a *plausible* necessary connection. But in part this is because of the way we use language.

> Universalists are fond of defending their view by claiming that complex objects are nothing 'over and above' the simples composing them: that they were an "ontological free lunch" and "no addition of being".They tend to be less fond of telling us what this means. But once we accept that existence claims can be true without being made true by what is said to exist we have to hand a satisfying explanation. Complex objects are no addition of being—they are an ontological free lunch; nothing 'over and above' the simples that compose them—because the ontology needed to ensure the existence of complex objects is just an ontology of simples. It is true to say that complex objects exist; but what grounds the truth of statements concerning the existence of complex objects—what makes them true—are just the simples. And so the truth of NUS is un-mysterious: the reason it's necessary that when you've got some things you've also got their sum is simply that the things themselves will make it true that there is some thing that is their sum.

Thus, according to Cameron, necessary connections are unobjectionable where we have some explanation of the necessary connection.

That might give us an argument *against* the deployment of the totality relation. For instance, suppose we tried to explain the necessary connection between a sum of states of affairs by saying that the totality relation was no addition to being—in the same way that Cameron looks to explain the existence of sums. We would, surely, speak falsely. The whole point of the totality relation is that *it*, and not merely the existence of a sum of states of affairs, is what explains why negative existential sentences are true. So whereas the existence of the simples is sufficient, according to Cameron, to make it true that there are composite objects, it is clearly not the case that the existence of sums of states of affairs is sufficient to explain why it is true that, for instance, <there are no arctic penguins>.

Armstrong can rebut this argument. In a reply to Heil (2006), Armstrong (2006: 245–6) remarks:

> It is important to realize the 'no more' that these facts involve should not be thought of as *additions* of being. 'No more', after all, is the rejection of any addition

Suppose that we return our attention to the electron example with which we began the paper. Armstrong claims that an aggregate of electrons is totalled by the property "being an electron". I take it that this property *being an electron* is supposed to be totalling the aggregate of electrons. Now I take it that in this case so conceived, we already find in

[4] See, e.g., Lewis (1991: 79–81).

our ontology electrons. The question, then, is whether or not the property of *being an electron* is a property *over and above* the existence of the electrons.

Let's chart our possible ontological commitments (OC).

OC1 Electrons + *being an electron*
OC2 Electrons

OC1 requires us to posit some addition to being: some additional property of *being an electron*.

What might be going on in the OC2 case? I take it that it is still coherent to talk of there *being an electron*, and to talk of a particular entity *being an electron*. Plainly some explanation is in order, however. If we are to avoid positing a genuine property, *being an electron*, then it seems most likely that what we will do is posit a set of necessary and sufficient conditions, ELEC, such that all objects satisfying ELEC are electrons. So, we might say, although there is no such property as *being an electron*, we can still talk truthfully about entities "being an electron" precisely because these entities satisfy the necessary and sufficient conditions for being an electron. The ontological ground (the truth-makers) for our claims about electrons will, ultimately, end up being particular properties: perhaps, charge, mass, and so on. OC2 then seems plausible.

Can we then say sufficiently similar things about totalities? Consider the following two statements of ontological commitment:

OC3 First order states of affairs + *being a first order state of affairs*
OC4 First order states of affairs

OC3 plainly has us adding some element of being—and this is, given the above quotation, something Armstrong wishes to avoid.

Once again, then, we should ask about OC4: what is it that makes it true that these states of affairs do not require a *genuine addition to being* in order make true the claim that they are all first order states of affairs? Presumably, the first order states of affairs will have to satisfy some set of necessary and sufficient conditions for being a state of affairs (being non-mereologically composed of a thin particular and a Universal, would do—setting to one side concerns regarding the notion of "non-mereological composition"). So, we might say, although there is no such property as *being a state of affairs*, we can still talk truthfully about entities "being a state of affairs" precisely because these entities satisfy the necessary and sufficient conditions for being a state of affairs. The ontological ground (the truth-makers) for our claims about electrons will, ultimately, end up being, e.g, thin particulars and Universals.

The thought, then, would be this: If we generate a totality simply by bringing together a collection of entities that can be said to fall under some "property" or other conceived of in the (OC2/OC4 sense of the word 'property'), then there's no reason to think that this necessary connection is any more mysterious than NUS that Cameron talks about. We simply generate NT—the necessity of totality:

> NT: Necessarily, if there are some things, the Xs, then there is a totality of those things that we may call "the Xs".[5]

[5] For instance, "the first order states of affairs".

This, so far as I can tell, is no more an objectionable necessary connection than is NUS.[6]

But there's more we could say. Above we left implicit the claim that a necessary connection is acceptable when it is explained by the relations of ontological dependence. In Cameron's words (what I'll call the "Cameron Conjecture" (CC))

> *whenever* there is a necessary connection it is explained by the relations of ontological dependence that hold between the necessitated and the necessitating entities (Cameron 2010: 9)

We might then think that the totality relation is not acceptable precisely because it fails to satisfy CC; there is nothing in the world for which the totality relation depends for its existence.[7]

But I think that arguing in that way would be poor argument. CC is a criterion for when necessary *connections* are permissible, but it says nothing whatsoever about necessary *exclusion*. Using CC to reject necessary exclusions would be like objecting to a theory of composition on the grounds that a composite object failed to satisfy some putative condition for being a Universal.

The point, of course, is that using a criteria for permissibility in some domain, x, in some *other* domain, *y*, is a poor strategy unless we can find some reason to co-opt that strategy into the new domain. Given that talk, here, is about exclusion, rather than connection, it's difficult to see how we might manage to import CC. To repeat: CC is a conjecture about *connections*: properly speaking, the proponent of the totality relation is arguing for necessary *exclusions*. It is, I take it, *trivial* to say that a totality relation would fail CC on the grounds that although there is a necessitating entity, there is no *necessitated* entity: there is no *thing* whose existence is being necessitated by the existence of the necessitating entity. The totalling relation does not bring any new entity into existence.

If we were going to then revise CC and consider exclusion, what might we say? Suppose we say something like this:

> E: *whenever* there is a necessary exclusion it is explained by the excluder being incompatible with the excludee

So, suppose that we endorse E: what is the prognosis for the totality relation? E is satisfied by the totality relation. The totality relation, at t, is incompatible with the inclusion of anything that does not, in fact, exist at t. That being the case, the totality relation satisfies E and is an acceptable excluder.

All things considered, then, it's hard to see that there's a compelling argument against Armstrong lurking in here.

Necessary "Connection": There's Just Something About Exclusion

The final objection that we might read Melia as levelling is that there's just something *wrong* with the idea of exclusion. It's not so much that the necessary

[6] To ape Cameron we might say: And so the truth of NT is un-mysterious: the reason it's necessary that when you've got some things you've also got a totality of them is simply that the things themselves will make it true that there is these are all of those things.

[7] Note: I do not accuse Cameron of deploying CC to this end.

connection is objectionable *per se*, but that the necessary *exclusion* is, for some reason, objectionable in and of itself.

But the trouble is that we *don't* think that necessary exclusions *are* odd. Consider the property of "being green". So far as I can tell, we think that the instantiation of "green" is incompatible with the instantiation of "blue": indeed, we think that green *necessarily* excludes blue—else why would it not be possible for an object to be both green all over and blue all over? Now if we already think that properties can act as excluders, then why can we not then *also* insist that a totality relation can act as an excluder? We cannot, surely, be objecting to the mere fact that we have *an* exclusion, here.

But now I'm out of ideas as to what is supposed to be wrong with necessary exclusion. Perhaps my opponent can say more, but it seems that there may in fact be rather less wrong with the idea of a totalling relation than initially meets the eye.

The Nature of the Totality Relation

Melia thinks that there's something very strange about the totality relation. But it's not clear *what* is supposed to be strange about the relation. Let's consider a basic sketch of the relation and then see if we find anything obviously problematic with that sketch.

First, the totality relation is a polyadic relation. In particular, the "totality" relation 'holds between a certain mereological object and a certain property' (Armstrong 2004: 72).

Borrowing the mode of presentation from Dodd (2007: 388),

> a negative existential, such a <there are no arctic penguins>, is made true by something of the form
>
> *T*<A, being an arctic animal>
>
> In which A is the mereological sum of the arctic animals and *T* is the relation of totality, where a mereological object totals a property just in case no other thing possesses it.[8]

Second, and as we have seen, the totality relation excludes the existence of things that do not exist. Thus, the existence of arctic penguins is excluded by the totality relation. To make sense of matters, we might need it to be possible for there to be a change over time concerning which entities can be related by the totality relation. Consider the following case: suppose that we transfer penguins from London zoo, to the arctic. Then, we will have arctic penguins. I assume that we do not want to say that the totality relation will prevent our transporting the penguins. Thus we may wish to say that the relata of the totality relation can change over time.

Third, the totality relation will plausibly need to have as relata *all* of the existing first-order states of affairs. Consider a complete scientific inventory of all existing entities. I assume, for the purposes of the paper, that an out-and-out realism about scientific practice suggests the plausibility of such a result. In that case, we will want

[8] Dodd, of course, is no fan of such "negative" facts. I come on to Dodd's arguments later in the piece.

to be able to say <the entities posited by science are the only entities that exist (aside from the totality relation)>. The totality relation, then, had better relate all of the first-order states of affairs and rule out the existence of any other.

Fourth, the relation may have to be primitive and unanalysable—at least, it will not be reductively analysable. We do not, I take it, have any reason to think that the totality relation can be analysed away. In and of itself that needn't be a problem. All metaphysical views have to include primitive elements that admit of no further analysis. Now recall, all that I am trying to establish in this section is that there is nothing *strange* about the totality relation. We've noted, here, that it's a primitive and unanalysable relation. But since *all* metaphysical schemes will have to include primitives, it looks a forlorn enterprise to describe the totality relation as strange *because* it's primitive.

A more powerful route to take would be to demonstrate that there's something about the primitive and unanalysable nature of the relation that renders it simply incomprehensible. But I'm stuck as to how to argue for that claim. As we've already seen in this section, there are plenty of things that we can say about the totality relation—so although the relation may be primitive, it's far from clear that it's mysterious.

So I struggle to see what is supposed to be "strange" about the *nature* of the relation. We have, here, an outline of the some of the properties of the relation. Nothing about the account seemed odd or "strange", so far as I can tell.

A Lack is Not an Existent

The final claim that Melia makes is that it is, quite simply, *confused* for us to posit an existent when what we're trying to explain is a *lack*. He is in company in thinking that this is so. A brief survey reveals a good deal of accord:

> 'To begin with, ontological commitment to absences would seem to be tantamount to a category mistake....(TM) has it that truthmakers are *entities*, band the lack of an entity is not itself an entity.' (Dodd 2007: 388)

> 'I think that the existence of the state of the universe's having the property of *being such that there is nothing more in the universe* does not explain why *that there is nothing more in the universe* is true. Again, that claim is not true because that state exists. Rather, that claim is true because nothing more exists.' (Merricks 2007: 61–2)

> 'How about negative existential truths? It seems, offhand, that they are true not because things of some kind *do* exist, but rather because counterexamples *don't* exist. They are true for lack of falsemakers. Why defy this first impression?
>
> (Don't say: 'Aha! It's a *lack* that makes it true.' The noun is a happenstance of idiom, and to say that a negative existential is true for a lack of falsemakers is the same as to say that it's true because there aren't any falsemakers. The demand for truth-makers might lead one into ontological seriousness about lacks, but not *vice versa*.) (Lewis 1992: 216)

But there are, I think, in these four quotations (the Melia quote with which we began, and the three most recently stated) at least three different (potential) reasons for thinking that negative facts are objectionable.

Reason (i) There is an ontological problem, here. "Absences" just *aren't* entities.

Reply: it's not entirely clear that "absences" are being treated as entities on the Armstrong account. Rather, claims about absences are made true by the existence of the first order states of affairs and the totality relation. That isn't obviously an *absence*. Rather, the totality relation sums all of the first order facts and says that "there isn't anything more". It's not entirely clear that this *is* to be identified with "an absence".

But, that to one side, we might concede that the totality fact is still sufficiently close to an absence for the above point to hold: indeed, we might think that the right way to parse the totality fact is "there exists an absence of anything other than the first order states of affairs". And, in that case, we must say something about the ontological problem.

I think that it is straightforward to do so. One can well imagine the following kind of exchange when it comes to modality.

> I just don't see the need for ontological ground for true modal claims. When I say that it's possible for x to happen, I mean just that: *it's possible for x to happen*. It would be akin to a category mistake to suppose that there is some existing *thing*, or *things* with which we should try to identify "the possible". It's quite simply confused to try and explain what *could* have existed in terms of what exists.[9]

Of course I don't say (here) that we *should* take the line just described. But it's easy to see why it would be tempting. When we talk about what *might* have existed it looks very strange indeed to explain that in terms of what *exists*. After all, when we talk about what might have existed we are seemingly trying to *avoid* talking about what *does* exist; we're trying to talk about what *might have existed*.

Now, as we're happy to admit (often) in our analyses of modality, this is the problem of analysis. We find that what we *intend* to talk about is one thing; the ontological base of such talk is frequently very different.

So, we might concede, it's very natural to suppose that talk about *what there is not* is, in fact, about what there is not. But it just so happens to turn out that the ontological base for such talk is an existing relation. Surprise! And surprise is no bad thing; some of the most interesting results in any domain of inquiry *are* surprising. So, let us not worry too much about the fact that we did not think that absences were things; instead, let us embrace our new found wisdom.

Moreover, it's hard to see how seriously we should take this claim in light of the remarks in "Necessary "Connection": There's Just Something About Exclusion". There, we noted that the totality relation is not, for Armstrong, any addition to being. If the totality relation is no addition to being, then the claim from the opponent that the totality relation is an objectionable "entity" needs to be explained more carefully than it has been so far in the literature.

[9] This seems to be the kind of line that Tallant (2009) takes.

Reason (ii) *The explanatory problem*. The existence of the totality relation doesn't explain why the proposition <there is nothing else> is true.

Reply: that's an odd claim to make. At the moment, it looks like mere stipulation. I can stipulate in the other direction: the existence of the totality relation *does* explain why the proposition <there is nothing else> is true. Aha! What say you now?

Since the argument is Merricks' we should look to what he says. What we find, is this:

> imagine a world with two electrons, E and E*. Add that E has the property of *being such that there is another electron other than* E. I say that the state of E's having that property is not the truthmaker for *that an electron other than E exists*. That truthmaker is, instead, E*. For the existence of E* is why *that an electron other than E* exists is true. Indeed, it is why E has the property of *being such that there is an electron other than* E. (2007: 61)

I deny that there is a useful analogy between Merricks' property and the totality relation. Merricks' property is an instance of a "there is something more" property; the relation with which we're dealing in the totality case is a "there is nothing more" relation.

Now what seems to be motivating Merricks is that the property *being such that there is another electron other than* E is dependent upon the existence of E*: that, if we take E* away, then the property *being such that there is another electron other than E* will no longer be instantiated. Of course, the removal of E* then removes the property *being such that there is another electron other than E*. Because of that, the property cannot be what is explaining why we have something more than just E. For, if we remove E*, then we remove the property. So E * must be what's doing the explanatory work.

But where we have the totality relation, the relation is not *removed* by the addition of more first order states of affairs. Rather, the addition of more first order states of affairs simply entails that the totality relation now sums *more* first order states of affairs than it did previously. So, in that case, the relation *is still* explaining why it is that we have nothing more.

Let me explain: what makes Merricks' case seemingly persuasive is that it seems that in the electron case cited, the existence of another electron is much better suited to explaining the truth of the salient proposition than is the property. This follows because the extraction of the electron seems to generate a sufficient condition for us to say that the property *being such that there is another electron other than E* no longer exists. In the case of the totality relation, no such case can be constructed—it is simply not at all clear that the "subtraction" or "addition" of any other element of ontology would constitute the removal of the totality relation. Since the analogy breaks down, and it is the analogy that is underpinning Merricks' argument against the totality relation, so there is no argument, here, against the totality relation.

It's worth pursuing this line a moment longer, since I think that the oft-cited problem of "pointing beyond" can be explained away, here.

Sider (2001: 41) levels an objection at particular metaphysical views:

> What seems common to all the cheats is that irreducibly hypothetical properties are postulated, whereas a proper ontology should not invoke

categorical, or occurent properties and relations. Categorical properties involve what objects are actually like, whereas hypothetical properties 'point beyond' their instances.

The natural thought, then, is that "negative" properties and relations—relations such as the totality relation—ought not to be postulated because they point beyond the nature of their bearers.

In the case of irreducible modal or temporal properties, the case is perhaps not implausible. Consider, for instance, the temporal property *having been green*.[10] There is a reasonably clear sense in which the property points, not to the way that the object instantiating the property is, but how an object *was*. The property is somehow doing the work of an object that used to exist. When the object existed, *then* it, rather than the property, played the truth-making role. It's as if the property acquires the capacity to point to entities that simply don't exist.

But it seems that the case is rather harder to make with respect to the totality relation. The totality relation, assuming it exists, isn't pointing to how things could be; it isn't pointing to how things *were*, or *will be*. The relation is simply acting as an excluder of anything else. Thus, the putatively "negative" totality relation doesn't "point" to anything at all. Moreover, the relation is *only* an excluder in the sense that it makes true claims about what there is not. As we've seen above, the relation doesn't genuinely *prevent* a change in what exists, such that more entities could come into existence.

My thought, then, is simply this. Both the modal and temporal properties, often accused of making a contribution in a way that "points beyond" their instances, both make a positive ontological contribution. Consider the tensed property "having included dinosaurs": that property is supposed to make it true that *something existed*—namely, dinosaurs. Crudely, the "tensed property" points *back in time* to a situation in which dinosaurs exist.

In the case of the totality relation there simply isn't the same positive contribution being made. The relation is supposed to make it true that *nothing else exists*. It thereby cannot *point* to anything. If the relation did "point", then it would "point" to some existing thing; and if it pointed to an existing thing, then the thing-in-question would exist. But that, of course, is precisely the point of the totality relation. The totality relation is supposed to make it true that there is no other entity. So whatever the totality relation *is* doing, it's not (obviously) doing that which the tensed, and modal properties are doing, and "pointing"—let alone, "pointing beyond".

Does that thereby discharge the accusation of the property being objectionable? Well, if the accusation is that the totality relation is objectionable because it "points beyond" *in the same way* that the tensed and modal properties do, then there is no case to answer. The totality relation is not obviously to be classified in the same way as the modal and temporal properties. If there is still some *other* way of parsing the "pointing beyond" objection—and there may be—then there will remain a potential problem for the proponent of the totality relation. But if this latter scenario is to be realised, then it is down to the opponent of the totality relation to make the case.

[10] Cf. Bigelow (1996).

The last way in which we might interpret the explanatory problem concerns quite what it is that the explanation consists in. Suppose we begin this line of inquiry by asking, "what it is that makes *these* entities all of the entities that there are?" The answer given by the maximalist is that it is the totality relation—the relation "there being nothing other than these things"—that makes *these* entities all of the entities that there are. But that being the case, perhaps it is inappropriate to try and explain why nothing else exists by virtue of a relation which is the relation of there being "nothing else".

I agree. But purpose of the totality relation is not to explain why nothing else exists; it is to explain why <nothing else exists> is true. If we were trying to explain why nothing else exists, then we should likely begin with an account of the initial conditions in the world and try to give a good account of the laws of nature: *that* would look to be the proper explanation of why nothing else exists.

But explaining why particular propositions are true will plausibly require something very different from us. I suspect that, in part, a *complete* explanation of why the proposition <nothing else exists> is true, *will* require something like the account that I've offered above. It will depend upon what we mean by "explanation". But if we hear the question as one asking us for an account of what it is about the nature of reality *at this very moment* that makes it true that <nothing else exists>, then, I submit, offering up the totality relation as a truth-maker is entirely satisfactory.

Reason (iii) *Happenstance of idiom*. Talk of there "being absences" is nothing more than a happenstance of idiom

Reply: maybe it is, but maybe it isn't. There's a story to be told, here. Armstrong has, in his own words, offered us a hypothesis concerning how it is that truths get to be true. The hypothesis is that truths are made true by entities. This, Armstrong thinks, affords us a theoretical economy (2005: 272). The price of this theoretical economy is the existence of a totality relation (even though the relation itself is no addition to being); if we consider our stock of sentences we find some truths that will lack a truthmaker if we do not posit some form of "negative" fact or relation. And so it is we come to posit the totality.

Now of course nothing in that story moves us from idiom to ontology. Rather, we are confronted with a hypothesis concerning how truths get to be made true, as well as some sentences that we think of as true that won't be *made* true unless we posit a totality fact or relation. That being the case, if we're to preserve the theoretical economy that Armstrong wants, we might need to consider the totality relation. I don't think, then, that we need to take Lewis' claim as fatal to the proponent of a putative totality fact.

It would be easy to imagine someone, at this stage, arguing as follows:

> Ok, suppose that we grant you that there's nothing that's as deeply wrong as philosophers have imagined with negative facts or relations—such as the totality relation. Nonetheless, we still find ourselves with a situation in which we have an *intuition* to the effect that totality states of affairs are "suspicious" in some manner; we also have on the table a variety of other solutions to the problem. Cameron (2008) thinks "the world" is a suitable truthmaker; Schaffer (2010) thinks that a monistic substance will do the job; Tallant (2010)/Simons

> (2008) think that negative existentials simply don't need truthmakers. So look, ok, perhaps we *could* do the job with a totality relation, and perhaps there's nothing metaphysically worrisome about that relation, but nonetheless it would be *much* better, intuitively, if we could do without it. And since we can, as the works of these other authors attest, then we should.

I have nothing compelling to say to this respondent. Which view you prefer, maximalism or non-maximalism, will come down to a matter of whether you find ideological or ontological simplicity preferable. If, like Simons and Tallant, you think that ontological simplicity is preferable, then you'll take the line that Armstrong's view is to be rejected; if, like Armstrong, in this case you think that theoretical economy is sufficient a virtue to motivate belief in the existence of a totality relation, then you'll take Armstrong's line.

But what I would argue is this: one of the reasons that the non-Armstrongian proposals mentioned are thought to have particular dialectical force is that they do away with the supposedly troublesome "negatives". If, as I've argued, there isn't in fact anything much wrong with relations like the totality relation, then we have done a good deal to undermine the motivations for these competing views.

Cameron's Maximalism

At this stage, let us turn our attention to the putative Maximalist solutions on offer. In this section, I want to reject one of the options seemingly open to the maximalist—Cameron's claim that the truth-maker for negative existential propositions is "the world".[11] In what follows, I'll retrace Cameron's construction of his "solution" to the problem of negative existential, before demonstrating that it fails.

The kind of view of modality to which Cameron commits is a linguistic ersatzism, according to which a possible world is a set of consistent sentences. Cameron (2008: 414) then wants to talk of worlds. Thus,

> If, for example, possible worlds are sets of propositions, and what is true according to them is a matter of what propositions are in the set, then it follows from the fact that sets are individuated by their members that possible worlds are individuated by what is true according to them.

Cameron then thinks that we can use this to define the actual world:

> So let the world that is said to be actual by a possible world w be W; my claim is that, for any two possible worlds w and v, W and V (the concrete worlds that

[11] I don't discuss Schaffer's (2010) Monistic "solution" to the problem, as this is predicated upon his monism; a view seemingly undermined by Morganti (2009). I don't discuss the Tallant (2010)/Simons (2008) line, that negative existential propositions don't require truth-makers. I do not discuss these positions since, although I find them plausible, my focus on this paper is *maximalist* solutions to the problem. The simple thought is that it would be inadvisable to attempt a genuine comparison of maximalism and non-maximalism without first having a sensible grasp on the "best" version of both views. In this paper I'm looking to undermine the attacks upon the totality relation and reject Cameron's view. So really I see this paper as, at least in part, a work in clarifying which is the *best* version of maximalism.

> are said to be actual by the possible worlds w and v respectively) are counterparts iff all and only the propositions that are true according to w are true according to v.(ibid)

According to Cameron, then, the actual world is individuated by what is true according to it. This, Cameron thinks, will permit him to solve the problem of negative existentials:

> I've claimed that the actual world is individuated by what is true according to it. This amounts to the claim that it has all its properties essentially. As such it is a suitable truthmaker for true negative existentials. No proper part of the world necessitates that there are no unicorns, since every proper part might have been a proper part of a different world that did contain unicorns; so the truthmaker, and hence the ontological commitment, of <there are no unicorns> is just the actual world (2008: 415)

Thus we have Cameron's solution to the problem "the world" has all of its properties essentially and so is quite sufficient to make true negative existential propositions.

But I think that we need to back this up, a little, and re-consider Cameron's definition of a possible world: *viz*. a possible world is a set of consistent true propositions. So, then: which propositions are in the set? I take it that we will want to say that the possible worlds are those that include the consistent *and only the consistent* sentences. We do not, for instance, want to say that there is a possible world that contains the sentences "Gordon Brown is dead (at t)" and "Gordon Brown is not dead (at t)".

My worry, then, is this.

C1) Cameron is trying to ground the truth of negative existential in "the world", but builds his definition of "the world" out of world-membership.

C2) The account that Cameron gives of world membership *itself*, however, appears to require the truth of particular negative existentials: negative existentials that, it seems clear, do not get made true by "the world".

C3) Therefore (from C1 and C2) there are negative existential propositions, essential to Cameron's view, that are not obviously made true by anything

Therefore,

C4) Cameron has not yet defended truthmaker *maximalism*

Let's clarify the steps in the argument.

I take it that C1 is simply a re-statement of the mechanic identified in the quotations from Cameron.

C2 may need some clarification: *which* negative existential does Cameron need the truth of, and why do these not get made true by *the world*? An ersatz world is one composed out of only true, consistent propositions. To put the point another way, it's not the case that there exists, within a possible world, a pair of propositions that are inconsistent. This is not a triviality; this is the way in which we *define* what it is for a world to be a possible world. Notice, too, that this point simply follows from the claim that a possible world is a set, *all* members of which are consistent propositions. The claim that "all F's are G" is one that, familiarly, makes a seeming

commitment to negatives: there are Fs that are G's and *there are no Fs that are not Gs*. But, then, what will make it true that, for instance, at world *v*, all of the propositions are consistent with one another (in other words: there does not exist, in *v*, a pair of inconsistent propositions)?

Clearly, "the world" does not suffice for the truth of these negative existential. The negative existential "there is no pair of inconsistent propositions in this set of propositions" is manifestly *not* about this world; it's about a set of abstract objects that comprise *v*. Recall that, for Cameron, "The World" is that which is actualised—it is a concrete object that has its properties essentially. "The World", then, surely cannot make true the claim that "there are no pairs of inconsistent propositions in this set". Simply, it's hard to see how a concrete object, such as the world, can make that true.

So far as I can see, there is no way for Cameron to insist that "the world" being *defined* as a realisation of an ersatz world, can then be used to ground the truth of the claim that "there are no pairs of inconsistent propositions in this set", where, "this set" is used to describe the possible world that the *actual* world is a realisation of.

From here, it's easy to see that (C3) follows. The negative existential "there are no pairs of inconsistent propositions in this set" is essential to Cameron's view, since it is a part of what permits us to individuate the merely possible worlds. And so tentatively, I conclude that these propositions are not made true by the world. And, thus, (C4): we have identified a true proposition for which Cameron's solution to the problem of negative existential does not provide a truth-maker.

Conclusion

To reiterate a point I made towards the start of the paper, the goal here is not to argue that we *should* endorse Armstrong's totality relation solution. Rather, the far more modest aim of the paper is to show that a number of the criticisms made of it simply don't stick. Moreover, having demonstrated in the penultimate section that Cameron's view doesn't actually solve the problem of negative existential, we have undermined one of the chief maximalist rivals to Armstrong's view. Thus, although we may not decide that Armstrong's view *is* to be endorsed, it is clear that the view is not so badly off as one might have thought.

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