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1

A New Definition of ‘Omnipotence’
in Terms of Sets*Daniel J. Hill***1 Background**

Almost all the recent attempted definitions of ‘omnipotence’ in the literature are couched in terms of states of affairs or propositions.¹ The definitions from the scholastics are almost all in terms of actions.² There is, however, considerable philosophical debate over whether states of affairs, propositions, and actions really exist.³ In this essay I wish to investigate whether it is possible to define ‘omnipotence’ in a new way without quantifying over such disputed entities.

2 A schematic definition?

So, is it possible to give a correct definition of ‘omnipotence’ without making reference to states of affairs or the like? A first try might make use of a definition schema and substitution rather than quantification:

1. For every possible being, x , x is omnipotent if and only if x has the power to cause it to be the case that p .

The reason why Definition-Schema 1 is a definition schema rather than a definition proper is that ‘ p ’, unlike ‘ x ’, is not a variable, but a schematic letter. The assertion would be that, if x is omnipotent, whatever English sentence we substitute for the letter ‘ p ’ in Definition-Schema 1 yields a truth. The problem is that to be a valid definition schema the converse assertion also needs to be true, that is, it needs to be true that if whatever English sentence we substitute for ‘ p ’ in Definition-Schema 1 yields a truth then x is omnipotent. Sadly, this converse assertion is not true, however. Definition-Schema 1 is too weak: it allows to qualify as omnipotent a being whose powers reach as far as does our language, but no farther. In other words, we think, intuitively, that an omnipotent being should have the power to do things far beyond the descriptive powers of English or any other natural

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language, yet Definition-Schema 1 does not insist on this. The moral of this failed attempt is that any satisfactory definition of 'omnipotence' is going to have to involve quantification over *something*; a mere schema will not suffice.

3 Defining 'omnipotence' in terms of sentences?

So, over what undisputed entities (i.e. entities other than states of affairs, propositions, and actions) can we quantify? *Sentences* certainly exist, and this might tempt us to define 'omnipotence' thus:

2. For every possible being, x , x is omnipotent if and only if for every possible sentence, S , if it is metaphysically possible that S be made true then x has the power to make S true.

Definition 2 is stronger than Definition-Schema 1, as it quantifies over *possible* sentences rather than just allowing substitution of *actual* sentences. Despite this, however, it is still not clear that this definition is sufficiently strong – it still runs the risk of counting as omnipotent a being that we intuitively think not omnipotent. Even if we consider all the sentences that could exist, there are, intuitively, ways the world could be that aren't described by such sentences: it is usual to insist that every sentence must be finitely long, and yet we surely want the definition of 'omnipotence' to imply that every omnipotent being has the power to accomplish tasks that need infinite specification. Also, if every sentence has to be of a physical form (e.g. marks on a paper, or sound waves) then it would seem, since physical forms can be differentiated only by difference in position of atoms and molecules, that there cannot be enough physical forms to express every truth concerning the mental world that we think should be in the power of an omnipotent being.⁴ It may be responded that God represents all these truths to himself in mental sentences, and so the definition goes through unchallenged. This response may be correct, but I think that the definition of 'omnipotence' should not presume either that God exists or that he represents truths to himself in the form of sentences.⁵

4 The new definition of 'omnipotence', in terms of sets

At this point it may seem that we have exhausted our options, if we are not going to pursue a definition in terms of sentences, and if we also reject states of affairs, facts, actions, and propositions. We have not, however, rejected all abstract objects; we have not considered such putative mathematical objects as sets and numbers.

The existence of sets is less controversial than the existence of propositions, actions, and states of affairs. This is for two reasons: first, an adequate

interpretation of modern-day mathematics requires the idea of a set, and secondly, it is relatively clear as to what sets are supposed to be – collections of a certain kind. And it is relatively clear what collections are supposed to be, and we regularly assume the existence of groups, teams, countries, organizations, companies, and so on, as well as the individuals that compose them. It should also be noted that not all sets are necessary existents; a set exists if and only if its members do, and while mathematicians tend to study pure sets that are frequently considered necessary existents, our discussion will be confined here to impure sets.⁶ (Pure sets have no members that are not sets, and their members have no members that are not sets, and so on, whereas impure sets do have members that are not sets, or have members that have members that are not sets, and so on.)

5 First main clause of the new definition

How, then, should we define ‘omnipotence’ in terms of sets? The first thing we want is that an omnipotent agent be able to create any creatable object and destroy any destructible object: here we do not need to introduce discussion of sets as we have no objection to discussing individual (concrete) objects anyway. This yields the following first main clause of our definition:

3. For every possible being, x , x is omnipotent only if
 - 3.1 for every other possible being, y , if it is possible that anything has the power to cause it to be directly the case that y actually exists, then x has the power to cause it to be directly the case that y actually exists;
 - 3.2 and for every possible being, y , if it is possible that anything has the power to cause it to be directly the case that y does not actually exist, then x has the power to cause it to be directly the case that y does not actually exist.

It is necessary to add the subsidiary clauses beginning ‘if it is possible that anything has the power’ since there may well be necessarily existent entities (such as God himself) that cannot be caused to exist by anything, and cannot be caused not to exist by anything.⁷ It is necessary to add the word ‘other’ in Subsidiary Clause 3.1 because it would not be appropriate for a definition to rule out of court in advance the epistemic possibility that there might be an omnipotent being that might be powerless to cause his own existence, but whose existence might have been brought about by something else. For example, on some understandings of the Trinity the Father causes it to be the case that the Son exists (though not, of course, that he begins to exist) and yet the Son cannot cause it to be the case that he himself exists (since nothing can cause it to be the case that it itself exists), even though he is omnipotent.

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Let me explain what I mean by 'cause it to be directly the case that':

4. For every possible being, x , x causes it to be directly the case that p if and only if x causes it to be the case that p , and it is not true that both
 - 4.1 x causes it to be the case that q ;
 - 4.2 and it is the case that p (at least partly) in virtue of its being the case that q .
5. For every possible being, x , x causes it to be indirectly the case that p if and only if x causes it to be the case that p and it is true that both
 - 5.1 x causes it to be the case that q ;
 - 5.2 and it is the case that p (at least partly) in virtue of its being the case that q .

Note that these are, strictly speaking, not definitions, but definition schemata: they become definitions when the dummy letters ' p ' and ' q ' are replaced with real English sentences. It is important to note that ' p ' and ' q ' are not variables; if they were then they would have to range over really existing things and we would be back with the commitment to propositions that I eschewed at the start. It does not matter if both ' p ' and ' q ' are replaced by the same English sentence since no sentence of the form 'it is the case that p in virtue of its being the case that p ' is true. Note that 'directly' and 'indirectly' qualify 'it is the case that' rather than 'cause'; this is not the same notion as that of a basic action. One reason for this is that I am trying to come up with a definition of 'omnipotence' that does not involve the notion of action, since, as we saw earlier, actions are disputed entities. Another reason is that it would seem to be possible to cause it to be the case that p & q , but without doing so in virtue of *separately* causing it to be the case that p or *separately* causing it to be the case that q . Nevertheless, on my definition one would be causing it to be indirectly the case that p & q , since one would be, *thereby*, either causing it to be the case that p or causing it to be the case that q , and it is the case that p & q partly in virtue of its being the case that p and partly in virtue of its being the case that q .

Let me give some examples to clarify the intuitive notion. Let us assume that Plato caused it to be the case that he freely wrote a dialogue. Did he cause this to be directly the case or did he cause this to be indirectly the case? Surely he caused it to be indirectly the case that he freely wrote a dialogue, since it is the case that he *freely* wrote a dialogue partly in virtue of its being the case that he wrote a dialogue, and surely he caused that also to be indirectly the case, since it is the case that he wrote a dialogue in virtue of its being the case that he moved his arm in a certain way.

Let us assume that Adam caused it to be the case that Adam sinned without being determined to do so by God. Did he cause this to be directly the

case or did he cause it to be indirectly the case? Surely he caused it to be indirectly the case that Adam sinned without being determined to do so by God, since it is the case that Adam sinned without being determined to do so by God partly in virtue of its being the case that Adam sinned, and surely he caused that to be indirectly the case, since it is the case that Adam sinned partly in virtue of its being the case that he ate the forbidden fruit, and surely he caused *that* to be indirectly the case, since it is the case that he ate the forbidden fruit partly in virtue of its being the case that he moved his jaw in a certain way.

Why is it necessary to add the word ‘directly’ in Definition 3? It is necessary to prevent gerrymandered counter-examples, such as the objection that no omnipotent being has the power to cause it to be the case that there actually exists a being whose actual existence is not brought about by an omnipotent being (assuming that it is indeed possible that there be such a being). The definition escapes this objection because nothing can or could cause it to be *directly* the case that there actually exists a being whose actual existence is not brought about by an omnipotent being. Suppose some being, *z*, caused it to be the case that such a being actually existed, then it would be the case that a being whose actual existence was not brought about by an omnipotent being actually existed partly in virtue of its being the case that there was a being of some sort or other – and *z* would have caused this to be the case too. (It would also be the case partly in virtue of its being the case that *z* brought it about and partly in virtue of its being the case that *z* was not omnipotent, but this latter fact is not relevant here, since (we may assume) *z* did not cause it to be the case that *z* was not omnipotent.) Hence, if some being, *z*, caused it to be the case that there actually existed a being whose actual existence was not caused by an omnipotent being, *z* would not cause it to be *directly* the case that there actually existed a being whose actual existence was not caused by an omnipotent being. (This same answer also suffices if the objection is reworked in terms of ‘a being whose actual existence is not brought about by an omnipotent being to be directly the case’ or ‘a being whose actual existence is not brought about by an omnipotent being to be indirectly the case’.)

It may be wondered why we did not have a clause featuring ‘causing it to be *indirectly* the case that’ in Definition 3. The answer is that it was not necessary: if a being, *z*, has the power, for every being whose actual existence can be caused directly to be the case, to cause it to be directly the case that that being actually exists, *z* will thereby have the power to cause actually to exist every being whose actual existence we would intuitively expect an omnipotent being to have the power to cause indirectly to be the case.⁸ For example, suppose that the aggregate of Mt Everest and George Bush actually exists (as I think it does). Is it possible to cause this aggregate’s actual existence *directly* to be the case? No. Suppose some being, *z*, caused it to be the case that the aggregate of Mt Everest and George Bush actually existed.

It would then be the case that the aggregate of Mt Everest and George Bush actually existed partly in virtue of its being the case that Mt Everest actually existed and partly in virtue of its being the case that George Bush actually existed, and it would be the case that either z caused it to be the case that Mt Everest actually existed or z caused it to be the case that George Bush actually existed, whence it follows that z would have caused it to be *indirectly* the case that the aggregate of Mt Everest and George Bush actually existed. Our definition mandates that every omnipotent being has the power to cause it to be *directly* the case that Mt Everest actually exists and the power to cause it to be *directly* the case that George Bush actually exists, since it is possible (even if not for us) to cause, for each of these, it to be directly the case that it actually exists. Hence it follows, without the need for further specification, that every omnipotent being has, by co-exercising its power to cause it to be the case that Mt Everest actually exists and its power to cause it to be the case that George Bush actually exists, the power to cause it to be indirectly the case that the aggregate of Mt Everest and George Bush actually exists.⁹

Even with all this refinement, however, there may still be an objection to Subsidiary Clause 3.1. The objection is that the clause mandates only that for any *one* other possible being every omnipotent being has the power to cause it to be directly the case that that being actually exists (assuming this is possible); it does not insist that every omnipotent being has the power to cause it to be directly the case that *two or more* other possible beings actually exist.¹⁰ Further, even if the definition were changed to reflect this, the change might well be to no avail since it seems that nothing could possibly have the power to cause it to be *directly* the case that two or more other beings actually exist: if some being, x , causes it to be the case that y and z actually exist, surely x causes it to be *indirectly* the case that y and z actually exist since it is the case that y and z actually exist partly in virtue of its being the case that y actually exists, and partly in virtue of its being the case that z actually exists, and since it must be that either x causes it to be the case that y actually exists or x causes it to be the case that z actually exists. The force of the objection is that Subsidiary Clause 3.1 is deficient because it wrongly fails to prevent from qualifying as omnipotent a being that lacks the power to cause it to be the case that two or more other beings actually exist.

One possible response to this is analogous to the response I defended in Hill (2005, pp. 178–81) to the objection that my definition there was too weak. This response is to argue that if some putatively omnipotent being, x , has, for every possible being, y , the power to cause it to be directly the case that y actually exists (if it is possible for anything to cause it to be directly the case that y actually exists), then x has the power to cause the actual existence of any number, finite or infinite, of possible beings. The argument makes use

of the following schematic analysis of the locution ‘ x has the power to cause it to be (directly or indirectly) the case that p ’:

6. For every possible being, x , x has the power to cause it (directly or indirectly) to be the case that p if and only if it is the case that, supposing x had the opportunity, know-how, and the overriding desire to cause it to be the case that p , then x would cause it to be the case that p .¹¹

The terms ‘opportunity’, ‘know-how’, and ‘overriding desire’ are included because, intuitively, x might have the power to cause it to be the case that p , and yet not desire to exercise that power, or might not know how to exercise it (as I may have the power to ride a bicycle, being physically fit, but may not know how to), or might not have the opportunity to exercise it (as I may have the power to write my name but lack the opportunity if there is no writing implement to hand).

Now, the objection that we are facing goes like this: suppose x has the power to cause it to be directly the case that y_1 actually exists and the power to cause it to be directly the case that y_2 actually exists (as is mandated by Definition 3) then, so the objection goes, it may yet be that x lacks the power to cause it to be directly or indirectly the case that y_1 and y_2 actually exist. In this case, Subsidiary Clause 3.1 would wrongly allow x to qualify as omnipotent.

To apply Analysis 6 to our problem, we note first that if a putatively omnipotent being, x , had the opportunity, know-how, and the overriding desire to cause it to be the case that y_1 and y_2 actually exist, then surely, at least if x were rational, x would also have the opportunity, know-how, and the overriding desire to cause it to be the case that y_1 actually exist, and the opportunity, know-how, and the overriding desire to cause it to be the case that y_2 actually exist, whence it would follow, since x is supposed to satisfy Clause 3.1, that y_1 actually exist and that y_2 actually exist (assuming it possible that y_1 and y_2 be caused actually to exist). In other words, if a putatively omnipotent being, x , had the opportunity, know-how, and the overriding desire to cause it to be the case that y_1 and y_2 actually exist, then x would cause it to be the case that y_1 and y_2 actually exist, whence it follows by Analysis 6 that x does indeed have the power to cause it to be the case that y_1 and y_2 actually exist.

Admittedly, this argument does presume that x is rational and so if x desires to cause it to be the case that y_1 and y_2 actually exist, then x desires to cause it to be the case that y_1 actually exist, and x desires to cause it to be the case that y_2 actually exist, and so the argument will not work on those rare occasions on which we want to consider a possible irrational omnipotent

being. (It seems plausible that if something has the opportunity and know-how to cause it to be the case that some possible beings y_1 and y_2 actually exist, then it also has the opportunity and know-how to cause it to be the case that y_1 actually exist, and the opportunity and know-how to cause it to be the case that y_2 actually exist.) It might be countered that, even for a rational being, desire to cause it to be the case that y_1 and y_2 actually exist might not imply desire to cause it to be the case that y_1 actually exist and desire to cause it to be the case that y_2 actually exist, since it might be that the being wants to create Adam and Eve, but does not want to create Adam on his own or Eve on her own. But the addition of the phrase 'on his own' gives the game away here: it certainly is not the case that if a perfectly rational being, x , has the overriding desire to cause it to be the case that y_1 and y_2 actually exist it necessarily follows that x has the overriding desire to cause it to be the case that y_1 actually exist *on its own*. Indeed, the very fact that x desires to cause it to be the case that both y_1 and y_2 actually exist shows that x does not desire to cause it to be the case that y_1 actually exist on its own.

Another objection to Main Clause 3 would be that while Subsidiary Clause 3.1 mandates that, in order to be omnipotent, a being, x , has to have the power for every other possible being, y , to cause it to be directly the case that y actually exist (assuming such is possible) and for every possible being, y , to cause it to be directly the case that y not actually exist (assuming such is possible), it *not* mandate that in order to be omnipotent x has to have the power for two other beings, y_1 and y_2 , to cause it to be the case that y_1 actually exist and y_2 not actually exist (assuming such is possible). The force of the objection is that Main Clause 3 wrongly allows to qualify as omnipotent something that is intuitively not omnipotent for it lacks the power to cause it to be the case that y_1 actually exist and y_2 not actually exist. Once again, however, if we attend to Analysis 6, we can see that this objection misfires. We suppose that x has the overriding desire, opportunity, and know-how to cause it to be the case that y_1 actually exist and y_2 not actually exist. We again assume that x is rational, whence it follows that x has the overriding desire, opportunity, and know-how to cause it to be the case that y_1 actually exist, and the overriding desire, opportunity, and know-how to cause it to be the case that y_2 not actually exist. Since, however, by Subsidiary Clause 3.1, it follows that if x has the overriding desire, opportunity, and know-how to cause it to be the case that y_1 actually exist, x will cause it to be the case that y_1 actually exist, and from Subsidiary Clause 3.2 that if x has the overriding desire, opportunity, and know-how to cause it to be the case that y_2 not actually exist, x will cause it to be the case that y_2 not actually exist; it follows further that if x has the overriding desire, opportunity, and know-how to cause it to be the case that y_1 actually exist and y_2 not actually exist x will cause it to be the case that y_1 actually exist and y_2 not actually exist, that is x has the power to cause it to be the case that y_1 actually exist and y_2 not actually exist.

6 Second main clause of the new definition

For the second main clause of the new definition we need the language of sets, since we wish to say, without quantifying over properties, relations, or any such disputed entities, that an omnipotent being has the power to make anything exist in any particular way.

I shall now briefly argue that the language of sets is up to the job. If an agent causes it to be the case that I am tall that agent thereby causes it to be the case that I am a member of the set of tall things. Conversely, if an agent causes it to be the case that I am a member of the set of tall things it follows that that agent causes it to be the case that I am tall. Further, if an agent causes it to be the case that I am taller than my wife that agent thereby causes it to be the case that the ordered pair of me and my wife is a member of the set of ordered pairs whose first co-ordinate is taller than the second. Conversely, if an agent causes it to be the case that the ordered pair of me and my wife is a member of the set of ordered pairs whose first co-ordinate is taller than the second, it follows that that agent causes it to be the case that I am taller than my wife. In sum, sets can be made to do duty for properties and relations: whenever others say that an agent causes something to have a certain property we can say that the agent causes the thing to be a member of the corresponding set, and whenever others say that an agent causes some things to stand in a relation we can say that the agent causes the ordered pair of those things to be a member of the corresponding set of ordered pairs. (Note that this does not presuppose that there is an existent entity, the relation of membership. Rather, it presupposes that the *predicate* 'is a member of' makes sense, as it does.) We can also say whatever others say about the actualization of states of affairs in terms of the causing it to be the case for certain objects and certain sets that the objects are in the sets. And, of course, there are far more sets than we have physical names for sets, so this avoids the possible problem we noted concerning the proposed definition of 'omnipotence' in terms of sentences.

Here is my suggestion for the second main clause of the new definition:

7. For every possible being, x , x is omnipotent only if for every possible being, y , and every possible set, S , if it is possible that anything have the power to cause it to be the case that y is directly a member of S , then x has that power.

Here, however, I am using 'directly' in a slightly different way from before, so I need slightly to rework my definitions of 'directly' and 'indirectly' to put them in terms of sets:

8. For every possible being, x , and for every possible being, y , and every possible set, S , x causes it to be the case that y is directly a member of S

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if and only if x causes it to be the case that y is a member of S and it is not true that both

- 8.1 there is a distinct set, T , such that x causes it to be the case that y is a member of T ;
 - 8.2 and y is a member of S (at least partly) in virtue of y 's being a member of T .
9. For every possible being, x , and for every possible being, y , and every possible set, S , x causes it to be the case that y is indirectly a member of S if and only if x causes it to be the case that y is a member of S and it is true that both
- 9.1 there is a distinct set, T , such that x causes it to be the case that y is a member of T ;
 - 9.2 and y is a member of S (at least partly) in virtue of y 's being a member of T .

Note that the definitions do *not* say that

10. For every possible being, x , and for every possible being, y , and every possible set, S , x causes it to be the case that y is directly a member of S if and only if x causes it to be the case that y is a member of S , and it is not true that both
- 10.1 x causes it to be the case that p ;
 - 10.2 and y is a member of S (partly) in virtue of its being the case that p .
11. For every possible being x and for every possible being y , and every possible set S , x causes it to be the case that y is indirectly a member of S if and only if x causes it to be the case that y is a member of S , and it is true that both
- 11.1 x causes it to be the case that p ;
 - 11.2 and y is a member of S (partly) in virtue of its being the case that p .

The reason why Definition-Schema 10 and Definition-Schema 11 are not the definitions (strictly, definition schemata) is that it would seem that, if they were the definitions, it would be impossible to cause it to be the case that anything were directly a member of any set. This is because it would appear that it is only ever possible to cause it to be the case that something is a member of the set of blue things, say, by causing it to be the case that that thing is blue, and that thing would be a member of the set of blue things in virtue of its being the case that it was blue.¹²

We needed to include the word 'directly' to Main Clause 7 to avoid the following objection: it might be objected that I have the power to cause it to

be the case that I am in the set of those that freely go walking (I use ‘freely’ in the libertarian manner, according to which freedom is incompatible with determinism), but that nothing distinct from me has the power to cause it to be the case that I am in the set of those that freely go walking, because if something distinct from me causes it to be the case that I am in the set of those that go walking I shall not be in the set of those that *freely* go walking at all. So it appears that nothing can be omnipotent, for nothing but me has the power to cause it to be the case that I am in the set of those that freely go walking, and I lack the power to cause it to be the case that my wife is in the set of those that freely go walking. The answer to this puzzle is that nothing, not even I, has the power to cause it to be the case that I am *directly* in the set of those that freely go walking; rather, I cause it to be the case that I am *indirectly* in the set of those that freely go walking. We can see this since I also cause it to be the case that I am in the (distinct) set of those that go walking, and I am a member of the set of those that freely go walking partly in virtue of my being a member of the distinct set of those that go walking (and partly in virtue of my being a member of the set of uncompelled people, or something like that). But Main Clause 7 *does* mandate that every omnipotent being has the power to cause it to be the case that I am directly in the set of those that go walking.

It may be objected that we need to add a clause saying ‘if it is possible that anything have the power to cause it to be the case that y is directly a non-member of S , then x has that power’. In fact, however, such a clause is both incorrect and unnecessary. In the first place, it is incorrect because it is impossible for any being, x , to cause it to be the case that any other thing, y , *directly* be a non-member of any set, S , since x would always cause it to be the case that y were a non-member of S by causing it to be the case that y were a member of some other non-overlapping set, T , and y would be a non-member of S in virtue of being a member of T . For example, consider the set of blue things. One can cause it to be the case that something is a non-member of the set of blue things only by causing it to be the case that it is a member of the set of red things, or the set of pink things, and so on. Secondly, the proposed second clause is unnecessary since if x causes it to be the case that y is directly in the set of red things then x thereby causes it to be the case that y is indirectly a non-member of the set of blue things since nothing can be in both sets.

This last point may, however, prompt a more serious objection: one way of causing it to be the case that something is a non-member of the set of blue things would seem to be by causing it to be the case that it is a member of the set of colourless things. Here we hit a problem, however, since it turns out that, on standard Zermelo–Fraenkel set theory, there is no set of colourless things, since there are too many colourless things to be gathered into a set (every possible set is itself colourless, so all the uncountably many sets would have to be contained in the set of colourless things,¹³ but it turns out that

there can be no set containing all sets on standard Zermelo–Fraenkel set theory). So it seems as though there is a problem with Main Clause 7: it wrongly fails to rule out from qualifying as omnipotent a being that lacks the power to cause it to be the case that something is colourless.

One possible response to this is to reject Zermelo–Fraenkel set theory in exchange for another set theory, such as Quine's NF or NFU set theory.¹⁴ In fact, I think this is the right thing to do for quite independent reasons, but I can see that this may be too high a price to pay for some.

Another possible response is to argue that if one causes it to be the case that some concrete physical thing is colourless one will also cause it to be the case that it is a concrete colourless physical thing, and, hence, that it is a member of the set of concrete colourless physical things. This is indeed a set, for it contains only concrete physical things as members and even if there are infinitely many of them they can still be gathered into a set, even under Zermelo–Fraenkel set theory. So, since Main Clause 7 does mandate that a being, to be omnipotent, must have the power to cause something to be a member of the set of concrete colourless physical things, it does also mandate that a being, to be omnipotent, must have the power to cause it to be the case that something is colourless.

Quine's NF set theory in fact also allows (unlike Zermelo–Fraenkel set theory) a universal set, that is, a set that contains everything that actually exists. This allows us to dispense with the first clause, Main Clause 3, of our definition. This is dispensable since to cause it to be the case that something, y , actually exist is equivalent to causing it to be the case that y is a member of the set of all possible things that actually exist, and to cause it to be the case that y not actually exist is equivalent to causing it to be the case that y is a member of the set of all possible things that do not actually exist. It may be responded that this last set is surely by definition empty, but I wish to allow simulated quantification over possible, but non-actual beings here. In fact, this is already allowed in the definition anyway, for it begins 'for every *possible* being' – we do not restrict our attention to actual beings. I shall postpone detailed defence of this practice till after I have expounded the third main clause of the definition.

7 Third main clause of the definition

Let us now turn to the third main clause of the definition. Other philosophers would say here that an omnipotent being can make any things stand in any relation. We, however, are eschewing this realistic idiom, and so we need to restate their point in terms of sets. A first go at this would be the following:

12. For every possible being, x , x is omnipotent only if for every possible ordered n -tuple of possible beings, $\langle y_1, \dots, y_n \rangle$, and every possible set, S , if it is possible that anything have the power to cause it to be the case that the n -tuple is directly a member of S , then x has that power.

The problem with this clause is that philosophers of a realistic bent would say that an omnipotent being also must have the power to make infinitely many beings possess a property or stand in a relation: for example, to instantiate some possible arrangement of angels. To capture what they are saying in our terms, we need to broaden Main Clause 12 thus:

13. For every possible being, x , x is omnipotent only if for every possible ordered sequence of possible beings, and every possible set, S , if it is possible that anything have the power to cause it to be the case that the sequence is directly a member of S , then x has that power.

Note that we cannot say ‘the power to cause it to be the case that the members of the sequence are directly members of S ’, since it is the sequence that is ordered, not the members, so the proposed change would lose the order that we need to distinguish John’s loving Mary from Mary’s loving John. It is essential that the order be preserved, else we should wrongly allow to qualify as omnipotent a being that had the power to cause it to be the case that John loved Mary but not the power to cause it to be the case that Mary loved John. Our formulation is slightly less natural, but logically watertight, for if John loves Mary then the ordered pair $\langle \text{John}, \text{Mary} \rangle$ is a member of the set of ordered pairs whose first co-ordinate loves the second.

Again, we need to include the word ‘directly’ to rule out counter-examples concerning freedom, such as the following: I have the power freely to murder Joe Bloggs, so I have the power to cause it to be the case that the ordered pair $\langle \text{Daniel Hill}, \text{Joe Bloggs} \rangle$ is a member of the set of all ordered pairs whose first co-ordinate freely murders the second. Since nothing can cause it to be the case that something different freely does anything,¹⁵ no possible being different from me has the power to cause it to be the case that the ordered pair $\langle \text{Daniel Hill}, \text{Joe Bloggs} \rangle$ is a member of the set of all ordered pairs whose first co-ordinate freely murders the second. So it looks as though nothing can be omnipotent, since it is possible for me, but nothing else, to cause it to be the case that the ordered pair $\langle \text{Daniel Hill}, \text{Joe Bloggs} \rangle$ is a member of the set of all ordered pairs whose first co-ordinate freely murders the second, and possible for Joe Bloggs, but nothing else, to cause it to be the case that the ordered pair $\langle \text{Joe Bloggs}, \text{Daniel Hill} \rangle$ is a member of the set of all ordered pairs whose first co-ordinate freely murders the second. The solution to this

puzzle is, of course, that it is not possible for *anything*, not even for me, to cause it to be the case that the ordered pair <Daniel Hill, Joe Bloggs> is *directly* a member of the set of all ordered pairs whose first co-ordinate freely murders the second. Suppose I cause it to be the case that the ordered pair <Daniel Hill, Joe Bloggs> is a member of the set of all ordered pairs whose first co-ordinate freely murders the second. I will have done so by causing it to be the case that the ordered pair <Daniel Hill, Joe Bloggs> is a member of the set of all ordered pairs whose first co-ordinate kills the second, and the ordered pair <Daniel Hill, Joe Bloggs> will be a member of the set of all ordered pairs whose first co-ordinate freely murders the second partly in virtue of being a member of the set of all ordered pairs whose first co-ordinate kills the second¹⁶ (and partly in virtue of my being a member of the set of all beings that act illegally, and partly in virtue of my being a member of the set of all beings that act intentionally, and partly in virtue of my being a member of the set of all beings that act freely). So this is not a counter-example to Main Clause 13, as the addition of the word 'directly' there precludes such counter-examples.

It also turns out that we can subsume the second main clause, Main Clause 7, under this, the third main clause, Main Clause 13. This is because causing it to be the case that something, y , is a member of some set, S , is equivalent to causing it to be the case that the ordered sequence $\langle y \rangle$ is a member of the set, S' , of all 1-tuples whose members are members of S .¹⁷ The first main clause, Main Clause 3, can be subsumed under this one since causing it to be the case that something, y , actually exist is equivalent to causing it to be the case that the ordered sequence $\langle y \rangle$ is a member of the set, S' , of all 1-tuples whose members are members of the set of all actually existing objects.¹⁸

8 The definition in full

If we put together all the clauses we get the final definition:

14. For every possible being, x , x is omnipotent if and only if
 - 14.1 for every other possible being, y , if it is possible that anything have the power to cause it to be directly the case that y actually exist, then x has the power to cause it to be directly the case that y actually exist;
 - 14.2 and for every possible being, y , if it is possible that anything have the power to cause it to be directly the case that y not actually exist, then x has the power to cause it to be directly the case that y not actually exist;
 - 14.3 and for every possible being, y , and every possible set, S , if it is possible that anything have the power to cause it to be the case that y be directly a member of S , then x has that power;

- 14.4 for every possible ordered sequence of possible beings, and every possible set, S , if it is possible that anything have the power to cause it to be the case that the sequence be directly a member of S , then x has that power.

The brief form of this consists of just the final clause, provided that one adopts Quine's NF set theory or some similar remedy to allow existence to be subsumed under some set:

15. For every possible being, x , x is omnipotent if and only if, for every possible ordered sequence of possible beings, and every possible set, S , if it is possible that anything have the power to cause it to be the case that the sequence be directly a member of S , then x has that power.

Now, it might seem at first as though we get into trouble in Definition 14 by splitting up the simple idea that the realist has of actualizing a state of affairs into three or four clauses. For example, it may be objected that my Definition 14 does not insist that an omnipotent being have the power to, as the realist would put it, 'actualize a conjunctive state of affairs', such as that (supposedly) named by 'a snowflake's falling and a ball's existing'. So it might be, to put the objection without reference to states of affairs, that Definition 14 wrongly allows to qualify as omnipotent a being that fulfils each individual clause by itself, and so has the power to cause it to be the case that a snowflake fall (from Clause 14.3) and the power to cause it to be the case that a ball exist (from Clause 14.1), and yet lacks the power to cause it to be the case that a snowflake fall and a ball exist. Once more we can put to use our analysis of 'has the power to' in Analysis 6. We suppose x has the opportunity, know-how, and overriding desire to cause it to be the case that a snowflake falls and a ball exist. We once again assume that x is fully rational, whence it follows that x has the opportunity, know-how, and overriding desire to cause it to be the case that a snowflake fall and the opportunity, know-how, and overriding desire to cause it to be the case that a ball exist. But, by Analysis 6, it then follows that, assuming x meets Clause 14.3, if x has the opportunity, know-how, and overriding desire to cause it to be the case that a snowflake fall then x does cause it to be the case that a snowflake falls, and by Analysis 6 again, assuming x meets Clause 14.1, it follows that if x has the opportunity, know-how, and overriding desire to cause it to be the case that a ball exist then x does cause it to be the case that a ball exist. It follows hence that if x does indeed have the opportunity, know-how, and overriding desire to cause it to be the case that a snowflake fall and a ball exist then it will indeed follow that a snowflake falls and a ball exists, that is, x has the power to cause it to be the case that a snowflake fall and a ball exist.

9 Quantification over merely possible beings

One problem with Definition 14 (and many of the other definitions presented *en route*) is that it seems to quantify over non-existent objects, viz. merely possible beings. These cannot be restricted to actual beings, as we do not want to say that it is sufficient to qualify for omnipotence that one have the power to cause actually to exist only actual beings! Does Definition 14 then imply realism, in the style of David Lewis,¹⁹ concerning possible but non-actual entities?

It should be noted that this is not a problem peculiar to Definition 14 and the other definitions presented *en route*. On the contrary, even homely sentences such as the following seem to involve quantification over non-existent objects:

16. I could have had a younger sister

16 can perhaps be paraphrased away; David Lewis presents the more challenging case of:

17. A red thing could resemble an orange thing more closely than a red thing could resemble a blue thing.²⁰

Lewis asserts that this implies sentences such as the following:

18. There exist non-actual red objects, non-actual orange objects, and non-actual blue objects.

The problem is that most of us do not want to accept sentences such as Sentence 18, but do want to accept sentences such as Sentence 17. Suppose that such sentences as Sentence 17 cannot be paraphrased away without cross-modal comparison, with its implications as exhibited in Sentence 18, what then? I want to argue that we should adopt the approach of modal fictionalism, as pioneered by Gideon Rosen.²¹ This involves saying that sentences such as Sentence 18, while not really true, are treated as true because they are true according to the fiction of the modal realist's theory, just as we often treat sentences such as the following as true because they are true according to certain well-known fictions:

19. Sherlock Holmes lived at 221B Baker Street.²²

We might well seem to use quantification too:

20. Sherlock Holmes was cleverer than all the other detectives in London.

It might well be asked, concerning Sentence 20, how we can quantify over non-existent things, fictional detectives. The answer is that we do not quantify over them; we merely report that in the fictional stories by Conan Doyle they seem to be quantified over. But how can Conan Doyle quantify over them if they do not exist? He does not really quantify over them; he just pretends to, in just the same way as he does not really assert that a detective lives in 221B Baker Street, he merely pretends to assert that (which is why Conan Doyle was a storyteller, not a liar). So, Sentence 20 is equivalent to, and to be analysed as, that shown below:

21. According to the stories by Conan Doyle, Sherlock Holmes was cleverer than all the other detectives in London.

To return to our examples concerning omnipotence, we can accept Definition 14 or Definition 15 without taking it literally as regards quantification over merely possible beings. We take literally the following analysis:

22. According to the modal realist's fiction, for every possible being, x , x is omnipotent if and only if, for every possible ordered sequence of possible beings, and every possible set, S , if it is possible that anything have the power to cause it to be the case that the sequence be directly a member of S , then x has that power.

The modal realist does not really quantify over non-actual beings, though he or she thinks that that is what he or she is doing; rather, the modal realist simulates quantification over non-actual beings, just as Conan Doyle simulates quantification over London detectives. It might at first seem odd for me to suggest that the modal realist simulates quantification without realizing it, but this is no odder than what happens when someone reads out Sentence 20 without being sure whether it is fact or fiction: such a person would simulate quantification without realizing that that was what he or she was doing. So, I admit that Definition 15 literally implies:

23. There exist non-actual beings.

We do not accept Sentence 23, because we do not take Definition 15 literally, but we do accept the following, taken literally:

24. According to the modal realist, there exist non-actual beings.

This concludes my defence of Definition 14 and Definition 15 against the charge that they involve illicit quantification over non-existent objects.

At this point, the reader may expostulate that I am not playing fair since I earlier rejected a definition of 'omnipotence' couched in terms of actions

or states of affairs on the grounds that it would quantify over entities whose existence is disputed. The reader may well ask why I did not treat this definition as an instance of fictional quantification. There are, however, two important dissimilarities between the two cases. The first dissimilarity is that in the case of modal language such as 'could' we have, I assert, *independent* need to embrace fictionalism to deal with sentences such as Sentence 16 and Sentence 17, so I am merely using existing tools. On the other hand, in the case of language such as 'action', 'state of affairs', 'proposition', and so on, I assert that we do not have *independent* need to embrace fictionalism, although there is not space to defend that assertion here.

The second important difference is that in the case of definitions such as Definition 14 it is clear what the quantification is supposed to be over – objects just like the familiar ones, but non-actual. On the other hand, in the case of language such as 'action', 'state of affairs', and so on, it is by no means clear to me just what these nouns are supposed to *mean*, just what the objects they are supposedly used to pick out are meant to *be*. While I know perfectly well what a sister is, and so can understand 'the sister I never had' even though the phrase does not pick out anything in reality, I do not know at all what a proposition or a state of affairs or an action is supposed to be, and so I do not really understand what the word 'proposition' or 'action' or the phrase 'state of affairs' is supposed to signify (though of course I am aware what realists concerning these supposed things *say* when asked what the objects in which they believe are). And if I cannot understand the story told by the realist concerning actions and states of affairs I cannot avail myself of a fictionalist treatment of it, because I shall fail to understand the fiction and so be unable to use it coherently, just as I could not sensibly discuss whether Holmes was the greatest detective if the stories by Conan Doyle contradicted themselves on this point, or if I could not understand the use of 'detective' or 'greatest' by the author.

10 Conclusion

In this essay I have attempted to produce a definition of 'omnipotence' that did not involve quantification over disputed entities such as states of affairs, propositions, actions, and the like, defending it along the way against objections, and trying to argue for some of the philosophical implications of the definition (the existence of sets, the direct/indirect distinction, etc.). I have not, of course, shown that anything actually is omnipotent, but I hope that this new definition will be of service to theists that want to ascribe omnipotence to their God without subscribing to excess baggage in the shape of actions, propositions, or states of affairs.²³

Notes

1. See, for example, Flint and Freddoso (1983); Wierenga (1983); Hoffman and Rosenkrantz (1988); Wielenberg (2000); Hill (2005, pp. 125–191).
2. See, for example, Thomas Aquinas, *Summa Theologiae*, Ia.25.3.resp.
3. Peter van Inwagen expresses scepticism concerning the existence of events (and, thus, of actions) in Inwagen (2007, p. 210). Peter Geach argues that event-talk can be paraphrased away in Geach (1965), reprinted in Inwagen and Zimmerman (1998, see especially p. 200). Geach also denies the existence of facts (and, presumably, therefore, of states of affairs): see Geach (1963) reprinted in Geach (1972, pp. 13–31; see especially p. 23). Quine (1976, p. 200) denies the existence of propositions.
4. For example, we intuitively think that an omnipotent agent should have the power to create uncountably many angels, and to get each of them to thinking of a particular real number. *This* task can be finitely described ('the task of making true the finite sentence "there exist uncountably many angels, each of them thinking of a particular real number"'), but we might want, for every possible assignment of angels to real numbers, an omnipotent agent to have the power to cause it to be the case that that assignment be instantiated. The specification of some of these assignments could not be achieved even with an infinitely long sentence.
5. William Alston, for example, denies that God has beliefs (and, presumably, that God uses sentences) – see Alston (1986).
6. For a defence of the notion that sets exist if and only if their members do, see Fine (1981).
7. The first part of this is controversial, but it would certainly be inappropriate for a definition of 'omnipotence' to *presume* that everything can be caused to exist and can be caused not to exist.
8. That is, excluding gerrymandered entities. The purpose of introducing the distinction between causing *p* directly to be the case and causing *p* indirectly to be the case is to separate off what we intuitively think an omnipotent agent should have the power to do from what we intuitively think of as not real tasks at all, but logical tricks that test definitions in a merely verbal fashion.
9. Of course, not every set of powers can be co-exercised – one cannot co-exercise the power to create George Bush and the power to prevent George Bush's creation. Nevertheless, this fact does not have any implications for the definition of 'omnipotence', as it concerns not the possession of powers (as omnipotence does), but their exercise, which is a separate matter. Many hold that God, for example, has the power to do wrong, but cannot exercise it. For a defence of this view, see Hill (2005, pp. 151–159).
10. There is, of course, an analogous objection concerning Subsidiary Clause 3.2.
11. For a brief discussion and defence of this analysis, see Hill (2005, pp. 127–129).
12. Some may object that there is no difference here between something's being blue and its being a member of the set of blue things. It is risky to assert this, however, since, for example, it is possible to cause it to be the case that something is colourless but not, on standard Zermelo–Fraenkel set theory, to cause it to be the case that the thing is a member of the set of colourless things, for there is no such set – see below.
13. There will still be uncountably many sets even if we restrict ourselves to impure sets.

14. Quine introduced his NF set theory in 1937. For an introduction to NF, see Holmes (1998) and Forster (1995). For a discussion of the current state of research on NF and NFU (New Foundations with *Urelemente*), see <http://plato.stanford.edu/entries/quine-nf/> and <http://math.boisestate.edu/~holmes/holmes/nf.html>.
15. We obviously continue to presuppose libertarianism here. Note that Plantinga's 'weak sense' of 'bring it about that' is compatible with bringing it about that somebody else does something freely. This is why I write 'cause it to be the case that' rather than 'bring it about that'. See Plantinga (1974, pp. 172–173).
16. And the ordered pair is a member of *this* set partly in virtue of being a member of the set of all ordered pairs whose first co-ordinate strikes the second, or partly in virtue of being a member of the set of all ordered pairs whose first co-ordinate shoots the second, or...
17. If the reader does not like the notion of a 1-tuple, then we may say instead that causing it to be the case that something, y , is a member of some set, S , is equivalent to causing it to be the case that the ordered pair $\langle y, y \rangle$ is a member of the set, S' , of all ordered pairs whose members are identical with each other and also members of S .
18. Or, if the reader prefers, equivalent to causing it to be the case that the ordered pair $\langle y, y \rangle$ is a member of the set of ordered pairs whose first member is actually identical with its second member.
19. See Lewis (1986).
20. *Ibid.*, p. 13.
21. Rosen (1990).
22. *Ibid.*, p. 331.
23. I would like to thank my commentator from this volume, Klaas Kraay, for extremely helpful comments. I would also like to thank the editors of this volume, Erik Wielenberg and Yujin Nagasawa, for helpful comments and encouragement. My thinking on omnipotence has been immeasurably enriched over the years by conversations with my friend Joseph Jedwab, and it is to him that I am most grateful.

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