

# Theistic modal realism and causal modal collapse

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**Abstract:** Theistic modal realism argues for an extension of Lewis’s modal realism capable of accommodating a theistic God. By affording elegant solutions to many atheistic challenges, the view is of great theoretical utility for the theist. However, it has been objected that within a Lewisian framework God cannot be causally efficacious on pain of collapsing intuitively distinct modal notions. In this article I explain why these worries are ill-founded and show how God’s existence and causal power over the pluriverse can be consistently understood. If successful, the proposal offers a congenial theistic way to adopt modal realism and address the atheological problems.

## Theistic modal realism

In the philosophy of religion there is a small debate on the feasibility of a framework that joins genuine modal realism with the existence of a traditional theistic God. Theistic modal realism extends the classical Lewisian view of logical space as a plurality of possible worlds by adding a theistic God existing in the pluriverse. Curiously, Lewis himself saw the problem of theistic modal realism more like a puzzle rather than a pressing issue: ‘I do think there are sometimes moves in analytic philosophy of religion that may look good to a puzzle-solving philosopher but are not religiously serious. Take, for instance, many-worlds theodicy . . . I doubt that it could really be part of someone’s religion’ (cited in Lewis (2015), 216).

Be that as it may, recently Almeida (2008, ch. 8; *Idem* 2011; *Idem* 2017b) has convincingly argued for the enormous theoretical benefits of theistic modal realism by offering simple solutions to the atheological problems which plague theistic belief. To give just one example, and simplifying a little, by supposing that God creates the entire pluriverse we quickly solve the evidential problem of evil: necessarily,

there are possible worlds with beings experiencing gratuitous preventable evil; so it is impossible for God to prevent the existence of possible worlds with beings experiencing gratuitous preventable evil; hence, we should not blame even an all-powerful being for not doing that which is impossible to do (i.e. eliminate the evil in the pluriverse). Almeida also offers solutions to the problem of God's freedom in creation, the problem of arbitrariness, and the problem of no best world, among others. To this Nagasawa (2016, 98–99) adds, for instance, an interesting solution to the fine-tuning problem.<sup>1</sup> Such a promising view is worth exploring.

Sheehy (2006, 318) lists three problems that theistic modal realists must face. The modal problem challenges the theist to explain the necessity of divine existence and of the divine attributes<sup>2</sup> within the modal realist programme. The epistemic problem asks how we should understand divine omniscience given that modal realism seems to construe divine knowledge as knowledge of existent worlds. Finally, the moral problem presses on the apparent incompatibility between God's omnibenevolence and the existence of possible worlds with great evil. Given that the modal problem is prior to the remaining two – for if God cannot consistently exist in the pluriverse, then questions about God's knowledge or the moral value of His creation become redundant – it will be the focus of this article. More precisely, I will be interested in the *causal modal collapse problem*,<sup>3</sup> which purportedly shows that no causally efficacious God can exist in the pluriverse on pain of collapsing every possible world into one big world and, consequently, identifying intuitively distinct modal notions.

The article will be structured as follows. First, I quickly recall the basic aspects of genuine modal realism and the various ways God's existence can be understood in this programme. I move on to discuss the prospects of a *possible individual* God, strengthening the modal collapse problem against common objections and arguing that it is fatal for this conception of the divinity. I then argue for a picture of world-creation which allows for a *non-individual* God's causal efficacy. I explain how this proposal renders God a non-spatiotemporal object without ceasing to be omnipresent. In this new account modal collapse is successfully blocked. I conclude that the modal collapse problem offers no challenge against a non-individual God.

### **Genuine modal realism and God's existence in the pluriverse**

Genuine modal realism (Lewis (1986) ) posits a plurality of possible worlds construed as maximal mereological wholes of spatiotemporally connected objects, spatiotemporally and causally isolated from other worlds. An object is a member of a world if it is spatiotemporally connected to any part of that world, and exists at most in one world.<sup>4</sup> This latter requirement expresses a principle of world-boundedness on objects existing in worlds: 'nothing is in two worlds' (Lewis (1968), 114). All worlds are ontologically on a par, with 'actuality' behaving solely as an indexical

term singling out the world of the utterer. The framework allows for a reductive extensional account of modal discourse:

- Possibly  $\varphi$  if and only if (iff) there is a possible world  $w$  such that, at  $w$ ,  $\varphi$ .

Further, it provides an analysis of de re modal quantification through counterpart theory (*ibid.*, §1):

- An object  $o$  is possibly  $\varphi$  iff there is a possible world  $w$  and a counterpart  $o^*$ , of  $o$ , in  $w$  such that  $o^*$  is  $\varphi$ .

Now, Lewis (1983b, 39–40) distinguishes three kinds of objects existing within the pluriverse:

- Possible Individuals*: beings that exist *wholly* in a world (e.g. people, galaxies, electrons, . . .);<sup>5</sup>
- Impossible Individuals*: cross-world beings corresponding to the mereological summation of parts of different worlds (e.g. the mereological aggregate of Lewis and all his counterparts);
- Non-Individuals*: beings that exist *from the standpoint of a world* by belonging to the least restricted domain considered appropriate when evaluating the truth-value of quantified sentences at that world (e.g. pure sets, numbers).

I will not discuss the prospects of a cross-world God; that is, a God resulting from the union of parts of different worlds. I find it uninteresting given the view's radical detachment from God's simplicity (God has no proper parts) and the difficulties in explaining how all His world-parts are unified. But these are mere sketches of possible objections and so I refer the reader to Vance (2016, 563) and Collier (2019, 342–345) for better criticism. A more promising option is that of a possible individual God existing wholly in a world. How is God's necessity represented here? Well, 'God is necessarily  $\varphi$ ' is true in world  $w_\alpha$  by there being other-worldly God-counterparts that are  $\varphi$  in those worlds. For example, God is necessarily omnipotent because, across the pluriverse, in each possible world, there is a God-counterpart that is also omnipotent. Generalizing, it follows that in each possible world there is a God-counterpart with all the divine attributes. As a result, we stop having one unique God and start having an infinite plurality of God-like beings; one God for each possible world. Needless to say, we are forced into a substantial revision of traditional theism (Sheehy (2006), 319).

### **Possible individual God and modal collapse**

Even if sense could be made of a plurality of different gods, there is a more devastating objection. Collier (2019) presents a 'modal collapse problem' against a possible individual God.<sup>6</sup> Suppose, for definiteness, that this world-bound God

exists wholly in our actual world;<sup>7</sup> call him, @-God (where '@' denotes our actual world). Collier now argues:

Since world-creation is causal, were @-God the creator of all reality, @-God would be causally connected to all worlds; and so all worlds will thence be causally connected to each other through being causally connected to @-God. But, since GMR-worlds [Genuine Modal Realism worlds] are causally isolated individuals, this implies that there exists only one world, and thereby total modal collapse ensues. (Collier (2019), 339)

The argument seems clear enough. First, by assumption, God is the creator of all the worlds.<sup>8</sup> So, we imagine him creating two worlds: first @ and after  $w_\alpha$ . Since creation is causal, by the act of creation, God is causally connected with both worlds. But since they share a causal origin, both @ and  $w_\alpha$  will also be causally connected. Since a world is united by spatiotemporal or causal continuity, it follows that @ and  $w_\alpha$  are both parts of a same bigger world @ +  $w_\alpha$  (where  $x + y$  is the mereological summation of  $x$  and  $y$ ).<sup>9</sup> But because God creates *all* worlds this reasoning quickly generalizes, collapsing every world into one very big world. As a consequence, necessitarianism ensues: by there being only one big world (the actual world itself), any actually true proposition is trivially true in every world and, as a result, it is necessarily true. By having a possible individual God create every world, modal distinctions collapse: every necessarily true proposition is actually true, and every actually true proposition is necessarily true. Interestingly, the argument can plausibly be extended to divine conservation in the pluriverse – that is, the idea that God is responsible for an object's continued existence. If conservation comprises a causal relation between God and an object in a world, a modal collapse argument against that thesis is straightforward.

It might be protested that insisting @-God creates both worlds @ and  $w_\alpha$  is a misreading of the sentence 'God necessarily creates all the worlds'. Given Lewis's resources to express *de re* modality, the claim could be rendered true by having @-God create world @ and a counterpart  $w_\alpha$ -God create  $w_\alpha$ , and similarly for other worlds. Though this would avoid the issues over worldly individuation, it is unsatisfactory for two reasons. First, as already noted, a view of this kind would inflate the pluriverse with an infinity of God-like beings: one God for each possible world. Second, this analysis gets the truth-conditions for 'God necessarily creates all the worlds' very wrong: we want a God that creates *all* the worlds unrestrictedly, as opposed to a plurality of gods each responsible for the creation of his portion of the pluriverse (Vance (2016), 563).

### Assumptions

Now, the modal collapse problem starts with the premises:

1. World-creation is causal.
2. God creates all the worlds.

Since creation is normally taken as a *causal relation*, (1) holds. In fact, it is because creation is causal that abstract objects are such a challenging puzzle. But there might be reasons to be wary of the premise. A common objection would go like this: there is only causality with causal laws; however, if those causal laws are themselves the product of creation, creation cannot be causal. But what are these causal laws? If they just are laws dependent on the contingent physics of each particular possible world (i.e. laws of nature), then even though causal laws are the product of creation there is little sense in saying that there cannot be causality without them. Otherwise, we would have to concede that somehow the causality that goes on in our world is dependent on the laws of nature true at a vastly different world. If they are laws in a more ‘general’ sense independent of what is going on in each world, then why should they be the product of creation? Saying that the causal law ‘Not: A causes (B and Not: B)’ is the product of creation is quite similar to saying that the principle of non-contradiction depends on God’s will. This position is difficult to support.

But we might think of understanding creation in a non-causal way. Although this would easily evade modal collapse, taking creation as a primitive that is not reducible to more familiar notions, it threatens to render creation mysterious and so unmotivated. And a reduction to more familiar notions that meshes well with modal realism is in no way trivial. For instance since possible worlds are *prima facie* concrete (Lewis (1986), §1.7), a form of emanationism in which they are the result of some non-causal act of divine cognition has no intuitive appeal.<sup>10</sup> By the same token a mentalism that identifies possible worlds with mental states won’t do either. Grounding seems more promising, but it also fails. This is because grounding is supposed to be closed under transitivity<sup>11</sup> but creation should not be. God may create and so ground some physical environment and this environment may ground my *de se* knowledge of some proposition; as a result, God may ground my *de se* knowledge. But on the reasonable assumption that (a) God cannot create what He cannot know and that (b) God cannot know my *de se* knowledge (Kretzmann (1966), 420–421), it follows that God cannot create my *de se* knowledge.<sup>12</sup> Of course, the success of a non-causal account will depend on more detailed proposals than those I just sketched. Nevertheless, it is a virtue of our solution that it keeps the more standard view of creation.

Premise (2) on the one hand looks well motivated: first, the assumption follows from God’s maximal greatness – intuitively, a being not responsible for all reality would not be maximally great (see also Collier (2019), 339) – and, second, from scriptural authority given for example by the Nicene Creed. On the other, we may dispute a literal reading of the Nicene Creed and reject God’s creational power over some abstracta (van Inwagen (2009)). But since possible worlds are concrete it is not obvious that the worries affecting abstracta can be transferred to the pluriverse. Of course, even if possible worlds can be objects of divine creation, there remains the problem of explaining how God creates those archetypal abstract objects existing *from the standpoint of a world* such as pure sets. Insofar as

this issue is in no way dependent on the details of genuine modal realism and can be easily recreated in a non-Lewisian (actualist) framework, the theistic modal realist shouldn't feel any more pressure in answering this question than the non-Lewisian theist does. Hence, we can accept the premise.

A final assumption in the argument which we should handle with extra care is that:

3. All worlds are causally isolated.

Causal isolation is not sufficient for the individuation of possible worlds.<sup>13</sup> Still, in Lewis's modal realism causal isolation comes out as a necessary principle, given his counterfactual account of causation (Lewis (1986), 78–81). Nonetheless, if we want to allow for one unique God who causes all the worlds, we should abandon the counterfactual account since under it 'God causes worlds @ and  $w_\alpha$ ' is either false or nonsensical (probably the latter). This is not particularly damaging given that the theist is attracted to modal realism by the theory's potential in addressing her own theistic puzzles, and not by the particular way it handles causal notions. But from the moment we abandon the Lewisian account of causation, what stops us from abandoning (3) as well? More precisely, couldn't we make an exception and allow @-God to cause *different* worlds without thereby collapsing them?

Note that when it comes to universals Lewis (1983a, 345 n. 5) makes an exception to his principle of world-boundedness: '[i]f universals are to do the new work I have in store for them, they must be capable of repeated occurrence not only within a world but also across worlds'. And now Almeida writes:<sup>14</sup>

it should be noted that Lewis allows that some objects exist in more than one world and have causal effects in more than one world. Universals can enter into causal relations, since something's being red or yellow, for instance, can cause someone to notice it. But that same universal enters into causal relations in many possible worlds. *So the restriction* [that the same thing cannot stand in causal relations to two worlds] *does not seem to prohibit a single object entering into causal relations in more than one world.* (Almeida (2017a), n. 31; my emphasis)

A possible suggestion would then be that what holds for universals holds *mutatis mutandis* for God too. However, if this is the entire argument then it quickly generalizes to practically any other thing in a world. That is, if the above argument is cogent then a similar one of the form 'Premise: Universals are capable of transworld causality; Conclusion: If talking donkeys are causal, then they are also capable of transworld causality' ought to be as well.

Obviously, what is needed is a piecemeal approach here. The advocate of God's 'transworld causal efficacy' must explain what exactly is distinctive about God, and not most other things, to allow Him to evade causal isolation. Though I do not have a decisive objection here, I rest content in expressing some doubts about this project. First, we should note that assuming God's transworld causal efficacy solely to avoid modal collapse would of course be *ad hoc*. Second, it is not

obvious that God's omnipotence will do the trick here. This is because God cannot do many things that other beings can, such as create the famous stone that He cannot lift,<sup>15</sup> and so there might be no problem in having universals capable of something (transworld causality) that God is not. Third, if (1) holds, God's creation is a causal relation and therefore not that different from other causal relations incurred by everyday objects. This means that *prima facie* there is nothing distinctive in the relation of creation that would allow God and preclude other objects to partake in transworld causation. Therefore, at least when applied to God, I think we should also accept premise (3).

### Inferences

From (1) and (2), Collier infers:

4. All worlds are *causally connected* to @-God.

And then:

5. All worlds are causally connected to each other through being causally connected to @-God.

As I see it, the problem with these inferences is that they leave underspecified the crucial notion of 'causal connectedness'. What is the notion operating here and what should the laws governing it be? An initial and very tentative idea would start by defining causal connectedness in terms of causation. In this sense, consider first a relation  $C$  on distinct objects<sup>16</sup>  $c, e$  such that  $Cce$  iff  $c$  causes  $e$ . This is still too restrictive. We want a relation which allows us to talk about things in worlds causing other things in other worlds. So, to allow for this possibility, consider instead  $Cce$  iff  $c$  causes  $e$  or (when  $c$  or  $e$  are worlds) something *in*  $c$  causes something *in*  $e$ . Then I would propose that two distinct objects  $c$  and  $e$  are causally connected – I write  $C^*ce$  – iff  $Cce \vee Cec$ . Essentially, causal connectedness would be the symmetric closure of  $C$ .

This definition gets exactly what we want out of causal isolation. To see this recall that as Lewis writes 'There is a second way in which worlds are isolated: there is no causation from one world to another' (Lewis (1986), 76). That is, worlds  $w_\alpha$  and  $w_\beta$  are causally isolated iff  $\sim (Cw_\alpha w_\beta \vee C w_\beta w_\alpha)$  iff  $\sim C^*w_\alpha w_\beta$ . So we have:

- Law 1: For two worlds  $w_\alpha, w_\beta$ :  $C^*w_\alpha w_\beta \leftrightarrow$  '  $w_\alpha$  and  $w_\beta$  are not causally isolated'.

There might be exceptions to the above; for instance, if some universal in the actual world @ causes something in world  $w_\alpha$ , we might still wish to have those worlds causally isolated. Nonetheless, as we saw, if @-God is responsible for the transworld causation then Law 1 should hold, and @ and  $w_\alpha$  shouldn't come

out as causally isolated. Now, the problem is that to derive (5) from (4) we would need to close C under something like euclideaness. Let me elaborate.

Suppose @-God existing at world @ causes both worlds  $w_\alpha$  and  $w_\beta$ . Then  $C^*@w_\alpha$  and  $C^*@w_\beta$ . And what we now want is  $C^*w_\alpha w_\beta$ . However, for this we would need to have some law of the form:

Law 2: For three worlds  $w_\alpha, w_\beta, w_\gamma$ :  $Cw_\alpha w_\beta \ \& \ Cw_\alpha w_\gamma \rightarrow Cw_\beta w_\gamma$ .

But this principle is just too strong. For imagine what it would be to have it extended to things in a world. For clarity, let us imagine the following scenario: the reader throws a rock (event  $r$ ) which, in the middle of its flight, breaks into two pieces with each piece shattering one window, respectively (events  $s$  and  $t$ ). Now,  $r$  is causally connected with both  $s$  and  $t$ . And we obtain  $Cst$ . This means that somehow one window-shattering caused the other window-shattering. A theory admitting this much has clearly met its *reductio*.<sup>17</sup>

To avoid this difficulty, we could 'embed' euclideaness in the definition of causal connectedness directly. That is, in place of  $C^*ce =_{\text{def}} Cce \vee Cec$ , causal connectedness could be understood as:  $C^*ce =_{\text{def}} Cce \vee Cec \vee \exists b (Cbc \ \& \ Cbe)$ . This would get us to  $C^*w_\alpha w_\beta$  while avoiding the issues over the window-shattering scenario. Nonetheless, on this new definition Law 1 becomes unwarranted. For imagine again @-God creating  $w_\alpha$  and  $w_\beta$ . Since both worlds share the same causal origin, it follows  $C^*w_\alpha w_\beta$ . But, by assumption, the only transworld causation was from @ to  $w_\alpha$  and to  $w_\beta$ . Quite simply, if there is no causation from  $w_\alpha$  to  $w_\beta$  and vice versa why shouldn't they be causally isolated? Even though they share the same causal origin (@-God) there is no *prima facie* reason to think that causal isolation is breached, or so we could argue.

Nonetheless, I'm not entirely convinced by this. In fact, the careful reader might have already noticed some slippage in my reasoning. Certainly, nothing in Lewis's proposal suggests *by itself* that causally isolated worlds cannot share a causal origin. But given the main thesis of causal isolation, 'there is no causation from one world to another', the former common causal origin can neither be part of a world nor a world itself. Otherwise we would have an explicit case of causation 'from one world to another'. Now, one might wonder if anything survives from this restriction; that is, given that (a) causally isolated worlds can only share non-worldly and, therefore, non-spatiotemporal causal origins and that (b) it seems that any non-spatiotemporal objects must be non-causal, we should conclude that no causally isolated worlds can share (worldly or non-worldly) causal origins. Below we will qualify this statement at great length. For now, it suffices to note that our discussion suggests that if two worlds share a worldly causal origin, they aren't causally isolated; and so,

Law 3: For a world or part of a world  $w_\alpha$  and worlds  $w_\beta, w_\gamma$ :

$\exists w_\alpha (Cw_\alpha w_\beta \ \& \ Cw_\alpha w_\gamma) \rightarrow 'w_\beta \text{ and } w_\gamma \text{ are not causally isolated}'$  .



Again, we might make exceptions for universals but, unless further argumentation, not for @-God. If this is the case, then we get (5) and together with (3) we obtain the desired conclusion. Since @-God causes @ and  $w_\alpha$ , they share a worldly causal origin (to wit, @-God), and so @ and  $w_\alpha$  aren't causally isolated. Moreover, this shows that they weren't even worlds to begin with but just parts of a bigger world @ +  $w_\alpha$ . By similar reasoning we get @ +  $w_\alpha$  +  $w_\beta$ . Generalizing, we obtain the desired conclusion:

6. There exists only one world.

Let us call the above reasoning Option 1. But there is a shorter way of understanding the entailment from (4) to (5). The crucial point now is that @-God, as a possible individual being, is wholly in a world; He is a part of @. Then, from  $C@w_\alpha$  it follows that there is causation from one world to another, and so we can conclude that @ and  $w_\alpha$  are just parts of the same bigger world @ +  $w_\alpha$ . Now, by having @-God in world @ +  $w_\alpha$  create and so cause  $w_\beta$ , we have  $C@ + w_\alpha w_\beta$  and finally that there is only a big world @ +  $w_\alpha$  +  $w_\beta$ . Following this process, we collapse all the worlds and necessitarianism ensues. Let us call this Option 2.

It is instructive to stress the difference between both options. In Option 2, the fact that say @ and  $w_\alpha$  share a causal origin is neither here nor there. In fact, modal collapse would also follow if they didn't and, say, something else caused @. In Option 2 modal collapse follows because there is something in world @ (namely, @-God) that causes something in another world  $w_\alpha$ ; an explicit violation of causal isolation. And since there is an explicit violation of causal isolation, we can collapse @ and  $w_\alpha$  begetting @ +  $w_\alpha$ . For this, Option 2 is stronger than 1.

### **Non-individual God and modal collapse**

The prospects of a possible individual God seem null. At this point the theistic modal realist may argue that God exists in the pluriverse *from the standpoint of every world*. In our terminology, God will be a non-individual object. The thesis is supported by Cameron (2009, 96–98), who successfully explains how God's necessity can be represented. God's way of existing in the pluriverse is much like that of pure sets. Now, even though pure sets bear no spatiotemporal relations to any world and so are not parts of any world, Lewis still admits they are necessary because they exist from the standpoint of every world. Similarly:

the theist should grant God the same status as the pure sets have in this regard. Hence the theist modal realist has no more problem in claiming God to be a necessary existent than Lewis has in claiming the numbers to be necessary existents: which is to say, she has no problem at all. (Cameron (2009), 97)

### Can a non-individual God be causal?

Collier (2019, 342) writes that ‘if God is causal, as He should be, He cannot exist outside worlds, as causation is *in* worlds – so, God must be causally inert if He exists outside worlds’. It is unclear how to reply because it is unclear what the objection amounts to. What does it mean to say that causation is in worlds? As I see it, the suggestion is that causal relata should be spatial or temporal, for being spatial or temporal is being (part of) a world and so being *in* a world.

But Collier’s assumption is far too strong. If all causal relata must be spatio-temporal, then either God does not cause pure sets or pure sets are spatiotemporally located. Without further argumentation neither option is attractive. Second, there is the case of negative causation which occurs when an *absence* is a cause, effect or causal intermediary: the rock-climber Don did not die because he did not fall, that is, Don’s non-falling caused his non-dying. Absences ‘are said to be transcendent entities. They are nothings, non-occurrences, *and hence are not in the world*’ (Schaffer (2016), §1.1, my emphasis). Moreover, Schaffer (2004) provides numerous everyday examples of genuine causation and presuppositions in scientific practice that involve negative causal features. This builds a strong case of there being non-spatiotemporal causal relata.

Third, and more important, in a Lewisian framework the assumption already implies that God does not exist in the pluriverse; that is:

Causation is in worlds  $\Rightarrow$  God does not exist in the pluriverse.

The deduction of the above claim starts with a warning. When discussing modal collapse brought about by a possible individual God, I presented a picture of world-creation occurring in an ordered successive fashion, with each world being created *after* another. I have now to warn the reader that the temporal language was meant to be merely metaphorical. On the contrary, we are to imagine God creating the entire pluriverse ‘instantly’, and modal collapse also occurring instantaneously. Two reasons support this proviso. First, if world-creation happens *outside* time, there is little sense in claiming that God starts to create  $w_1$  and *after* creates  $w_2$ . Second, creation must happen outside time. Cardinality issues suggest a lower bound on the size of the set of worlds of  $\aleph_2$  (see Bricker (1987), 340–343). Hence, any *successive* act of world-creation that could be entirely indexed by continuum-many ordinals would not exhaust all the worlds in the pluriverse that need to be created. This means that even assuming the stronger assumption that time is a continuum (as opposed to a discrete order), if world-creation is *in* time and occurs successively, there is just not enough time for God to create the entire pluriverse. We must then think of God either creating the worlds outside time – where no sense can be made of successive creation – or in time, but without temporal creation being successive.

Suppose then that God creates worlds in time in a non-successive way; that is, there are times when God creates more than one world. But even if speeding up

affords God enough time to complete His creation, is it intelligible? Well, there are two options here: (a) there is a time  $t_1$  when God creates all the worlds; and (b) there are various times when God creates many worlds (at some times He creates  $\aleph_2$ -many worlds even!). Consider the latter. If (b), there is a time  $t_1$  when, say,  $w_1$  is created and a time  $t_2$  when, say,  $w_2$  is created. The problem with this proposal is that it renders metaphysical possibility time dependent. For suppose at  $t_1$  it is not possible that there are circular objects; on a Lewisian analysis of modal discourse, this means that there is no world where there are circular objects. But then, a minute after, at  $t_2$  God may very well create a world with a doughnut, making it possible at  $w_1$  for there to be circular objects. Such a temporal understanding of metaphysical possibility seems absurd at best.<sup>18</sup>

Now, if (a), God creates all the worlds at one time  $t_1$  with modal collapse occurring instantaneously. But observe that world-creation *in time* is already world-creation *in a world*. That is, any portion of space or time (minimal as it may be) will form a world.<sup>19</sup> So if God creates all worlds in a certain portion of time, He creates all worlds already from within some world. And obviously this requires for there to be a world prior to God creating it – God would be pulling Himself up by His own bootstraps. In fact, this observation highlights the general problem with temporal creation in the pluriverse: if temporal relations are restricted to worlds, then temporal comparisons between worlds, made from a point of view outside those worlds, are just senseless. Hence, if we are to think of world-creation in the pluriverse, we must then think of it as outside time. World-creation is not in time. Similarly, world-creation is not in space: observe that world-creation *in space* is already world-creation *in a world* too. So again, if God creates all worlds in a certain portion of space, He creates all worlds already from within some world. And obviously this requires there to be a world prior to God creating it.

The conclusion is simple. If a causally efficacious God exists in the pluriverse, He causes outside worlds. And so, if causation is in worlds, there is no causally efficacious God existing in the pluriverse. However, God's existence and causal efficacy in the pluriverse were the main questions from the beginning. Simply assuming that causation is in worlds corresponds then to assuming, in a Lewisian framework, that God does not exist in the pluriverse. And assuming the latter is just begging the question.

Now, this isn't yet a full account of world-creation in the pluriverse. Not only are we missing a positive characterization of how a non-individual God does manage to create and cause worlds to exist, but also other objections to non-temporal causal relata could be imagined (Swinburne (1994), chs 4, 6). Although a full exploration of this issue would largely surpass the aim of this article, I don't need to offer one here. This because the problem of a non-individual God's causal efficacy is essentially the old problem of an eternal (timeless) God's causal efficacy.<sup>20</sup> And, *pace* Swinburne, there are on the market persuasive arguments for causal creation on the part of an eternal God that can be extended to a

non-individual God in the pluriverse (see for example Helm (2010, ch. 13) for a discussion).

### **Non-individual God and omnipresence**

Before we proceed, we should handle a small objection. It seems a non-individual God cannot be omnipresent: being omnipresent is, presumably, to be everywhere and so in spatiotemporal possible worlds; however, a non-individual God is simply not in spatiotemporal possible worlds (Vance (2016), 565–566). This objection doesn't need to be fatal. On the contrary, as I see it, a non-individual God affords a better account of omnipresence in the pluriverse. Recall that a possible individual God exists wholly in one world and in no other (otherwise we would have a cross-world deity, which we already rejected). But this entails that there is a privileged possible world with God living in it. Why that privileged world and not another? This isn't a problem of arbitrariness in creation but it is a problem of 'arbitrariness in habitation'. A non-individual God easily avoids this by existing in every world from the standpoint of those worlds.

Still, the question remains: how can a non-individual God be omnipresent? I propose that to understand omnipresence in terms of spatiotemporal location is misconceived; God can be located in a world without thereby being in space-time just by simply existing from the standpoint of that world. And since our non-individual God does exist from the standpoint of every world, he is thereby present in every world; that is, He is omnipresent. Here, I follow Almeida (2017a, 6): 'God's omnipresence is then understood as being present throughout the pluriverse – existing from the standpoint of every possible world – without having any more specific spatial or temporal location. God exists in the pluriverse without existing in or being a part of any possible world in the pluriverse.'

### **Modal collapse revisited**

Finally, Collier (2019, 346) thinks that the non-individual God suffers from the same modal collapse problem: 'if (C)-kind-God [a non-individual God] is spatiotemporally connected to, and the creator of (and thus causally connected to), *all* worlds, then, again, all worlds become one – that is, modal collapse ensues'. Given all the work done so far, the argument becomes simple to address. As we saw, there is no reason to suppose that God is spatiotemporally connected to any world and, hence, there is no reason to suppose that God is (part of) a world. Obviously, we could assume that if God is neither spatiotemporal nor part of any world, He cannot be causally efficacious or omnipresent. However, such assumption is highly unmotivated. As a result, we can consistently hold that when God creates a world, He is not thereby a part of that world. And now we quickly see why modal collapse fails against a non-individual God.

There were two ways modal collapse could successfully be derived in the case of a possible individual God. Option 1 assumed that if two worlds share a worldly causal origin, they are not causally isolated. I rewrite the assumption:

Law 3: For a world or part of a world  $w_\alpha$  and worlds  $w_\beta, w_\gamma$ :  
 $\exists w_\alpha (Cw_\alpha w_\beta \ \& \ Cw_\alpha w_\gamma) \rightarrow 'w_\beta \text{ and } w_\gamma \text{ are not causally isolated}'.$

Recall that this restriction only applied to those cases where the causal origin was itself (part of) a world. The problem was that if we had God existing in a possible world and creating worlds  $w_\alpha$  and  $w_\beta$ , then these two worlds would share a causal origin and so be causally connected. But now, given that a non-individual God is neither a world nor a part of a world, there is no problem in admitting that  $w_\alpha$  and  $w_\beta$  have God as their common causal origin. The passage to (6) is then blocked and modal collapse fails.

I think the non-Lewisian theist has two remaining moves. First, she can argue that the honest theistic modal realist should extend the above restriction accommodating those cases where the shared causal origin is non-worldly. That is, the theistic modal realist must suppose that two worlds are not causally isolated whenever they share a causal origin *simpliciter*, be it wholly in a world or from the standpoint of worlds. Perhaps we could find support for this idea in the following passage: 'if worlds are causally isolated, nothing outside a world ever makes a world' (Lewis (1986), 3). However, the theistic modal realist can simply reply that there is no theoretical difficulty in opening an exception across modal space that allows a non-individual God to be the causal origin of two different worlds, without thereby collapsing those worlds. Not every modal realism needs to be Lewisian.

The second objection is related with my defence of premise (3): that all worlds are causally isolated. Above I argued that making an exception for God and supposing that God can cause transworldly without further ado quickly generalizes to any other thing in a world. That is, if we assume that God can cause transworldly without thereby collapsing different worlds, then why can't we do the same for talking donkeys? Now, couldn't we argue in the same way here?

The important thing to note is that now we are not talking about a God *in* a world but instead a God that exists from the standpoint of worlds. So an argument of the form 'Premise: God is capable of transworld causality; Conclusion: If talking donkeys are causal, then they are also capable of transworld causality' is very poor because the objects in the premise and conclusion are of a very different kind: the God mentioned is a non-individual and the donkeys are possible individuals. The only type of cogent argument that does follow is of the form 'Premise: God is capable of transworld causality; Conclusion: If . . . are causal, then they are also capable of transworld causality' where the '. . .' is filled by objects existing from the standpoint of worlds, like pure sets. But since pure sets (or any other object existing from the standpoint of worlds, apart from God) aren't causal the

conditional 'If pure sets are causal, then they are also capable of transworld causality' is automatically true, so that the entire argument already comes out valid regardless of God being able to cause transworldly or not. So I have no problem in accepting that argument.

Finally, regarding Option 2, the entailment from (4) to (5) was achieved on the basis that God was part of @. When we now assume that God is a non-individual, He is thereby no longer a part of any world and a fortiori He is not a part of @. Thence it is no longer the case that a part of @ causes another world  $w_\alpha$ . On the contrary, what we now have is a *non-worldly* God being a common causal origin of  $w_\alpha$  and  $w_\beta$ . And I have already argued that in this case no worldly collapse ensues. This option will also fail against a non-individual God.

### Conclusion

The causal modal collapse problem poses a challenge to a theistic extension of Lewisian modal realism. After analysing the structure of the argument, we have concluded that it is fatal for a possible individual God existing in the pluriverse. Nonetheless, opting instead for a non-individual deity affords a cogent response to those challenges while allowing us to make use of the theoretical benefits that theistic modal realism brings, in comparison with other non-Lewisian theisms. We conclude that the theistic modal realist can consistently assume the existence of a causally efficacious God existing in Lewisian modal space.<sup>21</sup>

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## Notes

1. Even though Nagasawa's proposal is presented in the context of a panentheistic modal realism, his solution to the fine-tuning problem equally applies to theistic modal realism.
2. I subscribe here to the traditional Anselmian conception of God: God is omnipotent, omniscient, and omnibenevolent. I add creator (of all reality) and simple (with no parts) since these attributes will play an important role in the discussion to follow. The question if God exists in space or time is dependent on the different ways God's existence in the pluriverse is conceived.
3. Henceforth I will drop the word 'causal' and simply write 'the modal collapse problem'. The adjective 'causal' serves to stress the difference between this problem and another quite different 'modal collapse problem' also found in the relevant literature. See Kraay (2011) for the other modal collapse problem, this time based on God's benevolence.
4. Spatiotemporal connectedness should be understood in a loose sense; that is, either spatial or temporal connectedness is sufficient for an object to belong to a world. See Lewis (1986, 73):

I do not say that all worlds are unified by spatiotemporal interrelatedness in just the same way. So the interrelation of a world of spirits might be looser than that of a decent world like ours. If the spirits and their doings are located in time alone, that is good enough.

5. The principle of world-boundedness applies only to this kind. See Lewis (1983b, 40).
6. Vance (2016, 567–568) already explores the problem but in a different context.
7. Nothing heavy hangs on this. What is important for a possible individual God is that He exists wholly in one world, regardless whether that world is actual for us.
8. Mind the distinction between 'the pluriverse' and 'all the worlds'. In accordance with the distinctions above, the pluriverse contains objects (e.g. pure sets) that are not *in* any world.
9. Note this shows that the objects @ and  $w_\alpha$  were not even worlds to begin with, since no world can be part of a bigger world.
10. For example, Morris and Menzel's (1986) brand of emanationism works by identifying *abstract* objects like properties or relations with divine concepts; but it wouldn't seem correct to identify concrete things with concepts too.
11. This is not uncontroversial; see Schaffer (2012).
12. Even if the reader disputes clause (b), this is by no means the only example. For instance, God grounds and creates my freedom, in the sense of creating me as a free agent, and my freedom is what (partly) grounds my free actions. By transitivity, God grounds my free actions; still God cannot create any of my

free actions, on pain of them not being free in the first place. Similarly, my freedom grounds some evil actions I might decide to do, but intuitively an omnibenevolent being should not create them.

13. Rosenberg (1989, 421 n. 9) remarks:

David Lewis has pointed out to me that causal isolation is not sufficient for transworld isolation in any case. For it rules out the existence of a single possible world in which there are no causal connections. Each part of such a world would be causally isolated from every other part. It would not be one world at all, contrary to the assumption.

14. Almeida's argument appears in the defence of a God existing from the standpoint of worlds. But the argument can be similarly used for a God existing in a world. As it will be clear below, I don't think the objection I present in the context of a possible individual God does carry over to a non-individual God.
15. Of course, this is controversial. For some examples less *recherché* think of things like getting tired or being deceived or breaking promises. See Wierenga (1989, 12ff.) for further examples and references to the literature.
16. I use 'objects' in a neutral way, not wishing at this point to make any claim on the features of the causal relata.
17. Note that Lewis's own account of counterfactual causation would rightly reject *Cts* in this case too (Lewis (1973), 566).
18. This objection also applies to successive temporal world-creation.
19. Compare with: 'Minimal worlds there can indeed be. There can be nothing much: just some homogeneous unoccupied spacetime, or maybe only one single point of it. But nothing much is still something' (Lewis (1986), 73).
20. For a defence of a timeless God see for instance Leftow (1991). For a lot of knowledge on the history Sorabji (1983).
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