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# From modal collapse to moral collapse

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## Abstract

I aim in this article to contribute two points to the ongoing discussion regarding strong DDS and modal collapse. First, I will examine a recent version of the modal collapse objection formulated by R. T. Mullins, demonstrating that one can modify the argument to survive its most forceful rejoinder. Having established the cogency of Mullins's modal collapse argument, I next aim to heighten the severity of the conclusion. In particular, I demonstrate that the success of the modal collapse argument entails a moral collapse wherein well-established principles of ethical reasoning fail. Finally, I examine a recent attempt by Katherine Rogers to undercut some of the unwelcomed results of a modal collapse via an appeal to the theistic multiverse. I conclude that this manoeuvre proves ineffective against the moral collapse objection.

**Keywords:** modal collapse; moral collapse; divine simplicity

## Introduction

Classical theists have traditionally taken a strong view of divine simplicity (DDS).[1] According to this dogma, God is in no way composed. No distinction exists between God and his essence, existence, etc. While contemporary philosophers have levelled numerous objections against the doctrine, perhaps the most prominent arises from the accusation of modal collapse. A modal collapse maintains that the truth of strong DDS entails a complete privation of potentiality within reality. As things are is as things must be.

I aim in this article to contribute two points to the ongoing discussion regarding strong DDS and modal collapse. First, I will examine a recent version of the modal collapse objection formulated by R. T. Mullins, demonstrating that one can modify the argument to survive its most forceful rejoinder. Having established the cogency of Mullins's modal collapse argument, I next aim to heighten the severity of the conclusion. In particular, I demonstrate that the success of the modal collapse argument entails a moral collapse wherein well-established principles of ethical reasoning fail. Finally, I examine a recent attempt by Katherine Rogers to undercut some of the unwelcomed results of a modal collapse via an appeal to the theistic multiverse. I conclude that this manoeuvre proves ineffective against the moral collapse objection.

## Mullins's revised modal collapse argument

Mullins has advanced several versions of the modal collapse argument (Mullins 2013, Mullins 2021, Mullins and Byrd 2022). Scope, however, prevents a thorough examination

of them all. Instead, our focus falls on one of his most recent formulations of the argument, which runs as follows (Mullins 2021, sec. 5):

(M1)  If God intentionally acts to actualize this world, then this world cannot possibly fail to obtain.
(M2)  If God's intentional act to actualize this world is absolutely necessary, then this world exists of absolute necessity.
(M3)  God's existence is absolutely necessary.
(M4)  Anything that is identical to God's existence must be absolutely necessary.
(M5)  All of God's intentional actions are identical to each other such that there is only one divine act.
(M6)  God's one divine act is identical to God's existence.
(M7)  God's one divine act is absolutely necessary (M3–M6).
(M8)  God's intentional act to actualize this world is absolutely necessary (M7).
(M9)  This world exits of absolute necessity (M2, M8).

In short, Mullins's argument moves from the absolute unity of God posited by strong DDS together with God's necessary existence to the conclusion that only one version of reality (possible world) exists.[2] In (M1) and (M5), Mullins maintains that God's one divine act is identical to God's intentional act to create the world.[3] Both in turn are identical with God's necessary existence ((M3) and (M6)). Hence, God's intentional act to create the world exists of absolute necessity (M8).[4] Given that God never fails in his intentions – (M2) – Mullins concludes that the actual world must likewise exist of absolute necessity – namely, (M9).[5] Mullins goes to lengths to demonstrate the endorsement of each premise by contemporary and historical classical theists. As a result, the first detractors have taken aim not at the veracity of the premises but at the validity of the formulation.

## The mis-typed designator objection

In response to Mullins's argument, Joseph Schmid has raised the following objection to the formulation of (M2):

All we can infer from < the divine intentional act to actualize this world is absolutely necessary > is that *the entity designated by* 'the divine intentional act to actualize this world' exists of metaphysical necessity . . . But *more is needed* to entail that < necessarily, there exists the divine intentional act to actualize this world > than the mere fact that < necessarily, there exists the entity designated by 'the divine intentional act to actualize this world'>. It must *also* be true that 'the divine intentional act to actualize this world' designates that entity in *every possible world.* But upon adding this assumption to the argument, the argument becomes question-begging against the classical theist. (Schmid 2022, 10)[6]

Before responding to Schmid's objection, a point of clarification is in order. Schmid misdirects his ire against (M2). Given that we understand the conditional in (M1) as strict entailment – as Schmid (2022, 7) concedes – (M2) merely follows by one application of the K-axiom.[7] We can perhaps see the point more prominently if we reformulate the premises as follows:

(M1*)  Necessarily [if God intentionally acts to actualize this world, then this world obtains].[8]
(M2*)  If necessarily [God intentionally acts to actualize this world], then necessarily [this world obtains].

(M1*) expresses Mullins's point in the standard formalization for strict entailment. Moreover, (M2*) follows by dint of deduction from the first. Our clarification creates some tension in Schmid's analysis. Schmid was willing to accept (M1) while rejecting (M2) (Schmid 2022, 10). As we have seen, however, the two are logically bound together. Thus, Schmid cannot reject (M2) without likewise rejecting (M1). Despite the mischaracterization of the problem, further analysis will reveal that one can redirect Schmid's critique to the appropriate target without loss of force.

The nature of Schmid's critique centres on the appropriate classification of the designator 'God's intentional act to actualize this world'. All designators serve to pick out objects within the world. For instance, the designator 'the president of the United States' picks out Joe Biden while 'Alvin Plantinga' picks out Alvin Plantinga. Following Kripke, we can distinguish between two types of designators within a modal context (see Kripke 1980). Rigid designators pick out the same object in every world. The primary example of these sorts of designators is proper names. Thus, 'Alvin Plantinga' not only picks out Alvin Plantinga in our world but every other world as well.[9] Non-rigid designators, by contrast, pick out different objects within different possible worlds. 'The president of the United States' is a designator of this type. The description picks out Joe Biden in the actual world. However, in alternative versions of reality, a different candidate won the 2020 election. Hence, the designator would pick out that individual in those worlds instead.

Returning to the conversation at hand, Schmid rightly notes that the validity of Mullins's argument hinges on taking 'God's intentional act to actualize this world' as a rigid designator. We can perhaps see this point more clearly by reformulating the inference from (M3–M5) to (M6) in Mullins's argument as follows – letting α serve as a name for the actual world:

(A) Necessarily [God exists].
(B) God is identical to God's intentional act to actualize α.
(C) Therefore, necessarily [God's intentional act to actualize α exists].

Given the principle of the necessity of identity, (C) follows from (A) and (B) provided one takes 'God's intentional act to actualize α' as a rigid designator.[10] Schmid, however, straightforwardly rejects this claim. Indeed, he charges Mullins and company with question-begging to construe the designator in this way. Without that assumption, however, one cannot reach the key conclusions given in (M6) and (M7). As a result, even if one grants (M2), the antecedent of the conditional is never deduced; *ipso facto*, the consequent is never concluded.

To drive his point home, Schmid develops a parody of Mullins's argument that runs as follows (Schmid 2022, 10–11):

(P1) <The infallibly omnipotent creator of this world exists> necessarily entails <this world exists>.
(P2) If the infallibly omnipotent creator of this world exists of absolute necessity, then this world exists of absolute necessity.
(P3) God exists of absolute necessity.
(P4) If God is identical to $x$, then $x$ exists of absolute necessity (P3).
(P5) God is identical to the infallibly omnipotent creator of the world.
(P6) The infallibly omnipotent creator of this world exists of absolute necessity (P4, P5).
(P7) This world exists of absolute necessity (P2, P6).

One might wonder if the same concern regarding designators applies to Schmid's parody as well. Indeed it does, but that is precisely the point. Schmid's parody is likewise invalid for the same reason that 'the infallibly omnipotent creator of this world' is a non-rigid designator. Structurally, then, Schmid's parody argument mirrors his reading of Mullins's original. Moreover, Schmid maintains that the premises of his parody are central affirmations not only for classical theists but for '*any* view on which God exists necessarily and is the infallibly omnipotent creator of this world' (Schmid 2022, 11). Schmid then backs the advocate of Mullins's modal collapse into a corner. Unless they can show where Schmid's parody diverges from the original, the success of the latter formulation leads to the success of the former formulation.

## Immutability re-collapse

What are we to make of Schmid's argument? As we've seen Schmid's key move lies in taking 'God's intentional act to actualize this world' as a non-rigid designator. Already, one can object to Schmid's objection on that score (Mullins and Byrd 2022, 34). However, for the sake of argument, we shall grant Schmid the point. A new question now emerges. What manner of non-rigid designator is the term in question supposed to be? The most obvious candidate is a definitive description. We can understand a definitive description as a characterization that adheres to only one object in a world. Consider again, for example, the designator 'The president of the United States'. Since the United States only ever has a single president, the description only ever characterizes one object. Yet, depending on the context of utterance, which object the description picks out differs.

Following the canonical analysis of definitive descriptions given by Bertrand Russell (1905) we can render 'God's intentional act to actualize this world' a bit more rigorously as follows – again letting $\alpha$ stand for the actual world:

(1) For some $x$, $x$ is God's intentional act to actualize $\alpha$ and for all $y$, if $y$ is God's intentional act to actualize $\alpha$, then $x = y$.[11]

So formulated, the error in reasoning presented in (A)–(C) becomes apparent. Consider the result of substituting 'God's intentional act to actualize this world' with (1):

(A\*) Necessarily [God exists].
(B\*) For some $x$, $x$ is God's intentional act to actualize $\alpha$ and for all $y$, if $y$ is God's intentional act to actualize $\alpha$, then $x = y$ and God $= x$.

At most, one can infer from (A\*) and (B\*) that

(C\*) For some $x$, $x$ is God's intentional act to actualize $\alpha$ and for all $y$, if $y$ is God's intentional act to actualize $\alpha$, then $x = y$ and necessarily [$x$ exists].

Unfortunately, (C\*) falls short of what Mullins needs for the modal collapse argument. The proposition affirms that $x$ exists necessarily but not that $x$ has the property of being 'God's intentional act to actualize $\alpha$' in every world at which it exists. Applying these same manoeuvres to Schmid's parody leads to like results.

While our reformulation of the argument lays bare the invalidity of Mullins's original formulation – assuming one accepts Schmid's reading of the designator – it simultaneously opens the door for a new route to modal collapse by way of divine immutability. Proponents of classical theism embrace not only a strong version of DDS but strong versions of divine immutability as well.[12] According to the latter, God is not subject to change

with respect to any of his intrinsic properties. Put another way, God lacks any internal potentiality.[13] We could make a first attempt at formulating this strong doctrine of divine immutability (DDI) as follows:

*Strong DDI*: For any property P, if God is P and P is intrinsic to God, then necessarily [God is P].

The above formulation, while accurate, suffers from incompletion. So formulated, we are limited to considerations of only monadic predications such as 'God is omnipotent' or 'God is omnipresent'. We may, however, wish to consider intrinsic predicates of a polyadic nature such as 'God believes that *p*' or 'God desires that *q*'. To accommodate the latter, we can revise our definition as follows:

*Strong DDI**: For any *n*-ary relation R, if God Rs, and God R-ing is intrinsic to God, then necessarily [God Rs].[14]

With Strong DDI* in view, we can return to Mullins's argument with renewed perspective. Consider again the claim made in (B*):

(B*) For some *x*, *x* is God's intentional act to actualize α and for all *y*, if *y* is God's intentional act to actualize α, then *x* = *y* and God = *x*.

While this premise proved ill-suited to Mullins's original plans, we can infer from (B*) the following:

(2) God is God's intentional act to actualize α.[15]

Next, we can tie (2) to Strong DDI* *via* the following instance of the principle:

(3) If God is God's intentional act to actualize α and God's being God's intentional act to actualize α is intrinsic to God, then necessarily [God is God's intentional act to actualize α].[16]

(2) affirms one of the two conjuncts in (3)'s antecedent. As such, to reach the conclusion that God is necessarily his intentional act to actualize α, we need only establish that God is intrinsically so characterized.

Here our definition of 'intrinsic' becomes crucial. Schmid endorses the definition given by David Lewis according to which 'we distinguish intrinsic properties, which things have in virtue of the way they themselves are, from extrinsic properties, which they have in virtue of their relations or lack of relations to other things' (Schmid 2022, 61; Schmid draws this quote from Lewis 1986, 61).[17] Perhaps as a merely preferential matter, we shall by contrast adopt the definition given in Koons and Pickavance (2017, 20):

*Intrinsicality*: *x* is intrinsically F if and only if nothing that is not *x* or a part of *x* is part of the ground of *x*'s being F.

Applying this definition to the question at hand, we can now ask whether God's being an intentional act to actualize α is in any way grounded by or dependent upon something that is neither God nor a part of God. We may give at least two arguments for the conclusion that it is not.

First, God's act of creating α is independent of anything within α. Indeed, all creative acts stand apart from that which is created by virtue of the fact that the former brings into existence the latter. By extension, God's being this act cannot depend upon anything that is neither God nor a part of God since all such objects are brought into existence by the act itself. Per our operative definition of intrinsicality, therefore, God's being such an act must be intrinsic to him.

Second, God's act of creating α is identical to other intrinsic properties. Consider again Mullins's claims in (M5) and (M6):

(M5)  All of God's intentional actions are identical to each other such that there is only one divine act.

(M6)  God's one divine act is identical to God's existence.

According to (M5), all of God's intentional acts – including the intentional act to actualize α – are identical to his one divine act. (M6) then adds that God's one divine act is identical to God's very existence. Since identity relations are transitive, we can conclude that God's intentional act to actualize α is identical with God's very existence. The latter, moreover, is indisputably not grounded in anything that is neither God nor a part of God by virtue of his aseity. Thus, God's existence is intrinsic. By extension, anything identical to God's existence must likewise be intrinsic, which includes – per Mullins – God's intentional act to actualize α. Hence, the predication is intrinsic (see Mullins 2021, 95).[18]

Finally, given that God both is 'God's intentional act to actualize α' and is so intrinsically, we have met both the conditions specified in the antecedent of (3). Therefore, we can conclude:

(4)  Necessarily [God is God's intentional act to actualize α].

We can now combine this conclusion with a revised version of Mullins's claim to the infallibility of omnipotence:

(M1**)  Necessarily [if God is God's intentional act to actualize α, then α obtains].

From (M1**) we can deduce:

(M2**)  If necessarily [God is God's intentional act to actualize α], then necessarily [α obtains].

Lastly from (4) and (M2**) we conclude that

(5)  Necessarily [α obtains].

The conclusion given in (5) mirrors that of Mullins's original argument presented in (M9).

In summary, by taking 'God's intentional act to actualize this world' as a non-rigid designator, Schmid successfully defuses Mullins's modal collapse argument from DDS. In doing so, however, Schmid opens the door for a re-collapse by way of DDI. If the designator in question is non-rigid, then it must be a definitive description. Taken as a definitive description together with Strong DDI* and plausible auxiliary assumptions, however, leads to the same conclusion as Mullins's original argument. Since the classical theist is equally committed to strong DDI as they are to strong DDS, I conclude that the modal collapse survives Schmid's attempt at disarmament.

The re-collapse manoeuvre, moreover, marks a point of disanalogy between Mullins's argument and Schmid's parody. Unlike the classical theist, non-classical theists can freely reject Strong DDI*. As such, even if one grants that Mullins's argument is structurally identical to Schmid's parody, the re-collapse applies only to the former not the latter formulation.

## From modal collapse to moral collapse

In this section, I aim to demonstrate that given a modal collapse, some normal modes of ethical reasoning fail. In particular, I wish to focus on two such modes of reasoning: first, the principle that ought implies can; second, the standard semantics used for deontic logic – namely, the logic of moral obligation and permissibility.[19]

### Failure of the ought implies can principle

The ought implies can principle (OIC) famously traces to the work of Immanuel Kant. Kant articulates the principle at numerous places throughout his corpus. For instance, in *Critique of Pure Reason* he writes:

> Pure reason, then, contains, not indeed in its speculative employment, but in that practical employment which is also moral, principles of the possibility of experience, namely, of such actions as, in accordance with moral precepts, might be met within the history of mankind. For since reason commands that such actions should take place, it must be possible for them to take place. (Kant 1933, 637)

The last line captures the core of the principle. An action, according to Kant, is obligatory provided one has the ability to perform it. Intuition weighs heavily in favour of this principle. If a father promises to attend his son's baseball game, we naturally think he has a moral obligation to be there. If, however, on route to the game, the father's car is hit by another driver rendering him unable to reach his destination, the moral obligation no longer adheres. Any number of examples – both mundane and severe – could be given along these lines. All of them, however, point not only to the accuracy of Kant's principle but its ubiquity as well. What makes Kant's principle so compelling is how pervasive the use of it is within our everyday, pedestrian ethical reasoning.

Before turning to consider the ramifications of a modal collapse on Kant's principle, we first need to clarify its nature. Alex King has helpfully noted that OIC admits to a wide range of interpretations (King 2019, 3). Building off King's point, we can conceive of the various options as differing analyses of the following schema:

*OIC*: S ought to A only if S can A.

The sundry formulations of the principle arise through alternative understandings of each element within OIC. For instance, one must determine: (i) what objects 'S' and 'A' range over; (ii) the meaning of the 'ought' and 'can' operators; (iii) the nature of the conditional ('only if'); (iv) whether or not to temporally index the principle.

Since our concern at present rests with moral matters, we shall understand the 'ought' as normative in nature. Likewise, we shall adopt the standard readings of 'S' and 'A' as ranging over individual moral agents (as opposed to collections of agents) and actions respectively (King 2019, 14–15). Since the material conditional and strict entailment are equivalent in a modal collapse scenario, we shall adopt the former as our understanding of 'only if' (King 2019, 7). In addition, for simplicity's sake, we shall avoid including the

temporal indexical; however, one could amend the scheme with this added element without changing the results discussed below.

We come, lastly, to OIC's most turbulent element: 'can'. As King observes, this component of the scheme has received the most attention from exegetes and admits to the widest range of interpretations (King 2019, 9–10). In navigating these waters, we begin by noting that most readings of 'can' construe the operator as a species of restricted possibility. Generally speaking, metaphysicians understand metaphysical possibility as the broadest kind of potentiality.[20] More restricted versions – causal, nomological, etc. – are subsets of metaphysical possibility that meet some further restriction such as adhering to the actual laws of nature.

To understand why defenders of OIC opt for narrower notions of possibility, we need to first recognize the function of OIC within ethical discourse. The principle primarily serves as an obligation defeater. Thus, most uses of the principle argue from 'S cannot A' to 'S does not have an obligation to A' rather than from 'S has an obligation to A' to 'S can A'. As such, the problem with the metaphysical reading of 'can' lies not in its falsity but its triviality. Virtually every conceivable action is metaphysically possible. Consequently, on this reading virtually no obligation has a defeater via OIC.

To illustrate the problem, consider again the case of our father attempting to attend his son's game. We can ask, in what sense the stranded father was 'unable' to attend the game. A natural reading takes the possibility in question as causal (see Gensler 1996, 46). The father was 'unable' to attend because he lacked any available causal means of arriving at his destination. Metaphysical possibilities, by contrast, abound. The father could have instantaneously teleported to his destination or opened a wormhole to the baseball field. In short, defenders of OIC aim to deploy the principle in exactly these sorts of scenarios to serve as a defeater for the standing obligation. Unfortunately, the metaphysical reading of the modal operator fails to accomplish this feat for many of the paradigm examples.

Before leaving our discussion of OIC's modal element, we have one last observation to make. Though the metaphysical reading proved too broad, failure at this level entails failure at every level. As noted above, every other version of possibility exists as a subset of the metaphysical. Hence, if a scenario lacks metaphysical possibility, it lacks every other species of possibility (causal, nomological, etc.) as well. In what follows, therefore, we shall opt for the metaphysical reading of 'can' in order to demonstrate the severity of a modal collapse on OIC. For demonstration that the problems infect the broad reading trickle down to the more plausible readings as well see for example Bassford (2022).

Taken together, our interpretative decisions yield the following version of OIC:

*OIC-(M)*: It is obligatory for S to A only if it is (metaphysically) possible for S to A.

Here 'S' ranges over individual agents and 'A' over individual actions. Likewise, we shall take the conditional ('only if') as material. Finally, the 'ought' operator is understood as normative, and the modal operator is taken as metaphysical in scope. Interpreting OIC-(M) in terms of the standard possible world semantics, the principle states that if it is obligatory that an agent perform a particular action, then a possible world exists in which the agent does that action.

The difficulties a modal collapse poses to OIC-(M) are perhaps most clearly seen in the case of moral failure. Whereas we are inclined to recuse the stranded father from his duty to attend his son's game, the same does not hold for everyone. The world is replete with instances of moral failure for which the perpetrators are wholly liable.

Consider, for example, a dark tale between two individuals: Sam and Sarah. Suppose that Sam and Sarah work for the same corporation and are both up for a promotion at the

company. One day, a fire breaks out in their office. Sarah manages to make it through the escape door just before Sam, who is the last person on the floor. As Sarah passes through the exit, the door closes behind her, locking from the outside. Sam arrives at the closed door and begins to beg Sarah to open it. In a fit of wicked ambition, Sarah pretends not to hear Sam's pleas, thereby sealing Sam's fate and ensuring she gets the promotion.

Unquestionably, Sarah had a moral obligation to open the door for Sam in this scenario. Sadly, combining OIC-(M) with a modal collapse will not abide these results. Take the following instance of the principle:

(6) It is obligatory for Sarah to open the door for Sam only if it is (metaphysically) possible for Sarah to open the door for Sam.

As noted above, we can understand the consequent of this conditional as requiring that a possible world exists in which Sarah opens the door for Sam. In a modal collapse, however, reality contains only one world and that world is actual. Hence, since by hypothesis Sarah does not open the door for Sam in the *actual* world, Sarah does not open the door for Sam in *any* world. Since Sarah did not *actually* open the door for Sam, she could not *possibly* have opened the door for him either. Applying these results to (6) we arrive *via modus tollens* at the following conclusion:

(7) It is not obligatory for Sarah to open the door for Sam.

By definition (7) entails:

(8) It is permissible for Sarah not to open the door for Sam.[21]

But (8) is surely wrong. In the envisioned scenario, Sarah's actions were indisputably evil. Nevertheless, attempting to apply OIC-(M) within a modal collapse runs directly counter to this intuition.

Indeed, we can generalize these results to any unmet obligation. Since possibility and actuality are synonymous in a modal collapse scenario, OIC-(M) is equivalent to:

*OIC-(M)\**: It is obligatory for S to A only if S As.

OIC-(M)* states that a necessary condition of S's obligation to A is that S *actually* does A. Put another way, no unmet obligations exist. We can never say, therefore, that people ought to have acted differently than they did. Whatever actions people perform in the world are, at a minimum, permissible (as (8) demonstrates).

Given the untenable nature of these results, a modal collapse demands that we abandon OIC-(M). *A fortiori*, we must abandon Gensler's more plausible causal version as well. Hence, if we are forced for one reason or another to embrace a modal collapse, we are left with the unwelcome result of having to abandon the ought implies can principle as well.

## Failure of SDL

We reach similar results when we consider the impact of a modal collapse upon the standard semantics for deontic logic (SDL). Deontic logic is a species of modal logics applied to moral reasoning. Scope prohibits a full description of the system. For present purposes, then, we will focus on just two aspects. First, deontic logic replaces the necessity operator of alethic modal logic with an obligation operator. To understand the second aspect, we must first introduce the notion of an accessibility relation.

Within possible world semantics, we say that a proposition $p$ is possible at a world $w$ just in case at some world $w^*$ accessible to $w$, $p$ is true. Likewise, a proposition is necessary at $w$ just in case at every world $w^*$ accessible to $w$, $p$ is true. By varying which worlds are accessible to which, we can generate different modal systems.

When discussing notions of metaphysical necessity and possibility in a formal context, metaphysicians typically require that the accessibility relation is at least reflexive (i.e. $w$ is accessible to itself). Adding this requirement validates the following inference:

(9)  Given necessarily $p$, $p$ follows.

Clearly, the argument goes, if something is metaphysically necessary it must also be true. While assured for the metaphysical, (9) proves anathema for the moral. Consider the result of replacing the necessity operator with the obligation operator:

(10)  Given it is obligatory that $p$, $p$ follows.

The above theorem takes us back to the problem of no unrealized obligations. According to (10), if anything is obligatory, then it is actual. Hence, one can never claim that a moral duty went unmet.

Given the problems with (10), logicians have insisted that the accessibility relation for SDL be serial rather than reflexive. A serial relation requires that for any world $w$, at least one other world, $w^*$, exists which is accessible to $w$. Since we have no guarantee that $w^*$ is $w$, (10) is not validated. Instead, we get the more promising inference schema:

(11)  Given it is obligatory that $p$, it is permissible that $p$.

Much more could be said about the nature of deontic logics and SDL. This overview, however, will suffice for present purposes.[22]

Returning to our discussion of the consequences of modal collapse, we can ask what impact such a collapse has on SDL. To simulate the scenario, we shall require that all the models within SDL be one-world models. If one takes a strict reading of the serial relation, this has the effect of turning a serial relation into a reflexive relation. Recall that a serial relation holds that for any world $w$, a world $w^*$ exists accessible to $w$. But suppose there is only one world. What follows then? In that case $w$ must be accessible to itself, for no other world is available to satisfy the requirements of the serial relation. Yet if $w$ is accessible to itself, that by definition makes the accessibility relation reflexive. Moreover, as we noted a moment ago, a reflexive accessibility relation validates the inference from obligation to actuality – see (10) above.[23]

The above result holds provided we take a *strict* reading of the serial relation. Technically speaking, the serial relation requires only that a given world has access to some other world. Informally, however, the relation is often understood as irreflexive as well. The irreflexive condition adds the additional restraint that the world in question is not accessible to itself.[24] Rather, the serial relation grants a world access to the morally correct version of itself. We might ask, then, what the impact of a modal collapse is on SDL provided we understand the accessibility relation as both serial and irreflexive. In his masterful textbook on modal logic, James Garson helpfully notes the results of the envisioned scenario:

If there were no moral alternative to our world, then there would be nothing coherent we could say about what we ought to do in our world. It is ordinarily thought that if I ought to do something, then it follows that I can. Unless seriality holds to

ensure that there is a possible world where I do as I ought, I would be unable to act in a morally acceptable fashion. Furthermore, if there is no world related to (say) w, then it turns out that $a_w(O\bot)$ . . . So without seriality, there can be worlds where $O\bot$ is true, which seems unacceptable, since $O\bot$ says that I ought to bring about a contradiction – something I surely cannot do. (Garson 2013, 108)

Garson here envisions a scenario in which the world of evaluation – which we may take as the actual world in this case – has no accessibility to another world (including itself). Under these conditions, we are left with the startling conclusion that a contradiction is morally obligatory – symbolized by Garson as '$O\bot$'.

The application of modal collapse to SDL, therefore, drives us once again into the unwelcomed embrace of moral absurdity. Regardless of whether one takes the strict or informal reading of the serial relation, we are left with unacceptable moral conclusions. If the former, we must conclude that the world contains no unmet moral obligations. However things ought to be, is how they are. If the latter, we must say that the obtaining of a contradiction is a standing moral obligation. Hence, if we are forced for one reason or another to embrace a modal collapse, we are left with the unwelcome result of having to abandon SDL and with it the standard semantics for reasoning about moral matters in a formal context as well.[25]

### Katherine Rogers's theistic multiverse proposal

Before leaving our discussion of the moral collapse problem, we ought to pause to consider the import of a recent proposal developed by Katherine Rogers. Rogers suggests that the classical theist could embrace a version of the theistic multiverse to mitigate the impact of a modal collapse (Rogers 2020a, 2020b).[26] The starting point for the theistic multiverse proposal lies in the assumption that possible worlds and universes do not stand in a one-to-one correspondence. Rather, a possible world can contain a multiplicity of universes. Applying this concept to the modal collapse scenario, the suggestion becomes that the singular possible world contains within itself a host of actual universes. While Rogers rejects the notion that such a multiverse would ground modal claims about individuals, she suggests that it might serve to ground modal claims regarding certain kinds:

> For one thing, I argue that there is reason to deny that particular individuals could exist (or their counterparts could exist) in multiple universes. But the multiverse could ground intuitions about possible kinds. If, indeed, the unicorn is a possible creature, perhaps it exists in some universe other than ours. (Rogers 2020a, 318)[27]

Despite the ingenuity of Rogers's proposal, her suggestion does nothing to mitigate either of the moral collapse issues discussed above. With respect to the ought implies can principle, the principle makes a necessary condition of obligation not the potentiality of a kind but of an individual. Take for instance Sarah's diabolical plot to gain the promotion over Sam. As we saw, on a modal collapse, OCI-M entails that Sarah had no obligation to open the door for Sam because no possible world exists in which she performs that action. Merely saying that humans have the potential to open doors does nothing to mitigate this fact. What matters is not generic potentiality regarding a kind, but the specific potentiality of an individual with respect to a specific action. Indeed, if one could argue from the potentiality of a kind to the obligation of an individual, then our stranded father would bear the full weight of responsibility for missing his son's game, since presumably other people were able to attend. With respect to SDL, the situation is completely

unchanged. On Rogers's proposal, modal space still contains only one possible world. That world merely contains an unspecified number of universes. Hence, the semantics would still entail that no unmet moral obligations exist within the multiverse (or that a contradiction is a moral obligation within the multiverse if one takes Garson's approach). Therefore, while Rogers's proposal may succeed in defusing other deleterious impacts of a modal collapse, it does nothing to mitigate the spiral into moral collapse.

## Conclusion

Proponents of classical theism now face a dilemma. They have attempted to defuse Mullins's modal collapse argument by maintaining that the relevant designators are non-rigid rather than rigid. However, even granting this point, on plausible auxiliary assumptions, one can argue for a re-collapse by way of Strong DDI – which the classical theist also accepts. Hence, regardless of how one reads the designators, modal collapse ensues. Moreover, the results of such a collapse prove substantial. Given a modal collapse, a moral collapse quickly follows. We are left unable to utilize normal modes of ethical reasoning in both a pedestrian and formal context. Furthermore, the problems attending to a moral collapse are immune to the types of mitigating manoeuvres deployed by classical theists – such as Katherine Rogers – against the more commonly cited consequence of a modal collapse. As such, the classical theist must either find recourse to reject both versions of the collapse argument or saddle themselves with unwelcomed results of a moral collapse.

## Notes

**1.** For a discussion of the various shades of DDS see Richards (2003, ch. 9).
**2.** Here I assume a version of actualism according to which all the worlds that *could* exist are the worlds that *do* exists.
**3.** I shall take the 'creates' and 'actualizes' relation as synonymous when used with respect to God's relationship to possible worlds.
**4.** Lenow objects to the inference from God's creating the actual world to God's necessarily creating this world on the grounds that God's power is analogous to a multi-track dispositional property. On Lenow's account, any manifest property is reflective of a dispositional property. Further, every dispositional property is multi-track, meaning that it admits to various potential manifestations. For example, I have a dispositional property to shoot a basketball. One manifestation of that property would be me shooting a basketball at 45°, another at 44°, etc. Applying this account to God's act of creation, the actual world is simply one manifestation of the divine power. Inherent within that property is the potential for numerous – perhaps infinite – other worlds that God could have created. The very nature of God's power, then, rules out the possibility of a modal collapse.

   Whatever the merits of Lenow's model, his account of divine power does not square well with classical theism. According to classical theism, God is 'devoid of all potentiality' (see Sijuwade 2021, 3). By contrast, on Lenow's account God appears to possess an abundance of potentiality. Lenow attempts to avoid this problem by claiming that in God's case, the manifestation track for his power is determined from eternity. In other words, God's power is multi-track; however, which track his power takes is fixed and predetermined. In making this move, Lenow places himself in a dilemma. Returning to my alleged basketball skills, by virtue of what can I say it is possible for me to shoot a basketball at 45°? Following Vetter, Lenow answers that this state of affairs is possible by virtue of my possessing the potentiality to do it. But how do I account for this potentiality? I have such a potentiality by virtue of it being one of the tracks within my multi-track property to shoot a basketball. Now we can ask, could God, on Lenow's account, possibly have created a different world from the actual one? Lenow wishes to answer yes. However, by his own definition that entails God has potentialities, for it is precisely those potentialities that ground possibility. Lenow might reply that in God's case their manifestation is fixed, but how exactly does that mitigate the genuineness of the potential? If he means 'fixed' as in 'cannot possibly be otherwise' then by the definition of possibility, God's power is not actually multi-track. If it is multi-track, however, then God has potentialities on Lenow's account. Now suppose Lenow were to back off and say as a

matter-of-fact God could not have created a different world. We would then come once more to the shores of modal collapse. Hence, Lenow's account of divine power is either incompatible with classical theism or winds its way back to a modal collapse. Lenow develops this objection in Lenow (2019). In developing his model, Lenow makes use of Vetter's analysis of dispositional properties perhaps most importantly given in Vetter (2013).

5. Pedersen and Lilley object to this conclusion on the grounds that something is 'absolutely necessary' just in case the 'source' of necessity is its own essence rather than something external. Since God is the source of creation, they argue, even if it exists necessarily, it cannot be absolutely necessary. Rather, creation would exist of 'hypothetical necessity' (see Pedersen and Lilley 2022). We can make at least two points in response to this objection. First, Pedersen and Lilley's understanding of the distinction between absolute and hypothetical necessity differs from Mullins. Mullins, for instance, defines hypothetical necessity as 'when some state of affairs must follow from a prior state of affairs, yet that prior state of affairs need not have obtained' (Mullins2021, 94). Per Mullins's use of the term, therefore, one could never describe a modal collapse scenario as the actual world having hypothetical necessity, since on his usage that carries the implication of contingency. I leave it to the reader to decide which usage better captures the historical meaning of the terms. For present purposes, we need only note that the definitions Pedersen and Lilley defend lack ubiquitous assent. Second, even if Pedersen and Lilley prove correct in their understanding of absolute and hypothetical necessity, their point is mute with respect to the modal collapse argument. For on their understanding, both absolute and hypothetical necessity translate to existence within every possible world (Pedersen and Lilley 2022, 133–134). Yet saying that the actual world is the only possible world just is the modal collapse problem. Thus, on their usage of the terms, whether the actual world is 'absolutely necessary' or 'hypothetically necessary' does nothing to change the fact that it is the only possible world. *Ipso facto*, we get a modal collapse either way.

6. Schmid's objection is similar to one raised by Tomaszewski to an earlier version of Mullins's argument. For Tomaszewski's original argument see Tomaszewski (2019). For a reply, see Mullins and Byrd (2022).

7. According to the K-axiom, one can deduce from 'necessarily [if A, then B]' that 'if necessarily [A], then necessarily [B]'.

8. Here the necessity operator can also be read as 'absolute necessity' since both carry the meaning of 'true in every possible world'.

9. Kripke was uncertain whether proper names referred to their objects even in worlds where they did not exist. Since nothing in our present discussion hinges on this point, we shall proceed as if they do without further comment.

10. According to the necessity of identity, if rigid designators pick out the same object in the actual world, they pick out the same object in every possible world. For a discussion of the principle see Kripke (1980, 97–105).

11. Russell's analysis is here deployed for the sake of concreteness and due to the popularity of his approach. Strictly speaking, the argument developed in this section merely requires that the definitive description in question (i) picks out its intended referent – God – and (ii) that God has the property ascribed to him by the description in the actual world provided he exists. These minimal conditions should be met by almost any analysis of definitive descriptions, including those at variance with Russell's approach.

12. For a helpful discussion of this doctrine and its various formulations see Richards (2003, ch. 8).

13. Sijuwade attributes to classical theism a still stronger form of immutability according to which God undergoes neither intrinsic nor extrinsic change (Sijuwade 2021). See also Mullins (2013, 182–183). For present purposes, we shall restrict our formulation of the doctrine to intrinsic properties only for two reasons. First, the restricted version of divine immutability represents a more modest – and plausible – version of the doctrine. As such, it provides the strongest representation of the classical theists' position. Second, since the version of the doctrine discussed by Sijuwade is formally stronger than the one presented here, anything that follows from the latter will follow from the former as well.

14. Strong DDI* handles properties by taking R as a unary relation. Any arity $\geq 2$ would then correspond to the more standard sense of 'relations'. In addition, we are best off taking Strong DDI* not as a single axiom but as a collection of axioms such that each axiom corresponds to a different value of $n$. To avoid any unnecessary variations in presentation, letting 'g' be a constant of the object language, we require that for any instance of the scheme, 'g' occur as the first argument in R (the definition of R can easily be tailored in the lexicon to accommodate this restriction). In addition, for any instance of the schema where R is an $n$-ary relation and $n \geq 2$, terms $x2, \ldots, xn$ may or may not occur free in R. One should add one instance of Strong DDI* to the language for each arity of relation contained within the lexicon of that language.

15. The 'is' here should be read as an 'is' of predication and not an 'is' of identity. Given that $x$ has the property of being God's intentional act to actualize $\alpha$ and God is identical to $x$, it follows via the substitution of identicals that God likewise has this property.

16. Here I rely upon the deductive system for language L2K developed in Shapiro (2005).

17. Schmid (2022, 2 n. 2). Schmid draws this quote from Lewis (1986, 61).

**18.** *Pace* Grant who argues that the divine act is an extrinsic property (Grant 2019, section 4.3). For a rejoinder see Mullins and Byrd (2022, 43–47).

**19.** Pedersen and Lilley argue that even if successful, a modal collapse is not particularly threatening since it does nothing to compromise doctrines such as divine freedom and divine grace (Pedersen and Lilley 2022, 136–146). Even if the duo is correct on this score, one cannot so easily dismiss the ramifications of a moral collapse. For a discussion of the other negative results of a modal collapse see Mullins and Bryd (2022, 38–39).

**20.** One could construe logical possibility as a broader category of modality. However, given that this added layer has little impact on our present line of argumentation, we shall proceed as if the metaphysical represents the broadest notion of possibility.

**21.** Standardly 'it is permissible that A' is defined as 'it is not obligatory that not A'. Thus, (7) is translatable to 'it is not not permissible for Sarah to not open the door for Sam', which reduces to 'it is permissible for Sarah to not open the door for Sam'.

**22.** For a semi-technical introduction to deontic logic see Girle (2009, ch. 13). For a more robust introduction see Garson (2013, ch. 2).

**23.** We can more rigorously establish this conclusion as follows. First, we define a pointed Kripke model with the following form: <W,R,α,v> where W is the set of possible world, α is a member of W understood as the actual world, R is a serial accessibility relation which holds between α and members of W, and v is a valuation function which maps propositions at worlds to truth values such that $vw(p)$ returns the truth value of $p$ at $w$. We then say that $\Box p$ holds at α just in case for every $w$ included in W. αRw, vw(p) = true. Likewise, $\Diamond p$ holds at α just in case for some $w$ include in W, $vw(p)$ = true.

  We can now prove that given W contains only one world, the serial relation becomes reflexive. Since R is a serial relation, some $w$ included in W exists such that αRw. Given a modal collapse, however, W contains only one world. Given that α is included in W, that means that α is identical to W's lone member. Call the one world included within W $d$. We can then infer that $α = d$. Furthermore, let $c$ be the name of the world accessible to α per the requirements of the serial relation. Given that $c$ is also included within W, $c$ is likewise identical to $d$, hence $c = d$. Given the transitivity of identity it follows that $c = α$. Thus, αRα, which is by definition a reflexive accessibility relation. Moreover, since the truth conditions for $\Box p$ state that $p$ obtains at every world accessible to α and α is accessible to itself, it follows that given $\Box p$, $p$ follows.

**24.** One reason this condition may go unstated lies in the fact that adding an irreflexively condition on the accessibility relation typically has no impact on which theorems are validated with the logic. A modal collapse scenario presents a unique case in which irreflexively does carry significant ramifications on which theorems are validated.

**25.** The classical theist might escape these results for both SDL and OIC by allowing that the deontic quantifiers range over impossible worlds. In that case, the classical theists might agree that the modal collapse results in only one metaphysically possible world while denying that this reduces the domain over which the deontic quantifiers range to a single world since the quantifiers might additionally range over metaphysically impossible worlds. While this manoeuvre would escape the moral collapse, it does so at the cost of embracing the legitimacy of impossible worlds, which are themselves controversial (see Berto and Jago (2023) for an overview of the various objections to impossible worlds). My thanks to an anonymous reviewer for bringing this point to my attention.

**26.** For more on the theistic multiverse see Kraay (2010, 2011). Rogers articulates the distinctives of a classical theists approach to the theistic multiverse in Rogers (2020b).

**27.** I am uncertain if Rogers intends this claim to mean that the multiverse can ground only possibility claims regarding the existence of kinds not present in our universe or if she would allow that the multiverse can also ground possibility claims regarding the properties that can be instantiated by a kind as well. Since the latter renders the proposal potentially more threatening to my project, I will procced as if that interpretation is the correct one.

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