SOUTHWEST PHILOSOPHY REVIEW

Vol. 28, No. 2 **July, 2012**

Comments

On Tracy Lupher's "A Logical Choice: The Role of Modal Logics in the Modal Ontological Argument"

Klaus Ladstaetter

Washburn University

1. Kane's Modal Ontological Argument (MOA)

Robert Kane's (1984) version of the MOA is adapted from chapter two of Charles Hartshorne's *The Logic of Perfection and Other Essays* (1962). It goes like this: Since it is necessary that if a perfect being exists, then it is necessary that it exists, and since it is possible that a perfect being exists, it follows that a perfect being exists. In symbols:

$$\Box(G \rightarrow \Box G) \ \& \ \Diamond G \models G$$

where 'G' symbolizes 'a perfect being exists', '$\models$' symbolizes semantic consequence, and '$\Box$' and '$\Diamond$' symbolize *necessity* and *possibility* respectively (in a sense to be explained).

As Tracy Lupher (2012) correctly points out, the argument is *invalid* unless the accessibility relation between possible worlds is assumed to be *symmetric*. To see this, suppose that the argument is invalid, i.e. that its premise is true-in-w_0 and its conclusion is false-in-w_0 (where w_0 is assumed to be the actual world):

$$\begin{array}{llllllllll} w_0: & \Box(G & \rightarrow & \Box G) & \& & \Diamond G & \models & G \\ & \text{T} \ \text{F} & \text{T} & \text{F} & \text{T} & \text{TF} & & \text{F} \end{array}$$

If this supposition leads to a contradiction, then, by reductio reasoning, the argument is valid; if, on the other hand, we obtain no contradiction, the argument is invalid.

By hypothesis, it is false-in-w_0 that a perfect being exists. But even so, it is true-in-w_0 that *there is* a possible world, w_1, accessible from w_0, in which it is true that a perfect being exists. So, it is true-in-w_1 that a perfect being exists.

By hypothesis, it is also true-in-w_0 that in all worlds, *if* accessible from w_0, it is true in these worlds that if a perfect being exists, then it is necessary that it exists. Since w_1 is the only world that is accessible from w_0, the conditional is thus true-in-w_1; and since it has an antecedent that is true-in-w_1, its consequent is also true-in-w_1. So, it is true-in-w_1 that it is necessary that a perfect being exists:

$$
\begin{array}{ll}
w_1: & G,\ G \rightarrow \Box G \\
 & \text{T}\ \ \text{T}\ \ \text{T}\ \ \ \text{TT}
\end{array}
$$

Hence it is true-in-w_1 that in all worlds, *if* accessible from w_1, it is true in these worlds that a perfect being exists.

Now, the important thing to notice is that *if* w_0 is accessible from w_1, i.e. *if* the accessibility relation between w_0 and w_1 is *symmetric*, then it is true-in-w_0 that a perfect being exists. But since then, by hypothesis, it is also false-in-w_0 that a perfect being exists, we obtain a contradiction—showing that the argument is valid in *any* modal logic (whether normal or non-normal) with a symmetric accessibility relation:[1]

$$
\begin{array}{ll}
 & \qquad\qquad\qquad\qquad\quad \surd \\
w_0: & \Box(G \rightarrow \Box G)\ \&\ \Diamond G \models G \\
 & \text{T}\ \ \text{F}\ \ \text{T}\ \ \ \ \text{F}\ \ \ \ \text{T}\ \ \text{TF}\ \ \ \ \text{F/T}
\end{array}
$$

2. Critique of Lupher's claims

I take it that Lupher's main claim is that for both critics and proponents of the MOA the discussion shifts

> ... from theological or conceptual considerations to constructing arguments for why the appropriate modal logic must have a symmetric accessibility relation. (2012, p. 239)

In my view, however, it is just the other way round. The choice of the appropriate modal logic for tackling the question of whether a perfect being exists or not depends on what kind of necessity (or possibility) is intended in the premise; and this in turn depends on what theological or conceptual claims about a perfect being one finds acceptable. Having expressed my general worry as to why the author's avowed aim is perhaps misguided, I'll next discuss some worrisome details of his paper.

2.1. Agnosticism

Agnosticism, as I see it, is the claim that the truth value of the statement 'God exists' is unknown (or even unknowable). Characterized this way, the agnostic thinks that the mentioned statement *has* a truth value—it is either true or false; but the agnostic also thinks that we do not (or even cannot come to) *know* which of these truth values it has. Agnosticism (from Greek 'gnosis' for 'knowledge') is thus essentially an *epistemic* position.

Of course, an agnostic, as anyone else, is free to adopt any (standard or non-standard, modal or non-modal) logic—including, e.g., gap-logic—if she can *justify* its use.

But since the agnostic, as characterized above, thinks that a statement about the existence of God *is* either true or false, her possible rejection of bivalence and adoption of gap-logic cannot be motivated (contra to what Lupher, 2012, p. 242 suggests) by thinking that statements about a perfect being are neither true nor false, i.e. that they lack a truth value. It must be motivated by other reasons.

2.2. (Non-)Standard Modal Systems

Merely to note, as Lupher does, that *there is* a variety of alternative, i.e. *non-standard* (modal) systems—including many-valued and paraconsistent (modal) systems—does not in itself constitute an argument for or against any of these alternative (modal) systems. These systems *might* be superior to standard bivalent (modal) systems. But the onus of proof is on the proponents to *justify* their use; and no such justification is offered by Lupher.[2]

Furthermore, most of the *standard* modal systems that Lupher mentions are *not relevant* to the MOA because the argument uses neither epistemic, nor doxastic, nor deontic modalities, nor modalities that are related to provability. In other words, the argument is not about knowledge, belief, moral obligation, or provability. It is about *necessity* (and *possibility*). So, in the absence of an argument as to why one of the mentioned modal systems is the appropriate setting for the MOA, the defender of the MOA has no case to respond.

2.3. Logical Necessity

The nub of the matter is the analysis of 'necessity' and 'possibility.' It is commonly accepted that 'necessity' and 'possibility' can be interpreted as *logical*, *metaphysical*, or *physical* necessity.

As Lupher correctly says, *logical* necessity is the most general or least restrictive notion (followed by metaphysical and physical necessity). That is, what is logically possible is also metaphysically possible (but not the other way round); what is metaphysically possible is also physically possible (but not the other way round). For instance, it is logically possible for me to turn into a (Kafkaesque) cockroach; but if Aristotle is right and it is part of my *essence* to be human (i.e. to be a rational animal), then this is *neither* metaphysically *nor* physically (or biologically) possible. Likewise, it is metaphysically possible for me to grow another nine feet (for height is *not* an *essential* property); but this is *not* physically (or biologically) possible.

These remarks pave the way to thinking that the MOA involves logical necessity and possibility. I take it that it is generally supposed that the MOA is intended to establish the existence of a perfect being as a matter of *logical* necessity—and not as matter of metaphysical or physical (i.e. nomological) necessity, where, roughly speaking, something that is metaphysically or physically necessary is understood as something that is determined by the laws of metaphysics or physics, respectively.

Indeed, it makes little sense to interpret the modalities involved in the MOA as *metaphysical* modalities because, on this interpretation, the first conjunct of the premise reads as:

> (M) It is determined by the laws of metaphysics that if a perfect being exists, then it is determined by the laws of metaphysics that a perfect being exists.

(M), however, strikes me simply as false. For that a perfect being does not exist or that it is determined by the laws of metaphysics that it exists, is *not itself* (determined by) a law of metaphysics.

Likewise, it makes little sense to interpret the modalities involved in the MOA as *physical* modalities because, on this interpretation, the first conjunct of the premise reads as:

> (P) It is determined by the laws of physics that if a perfect being exists, then it is determined by the laws of physics that a perfect being exists.

But again, (P) is simply false because it is *not itself* (determined by) a law physics that a perfect being does not exist or that it is determined by the laws of physics that it exists. So, as Lupher correctly remarks in this context:

> ... MOA is not valid when the □ and ◊ are interpreted as physical necessity and possibility.... (2012, p. 242)

By process of elimination, we are thus only left with the interpretation of '□' and '◊' as *logical* necessity and possibility, respectively.

2.4. Logical Necessity and S5

As mentioned, I think that the MOA is intended to establish the existence of a perfect being as a matter of *logical* necessity. Whether or not this is the case, it is widely accepted (pace Dale Jacquette) that S5 captures this notion.[3] Even Kane (1984, p.342) thinks that

> ... a case can be made for saying that S5 expresses our intuitive idea of logical possibility in the broadest, unconditional sense.

Now, Lupher does not really dispute this claim, even though he says that S5 is not appropriate for every purpose (Lupher, 2012, p. 245); but to say this is only to voice an opinion, unless further *justification* is provided.[4]

Given the undisputed supposition that S5 captures the notion of *logical* necessity, the issue, then, becomes whether—on this interpretation of '□' and '◊'—the premise of the MOA is true (or at least plausible).

Contra Lupher's main claim, the discussion thus shifts back, from debating technical questions as to why a modal logic has a symmetric accessibility relation or not, to considerations about the notion of a perfect being itself. Eventually, I think, it is only due to such (metaphysical, theological, or conceptual) considerations that we even start to ponder the question of what (modal) logical system is the appropriate one to pick.

Notes

1 That is, the argument is Nσ-valid, Nρσ-valid, Nρστ-valid, Kσ-valid, Kρσ-valid (= B-valid), Kρστ-valid (= S5-valid). As Lupher correctly points out, the argument is not valid in non-normal modal logics weaker than N, such as $S0.5^0$, even if symmetry is imposed.

Non-normal modal logics capture non-normal possible worlds, i.e. possible worlds where logical truths may fail to hold. Cf. Priest (2008), chapters 2-4 for a characterization of basic modal logics, normal modal logics, non-normal modal logics, and the use of the tableaux-method for deciding the validity of arguments in various modal systems. Cf. also Hughes and Cresswell (2005), chapter 4, for a more illustrative method of testing for the validity of modal arguments—which is the method that has been applied in this paper.

2 Cf. Priest (2001, p. 229f.):

> ... the machinery has made it possible to construct a galaxy of 'non-standard' logics; and I think that it [is] fair to say that there is less consensus now over many questions in logic than there has been for a very long time.

Nonetheless, it seems to me that some justification for the use of a particular non-standard logic has to be provided by the proponent of that very non-standard logic.

[3] Cf. Priest (2008, p. 46), where he notes that it is plausible to suppose that the appropriate system of modal logic for *logical* necessity is S5 (= Kρστ). Priest (2008, p. 47) also claims that it is unclear whether the modal logics of metaphysical and physical necessity are stronger than T (= Kρ).

[4] The only argument against S5 as an analysis of *logical* necessity that Lupher mentions (but neither defends nor discusses) is Dale Jacquette's presentation of the validity of the Pseudo-Scotus paradox.

Per Jacquette (2006), the paradox suggests that the modality involved in the notion of deductively valid inference must be weaker than S5—since the "proof" itself is carried out in S5, thereby making S5 inconsistent. While Jacquette's claim is doubtlessly an issue worth debating, I doubt that it's a straightforward one. As always with paradoxes, it is difficult to draw "the" lesson(s) from them. And so I am not convinced that merely pointing to the existence of the validity paradox sinks the view that S5 appropriately represents the notion of logical necessity.

Works Cited

Hartsthorne, Charles. (1962) *The Logic of Perfection and Other Essays in Neoclassical Metaphysics*. La Salle: Open Court Publishing Company.

Hughes, G.E. and M.J. Cresswell. (2005) *A New Introduction to Modal Logic*. London and New York: Routledge.

Jacquette, D. (2006) Modality of Deductively Valid Inference. In D. Jacquette (ed.), *A Companion to Philosophical Logic* (pp. 256-61). Oxford: Blackwell Publishing.

Kane, R. (1984) The Modal Ontological Argument. *Mind* 93: 336–350.

Lupher, T. (2012) A Logical Choice: The Role of Modal Logics in the Modal Ontological Argument. *Southwest Philosophy Review* 28(1): 237-246.

Priest, G. (2001) *An Introduction to Non-Classical Logic*, 1st edition. Cambridge: Cambridge University Press.

———. (2008) *An Introduction to Non-Classical Logic*, 2nd edition. Cambridge: Cambridge University Press.