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TWO DIMENSIONAL MODAL ONTOLOGICAL ARGUMENT FOR THE EXISTENCE OF GOD

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Abstract

The aim of this paper is to reconstruct a modal version of the ontological argument (MOA) in a two dimensionally extended way. This modification of MOA, I argue, might respond to Tooley's (1981) and Findlay's (1948) prominent objections against the argument. The MOA has two distinct key premises that are criticized by Tooley and Findley. According to Tooley, the structure of the argument allows to define further properties that exclude the existence of God-like beings. Findlay, however, argues against the proof in a Kantian way by claiming that the very property of necessary existence is contradictory, therefore no being can possess it. In this paper, I am going to show how Tooley and Findlay's critique re-frame the original ontological argument debate. I will provide a comprehensive map over all possible ways of refuting the MOA. Finally, I argue that, once we apply a two dimensional framework, we are in a position to refute Findlay's criticism.

Keywords: modal ontological argument, two dimensional semantics, God, Anselm, Chalmers

1. Introduction

In this paper I will reconstruct a modal transcription of the ontological argument into a two dimensionally extended version of the modal ontological argument that will challenge Tooley's [1] and Findlay's [2] prominent objections against original modal ontological arguments (MOA). Tooley and Findlay attack two different key premises of the modal ontological argument representing the traditional way of refuting the argument. Tooley argues that following the steps of MOA we can further define properties that exclude the existence of God-like beings. On the other hand, Findly's approach is a modal version of Kant's original critique. Findley argues that the very property of necessary existence is contradictory, therefore no being can possess it. The aim of this paper is to show these classic arguments more in detail. I will provide a comprehensive map over all possible ways of refuting the MOA; also I will reply these arguments concluding that the MOA is a valid proof.

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The MOA has various versions [3, 4]. Now, I will only focus on Kane's version [5]. Originally the modal ontological argument is a modally extended version of Anselm's proof [6]. To get the modal argument, Anselm's key term of *exist in intellectu* needs to be replaced by 'it is possible to exist' and the expression of *exist in re* needs to be substituted by 'in the actual world it exists'. Furthermore, when I say a necessary perfect or maximal being it is meant the following: Definition of the necessarily perfect [maximal] greatness: *'y' has the property of necessarily perfect [maximal] greatness if and only if it [y] is the being greater than which cannot be exemplified.* (I understand both terms 'perfect' and 'maximal' as the same.)

The argument below (Table 1) is valid in the Brouwer System and in any stronger systems. In this version of ontological argument: 'N' and 'M' are operators for logical necessity and possibility respectively, '→' stands for material implication, and 'g' for the proposition *the property of necessarily perfect [maximal] greatness is exemplified*.

Table 1. Kane's translation.

Kane's translation	
0. N(p→q)→(Mp→Mq)	Non-controversial modal principle in modal axiomatic systems T. and B. Q is an application of K. modal axiomatic system: '**N(p → q) → (Np → Nq)**' and (T. modal axiomatic system): '**Np → Mq**'
1. N(g→Ng) **(i)**	Premise
2. Mg **(ii)**	Premise
3. N**(g → Ng)** → (Mg → MNg)	**Instatiation of 1. and 0.**
4. Mg→MNg	1, 3 Modus **ponens**
5. MNg	2, 4 Modus **ponens**
6. MNg→g ***beta* (β)**	**Substitution of the transformed Brouwer Axiom MNg→g = ~g→~MNg**
7. g	5, 6, Conclusion

The mentioned argument includes two crucial premises, which are included in most versions of modal ontological argument. Accordingly, (i.) is applied in premise 1: '(i) *Necessarily, if the property of necessarily perfect [maximal] greatness is exemplified, then necessarily the property of necessarily perfect [maximal] greatness is exemplified'*. (i) does not beg the question, because God's actual existence is not presupposed. (i) is only a conditional statement, which simply holds that if a perfect being existed then it would exist necessarily.

Another key premise is (ii): '*it is possible that the property of necessarily perfect [maximal] greatness is exemplified'*. According to this premise, the notion of *necessarily perfect [maximal] greatness* is not contradictory and an

object can possess the property.

Furthermore, a substitution of the transformed Brouwer Axiom needs to be applied to the argument, called *beta* (β). This formula of the Brouwer Axiom says that if something possibly necessary possessing a property (g) then the property is exemplified in the actual world. In other words, if something at least possibly necessary then it exists.

Therefore, anyone who accepts (i), (ii) and (β) has to conclude that it is necessary that *the property of necessarily perfect [maximal] greatness is exemplified*. However, this result is not widely accepted, so an opponent of the MOA has to deny at least one of these premises. The denial of any one of them is sufficient to undermine the argument. Hereby, three main and common critiques of the Modal Ontological Argument (MOA) are given, accordingly.

First (I), accept (i) and (ii) but deny (β). Second (II), concede (ii) and (β) however, deny (i) holding that the notion of *the property of necessarily perfect [maximal] greatness* is contradictory. Third (III), assume (i) and (β) but deny (ii) and claim, simultaneously with *the property of necessarily perfect [maximal] greatness* there are other equally possible properties as well which exclude the possibility of *the property of necessarily perfect [maximal] greatness* therefore, *the property of necessarily perfect [maximal] greatness* [God] is not possible.

In this paper, I will show these three critiques and I will discuss them in order (I) (II) and (III). As a respond to these objections, I offer solutions for them at the end of each subsection.

2. Validity of the 6th premise and a Brouwer axiom schema

First, consider the critique of the 6th premise which says this premise is not obviously true. Kane calls the principle found in 6 as *beta* (β)*:* 'MNg' →'g', in which 'g' is any sentence. Accordingly, if 'g' is possibly necessary then g. Critics hold beta to be false. Nonetheless, it cannot be said about the contrapositive of beta. The assertion that *if not 'g', then it is not possible that 'g' is necessary,* is logically equivalent with beta (MN'g' → Φ = ~'g' → ~MN'g'). If something is not actually the case, then it is not possible that it necessarily is the case. If a proposition were not true in the actual world, it could not be true in every possible world, and hence could not be necessarily true. Exemplifying it by an example, at first glance the following does not seem obvious: 'if Peter is possibly necessarily a policeman, he is a policeman' however the contrapositive of if is obviously true: 'if Peter is not a policeman then it is not possible that he is necessarily a policeman'. The contrapositive of (β) seems to be true, hence the logically equivalent beta is true as well. We do intuitively presuppose the symmetry condition, which is constitutive for the Brouwer axiom schema, when we are thinking about logical possibility *in the broadest unconditional sense.* Because of the beta principle found in 6 is verified, 6 is also verified. It is worth mentioning that the acceptance of 6 requires the Brouwer system.

Nonetheless, one can argue for a critique of (β) by making the claim that one cannot reason from the mere (logical) possibility of something to its real existence. One might further reason that since (β) would allow to conclude existence from pure logic, therefore (β) principle must be false in the respect of ontological argument.

However, Kane responds that, "while for most things one cannot reason from their mere possibility to their actual existence, one can do this for a being whose essence implies necessary existence" [5]. Moreover, Kane has another more persuasive argument to support (β): "A[n] argument for the B-principle involves another equivalent formulation of it, namely 'p → NMp' (also a transformation of the Brouwer Axiom Schema). Call this B*. The gist of B* is that the actual must be at least possible, or cannot have been unconditionally impossible. To test our intuitions about B*, we should ask the question, 'Could the actual world have been, not merely non- actual, but impossible?' Plantinga is one who thinks the answer to this question must be negative." [5]

I am inclined to accept Kane's arguments for (β). It does seem intuitive that if something is not the case, then it is not even possible that the case in question is necessary.

Nonetheless, if 6 is a true then the other objection can arise, which holds that if 6 is true then we could prove the necessary existence of things (a bunch of properties) that do not actually exist. This problem, however, does not belong the question of (β). (β) only ensures a logical transition of premises. The problem of necessary existence must be detailed at the discussion of (i) first premise.

3. Denial of (i)

The second way to challenge the MOA is to concede (ii) and (β) however, deny (i) holding that the notion of necessary existence is contradictory. First, I show Tooley's examples of perfect solvent and insoluble chemicals found the most persuasive Island-like parody argument. Second, I present Findlay classic critique against (i).

3.1. Perfect island-like necessary beings

So-called parody or Gaunilo-style [6, p. 31-39] arguments hold that if Anselm's proof for the existence of a greatest conceivable being were sound, then we could give sound proof for the existence of a greatest conceivable island-like objects and we prove the necessary existence of things (a bunch of properties) that do not actually exist. The acceptance of *the property of necessarily perfect [maximal] greatness* (ii) and (β) would result in the actual existence of any perfect [maximal] property if (i) was true. Nevertheless, there is no actual Island-like necessary object, therefore (i) is false. Hence, Anselm's proof for the actual existence of the property of necessarily perfect [maximal] conceivable greatness is not sound.

In Toley's example, he puts this argument as it follows: It is the argument from the perfect solvent. By definition: „x is a maximal [perfect] universal solvent if and only if (iff.) x exists in every world and is a universal solvent in every world, where something is a universal solvent in a given world iff. it is capable of dissolving anything in that world." [1] Similarly to God, the perfect solvent is maximal [perfect] so it should have the character of necessary existence. So, if God can exist necessarily, then the perfect solvent exists necessarily, as well. To make the perfect solvent necessary, Tooley applies a principle, which Kane refers to as *alpha*: (α): „By definition, anything which is perfect [maximal] is such that, if it exists [if it is possible], it exists necessarily" [5].

Nonetheless, Tooley also defines the perfect insoluble chemical in the following way: "x is maximally [perfectly] insoluble iff. x exists in every world and is insoluble in every world" [5]. If in the MOA (i.) was true then in each possible world the perfect solvent and insoluble chemical should exist, however the co-existence of these chemicals are contradictory. Nonetheless, if we accept the possibility of perfect solvent and insoluble chemical (ii) and (β) then we end up in an existential contradiction. (Yet, it is difficult to see how two objects simultaneous existence lead to any logical contradiction.) Therefore, (i) must be false.

To defend the MOA from Tooley's challenge, the proponent of the MOA must show that the property of island-like [or solvent] perfect greatness is not conceptually different from the property of necessarily perfect [maximal] greatness. One might argue for the MOA by saying that "the island [or solvent] than which no greater island [solvent] can be conceived [exemplified] is not such that nothing greater than it can be conceived [exemplified]" [7]. (Here I apply Mann's answer against the parody arguments. Note, however, that Mann's rejoinder works for non-modal arguments hence, to transform his reply to modal language I changed the term 'conceived' to 'exemplified'.) The perfection of properties of an ordinary being does not entail the necessary existence of it. Since, the perfection of properties of an ordinary being does not satisfy the definition of perfect necessary being viz. *'y' has the property of necessarily perfect [maximal] greatness if and only if it [y] is the being which nothing greater can be exemplified.* Indeed, something greater is conceivable [exemplifiable] than the properties of an island [solvent], which is no greater property of an island [solvent] can be conceived [exemplified]; for example the greatest continent. Having the perfection of any property x means only that x has the best 'x-ness', and it surely does not entail the property of being necessary [existence]. Thus, the property of being perfect solvent does not exist necessarily. Therefore, necessary existence can extend only to the property of maximal greatness but perfect islands, solvents and any other ordinary objects cannot have necessary existence.

I refer to the 'being which possesses the *necessarily perfect [maximal] greatness',* like God. Hereby, I claim that the necessarily perfect [maximal] greatness is exemplified if and only if it is the being which nothing greater can

be exemplified. Nonetheless, here I have not claimed that this being exists, all I intend to say that, if God exists, he exists necessarily (i). So, in this way, I can refute Tooley's critique.

3.2. Necessary existence as a category mistake

Second, a powerful argument written by Findlay claims [2] (i) – the property of being necessarily exemplified – is a contradictory notion and since it is an essential part of the concept of God, he is impossible. So, Findlay's argument tries to not only the falsify (i) but hereby the falsehood of (ii) as well. It holds that the notion of God is contradictory because every existential statement is contingent and synthetic; hence, denying existential statements is not contradictory. But necessary propositions are analytic and tautological, therefore, they cannot refer to existence. Nonetheless, God's necessary existence is fundamentally part of the concept of the perfect being accordingly; the idea of God is contradictory. It is impossible that a proposition simultaneously is contingent and necessary. In other words, it is not possible that a being is conceptually a necessary existent but the factual existence of this being is merely contingent. Findlay's critique is successful if the definition of the *necessarily perfect [maximal] greatness* is false. More precisely, Findlay says the term *necessary existence* is a contradiction *per se*. In this respect, Findlay's critique is a revised Kantian one to the MOA.

There might be two answers to this. First, although, one can find Findlay's remark valid, it is so only if we accept Nominalism. Nominalism is the view according to which general or abstract terms and predicates exist, while necessary (universals or abstract) objects, which are thought to correspond to these terms, do not exist. There are many philosophers (and of course mathematicians) who deny Nominalism and think that logical and mathematical truths are existent objects. Moreover, these truths are exemplified in all possible worlds and hereby, they are necessary. So, we have no reason to claim that necessary existence is a contradiction. Therefore, nothing can force an ontological arguer to accept Findlay's critique and Nominalism. To preserve the soundness of the MOA, the ontological arguer has to take a non-nominalist position.

Second, I find the following statement intuitively plausible that in the more possible world a property is exemplified, the better the property is. Let me shed light on this. Let us suppose that I'll have a final exam in history of philosophy and there are one hundred exam items from which I am going to draw one. It also means that there are exactly one hundred possible worlds in which I draw an item. To measure my power to pass the exam we shall investigate in how many worlds I can pass. Naturally, if we find that I can pass only ten worlds, it means my power to pass is weak and I did not study much. However, if we find that in every world I pass then my power to pass is very strong and I studied. Therefore, it can be said that in the more world I pass, the more power I have over the exam. Hence, my power of passing the exam here is

a scalar notion that can be measured by possible worlds.

I think the same is true for God. In the more possible state of affair a property is exemplified, the better it is. If God means the property of perfect maximal greatness, then he must be exemplified in every state of affairs otherwise he was not maximal greatness. It seems that existence is a scalar notion and necessary existence is maximum of it.

4. Denial of (ii)

Third way to criticize the MOA is to assume (i) and (β) but deny (ii) and claim, that simultaneously with *the property of necessarily perfect [maximal] greatness there are other equally possible properties as well which exclude the possibility of the property of necessarily perfect [maximal] greatness therefore, the property of necessarily perfect [maximal] greatness [God] is not possible*. In the previous part, I tried to find necessary and perfect beings. In this section first, I show Kane's objection, according to which there may be a possible property that is although necessary but non-perfect excludes the possibility of *the property of necessarily perfect [maximal] greatness* [God]. Secondly, I discuss Tooley's other objection which tries to show God's impossibility by a possible property that is non-necessary but perfect.

4.1. Necessary but non-perfect being

Kane [5] shows a possibly exemplified property which query (ii) by defining a possibly exemplified non-perfect but necessary property as *less-than-perfect-necessary* (LPN) being. LPN is the less-than-perfect-necessary-being [or having the property of non-perfection but being necessary] iff. the properties of LPN are exemplified in every world and it has some properties in every world but it does not possess the property of maximality [being perfect]. The main question is whether it is self-contradictory to say that such a being has the property of necessary existence but is not all good or all knowing. If the answer is negative, and such a being is possible, then we can use the (β) principle to overpopulate the realm of possible worlds by replacing the properties of LPN with the MOA. Kane writes, the properties of LPN are incompatible with the property of necessarily perfect [maximal] greatness [God] and the following claims are contradictory:

a) God is the First Cause of all things (in the sense that the existence of all other things depends upon God's will – Sovereignty and Asesity doctrine).
b) The β-principle is true.
c) An all perfect being is logically possible.
d) LPNs are logically possible.

Defenders of MOA cannot deny (b) or (c) furthermore, (a) and (d) are mutually exclusive. But denial of (a) alone, Kane thinks, would require a thorough-going revision of traditional theological notions, which is unwanted also. Denying (d) requires an extra reason. Therefore, the concept of LPN poses

a problem for defenders of MOA.

Nevertheless, if we deny the notion of accidental necessity i.e. LPN, then I do not see why the property of the non-perfection [non-maximal] greatness would be exemplified necessary. Namely, if we do not appeal to (the definition of the necessarily perfect [maximal] greatness) the character of having the property of being *nothing greater exemplified*, then why should such a property be exemplified necessarily? I think without this trait LPN is not possible.

4.2. Perfect but non-necessary being

Now, I show Tooley's [1] charge which demonstrates an example to show that the property of maximal [perfect] greatness cannot be exemplified. Accordingly, there are many properties (perfect but non-necessary) that are possible, only in case the property of the maximal [perfect] greatness is not exemplified. An example for this is the property of *near-maximality,* [near-perfection] enjoyed by a being iff. which does not exist in every possible world but has a degree of greatness not exceeded by that of any being in any world [1]. But there is no reason to suppose that the proposition that the property of maximal [perfect] greatness can be exemplified is more likely to be true than the proposition that the property of near-maximality [near-perfection] can be exemplified. Since both cannot be true, therefore, Tooley concludes that both should be rejected.

4.3. Response to Tooley's opjection

I left this objection as a last because I think it is the most difficult one to reply. Indeed, I can assume that the property of necessarily perfect [maximal] greatness/being and the property of a near-maximality are mutually exclusive. Here, it is worth emphasizing that if both properties are indeed conceivable (which means they need to be exemplified in at least one possible world) but they are incompatible, we can form an argument against the conceivability thesis, which says conceivability entails possibility. To avoid Tooley's objection I have to claim that they certainly exclude each other but they are placed in differently structured metaphysical possible worlds. David Chalmer's two dimensional framework makes me able to argue for this.

Without demonstrating Chalmers' whole apparatus I only focus on those key points that are required here. First, Chalmers distinguishes two types of intensions. Different intensions of one extension pick out different extensions in different possible worlds. Since these extensions are exemplified in different possible worlds hence they express different possibilities. Roughly speaking, for example the primary intension of water picks out every 'watery stuff' in some possible worlds. Consequently, it is possible that a 'watery stuff' could be in my vein instead of blood. But the secondary intension of water designates only H_2O in possible worlds (in which it is exemplified). Thus, according to the primary intension of water, if something is water (that certain very thing), it is

metaphysically necessarily H_2O. More precisely, Primary intension is picked out by reference fixers. In case of water the primary intension of water is 'watery stuff', odourless transparent, liquid found in lakes and rivers. Again, it is a function rendering extensions to possible worlds considered as actual. When 'considering a world *w* as actual', we determine the extension of our terms at world *w* as follows. We take the reference fixer of the terms in world *w*, and determine what they would pick out in world *w*, were *w* is the actual world. S is primarily possible (or 1-possible) if its primary intension is true in some possible worlds (i.e. if S is true in some world considered as actual). "Primary possibility and necessity correspond much more closely to epistemic notions such as a priority." [8] A function rendering extensions to possible worlds considered as counterfactual. When 'considering a world *w* as counterfactual', we take the reference fixer of the terms in the actual world, determine what they pick out in the actual world, and render these references to world *w*. Water is H_2O in the actual world, thus the secondary intension of water picks out only H_2O as water. Secondary intension defines metaphysical possibility. S is secondarily *possible* (or 2-possible) if its secondary intension is true in some possible worlds (i.e. if S is true in some worlds considered as counterfactual). Chalmers's other key notion is the *ideal* conceivability that says S is ideally conceivable when S is conceivable *on ideal rational reflection*. S is ideally conceivable iff. *not a priori* that *not* S. Ideal reasoning is not a degree of cognitive abilities but it is the definition of a priority.

Chalmers [8, p. 171-172] makes several assertions about the connection amongst these concepts but for my purpose the followings are relevant: (1) "Primary conceivability is a good guide to epistemic possibility." (2) "If S is ideally primarily positively conceivable, there is some *metaphysically possible centered world* satisfying S's primary intension." (2) seems to built the bridge between conceivability and *metaphysical* possibility. To see how to do that, I need to show one more of Chalmers's notions. It is the PQTI. Accordingly, Chalmers claims that once we know how the world is qualitatively, we are in a position to know what our terms refer to and whether our statements are true. "A statement D is epistemically complete iff. (i) D is epistemically possible, and (ii) for all F, if D&F is epistemically possible, then D implies F." Then, the scrutability thesis says that a complete qualitative description of the world is epistemically complete. Ordinary macroscopic truths about the natural world, such as 'grass is green' and 'there is water in my pool' can be derived by a priori reasoning from a complete qualitative description. Chalmers calls this qualitative description as PQTI. This is the conjunction of microphysical, phenomenal, indexical, totality claims. "A priori reasoning from PQTI, puts one in a position to know all about the physical composition, the phenomenal appearance, the spatial structure and dynamic behavior of macro physical system, along facts about their relation to oneself and their distribution to know all ordinary macro physical truths S about such systems, as long as one possesses the concepts involved in S." [8, p. 179] Natural kind terms in PQTI are speaker relative, this 'Neptun' or 'water' the primary intension and a priori connection of a term vary

between speakers, so that if 'semantic content' must be common to all speakers, primary intensions and a priori connections are not determined by semantic content.

Chalmers' strategy is that a complete qualitative description of a world, which is epistemically complete, can built up any epistemic possible scenario. This PQTI, which is absolutely epistemic, allows identity statements formed by proper names such as '(twin-) water is XYZ'. Naturally, in the actual world there is no such thing as twin-water. However, the assertion '(twin-) water is XYZ' is metaphysically necessary in that epistemic word that is 1-conceived. Viz. the secondary intension of water picks out that very (XYZ) object in every possible world. As a consequence, I think there is an interesting result of Chalmers' work. *Namely, what is metaphysically possible can differ from one world to another.* Consider the following example: in w_1 world with $PQTI_{w1}$ Jack can ideally positively calculate what is metaphysically possible for him. Let us say w_1 is the actual world and Jack knows that for us 'Water is XYZ' is impossible (because of $PQTI_{w1}$). But in w_2 world with $PQTI_{w2}$ Jill can ideally positively calculate what is metaphysically possible for her. She concludes only by a priory reasoning that in her (twin-) world '(twin-) Water is XYZ' is necessarily true (because of $PQTI_{w2}$). Hereby, what is metaphysically possible for Jack is not possible – metaphysically – for Jill.

5. Conclusion

Now, if we accept Chalmers' work, we are in the position to answer Tooley's objection. We can conceive epistemically complete scenarios and consider them contrafactual situations in the subjunctive mode. Hereby, we manage them as *metaphysically possible centred worlds*. Thus, all I have to say is that even if the property of near maximality and the property of necessarily perfect [maximal] greatness are mutually exclusive, they are placed in different structured worlds. In other words, PQTI of worlds where the property of necessarily perfect [maximal] greatness is possible is different from those worlds where the property of near maximality is exemplified. I claim that it is ideally primarily conceivable that these two properties are exemplified in the same world but given the nature of them they are exemplified in metaphysically different kind of possible worlds (with different nature) established by different PQTIs. Moreover, Tooley's objection requires that these properties are exemplified in a metaphysically possible world. Nevertheless, it is just epistemically ideally conceivable that the property of near maximality and the property of necessarily perfect [maximal] greatness are exemplified in the same world, but exemplified by metaphysically different possible worlds. Consequently, Tooley's objection is false.

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