God, Truth
and other
Enigmas

edited by
Mirosław Szatkowski

Walter de Gruyter

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Acknowledgements

The book *Ontological Proofs Today* is intended as a contribution to the vital research into the issue of rationality of theistic beliefs. Each of the twenty-one authors of the present volume has played an important role in this joint venture. As the editor, I would like to express my heartfelt gratitude to all of them for accepting the invitation to contribute to the volume. I would also like to thank them for the constant cooperation in the laborious task of proofreading and editing the texts. On the one hand, the preparation of a joint publication has the disadvantage of a long editorial process, which may weary some of the authors. On the other hand, it has the advantage of the extended deadline that some other authors badly need and are grateful for. This was exactly the case with our book.

We have decided to include in the volume the text by late Jerzy Perzanowski, who was a philosophy professor at the Jagiellonian University in Cracow. We are firmly convinced that if he were alive, he would have submitted a paper on ontological proofs, the subject he was greatly interested in, to be published in our volume. I would like to express my sincere gratitude to the Head of the Institute of Philosophy of the Jagiellonian University, Prof. M. Kuniński, who owns the copyright of Prof. J. Perzanowski's works and has kindly agreed that the paper be published in our book.

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Introduction

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Agnosticism about Material Composition

Christopher Daly and David Liggins

1 Introduction

Ontological issues concern the existence and nature of various entities. They include such issues as whether there are material objects, whether there are composite material objects, whether there are numbers, whether there are propositions, and so on. There are three respects with which an ontological issue can be evaluated.

(**Q1**) Is the issue intelligible? To take our examples, what is at question is whether the sentences 'there are material objects', 'there are composite material objects', 'there are numbers', and 'there are propositions' are meaningful. Notoriously, the logical positivists regarded such sentences as meaningless. (They did find ways to sugar the pill. Ayer suggested that 'there are material objects' is meaningless 'given a metaphysical interpretation', but that there is a genuine issue about 'the analysis of existential propositions' ([Ayer, 1936]: 55, 182–183). Carnap suggested that 'there are material objects' is either meaningless if taken as a putative statement or is meaningful if taken as a recommendation to adopt talk of material objects ([Carnap, 1950])).

(**Q2**) Is the issue important? Here what is in question is whether the issue is substantial: whether it involves genuine disagreements in which the different parties hold genuinely incompatible views. For instance, so-called soft ontologists, such as Putnam ([Putnam, 1991], 113) and Hirsch

([Hirsch, 2011]), grant that the sentence 'whenever there exist two non-identical objects, there exists the sum of those two objects' is meaningful but they deny that debates about its truth are substantial in the sense just noted.

(**Q3**) Is the issue resolvable? Here what is in question is whether evidence and argument can settle between different views on a given ontological issue. Can one of these views be shown to deserve a higher credence than the others? Those who think that a given ontological issue is not settled are agnostics with respect to the issue in question.

Whereas (**Q1**) was extensively discussed in philosophy in the early and mid-twentieth century, and (**Q2**) has received considerable attention in recent years, (**Q3**) remains an important but comparatively neglected question facing philosophical views about ontology. Agnosticism about one key ontological issue, namely, material composition, has been defended by Gideon Rosen and Cian Dorr ([Rosen and Dorr, 2002]) and by Karen Bennett ([Bennett, 2009]). In this paper we will examine agnosticism about material composition as a case study but with a view to evaluating the more general issue of agnosticism about every ontological issue.

2 Agnosticism about material composition

Peter van Inwagen formulates what he calls the 'Special Composition Questions' as follows: under what conditions do some things compose a further thing? ([Van Inwagen, 1990], 31). Call any answer to that question 'a principle of composition'. Principles of composition include the universalist's principle that, for any two non-identical things, there is something which they compose, and the nihilist's principle that two or more things never compose something. There are of course other answers to the Special Composition Question besides these radical ones, but they serve to illustrate just how sharply some of the answers to it differ.

Let's turn to the agnostics' argumentative strategy. Rosen and Dorr assemble what they take to be the most promising or the most employed sources of evidence for principles about composition. The sources which they consider are: conceptual analysis, common sense and science. They then argue by a process of elimination. By showing that each of these sources fails to establish any principle of composition (or even fails to establish any such principle more strongly than the negation of the principle), they seek to show that we do not have sufficient evidence to believe

any principle of composition. In the absence of such evidence, it is rational to suspend judgment about principles about composition, and it would be irrational to accept any such principle. Consequently, Rosen and Dorr infer agnosticism about material composition.

Bennett follows a similar strategy. Her compass of possible sources of evidence consists of conceptual analysis, simplicity, and philosophical argument.

In §§3–7 we will consider each of these sources of evidence and assess the agnostics' case that they do not provide evidence for any principle of composition. Following this assessment, we will take up some more general considerations concerning agnosticism about ontology.

3 Conceptual analysis

Consider some principle of composition, such as **UNIV**:

UNIV For any two non-identical objects, there is a third object of which they are parts.

Universalists accept **UNIV** whereas nihilists deny it. Which party is correct? To use conceptual analysis to establish whether **UNIV** is true would be to show that the truth of **UNIV** follows from the meanings of the words which occur in it, and thus that **UNIV** is analytically true. A similar procedure would be involved in using conceptual analysis to establish that **UNIV** is false.

Rosen and Dorr deny that **UNIV** or any other principle of composition is analytically true or analytically false:

> It is conceivable that there exists a compelling analytic definition of 'part' which, when substituted for the word in one of the competing principles of composition (other than nihilism), yields a contradiction or some other patent absurdity. But until someone provides such a definition, the presumption must be that there is none, for the parties to the dispute appear to speak the language well enough. ([Rosen and Dorr, 2002], 155).

Applied to **UNIV**, the argument here seems to be as follows. A sentence s is an analytic truth only if understanding s is sufficient to know that s is true. The nihilist understands **UNIV**. But he does not believe, and *a fortiori* does not know, that **UNIV** is true. So **UNIV** is not an analytic truth. By appealing to the linguistic competence of the universalist, it

could then be argued, *mutatis mutandis*, that the negation of **UNIV** is not an analytic truth.

How good is Rosen and Dorr's argument? First, note that there is some hesitancy in what they say. They admit that it is 'conceivable' that an analytic definition is available which reveals how one of the disputants has misunderstood some term used in framing the debate about composition. In the absence of such a definition, they claim only that there is a 'presumption' that the disputants speak the language competently. Evidently, they do not take the fact that the disputants appear to speak the language well enough to analytically imply or to metaphysically necessitate that none of their proposals are analytically false. Presumably, then, they think the relation between these facts is that part of the best explanation of why the disputants appear to speak the language well enough is that their ontological proposals are consistent with the true specifications of what the terms in the language mean. If their ontological proposals were inconsistent with those specifications, this would be apparent in the solecisms which they would produce. Since they do not produce solecisms, the likely reason is that their proposals are consistent with what the terms mean.

As Rosen and Dorr say elsewhere in their paper ([Rosen and Dorr, 2002], 161–162), an inference to the best explanation is a good inference only if the preferred explanatory hypothesis is markedly superior to any of its rivals. In the present case, however, there is at least one rival hypothesis available, namely, that the claims are analytically true (false) but it is not obvious which ones are which. For the most part, competent language use does not require knowing definitions of the terms used. If there are to be any interesting specifications of the meanings of words – if there are to be any interesting conceptual analyses – then the definitions of some of the words we use are unobvious. Consequently, competent language users can formulate proposals whilst being ignorant of their analytic truth or falsehood. This is precisely the view taken by Amie Thomasson, who thinks that the correct analysis of 'part' will settle disputes between principles of composition ([Thomasson, 2009]).

There is independent reason for the above line of thought. The meaning of a term need not be fully grasped by competent users of that term. A person might competently use a pair of terms without realising that they are synonymous, perhaps because they tend to be used in different contexts. One of the current authors was a competent user of the nouns 'violin' and 'fiddle', but, because these terms are used typically in differ-

ent contexts – 'violin' is used predominantly in the context of classical music whereas 'fiddle' is used predominantly in the context of folk music – he remained long unaware that the terms are synonymous. Note too that these terms are not related as *definiendum* and *definiens*, and so the example stands independently of the rival hypothesis suggested in the previous paragraph. There are other potential examples besides: 'bison'/'buffalo', 'brave'/'courageous', and the like. Unless Rosen and Dorr provide reason to think that this phenomenon is not at work in the case of the ontological dispute about composition, their case against analysis as a source of evidence for ontological claims is defective.

Bennett has a different objection to the appeal to conceptual analysis. She targets the following claim:

> (*) If there are simples arranged table-wise in region R, then there is a table in R that is numerically distinct from the simples arranged table-wise. ([Bennett, 2009], 56)

Her objection is as follows:

> Saying that (*) is analytic in the believer's language [i.e. in the language of someone who believes that composition occurs] amounts to saying that *we can define things into existence*. But surely an analytic claim cannot be existence-entailing in this way; surely the existence of a new object cannot follow by *meaning alone*? Who knew ontological arguments were so easy? ([Bennett, 2009], 56)

Her objection betrays a misunderstanding. The believer in composition who appeals to analyticity does not argue that (*) suffices to establish that there is a table in R. Such a philosopher argues for the existence of the table in R from the analyticity of (*) *and* the truth of its antecedent (cf. [Thomasson, 2009], 256). Unlike some versions of the ontological argument, that is not seeking to establish an existence claim solely on the basis of an analytic truth.

Perhaps Bennett's objection is to be interpreted as a denial that (*) is analytic on the ground that a conditional is not analytic if its consequent entails the existence of something whose existence is not *logically* entailed by its antecedent. Yet, if that is Bennett's objection, she provides no support for it. And Bennett herself mentions an apparent counterexample to the objection so understood ([Bennett, 2009], 56, footnote 23). The counterexample is: if Bob is a husband, then there is a further object (Bob's wife). Bennett comments that that 'conditional is not genuinely

existence-entailing in the troublesome sense. What is guaranteed is just that something has a certain property/instantiates the predicate "wife" – not whether it exists at all' ([Bennett, 2009], 56, footnote 23). That is somewhat cryptic. Which sense is this? What distinguishes the troublesome existence-entailing conditionals from the non-troublesome ones? Moreover, unless we are working with a negative free logic, if a has the property of having a wife, a exists, as does a's wife. Lastly, an analytic conditional can be derived from an account of the meanings of its constituent terms plus the sentence's structure. So those who think that (*) is analytic need to show that it is so derivable. But, by the same measure, those who think that it is not need to show that this cannot be done.

4 Common sense

As a first approximation, common sense consists in widely shared beliefs which are strongly held. Common sense says that there are houses. Yet a house is a composite material object. It follows that, according to common sense, there are composite material objects.

Rosen and Dorr have two responses to this argument. First, they claim that common sense is 'much more equivocal' than the argument suggests ([Rosen and Dorr, 2002], 156). Given a situation in which at least two things exist, universalism says that a third thing (namely, their mereological sum) also exists. Common sense will agree, they say, since it will take the universalist to be using 'thing' to mean *simple* or *composite thing*. The nihilist says of the same situation that only two things exist. Common sense will agree since it will take the nihilist to be using 'thing' to mean *simple thing*. It follows that common sense disagrees with neither party.

We doubt whether common sense takes this flexible attitude to the word 'thing' in the mouths of the universalist and the nihilist, respectively. Rosen and Dorr offer no reason to think that this is how common sense does respond, or would respond, when confronted with their views. (Hirsch [Hirsch, 2011], 100) reports that some non-philosophers respond as Rosen and Dorr predict when faced with the universalist's claim. He does not claim, however, that this response is what common sense counsels). Now common sense can be interpreted as exposing *any* dispute as being a merely verbal debate by taking the disputing parties to be talking at cross-purposes. That would be a wildly implausible result since not every dispute is verbal and common sense surely does not suppose otherwise.

But then Rosen and Dorr need to give some reason for claiming that common sense would take the dispute between universalism and nihilism to be a merely verbal dispute (and despite the fact that they themselves do not take it to be a verbal dispute).

Rosen and Dorr's second response compares the following two sentences:

(1) There is a house on the corner

and

(2) There are some things arranged house-wise on the corner,

Rosen and Dorr write:

> Unreflective common sense comes down squarely on the side of (1). But upon reflection it emerges that in taking this stance, common sense is excluding an alternative without having considered it, an alternative which, so far as we have yet been able to see, is undetectably different from the preferred alternative, and which, upon reflection, common sense hesitates to exclude. To insist upon the epistemic authority of ordinary, everyday common sense in this context is to lapse into an unappealing dogmatism. Naïve common sense may be forgiven for unreflective acquiescence in a theory of composition incompatible with nihilism. But it would be a mistake for us – having raised the question explicitly – to defer to an authority which has never considered the matter and which delivers no decisive verdict when the question is put directly. ([Rosen and Dorr, 2002], 158)

The charge is that common sense is dogmatic because it peremptorily dismisses views, such as nihilism, even though it has not previously considered them. But we think that such dismissal need be neither dogmatic nor unreasonable. Consider Russell's hypothesis that there is a teapot in orbit between the Earth and Mars. That is a hypothesis which presumably everyone rejects on first hearing and without further consideration, and they are perfectly reasonable in doing so ([illegible]). Now, saying that there are no teapots seems as outrageous as saying that there is a teapot in orbit between the Earth and Mars. Yet that is just one of the many striking things which the nihilist claims.

Rosen and Dorr go on to say that it can take effort to understand (2) and to see the difference between (1) and (2), but, once someone has been brought to that stage, their previous rejection of nihilism can be shaken by asking:

> "Now that you see the difference, is it really so obvious that the bricks compose a single thing? Can you point to something in the perceptual scene which indicates, not just that the bricks are arranged house-wise on the corner, but that, in addition, composition has taken place in this case?" ([Rosen and Dorr, 2002], 158)

This above passage involves a shift in target. The target here seems to be perception, and the claim made in the passage is that, since we cannot perceive a difference between a house and bricks being arranged house-wise, we do not perceive that something is composed – we do not perceive a house. Let us grant this claim. What is supposed to follow with respect to *common sense*'s claim that there are composite objects? It would be too swift to conclude that common sense is dogmatic. By the same token, our perception cannot tell the difference between the external world and our being brains in vats. Nevertheless, common sense still takes a view on the issue of whether we perceive the external world. Similarly, even if perception does not indicate whether there are houses or only bricks arranged house-wise, common sense still takes a view on the issue of whether the things we perceive include houses. If the charge is then made that common sense is thereby being obtuse, that only returns us to the earlier accusation that common sense is dogmatic and our response to that accusation.

5 Science

Well-confirmed scientific theories posit things such as molecules, continental shelves, and planets. But each of these kinds of thing is a kind of composite thing. It follows that, according to well-confirmed scientific theories, there are composite material objects.

As in the case of common sense, Rosen and Dorr seek to neutralise any role which science might be thought to have in arbitrating between principles of composition. They concentrate their efforts on neutralising inference to the best explanation: the principle that says that we are warranted in inferring from T being the best potential explanation of some phenomenon to T's being the most likely explanation of the phenomenon. Rosen and Dorr's strategy is to show that, for any theory which posits both simple entities and composite entities, we can eliminate its mereological commitments and formulate a theory which posits only simples. Following van Inwagen, Rosen and Dorr offer paraphrases of sentences apparently about composite objects. For instance,

(3) There are molecules

is paraphrased as:

(3*) There are xs arranged moleculewise

and

(4) Some tables are heavier than some chairs

is paraphrased as:

(4*) There are xs are arranged tablewise and there are y's arranged chairwise and the x's are heavier than the y's.
(cf. [Van Inwagen, 1990], 109)

By appealing to paraphrase, Rosen and Dorr seek to show that, for any scientific theory T which posits simple or composite objects, there is a theory T^* which posits only simple objects such that T analytically entails T^* but not conversely. Given that there is no epistemic reason to prefer T over T^*, we are not entitled to infer T. So it cannot be established, at least on grounds of best explanation, that science is a source of evidence for principles about composition.

It is unclear what van Inwagen thinks is the relation between the original sentences and their paraphrases. (See [Liggins, 2008] and the references given there in footnote 7). It is also a matter of debate whether the paraphrases are forthcoming for all sentences (see [Uzquaino, 2004]). But let us set these points aside. Let us assume that all the requisite paraphrases are forthcoming and that it is enough to say that the paraphrases perform the task which Quine required of them, namely, that they provide a way of accomplishing [the purposes of the original sentences] using other and less troublesome forms of expression ([Quine, 1960], 175).

Rosen and Dorr claim that (3) analytically entails (3*), so that anyone who accepts (3) should also accept (3*). Of these sentences, the nihilist accepts only (3*). Rosen and Dorr then raise the following challenge:

> In these cases, since the old theory analytically entails the new one, the new theory cannot be less credible, or less well confirmed, than the old one. ...
>
> What grounds could there be for believing the stronger, old theory rather than the new one? Given that we are justified in thinking that there are things arranged star-wise, solar-system-wise, and galaxy-wise, what further scientific considerations can be cited in

> support of the further conclusion that there are stars, solar systems and galaxies? ([Rosen and Dorr, 2002], 163–164)

The universalist accepts (3), and so (3*) as well. The nihilist accepts (3*) but rejects (3). Now, the evidential problem before us is not: what is evidence for (3) which is not also evidence for (3*)? (Answer: nothing). The evidential problem is: what is evidence for (3) which is not also evidence for not-(3) and (3*)? In employing inference to the best explanation, we are not merely concerned with whether rival theories are consistent with the evidence; we are also concerned with their respective explanatory potential. Accordingly, we need to weigh up the different theoretical virtues of universalism and nihilism. We can then frame the following dilemma. Either the notion of composition is explanatory or it is not. If it is, then, at least in that respect universalism (which says that composition occurs) has some explanatory potential which nihilism lacks. If it is not, then universalism is ontologically and ideologically less parsimonious than nihilism, and, at least in those respects, is an inferior theory to nihilism. Either way, universalism and nihilism are not matched with respect to their theoretical virtues, and so are not matched with respect to their explanatory power. This point carries over to the corresponding scientific theories, to scientific theories which use the notion of composition and their nihilistic paraphrases which do not. Pairs of such theories will not match in their theoretical virtues and thereby in their explanatory power.

In sum, Rosen and Dorr's attempt to show that science and its employment of inference to the best explanation provides no evidence for principles of ontology fails.

6 Simplicity

Bennett argues that the universalist and the nihilist's theories match in overall simplicity: the universalist has a larger ontology but a correspondingly smaller ideology, whereas the nihilist has a smaller ontology but a correspondingly larger ideology ([Bennett, 2009], 65).

Bennett's argument assumes that ideological economy – something pertaining to how few primitive terms are needed to formulate a given theory – is as important as ontological economy – something pertaining to how simple a given theory takes the world to be. That assumption, however, is disputable:

> Choosing between theories is choosing what to believe – and surely when faced with alternatives about what to believe it is more important to focus on features of the entities postulated by the theories than in features of their formulation. Thus when comparing theories ontological considerations – like quantitative economy, qualitative economy, ad hoc character of economy – should weigh more than considerations of ideological economy ([Rodriguez-Pereyra, 2002], 220).

Considerations of simplicity which play a role in theory choice are ones which concern how simple a given theory takes the world to be. How simple a theory takes the world to be is a matter of how few fundamental properties and relations the theory posits and how few instances of these it posits. The fewer fundamental properties and relations are posited, and the fewer instances, the simpler the world is taken to be. This kind of simplicity, the kind of simplicity which concerns how the theory takes the world to be, concerns ontological economy. This is why ontological economy plays a role in theory choice. By contrast, ideological economy concerns how simply a theory is formulated, not with how simple the theory takes the world to be. So the above reasoning provides no support for the idea that ideological economy plays a role in theory choice. Accordingly, ontological economy has a role in theory choice which ideological economy lacks ([Melia, 2000], 473–474).

7 Philosophical argument

Bennett further argues that universalism and nihilism match with respect to the problems that they face. For every problem facing universalism, there is a corresponding one for nihilism, and vice versa ([Bennett, 2009], 66–71). This can be conceded. The issue, however, is not whether these theories face the same or analogous problems. It is with how these theories compare in solving these problems. The quality of one theory's solution to a problem may exceed the quality of the other theory's solution to a corresponding problem. And, as we saw in §5, there is reason to think that these theories do not match with respect to explanatory power.

Bennett ([Bennett, 2009], 73) also claims that we are approaching the end of inquiry into the metaphysics of material objects: most of the work has now been done. This judgement is premature. Only a few pages before, Bennett has contributed to the debate by offering four new arguments against nihilism. Before we are in a position to choose between the rela-

tive merits of universalism and nihilism, we need to investigate how well nihilists and universalists can respond to the problems their respective theories face.

8 Reflections and recriminations

We have argued that, contrary to the agnostics about material composition, conceptual analysis, common sense, science, ontological simplicity and philosophical argument remain viable sources of potential evidence for principles of composition. But we do not claim that these sources are equally good. We do not even claim that, whatever the best of these sources is, it delivers decisive arguments for certain principles of composition. It may also be that these sources conflict in a given ontological debate – perhaps, for instance, common sense tells against four-dimensionalism whereas science supports it – so that the leading ontological theories come out ahead only 'on points'.

We now wish to look beyond agnosticism about material composition and to make a number of more general reflections about agnosticism in ontology.

Have agnostics about material composition presented examples of philosophical debates which they think have been resolved? The short answer is 'No', but it is not clear what the significance of that answer is. Their arguments for agnosticism about material composition do not obviously carry commitment one way or the other whether they should be agnostic about other ontological disputes. Rosen and Dorr appeal to paraphrase to show that, for every scientific theory which posits both composite and simple entities, there is a corresponding scientific theory which posits only simple entities. But they are not thereby committed to saying that paraphrases are available in other ontological disputes. Take the dispute between the mathematical realist and the nominalist about whether numbers exist.

Rosen and Dorr are not committed to saying that paraphrase can show that (1) for every scientific theory which posits concrete objects, numbers and functions, there is a corresponding scientific theory which posits only concrete objects, and so (2) well-confirmed scientific theories do not provide evidence that there are numbers and functions. The fact that paraphrase is successful in the case of the debate about the existence of material composition would have no obvious bearing on whether it is successful in the case of the debate about the existence of numbers. The point, then, is that there are no immediate implications from what the

agnostics have sought to establish with respect to material composition to what they should say about other ontological debates.

Are agnostics about material composition just making the point that there are no knockdown arguments in philosophy? It would be a mistake to take Rosen, Dorr and Bennett to be arguing, or exploiting the fact, that there are no knockdown arguments in philosophy. That would be to underestimate what they take themselves to be doing. It would be like thinking that Hume's problem of induction shows that we cannot be certain about the future. Well, Hume's problem shows that much but it seeks to show far more: namely that there is no evidence supporting any claim about the unobserved. Likewise, Rosen, Dorr and Bennett may have shown – if it needs showing – that there is no decisive evidence for any principle of composition, but they seek to show far more: namely that there is no evidence whatsoever for any principle of composition.

Is agnosticism supported by the fact that humans have cognitive limitations? It is sometimes suggested that human beings do not have the cognitive equipment to solve philosophical problems ([Chomsky, 1976], chapter 4; and [Chomsky, 1988], chapter 5). The idea here is that the structure of human minds constrains what concepts we can acquire and so what understanding we can reach. Furthermore, the solutions to philosophical problems lie outside of our cognitive reach, and that is why we have failed to provide them:

> A Martian scientist, with a mind different from ours might regard this problem [of free will] as trivial, and wonder why humans never seem to hit on the obvious way of solving it. This observer might also be amazed at the ability of every human child to acquire language, something that seems to him incomprehensible, requiring divine intervention([Chomsky, 1988], 152). [illegible] anything is to have any hope of explaining the apparent futility of philosophy, it will have to take the form of an empirical theory about the limits of our cognitive abilities ([Van Inwagen, 1996], 255).

We have two responses to this suggestion. First, we have a comment on the issue of philosophy and cognitive closure itself. Granted that humans have cognitive limitations, the question then concerns where they lie. It seems to us precipitate to say that the solution to philosophical problems exceeds those limitations. We have only to look back to 1879 and the birth of modern logic with Frege's *Begriffsschrift* to see how far we have come in a relatively short span of history. No doubt much remains hidden from us,

but since we lack fully worked out theories concerning many philosophical subject matters, it would be premature to say what is hidden in principle from us.

Second, we have a comment on the relation between cognitive closure and agnosticism. Chomsky's thesis of cognitive closure says that we cannot formulate and understand the solutions to philosophical issues. Agnosticism about ontology, however, is not a thesis about understanding, but about evidence. It says that we lack evidence for selecting between competing theories about ontology. It grants that we understand those theories; it even grants that the true theory of ontology is included among them. What it denies is that we can tell which one it is.

Why be agnostic? If there is no evidence that there are Ks we are not warranted in believing that there are K's. If that is all the information we have about Ks, should we be agnostic about whether K's exist? The principle of ontological parsimony says 'No':

> The principle of parsimony counsels that we *should hypothesise that an entity does not exist*, if its postulation is to no explanatory point. Agnostic formulations of the methodological maxim belie the way in which the razor is employed to atheistic effect. The razor counsels removal and replacement. A claim of existence is excised from a theory, only to be replaced with its own negation ([Sober, 1981], 145–146).

As examples of this practice, Sober cites physics' rejection of the aether and biology's rejection of group selection. Here, he says, 'the dispensability of an existence claim is grounds for its denial'.

Compare the agnostic with his opponents. The agnostic says that there might (epistemically) speaking be entities we lack enough evidence to believe in. Working out whether there are abstract entities or composite objects or ... is difficult; it should be no surprise to find that we lack evidence to settle the question either way (cf. [Williamson, 2007], 16–17). The agnostic's opponents take considerations of ontological simplicity to be included in our evidence. Suppose then we are trying to tell whether there are entities of a certain kind, the Ks. Suppose too that we reach the lemma that there is no evidence that there are K's. According to the agnostic's opponents, considerations of ontological simplicity tell us that if there is no evidence that there are K's, then there is reason to believe that there are no K's. Detaching the consequent, they reach the conclusion that there is evidence that there are no K's. To take the case of material composition, according to the agnostics opponents, lack of evidence

that composition occurs, in conjunction with the dispensability of claims that composition occurs, gives us reason to believe that composition does not occur. A situation in which we lack evidence to settle the question of whether there are K's would then be a situation in which considerations of ontological simplicity fail to settle the question.[1]

Bibliography

[Ayer, 1936] Ayer A. J. (1936), *Language, Truth and Logic*, London: Victor Gollancz.

[Bennett, 2009] Bennett K. (2009), "Composition, Colocation, and Metaontology", in *Metametaphysics: New Essays on the Foundations of Ontology*, edited by D. J. Chalmers, D. Manley and R. Wasserman, Oxford: Oxford University Press, 38–76.

[Carnap, 1950] Carnap R. (1950), "Empiricism, Semantics and Ontology", in *Revue Internationale de Philosophie*: 4, 20–40.

[Chomsky, 1976] Chomsky N. (1976), *Reflections on Language*, London: Temple Smith.

[Chomsky, 1988] Chomsky N. (1988), *Language and Problems of Knowledge*, Cambridge, Massachusetts: MIT Press.

[Hirsch, 2011] Hirsch E. (2011), *Quantifier Variance and Realism: Essays in Metaontology*, Oxford: Oxford University Press.

[Liggins, 2008] Liggins D. (2008), "Nihilism without Self-Contradiction", in *Being*: *Developments in Contemporary Metaphysics* (Royal Institute of Philosophy Supplement 62), edited by Robin Le Poidevin, Cambridge: Cambridge University Press, 177–196.

[Melia, 2000] Melia J. (2000) "Weaseling Away The Indispensability Argument", in *Mind*: 109, 455–479.

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[Putnam, 1991] Putnam H. (1991), *Representation and Reality*, Cambridge, Massachusetts: MIT Press.

[Quine, 1960] Quine W. V. O. (1960), *Word and Object*, Cambridge, Massachusetts: MIT Press.

[Rodriguez-Pereyra, 2002] Rodriguez-Pereyra G. (2002), *Resemblance Nominalism: A Solution to the Problem of Universals*, Oxford: Oxford University Press.

[Rosen and Dorr, 2002] Rosen G. and Dorr C. (2002), "Composition as a Fiction", in *The Blackwell Guide to Metaphysics*, edited by R. M. Gale, Oxford: Blackwell, 151–174.

[Russell, 1952/1997] Russell B. (1952/1997), "Is there a God?", in his *Collected Papers Vol 11: Last Philosophical Testament, 1943–68*, edited by J. G. Slater and P. Köllner, London: Routledge, 543–548.

[Sober, 1981] Sober E. (1981), "The Principle of Parsimony", in *The British Journal for the Philosophy of Science*: 32, 145–156.

[Thomasson, 2009] Thomasson A. L. (2009), "Answerable and Unanswerable Questions", in *Metametaphysics: New Essays on the Foundations of Ontology*, edited by D. J. Chalmers, D. Manley and R. Wasserman, Oxford: Oxford University Press, 444–471.

[Uzquaino, 2004] Uzquaino G. (2004), "Plurals and simples", in *The Monist*: 87, 429–451.

[Van Inwagen, 1990] Van Inwagen P. (1990), *Material Beings*, Cornell: Cornell University Press.

[Van Inwagen, 1996] Van Inwagen P. (1996), "Review of Colin McGinn, Problems in Philosophy: The Limits of Inquiry", in *The Philosophical Review*: 105, 253–256.

[Williamson, 2007] Williamson T. (2007), *The Philosophy of Philosophy*, Oxford: Blackwell.

Gaps, Gluts and God

Stamatios Gerogiorgakis

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Existential Dependence and other Formal Relations

Christian Kanzian

0 Introduction

When we ask an ontologist for the task of her discipline, the response we expect is that she is dealing philosophically with *everything* as generally as possible; everything, that is, insofar as it *is*, insofar as it is an *entity*.

Her work, then, leads her to elaborate a reasonable categorial frame or, metaphorically speaking, a general landscape of reality. Ontological disputes are about the assumed entities: is there only one category of entities, processes, tropes; or should we accept a frame with ontologically different elements of beings, e.g. substances and accidents?

In this paper I do not intend to enter into this dispute, but rather to point out that the standard version of the ontological task is to some extent abbreviated. A full ontological description of our world is more than an enumeration of entities. An investigation into entities is too little to provide a really informative landscape of reality. I hope my challenge to the standard ontological task here is puzzling enough to make it an easy fit for a volume that is dedicated to philosophical enigmas.

Formal relations, as I am going to introduce them here, are paradigmatic examples of the kind of non-entities that are indispensable for every fully fledged ontological world description. *Identity*, qualitative as well as numerical, but also *constitution*, *composition*, and *characterization* are such formal relations. In the first section I will say more about how I understand them, and demonstrate why I think that they are indispensable for ontology, even though they remain non-entities.

As the title of my paper indicates, I will not restrict myself to general considerations concerning formal relations. In my second section I aim to introduce *dependence*, ontological dependence, as another such formal relation. In this section I will spell out what ontological dependence has in common with the other formal relations, and how we can define it amongst the other genera of formal relations. Having, I hope, sufficiently motivated the argument I am making, I next turn to *existential dependence* in the third section, treating it as an own kind or species of ontological dependence. Continuing the method I employed in section two, I will point out aspects which existential dependence has in common with other species of dependence, and, then, those of its characteristics that are not shared by the other formal relations within the genus of ontological dependence. In the final two sections of my paper I will present a brief overview of certain possible applications of this theory of formal relations, focusing on existential dependence. With such a theory in hand, we can make a certain specific categorial frame more plausible (section 4). I also believe that formal relations like existential dependence, perhaps, can help us understand central topics in philosophical theology, e.g. of God's *identity*, and of *creation*. Concerning the latter I make some fragmentary suggestions (in section 5).

1 Formal Relations

We take our first important hint about the ontological function of formal relations from Kevin Mulligan's conception of *internal* or, as he calls them, *thin relations*. According to Mulligan: "... a relation is internal with respect to objects a, b, c etc., just if, given a, b, c etc., the relation must hold between and of these objects".[1] That means that the occurrence of some objects is sufficient and necessary[2] for the occurrence of the relations in question. It is not my aim to do history of philosophy here, so I will leave aside the tradition in which Mulligan himself stands. I rather want to bring Mulligan's definition together with a comparable interpretation of the relations in question given by Jonathan Lowe, who calls Mulligan's internal relation "founded or grounded relations", and regards them as "entirely determined by their relata". In the definitive judgment of both Mulligan and Lowe, these relations offer "no additions to reality", as Lowe explic-

[1] [Mulligan, 1998], 344.

[2] ... if we want to avoid Platonistic attitudes towards relations.

itly states.[3] I would interpret Lowe's "no addition to reality" – statement to mean that relations whose occurrence is a) necessarily and sufficiently given with the occurrence of some objects, and is b) entirely determined by their relata, that such relations are not entities, not elements of beings.

There is a wide range of relations that fall under this initial definition. For instance, the bigger/smaller relation is an example. So is the relation of characterization, which occurs between a mode, a particular property, and a thing which the mode characterizes. Finally, the relation of identity, in which every entity stands to itself, is certainly captured by Mulligan and Lowe's observation. For bigger/smaller it seems to be clear, that it is given just in case there is an object x with size F, and an object y (non-numerically identical with x) with size G (non-qualitatively identical with F). Bigger/smaller is completely determined and therefore grounded in x F and y G. Applying Mulligan and Lowe's rule, we cannot assume bigger/smaller as an addition to reality, that is, as an entity in itself. In a world in which God has created x as being F and y as being G, God need not create a further entity, the relation of x's being bigger than y, to let x being bigger than y.

Ontologically considered, our assumption that the bigger/smaller relation is a non-entity preserves the possibility of a systematic world description that its converse would negate. If we assumed a dyadic bigger/smaller entity between x and y, we had also to assume additional dyadic entities between x and all the other objects which are bigger than x, which seems to be not only an infinite multitude, but also a multitude with an indefinite number of members, if we take into account that also parts of objects, agglomerations and sums, scattered or non, without any clear composition- and identity-conditions, are bigger than x. The only way to avoid this incomprehensible overpopulation of entities is to stick to the non-entity-thesis on relations like bigger/smaller.

Similarly, characterization is such a grounded relation. Just if there is an object x which has mode F, it will be the case that F characterizes x or that x is characterized by F. In a world in which God has created x as being F, he need not create a further entity, the relation of x's being characterized by F. The standard ontological argument for this is the absurdity that results from assuming otherwise: if characterization were a dyadic entity, something more would be required to relate this entity with its relata, x and F. Should we regard these second-level relations (the relation between

[3] [Lowe, 2006], 46.

the characterization-entity and x, respectively the characterization-entity and F) as further entities? – Then we cannot stop a vicious regress. Or should we assume them as non-entities? – This would stop the regress, but how could we argue against the entity status of the second order relation, if we accepted it for the first order relation? The only way to avoid these problems is to stick to the non-entity-thesis on characterization.

Analogous arguments we could bring into the debate concerning identity. Identity is given just in case an entity occurs. Identity is grounded by this entity, and neither requires an reflexive relational entity nor is it an addition to its reality. "Unum non addit supra ens rem aliquam",[4] as Thomas Aquinas correctly points out. God does not create me, and in addition my identity. Nor does reality accrue to the identity of my identity – and so on.

The choice of my examples (bigger/smaller, characterization and identity) should indicate the scope of the relations at stake, while also showing their diversity. This raises the question: should we take these differences between "thin" or "grounded" relations to imply something ontologically serious? Shouldn't we assume different groups amongst our non-entity-relations?

Jonathan Lowe, in [Lowe, 2006], presents a criterion for distinguishing different types of grounded relations. According to Lowe, those relations whose occurrence is due to the *nature* or the ontological *form* of their founding instances may be distinguished from those for which this is not the case: "When beings do 'combine' in the ways to which they are suited by their *ontological forms*, these 'ways of combining' are the various formal ontological relations."[5] Take as an example characterization. If a mode F characterizes an object x, it combines with x because of that what it is, a mode, because of its nature or form, which consists in being a way a thing is. Or take two modes F and G. If they are qualitatively identical with one another, they actually will combine in a way to which they are suited by something which is essential to them, their being dark-blue for instance. Thus qualitative identity or full resemblance would also belong to the formal kind of grounded relations in Lowe's schema. Take as a contrary example bigger/smaller. That an object x is bigger than an object y has nothing to do with its nature or its form, it is accidental for x and for y. I would suggest calling such relations "thin" in the sense of Mulligan.

Lowe has another, more metaphorical, explanation of this distinction

[4][Thomas Aquinas]: Ia q11 a1, c.

[5][Lowe, 2006], 48.

of formal from thin relations: The relata of his formal relations are, as long as the relation occurs, "made for each other".[6] I would like to add also a non-metaphorical distinguishing mark: thin relations seem to be in a proper sense derivative from accidental aspects of their founding instances. X's being bigger than y is derived from x's (accidentally) being F and y's (accidentally) being G. For formal relations, on the other hand, we cannot claim this accidental one-way-derivation. Since formal relations concern the nature or the form of their relata, they play an indispensable role for the relata, respectively for some ontological functions of their relata. Identity, for instance, is – although determined by its entity – nevertheless a fundamental fact about the entity. The same holds for characterization. The characterization-function of a mode F is not derived from an "accidental" aspect of F, but fundamental to it. Formal relations, to speak once again with Jonathan Lowe, are not derivative, but "too fundamental ... to be something in the world – an element of being – because it is that without there could be no beings and so no world."[7] I prefer calling all grounded relations "internal", in agreement with Mulligan's terminology. "Thin" should be the label for all the derivative relations without any substantial importance for the understanding of the nature of their relata in their respective ontological functions. More pointedly, thin relations are too unimportant to be entities, while formal relations are not entities because they are too fundamental to be entities.

2 Ontological Dependence

The aim of my paper is not to offer a general theory on formal relations, but rather to interpret *ontological dependence*, and, as my focal point, *existential dependence* as such a formal relation. Let me start with ontological dependence.

In a first step I want to bring in reasons for my assumption that ontological dependence is a case of internal relations. Ontological dependence occurs just in case objects occur, and it postulates one relata from which the other relata is dependent. Ontological dependence is completely determined by its relata. It is internal, in Mulligan's sense; and not a dyadic entity.[8]

[6] [Lowe, 2006], 47.

[7] [Lowe, 2006], 49.

[8] The assumption of the contrary leads us into a dilemma, comparable with that we have mentioned before: if we had regarded ontological dependence as a dyadic entity,

Ontological dependence is not made to occur due to accidental circumstances. A person, who shares with another person the colour of her hairs, does not enter into a relation of ontological dependence with this other person. But, on the contrary, a mode, which characterizes a thing, does so because of its nature or of its form. That is why we can regard the mode as being ontologically dependent on the thing. Being dependent is essential to modes. Locke for this reason called modes "dependencies".[9] The relation of ontological dependence is crucial for the understanding of the ontological functions of modes. That leads us to the conclusion that ontological dependence is not thin, but formal. It is a formal internal relation, according to the terminology we have explained above.

But ontological dependence is a very special formal internal relation. It can be clearly distinguished from the others. Its defining mark is that it occurs together with other formal internal relations. Take for example the ontological dependence of a mode on its bearer. This must necessarily occur together with the formal relation of characterization. Other interesting examples could be taken from constitution. Suppose that events and their phases constitute temporal relations, like earlier/later. Then it would be plausible that the ontological dependence of temporal relations on events and their temporal parts occurs together or co-occurs with the formal relation of constitution, which is what we ought to find between events and these temporal relations. In short: Ontological dependence *co-occurs* with other formal relations.

I do not have a precise explanation for ontological dependence co-occurs with the other formal relations. However, Mulligan and Lowe provide two interesting approaches to this ontological problem. Mulligan speaks of an "involvement", which concerns all internal relations: "Every internal relation involves [ontological] dependence".[10] Lowe describes the co-occurrence in question as something to be apprehended from the other side, that is, from dependence: "... all dependence relations are, in a certain sense, *founded* upon other formal relations – relations which are, for this reason, ontologically more basic than the dependence relations them-

something more would have been required to relate this dyadic entity with its relata, the dependence-basis and the dependent. Should we regard this second-order relation as a further entity? – The consequence, again, is to open ourselves to a vicious regress. Or as a non-entity? In which case we have to explain why we are endowing the second order relationship with a different ontological status than the first order one.

[9][Locke, 1975]: Book II, Chapter XII, 4.

[10][Mulligan, 1998], 345.

selves".[11]

It is not within the scope of this paper to take sides between these two approaches. Both are attractive. I think that both, Mulligan's involvement and Lowe's foundation, do allow us to hold the thesis that dependence is completely determined by its relata (e.g. an object and a mode) and is nevertheless involved with other another formal relations (e.g. with characterization). But even if both approaches are promising, they are also fraught with difficulties: in Mulligan, it would seem to be a consequence that thin relations, in my sense, would involve ontological dependence; while with Lowe one wonders if foundation (sometimes he even speaks of constitution) isn't too strong a relation to be immediately necessary for interpreting the co-occurrence of e.g. characterization and the specific ontological dependence between a mode and a thing. My favoured approach would combine the positives from both approaches, using Lowe's suggestion that we see ontological dependence firstly as dependence, and then try to spell out how the different kinds of ontological dependence are involved, à la Mulligan, with non-thin internal relations.

However, let me return to what is at stake here: Ontological dependence is an internal and formal relation determined by its relata, which co-occurs with other formal relations. The reason why I find this co-occurrence so interesting is that it enables us to get a handle on the differences between the several kinds of ontological dependence. Differences between the kinds of ontological dependence can be traced back to the (logical) differences between the relations with which they co-occur.

That brings me to the next step in my argument: the exploration of existential-dependence as a special kind of ontological dependence.

3 Existential Dependence

Writing about ontological dependence, I deliberatively used the singular form: dependence is internal, dependence is formal. This might be misleading, in as much as "ontological dependence" does not stand for just one kind of formal relations, as we have seen, but rather for a genus, or, in Lowe's terms, a family,[12] covering several different kinds or species of formal relations. I do not claim to be concerned with all the children of the family on this occasion, but only those which are especially interesting

[11] [Lowe, 2006], 34.

[12] [Lowe, 2006], 34: "dependence is not so much a single relation as a family of relations".

for the main purposes of my investigation: the plea for a specific categorial frame, and an outlook on some applications in philosophical theology.

In my focus on the differences between the species within the genus of ontological dependence, I have found the pioneering work of Peter Simons in regard to such distinctions very helpful. In my own attempt to define existential dependence I will orientate myself freely towards Simons' theoretical map. Simons distinguishes between *strong* and *weak dependence*. Weak dependence does not exclude the dependence of an object x from one of x's part.[13] Strong dependence does exclude this. Strong dependence implies the dependence of an x on something external or extrinsic to x. The distinction is important, but it is largely[14] not pertinent to the very limited purpose of my investigation in this paper.

However, another distinction Simons describes is essential to the argument I am making: that is, the distinction between *individual* and *generic* ontological dependence. What matters is the distinction between the dependence on a particular item, and the dependence on something of a specific kind or *genus*. That a thing, like me, does not depend on a particular mode, for example the weight I actually have at the moment, seems to be clear. I do not depend ontologically on the mode in an *individual* way. But things, like me, undeniable depend on some determinate mode of the mode-genus or -determinable weight. Here I, as an entity in space and time, am a generically dependent entity.

What I additionally need is a third distinction that is not found in Simons between what I'd like to call *proprial* and *substantial* ontological dependence. Substantial dependence occurs if an x depends on a y under an aspect which is essential to x, respectively if it belongs to the nature of x to depend on y. Proprial dependence is not simply accidental, since accidental circumstances are thin, but not formal, and therefore do not involve ontological dependence in the necessary sense. Proprial dependence occurs, if some x depends on y in a respect which defines what x is, even if this respect does not belong to the very nature or form of x. The kind of respect I mean may be deduced from the nature of x and therefore being *proper to* and *defining for* x's species. That this kind of dependence pertains to a non-essential aspect, distinguishes it from substantial. That it nevertheless may define a kind, excludes it from being merely in an accidental relation to x.

Before we define existential dependence with the terminological tools I

[13] [Simons, 1994], 559.

[14] ... not fully, as we will see in the next section.

have suggested, let me underline my claim that the distinction between proprial and substantial dependence is in addition to the two Simonian types of dependency. That means for instance, that the proprial dependence of an x on a y leaves it open whether x is strongly dependent on y, or not; and it means that substantial dependence may also occur generically. For instance, the dependence of an organism on one of its intrinsic non-essential organs, which nevertheless may define the kind of the organism is an example of proprial weak dependence. Examples for the latter are complex events, like football-games. They depend in a substantial way on things (e.g. the players), but not necessarily on the particular ones which actually are involved in them at a moment.

Now that I have arrayed the distinctions I need, I can now come to the goal of this section, which is to elaborate a definition of existential dependence that would approach it from the angle of *substantial and individual ontological dependence*.

As a kind of ontological dependence, existential dependence exemplifies all the general characteristics of its genus: it is internal, it is formal, and it is involved with other formal relations. The specific difference between existential dependence and the other species of ontological dependence I have tried to spell out just before. I especially want to draw the reader's attention to the defining marks of existential dependence, in as much as they are substantial and individual, reveal the *logical features* of those relations which involve it, and thus which relations actually are candidates for involving existential dependence.

If existential dependence is substantial and individual dependence, it cannot be involved with *reflexive* relations, since no contingent entity can depend on itself substantially and individually. Likewise it cannot involve *symmetric* relations, because it does not make sense to admit two (contingent) objects which mutually depend on one another in the required manner. It is also doubtful that we can speak of the *transitivity* of existential dependence-involving formal relations, but my reasons for asserting scepticism here need more explanatory work than I can offer in the scope of this paper.

However, existential dependence is a type of substantial and individual ontological dependence, not involving reflexive and asymmetric formal relations. With this conclusion, let me proceed to my next step: application.

4 Existential dependence and the three-categorial ontology

As I mentioned at the beginning, the reason I am considering formal relations is, ultimately, to help pave the way for making a specific categorial frame more plausible. The frame I have in mind is a three categorial ontology, consisting of *things*, as primary entities, *modes*, and *states*.

I don't intend to swell this article with a complete account of my systematic intent. My main interest pertains to the formal relations occurring between these categories, which I assume, and involving specific kinds of ontological dependence. My intention is to point out the merit of this reading of existential dependence for supporting such a three categorial thing-ontology. Nevertheless let me say some few words about the main ontological characteristics of my three categories.

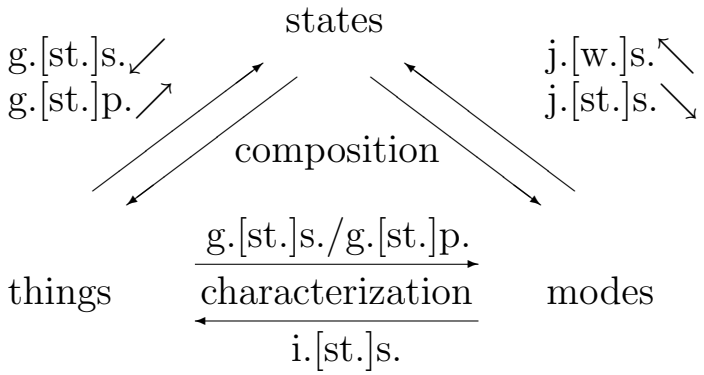
Things are material objects, identical with themselves, synchronic, diachronic, and trans-worldly considered. They are *endurers*. Within the category of things I distinguish between *artificial* (e.g. this table) and *organic* things (e.g. myself); for the latter I would reserve the term "*substance*".[15]

Modes are *ways things are* – they are particular and not particularized properties: this colour. Modes bestow on things qualities, insofar as they own a "categorical" aspect, and they bestow on things dispositions, as they are "powers". I follow those authors, like J. Heil ([**?**]) or J. B. Martin ([**?**]), who hold a double-aspect theory concerning modes.

States are composed of things and modes. A state is the particular, not particularized, being F of an x, as for instance the being coloured of this table I write on. To the same category as states belong events, which can be analysed as compositions of things and dynamic modes.

But let us leave aside all these differentiations and proceed to the formal relations between concrete things, modes, and states. These formal relations are indispensable not only for an understanding of entities themselves as things, modes, and states, but also to understand their co-existence, and the *primacy* of things over the other categories.

[15] [Kanzian, 2009]: Part II.



Things are characterized by modes. The formal relation between things and modes is *characterization*. Characterization is not reflexive (no entity can characterize itself), asymmetric[16] (no pair of entities may mutually characterize themselves), and it is not transitive (no characterizing entity, that is, no mode, can be characterized by another characterizing entity. No mode can be a bearer of another mode; since a mode cannot be a bearer at all).

Because of these logical features, characterization involves a specific kind of ontological dependence between the characterizing, the mode, and the characterized, the bearer, which is a) not reflexive, b) asymmetric, and c) not transitive. Thus, (regarding a) in the way modes depend on things, they cannot depend on themselves; (b) in the way modes depend on things, things cannot depend on modes; and (c) in the way modes depend on things, nothing else can depend on modes.

I cannot consider all the implications of these commitments. Let us focus on the second point, b): the mutual dependence between modes and things. We observe that modes depend on things in an individual and substantial way ("i. s." in the schematic sketch above; strongly [st.] mentioned by the way). The colour of this table depends on this table, not on things in general. And the dependence at stake is substantial. It is essential to the colour, it belongs to the very nature if it, to characterize this table. Modes depend existentially on things. In other words: the formal relation of characterization – in one way – involves a kind of ontological dependence that can be defined as existential dependence.

If this argument is correct, that means that the dependence between modes and things is asymmetric; the dependence of modes on things is,

[16]For all x and for all y it is the case that the standing of x in R to y implies that y does not stand in R to x.

then, of another kind than the dependence of things on modes. But we need not conclude that things do not depend on modes at all; that they are completely independent from modes. My suggestion is that things *do* depend on their modes, but in a generic way (g. in our scheme). The table for instance does not depend on the determinate colour it actually has at the moment; but it depends on the genus of colour-modes that makes it the case that we can say that the table needs some colour. Otherwise it would cease to exist as a thing. The distinction between proprial and substantial concerning the dependence of things on modes cannot be drawn generally (that is why I put g. s. "generic substantial" *and* g. p. "generic proprial" in the sketch); we underline "generally" because we can't exclude the possibility that there may be some genus or determinables of modes on which some things depend substantially.[17]

However, from this we may conclude that modes depend on their bearers in the sense of existential dependence, while bearers do not depend in the same way on their modes. Things depend on modes ontologically in another, but thoroughly relevant way. If this is true, we can affirm and explain the primary status of things: things are non-*existentially* dependent entities. And we can also reject attempts to interpret them as bare substrata, completely independent from all accidental or modal aspects.

Things and modes, together, *compose* states. It is beyond the scope of this paper to spell out the formal features of the composition occurring between things and states, and between modes and states, and the typical kinds of dependence which are involved by composition. If we were to do so, we would turn to Simons' weak – strong distinction (taking e.g. states as generically, strongly, substantially dependent on things, "g. st. s." in our sketch above; things being generically, strongly, proprially, "g. st. p.", dependent on states). Perhaps it is worth mentioning that states can be considered as being existentially dependent on modes, being in substantial and individual dependence ("s. i.") on them. This is what assures us

[17]If I had to categorize the g.s. – g.p. – distinction concerning table and colour, I would say that it is substantial. It is substantial for things like the table to be coloured. The reasoning is as follows: Since it belongs to the very nature of things to be three-dimensionally extended; and three-dimensional extension necessarily demands being coloured. Other determinables may be regarded as proprial, for instance those which have to do with the temporal or the trans-world history of things. Since things can be defined as objects having a proper temporal and trans-world shape, even if this shape does not belong to the very nature of things. Things as three-dimensional endurers are not temporally and trans-worldly extended.

that things are the only category of entities which do not depend in their existence on entities of other categories. They are the primary entities.

Formal relations, to come back to the protagonists of my ontological enterprise, can help us to make a three categorial thing-ontology more plausible. The plausibility is not exhausted with the offered explanation of the priority of things, but has also to do with – just to mention one aspect – the avoidance of an over-abundance of entities. We can avoid admitting inherence as a non-formal relation, and other dark creatures occurring in alternative ontologies. Leaving aside these matters, I come to my final section, my outlook on the last things.

5 Formal relations and their possible function in philosophical theology

Under which respects may formal relations be of interest in philosophical theology?

First: *Identity.* Let me take up Aquinas's "unum non addit supra ens rem aliquam" – dictum. Being a unity that stands in the reflexive relation of identity to itself does not imply that there is an extra entity that adds something to the entity which is identical with itself. Identity is just given with the entity, with each entity. Identity is, according to Thomas Aquinas an *internal relation.* We can add that it is a *formal* one because identity has to do with fundamental or substantial ontological features of each entity.

If theologians are willing to accept identity as an internal formal relation, then e.g. God's identity with himself, which is the highest and most perfect identity, is *no addition* to his being. It does not contradict his *simplicity.* This may make some theologian's life easier.

The theologian's life will be even more comfortable if she extends the internal status of God's identity to all the other relations within the Trinitarian God, e.g. his love; and, in a next step, consequently also to God's relations ad extram. These are the relations to his creation. Such an understanding presupposes *creation* as a *causal* act, and that causal relations can also being considered as internal and formal, much as Mulligan has suggested.[18] If Mulligan is right, this could be a very interesting thesis for philosophical theology: because, in this case, we could explain why everything created *depends* on God in its *existence*; and how creation and

[18]Cf. [Mulligan, 1998], 340f.

existential dependence can be brought together. If causation, and consequently creation, are formal relations, then, according to what I have said before, it is plausible to assume that a specific kind of ontological dependence is involved by creation. The ontological dependence of the created on the creator is substantial (as what else should it be?), it is individual (since there is only one God), and strong in a Simonian sense (if we want to avoid pantheistic assumptions). That means that creatures depend existentially, in the introduced sense, on the creator. Furthermore: since creation, whatever else it is, is surely asymmetrical – the created does not create the creator –, the involved dependence is also asymmetrical. The creator does not depend on the created as the created depend on the creator.

I am aware that a myriad of questions are opened up by the reasoning in these theoretical fragments. If we try to imagine the contrary of the route I've sketched, however, we run into enormous difficulties. Imagine if the mentioned relations (identity, creation) were thick, or non-internal; how would all the other relations with which theology has to work be either coherent or rational? Such a theology would not only be questionable, but heretical, when it were not simply absurd.

Formal relations are real heroes; they prevent categorial ontology from abundance, and theology perhaps from more dangerous evils.

Bibliography

[Kanzian, 2009] Kanzian Ch. (2009), *Ding – Substanz – Person*, Frankfurt/Paris/Lancaster/New Brunswick: Ontos Verlag.

[Heil, ...] Hell J. (...)

[Locke, 1975] Locke J. (1975) *Essays Concerning Human Understanding*, edited by P. H.Nidditch, Oxford: Clarendon.

[Lowe, 2006] Lowe J. (2006), *The Four-Categorial Ontology*, Oxford: Clarendon Press.

[Martin, ...] Martin J. B. (...)

[Mulligan, 1998] Mulligan K. (1998), "Relations – Through Thick and Thin", in *Erkenntnis* (Extra-Volume: *Analytical Ontology*, edited by C. Kanzian und E. Runggaldier): 48, 325–353.

[Simons, 1994] Simons P. (1994), "Particulars in Particular Clothing", in *Philosophy and Phenomenological Research*: LIV, 553–575.

[Thomas Aquinas] Thomas Aquinas, "Summa Theologica", any edition.

Logic and Truth in Religious Belief

Srećko Kovač

Absolute Truth and Mathematics

Anna Lemańska

Naturalism, Theism, and Objects of Reason

Jonathan E. Lowe

God, Truth and other Enigmas,
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On the Anti-Ontological Doom Argument

Robert E. Maydole

Some ontological arguments for the existence of God are dismissed because they allegedly or arguably beg the question, and some because they allegedly or arguably assume that existence is a property, and some because they are allegedly or arguably susceptible to parody, and others because they allegedly or arguably attempt to prove existence *a priori*. In "Doomed to Fail" ([Turri, 2012]) John Turri argues that all ontological arguments are doomed to fail because they purport to nonempirically prove that God exists *now*, and the only thing anyone can nonempirically prove to exist *now* is that they themselves exist *now*. Call this argument 'Doom'. I shall argue that Doom itself fails.

Turri defines *nonempirical knowledge* as knowledge that is not based on external perceptual experience. He says that there are two kinds of nonempirical knowledge: knowledge based on introspection, and *a priori* knowledge based on rational intuition or understanding. Using virtually Turri's own words, and a slightly rearranged order, we can express Doom in standard logical form thus:

(1) If you can nonempirically know that a certain person exists now, then you are that person. (Premise)

(2) If any ontological argument can succeed for you, then you can nonempirically know that God exists now. (Premise)

(3) You are not God. (Premise)

(4) If God exists, then God is a person. (Premise)

(5) If God exists, then God exists eternally. (Premise)

(6) If God exists eternally, then God exists now. (Premise)

(7) If no ontological argument can succeed for you, then no ontological argument can succeed for any of us. (Premise)

(8) No ontological argument can succeed for any of us. (Conclusion)

I submit that Doom is either invalid, or valid but not sound. Doom is invalid unless the meaning of 'nonempirical knowledge' is identical in premises (1) and (2). But the intended meaning of 'nonempirical knowledge' in (1) would seem to be that of knowledge based on introspection; and the intended meaning of 'nonempirical knowledge' in (2) would seem to be that of *a priori* knowledge based on rational intuition or understanding of concepts. So Doom is prima facie invalid.

Suppose, however, that we stipulate that 'nonempirical knowledge' in both (1) and (2) means knowledge based on introspection. Then (2) is a false strict implication. For God *cannot* be known to exist introspectively, and it is possible that an ontological argument might succeed for you in some possible world where you have mistaken reasons to unwittingly believe that the argument is sound and not question begging.

Likewise, suppose we stipulate that 'nonempirical knowledge' in both (1) and (2) means knowledge based on rational intuition or understanding of concepts. Then (1) is a false strict implication. For surely there is a possible world where two people exist now and you can rationally intuit or conceive that someone does. So there is a possible world where the antecedent of (1) is true and its consequent is false, making (1) false.

Suppose, we stipulate that 'nonempirical knowledge' means the same thing in both (1) and (2), but it is not knowledge based on introspection or rational intuition or understanding of concepts per se. Let us just say with Turri that it is simply knowledge that is not based on external perceptual experience. Doom still appears unsound. For consider the antecedent of (2). An argument succeeds if and only if it is sound and not question begging. In particular, an argument succeeds for *you* if and only if you believe that the argument is sound and not question begging. Yet, you might mistakenly believe that an argument is sound and not question begging when either it is not or you cannot adequately show or justify that it is. So an argument might then succeed for *you*, and you

might only believe but not *know* that that it is sound and not question begging, yet think that you do know it. Thus, an ontological argument might succeed for you without it being true that you know that God exists now, nonempirically or not. Premise (2) of Doom is false.

Turri, however, argues that Doom is sound. What are his reasons for claiming that its premises are true? He rightfully notes that premises (4), (5) and (6) are simple conceptual truths, and that premise (7) is true because there is nothing special that distinguishes you from others with regard to the success of an ontological argument. And he correctly proclaims that "upon cool reflection" we will agree that premise (3) "needs no defense" (p. 416). Premise (1) is very controversial philosophically. Numerous philosophers from Kant, to Wittgenstein, and Austin, and more recently Putnam and Davidson, have argued that thought and language nonempirically "presuppose" the existence more than one person at some point in time. Turri does attempt to defend (1) by arguing by example that these philosophers and other externalists fail to show that there could not be a moment of time when only one person exists who introspectively knows that she or he exists then. But his defense is a straw man argument against externalism, and derivatively for the truth of (1). Externalists do not espouse the view that Turri refutes. His only other defense of (1) is to say that it "is apt to seem uncontroversial, verging on the obvious"(p. 415). I rather doubt that it is obvious to most people.

Let us turn finally to Turri's reasons for premise (2). He says,

> "My second premise is that if any ontological argument can succeed for you, then you can nonempirically know that God exists now. For if it were to succeed, then you would nonempirically know that God exists. And it is trivially obvious that if God exists, then God exists eternally, including now; this is a simple conceptual truth, which you can and do know nonempirically." (pp. 417–418)

I suspect that Turri inadvertently omitted the phrase 'for you' from the second sentence of this quotation. I think that Turri must have intended the second sentence to be 'For if it were to succeed *for you*, then you would nonempirically know that God exists'. Otherwise the sub-argument for premise (2) of would be blatantly invalid. We can put this amended sub-argument into standard logical form thus:

(1s) If any ontological argument can succeed for you, then you can non-empirically know that God exists. (Premise)

(2s) If God exists, then God exists eternally. (Premise)

(3s) If God exists eternally, then God exists now. (Premise)

(4s) If any ontological argument can succeed for you, then you can non-empirically know that God exists now. (Conclusion)

The problem is that this amended sub-argument (sub-Doom) begs the question and has a false first premise. Premise (1s) is false for the same reason that premise (2) of Doom is false. Yet sub-Doom is valid, and (2s) and (3s) are surely true. So, suppose that (1s) were true, if only for the sake of argument. Sub-Doom would still beg the question.

Consider the rather obvious example of an argument that is sound and begs the question:

$1+1 = 2$ or $1+2 = 4$ (Premise)

$1+2 \neq 4$ (Premise)

$1+1 = 2$ (Conclusion)

Both premises of this valid argument are true. It begs the question because the only possible reason we could have for the first premise must depend on the truth of the conclusion. Consider the similar argument:

If the ontological argument succeeds for you, then God exists. (Premise)

If God exists, then God exists now. (Premise)

If the ontological argument succeeds for you, then God exists now. (Conclusion)

It too is sound, and it begs the question because 'God exists' and 'God exists now' are equivalent, as are the first premise and the conclusion. Likewise, the only possible reason we could have for the first premise must depend on the truth of the conclusion.

Turri's sub-Doom might seem different from the simple arguments of the last paragraph because sub-Doom contains the opaque expression 'knows

that' and might therefore not sustain salva veritate all substitutions of equivalences of ⌜x⌝ in ⌜knows that x⌝. On the other hand, it seems plausible to assume that the evidence or reasons for nonempirically knowing that God exists and knowing that God exists now would be the same if the knower knows that 'God exists' and 'God exists now' are equivalent. Moreover, if you can rationally determine whether or not an ontological argument can succeed for you, and/or minimally understand the ingredients, terms, or logic of an ontological argument, then you should be able to know that 'God exists' is equivalent to 'God exists now' and then also know that the evidence or reasons for 'You nonempirically know that God exists' is the same as the evidence for 'You nonempirically know that God exists now'. And it surely is the case that sub-Doom presupposes that you can rationally determine whether or not an ontological argument can succeed for you, and/or minimally understand the ingredients, terms, or logic of an ontological argument. We must conclude therefore that sub-Doom begs the question.

Since Doom is either invalid, or valid and unsound, or not adequately supported, we must conclude that Doom does not spell doom for ontological arguments.

Bibliography

[Turri, 2012] Turri J. (2012), "Doomed to Fail: The sad epistemological fate of ontological arguments", in *Ontological Proofs Today*, edited by M. Szatkowski, (Frankfurt/Paris/Lancaster/New Brunswick: Ontos Verlag), 413–421.

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Fitch's Paradox and the Existence of an Omniscient Being

Jason Megill

1 The Knowability Principle and Fitch's Paradox

The *knowability principle*, henceforth "$\mathcal{KP}$", claims that all truths are knowable, i.e., $\forall p(p \rightarrow \Diamond \mathsf{K}p)$.[1] Fitch ([Fitch, 1963]) demonstrated that the conjunction of the $\mathcal{KP}$ and the claim that we are *not omniscient*, i.e., $\exists p(p \wedge \neg \mathsf{K}p)$, entails a contradiction.[2] Here is a version of his proof.[3] First, suppose both the $\mathcal{KP}$ and *Non-Omniscience*,

(1) $\forall p(p \rightarrow \Diamond \mathsf{K}p) \wedge \exists p(p \wedge \neg \mathsf{K}p)$.

Given (1), obtain (2) with *kl* elimination,

(2) $\exists p(p \wedge \neg \mathsf{K}p)$.

And now consider a particular instance of (2), a particular unknown truth,

(3) $p \wedge \neg \mathsf{K}p$.

[1] Throughout, as is customary, "K" is the *knowledge operator*, which means "it is known by someone at some time that".

[2] The proof was first suggested to Fitch by an anonymous referee. Salerno ([Salerno, 2009b]) has discovered that the referee was Alonzo Church ([Church, 2009]).

[3] This version of the proof closely follows that given in Brogaard and Salerno ([Brogaard and Salerno, 2004]).

If the $\mathcal{KP}$ is true, as we have assumed, we can substitute (3) for p in the $\mathcal{KP}$ and obtain a true claim. That is, if we do not know p, it should be possible for us to know that we do not know p; after all, given our assumption (in line (1)), it is possible for us to know anything,

(4) $(p \wedge \neg \mathsf{K}p) \rightarrow \Diamond \mathsf{K}(p \wedge \neg \mathsf{K}p)$

With (3) and (4) infer (5) with conditional elimination,

(5) $\Diamond \mathsf{K}(p \wedge \neg \mathsf{K}p)$

So, it is possible to know both that p is true and that we do not know p.

However, (5) contradicts a claim that one can derive as a theorem, at least given certain plausible assumptions. Suppose, for *reductio*, that the following is true,

(6) $\mathsf{K}(p \wedge \neg \mathsf{K}p)$

Given (6), then since knowledge distributes over a conjunction, we can infer,

(7) $\mathsf{K}p \wedge \mathsf{K}\neg \mathsf{K}p)$

Use $\wedge$ elimination on (7) to obtain,

(8) $\mathsf{K}\neg \mathsf{K}p)$

Furthermore, we cannot know a falsehood, i.e., knowledge entails truth, so given (8), the following is true,

(9) $\neg \mathsf{K}p)$

But we can obtain (10) with $\wedge$ elimination on (7):

(10) $\mathsf{K}p)$

We have a contradiction ((9) and (10)), so our assumption on line (6) is false,

(11) $\neg \mathsf{K}(p \wedge \neg \mathsf{K}p)$

Moreover, (11) is theorem, so it is necessarily true,

(12) $\Box \neg \mathsf{K}(p \wedge \neg \mathsf{K}p)$

And given that $\neg \Diamond \neg$ is equivalent to $\Box$, and given double negation elimination, with (12) we can easily obtain,

(12) $\neg\Diamond\mathsf{K}(p \wedge \neg\mathsf{K}p)$

In short, if we assume both that the $\mathcal{KP}$ is true and Non-Omniscience, we obtain a contradiction; to be precise, the assumption that $\mathcal{KP}$ is true and that some truth is unknown entails a claim (claim (5)) that contradicts a theorem (claim 13)).

So, on the assumption that contradictions are impossible, one faces a choice between three options,

Option One: Reject the $\mathcal{KP}$.

Option Two: Reject Non-omniscience, i.e., claim that all truths are known.

Option Three: Reject at least one of the inference rules or principles used in the proof above; e.g., deny that (i) knowledge distributes over a conjunction, or that (ii) knowledge entails truth, (iii) or else revise logic in some manner (e.g., reject conjunction elimination or some other logical inference rule used in the proof).

Given that we are not omniscient, and given the plausibility of the principles and logical inference rules used in the proof, option one might appear, at least prima facie, to be the most natural response.

However, Fitch's ([Fitch, 1963]) proof has received much attention in part because the knowability principle is a fundamental tenet of anti-realism as formulated by, e.g., Dummett in [Dummett, 1976]. Roughly, the anti-realist denies that there are unknowable truths, i.e., she endorses the knowability principle, because such truths would have to be unverifiable and mind-independent in principle. So clearly, a putative proof of the falsity of the $\mathcal{KP}$ is of great importance in the realism/anti-realism debate. And there are numerous extant responses to Fitch; these responses are generally motivated by a desire to save the $\mathcal{KP}$, i.e., to avoid option one. For example, Nozick ([Nozick, 1981]) opts for option three; to be specific, he attempts to refute Fitch's proof by claiming that knowledge does not distribute over a conjunction. Beall ([Beall, 2000]) claims that the logic that governs knowledge is paraconsistent, so we cannot infer anything from a contradiction in this context and Fitch's proof falters. Tennant ([Tennant, 1997]) argues that the $\mathcal{KP}$ should be restricted so that we cannot substitute things that we can prove to be contradictory into it (so line (4) above is blocked). There are further responses to Fitch (see, e.g., [Williamson, 1982]); for more on various attempts to save the $\mathcal{KP}$ from Fitch's result, see [Brogaard and Salerno, 2004]. But note that

these responses are all instances of option three; option two, a rejection of Non-omniscience, is rarely explored.

2 An Argument for an Omniscient Being

As noted, there are three possible responses to Fitch's proof, and most choose either option one, i.e., they reject the $\mathcal{KP}$, or option three, i.e., they reject one of the inference rules or principles used in the proof. Note, however, that classical theists are already committed to option two; given classical theism, there is an omniscient being, and so Non-Omniscience is false.[4] Moreover, one might wonder if Fitch's paradox can be adapted into an argument for the existence of an omniscient being; after all, there are only three possible responses to the proof, and one of them entails that all truths are known? I now formulate one possible argument; the argument clearly faces some difficulties, but it is arguably better than at least some of the extant arguments for theism that are typically discussed.[5]

There might be numerous ways that Fitch's proof might be adapted into an argument for theism, but here is one suggestion. Again, there are three possible responses to Fitch's proof: (1) deny the $\mathcal{KP}$; (2) deny Non-Omniscience; or (3) reject a logical inference rule or principle used in the proof. On pain of contradiction, one must choose one of these responses. And if it could be shown that (2) is the only viable – or at least the best – option, then we must deny Non-Omniscience; i.e., claims that all truths are known. So, any putative argument for theism based on Fitch's proof cannot endorse (3) (for otherwise the atheist could then simply endorse response (2), in which case not all truths will be known); i.e., any putative argument for theism based on Fitch's proof will need to be carried out in a logical system of sufficient strength, and specifically, a system that contains all of the logical inference rules and principles used in Fitch's proof. A fairly weak modal epistemic logic can suffice; we need to assume a system that contains (i) first-order logic, along with (ii) modal system **K**, the weakest modal system, and an (iii) epistemic logic system,

[4]To clarify, the theist could of course also reject the $\mathcal{KP}$ and revise logic if she wished; it is simply that she *must* reject Non-Omniscience because she believes that all truths *are* known, by God.

[5]Note that the argument only tries to show that there is an omniscient being. It does not, for example, try to establish that any particular God exists (e.g., the Christian God). Of course, even so, the claim that there is an omniscient being would still hold some interest for philosophers of religion.

system **T**, in which knowledge distributes over a conjunction. Here is a list of the relevant inference rules and principles used in Fitch's proof: (a) conjunction elimination (to obtain lines (2) and (10)); (b) existential instantiation (to obtain line (3)), (c) universal elimination (to obtain (4)); (d) conditional elimination (to infer (5)); (e) knowledge distributes over a conjunction (to obtain (7)); (f) knowledge entails truth (to infer (9)); (g) negation introduction (to infer (11)); (h) theorems are necessarily true (to infer (12)); and (i) the modal operator equivalence rule and (j) negation elimination (to infer (13)).[6] Recall that we have assumed a particular logical system: a relatively weak modal epistemic logic. And note that all of these various inference rules and principles will hold in that system: (a), (b), (c), (d), (g) and (j) will hold in first-order logic; (e) and (f) will hold in an epistemic logic system that contains **T** and allows knowledge to distribute over a conjunction; and (h) and (i) will hold in modal system **K**. So, given the logical system we have assumed (and need to assume, if we are to construct an argument for theism from considerations involving Fitch's paradox), (3) will not be an option. And, of course, (1) will not be an option if the $\mathcal{KP}$ is true. Therefore, given a particular logical system comprised of first-order logic, **K**, and a relatively weak epistemic logic, and the $\mathcal{KP}$, (2) is false, i.e., Omniscience. All truths would be known.

However, there is an immediate problem with the argument: it is not yet an argument for theism. Saying that all truths are known simply means that for any particular truth, someone (or something) knows it. This is consistent with numerous possibilities; e.g., there is a single omniscient being; there are two beings that are each "half-omniscient" (one of the beings knows half of all truths and the other being knows the other half; so between the two of them, all truths are known); there is a being that knows all and only those truths that are not currently known by humans (so the combination of us with this being entails that all truths are known); and so on. Thus, claiming that all truths are known is consistent with theism, but also with numerous other non-theistic possibilities. Therefore, it appears that the argument must be augmented by an *additional* claim if it is to provide evidence for theism: one must show that given that all truths are known, the most plausible possibility is that there is a *single* being that knows all truths.

So, the following *three* claims entail that there is an omniscient being: (a) a fairly basic modal epistemic logic is sound; (b) the $\mathcal{KP}$ is true; and

[6]Of course, some of the steps in Fitch's proof ((1) and (6)) are assumptions and so do not depend on the use of any inference rule; these are the missing steps above.

(c) if all truths are known, then there is an omniscient being. Frankly, I do not know if (a) – (c) are true, and obviously an atheist might deny any one of these claims. However, in my opinion, these claims are not obviously false either; indeed, I suggest that they are more plausible than they might initially appear. Consider (a), for instance. The atheist can argue that the argument only succeeds in a particular logical system. But isn't that true of any argument? All arguments make inferences (or at least one inference), and so must be carried out in some logical system or other, even if only implicitly. And the relevant system is indeed fairly weak. Its foundation is classical logic. And **K** is uncontroversial; given that **K** is the foundation of the other major modal systems, if one rejects **K**, one essentially rejects modal logic itself. Moreover, epistemic logic system **T** is also fairly weak; the only two axioms of **T** are (1) if we know a conditional, and we know the antecedent, then we know the consequent, and (2) knowledge entails truth.

Or the atheist might deny (c). However, I suggest that, upon closer inspection, (c) is more plausible than it might initially appear. Again, (c) claims that if all truths are known, then there is an omniscient being. So, posit an atheist that rejects the argument by only rejecting (c); this atheist grants (a) and (b), but denies (c).[7] Given (a) and (b), each individual truth is known by at least one knower; indeed, given (a) and (b), all truths are known right now, have always been known (and so were known, e.g., instantly after the Big Bang), and will always be known; if the entailment from (a) and (b) to (c) holds now, it has always held; there is nothing about the entailment that restricts it to only holding in the present moment.[8] Granted, again, this does not entail that a single being knows all truths; it might be that a knows truth t but not t_1, but b knows t_1 but not t, and so on, although for all truths t, t will be known by at least one agent. But it is difficult to see how all truths are (or have been or will be)

[7]Of course, an atheist can deny more than one of (a), (b) and (c), but simply rejecting (c) as opposed to (c) plus either (a) or (b) is a weaker response, and hence has a higher probability of being true. Basically, the probability of $\neg(c)$ is higher than the probability of $(\neg(c) \wedge \neg(a \vee b))$.

[8]In case this is unclear, if we are granting (a), then Fitch's proof will be valid. So the conjunction of the $\mathcal{KP}$ and Non-Omniscience will entail a contradiction. So, one of them must be false. And if we are granting the $\mathcal{KP}$, Non-Omniscience must be false. Therefore, given (a) and (b), Omniscience will be true, i.e., all truths are known. And Fitch's proof is "timeless", in the sense that nothing about the argument is "time-indexed" etc.; if the proof holds now, it has always and will always hold.

known at all times without positing an entity that is not "naturalistically acceptable". For example, how, given naturalism, could all truths have been known an instant after the Big Bang? Naturalism tells us life could not yet have been formed at that moment. Likewise, right now, all truths would be known; but how could any naturalistically acceptable being (or collection of beings) know – right now – the number of particles in the universe at some time t after the big bang, or the exact number of dinosaurs who lived on Earth, or every knowable mathematical truth? Humans don't know these things; nothing else on Earth does; and even if we desperately posit super intelligent aliens, it is difficult to imagine how they could know these things either.[9] In short, it appears that if all truths are (and always have been and always will be) known by at least one entity, at least sometimes (e.g., right after the Big Bang), some of these truths (e.g., the number of particles in the universe) must be known by a being that is not naturalistically acceptable. The atheist might object that perhaps there is a team of omniscient beings (echoing Hume's ([Hume, 1779/1980]) claim that perhaps there was a team of intelligent designers), or perhaps there is a team of beings who are not individually Omniscient but jointly are? But if we are forced to posit at least one naturalistically unacceptable entity, but not forced to posit more than one, then why posit more than one?[10] In short, if all truths are known, then it appears plausible that there is a single, non-naturalistically acceptable entity that knows all truths; i.e., (c) is true. Perhaps rejecting (c) is not the best strategy for an atheist; perhaps the best strategy is rejecting (b), i.e., deny the $\mathcal{KP}$? I now discuss the $\mathcal{KP}$.

3 How Plausible is the Knowability Principle?

The atheist who does not wish to revise logic and agrees that it is difficult to see how all truths could be known (at any moment in the history of the

[9]I know this is getting bizarre, but that's my point. Given (a) and (b), a denial of (c) is very bizarre. *Prima facie*, (c) looks a lot like some other principles used in arguments for theism, i.e., it looks like it can easily be denied by an atheist (who can either argue that the claim is outright false, or is at least not conclusively established as true); however, upon further examination, a denial of (c) is completely untenable.

[10]One can of course appeal to Occam's Razor here. Indeed, one can also appeal to basic probability theory: the probability that one strange, naturalistically unacceptable entity exists is greater than the probability that two or more strange entities exist.

universe) in a naturalistic framework might simply deny that the $\mathcal{KP}$ is true. Indeed, the $\mathcal{KP}$ is controversial. Frankly, I do not know if the $\mathcal{KP}$ is true or false; but in this section, I attempt to gauge its plausibility.

Generally, when confronted with a putative principle such as the $\mathcal{KP}$, one might falsify it by producing a counterexample. The $\mathcal{KP}$ claims that all truths are knowable; so the opponent of the $\mathcal{KP}$ might produce a claim that is true yet unknowable. But this is impossible. Suppose that we know that we have a successful counterexample to the $\mathcal{KP}$; there is a claim that we know is true but unknowable; call this claim, whatever it might be, "c". That is,

(1) $\mathsf{K}(c \wedge \neg\Diamond\mathsf{K}c)$

But since knowledge distributes over a conjunction, we can infer,

(2) $\mathsf{K}c \wedge \mathsf{K}\neg\Diamond\mathsf{K}c$

And given (2) and conjunction elimination, we can infer,

(3) $\mathsf{K}c$

And,

(4) $\mathsf{K}\neg\Diamond\mathsf{K}c$

But if we know that it is not possible to know c, as (4) claims, then since knowledge entails truth,

(5) $\neg\Diamond\mathsf{K}c$

And of course, if it is not possible to know c, as (5) claims, then we do not know it:

(6) $\neg\mathsf{K}c$

But line (3) claims that we do know c; we have a contradiction; therefore our assumption on line (1) is false, i.e.,

(7) $\neg\mathsf{K}(c \wedge \neg\Diamond\mathsf{K}c)$

Therefore, we cannot know that we have a successful counterexample to the $\mathcal{KP}$, for if we assume that we know that some given claim is a counterexample to it, a contradiction results.

However, perhaps we can know that the $\mathcal{KP}$ is false without producing a *particular* counterexample to it? Perhaps, but consider the following

argument. Suppose that we know that the $\mathcal{KP}$ is false although we cannot produce a counterexample; even though we cannot produce a *particular* example of a true but unknowable proposition, we (somehow) know that they exist. But then we would know, for example, that there is a set S of propositions that are true yet unknowable, whatever the cardinality of this set might be. Moreover, there appears to be no reason why we could not single out a particular member of this set and assign it a name. Consider the following "procedure": (i) think of a particular set; (ii) pick out or isolate one and only one member from that set by, e.g., using a definite description (or definite descriptions); (iii) give a name to that member of the set; and finally, (iv) make true statements about that set member, even if our knowledge of that set member is severely limited (e.g., even if we could not recognize that set member if it were right in front us). Here is an example: I walk into a large science fair that has a couple of hundred entries. There will be only one winner and this person will receive a $1,000 scholarship to help pay for college. I consider the set of all science fair entrants. I then use the definite description "the winner of this science fair" to pick out a single member of this set. I give this set member a generic name, e.g., "Winner". I can then say some true things about this person; e.g., "Winner will receive a $1,000". This statement is true even assuming that I know very little (or even nothing) else about Winner. For instance, it is true even if I could not point at Winner because the winner has not even been chosen yet. To offer a different example, think of Jack the Ripper. A killer was singled out of a set (say, the population of London) with definite descriptions, e.g., "the person who committed these murders". The person was given a name, "Jack the Ripper". Finally, true statements were made about Jack the Ripper, for instance, "Jack the Ripper killed again last night". These statements were true despite the fact that no one (at least to our knowledge) aside from Jack the Ripper knew who Jack the Ripper was. In short, at least in some cases, we can pick out a unique member of a set by using definite descriptions, give this set member a name and then use this name to make true statements about the set member.

So consider various ways we might pick out one and only one of these unknowable truths in set S with definite descriptions. For example, assuming that (at least some of) these truths could be stated in some natural language, consider "the truth that would be first alphabetically" in that language. There are various ways in which one could use a definite description to pick out a specific truth in S. And we can also give this truth

a name. Let's call this truth, whatever it might be, "a". Even though we know little about a, for example, we cannot state a, and we do not know the content of a and so on, we can make at least a couple of true statements involving a. Indeed, we do know at least two things about a. First, we know that a is true; by hypothesis, a is a member of the set S of unknowable *truths*. Second, we know that a is unknowable; by hypothesis, a is a member of the set S of *unknowable* truths. That is, we know that a is an unknowable truth,

(1) $\mathsf{K}(a \wedge \neg\Diamond\mathsf{K}a)$.

Since knowledge distributes over a conjunction, given (1) we can infer,

(2) $\mathsf{K}a \wedge \mathsf{K}\neg\Diamond\mathsf{K}a$.

With $\wedge$ elimination and (2) we can infer,

(3) $\mathsf{K}\neg\Diamond\mathsf{K}a$.

And since knowledge entails truth, (3) entails,

(4) $\neg\Diamond\mathsf{K}a$.

But with $\wedge$ elimination, (2) also gives us,

(5) $\mathsf{K}a$.

Given (5) and modal theorem **T1** (if p, then it is possible that p), we can infer,

(6) $\Diamond\mathsf{K}a$.[11]

But (4) and (6) contradict one another, so our assumption must be false. We cannot know that the $\mathcal{KP}$ principle is false; the $\mathcal{KP}$ might be false, but even assuming that it is, we cannot know that.[12]

[11]See [Hughes and Cresswell, 1996]: 42 for a derivation of **T1**, though the theorem is obviously true. A denial of the theorem amounts to the claim that the impossible can be actual, which is incoherent.

[12]Here is a more systematic version of the argument.

(1) Assume that we know that the $\mathcal{KP}$ is false. Assumption for *reductio*.

(2) If we know that the $\mathcal{KP}$ is false, then there is a set (call it "S") of unknowable truths. This is obvious; if we know that the $\mathcal{KP}$ is false, then it is false, but then there is at least one unknowable truth, and so there is a set of unknowable

Of course, the atheist can still object that even assuming that we cannot produce a particular counterexample to the $\mathcal{KP}$, or even assuming that we cannot know that the $\mathcal{KP}$ is false, the $\mathcal{KP}$ still might be false nevertheless. We need some positive reason to believe that the $\mathcal{KP}$ is true. Again, the$\mathcal{KP}$ claims that $\forall p(p \rightarrow \Diamond \mathsf{K}p)$. That is, for any truth p, it is possible to know p; for all p, there is a logically possible world in which p is known. So, if the $\mathcal{KP}$ is false, then there is a truth that is logically impossible to know. But suppose, as some do, that consistency entails logical possibility; see, e.g., [Szabo-Gendler and Hawthorne, 2002], "On a standard sort of characterization, P is logically possible just in case no contradiction can be proved from P using the standard rules of deductive inference ...". Note that, if we are given p, and we can *consistently* know p, then if consistency entails possibility, then we can *possibly* know p. So, if the $\mathcal{KP}$ is false, and if consistency entails possibility, then there must be a truth p such that, given p, $\mathsf{K}p$ generates a contradiction (for if it does not, then we possibly know p, and p cannot be an unknowable truth and so cannot falsify the $\mathcal{KP}$). But consider any random truth p. Given p, there is no way to deduce a contradiction if we are also (only) given $\mathsf{K}p$. There are only so many ways p and $\mathsf{K}p$ could produce a contradiction: (i) p could entail $\neg p$; (ii) p could entail $\neg\mathsf{K}p$; (iii) $\mathsf{K}p$ could entail $\neg p$; (iv) $\mathsf{K}p$ could entail $\neg\mathsf{K}p$; or either (v)

truths.

(3) There is a set (call it "S") of unknowable truths. This follows with Modus Ponens and (1) and (2).

(4) We can use a procedure to pick out one and only one member of this set and give it a name; call it "a". We do similar things all of the time, e.g., when referring to Jack the Ripper.

(5) $\mathsf{K}(a \wedge \neg\Diamond\mathsf{K}a)$. We know this is true because we know that a is in S; so we know, by hypothesis, that a is true and unknowable.

(6) $\mathsf{K}a \wedge \mathsf{K}\neg\Diamond\mathsf{K}a$. From (5), given that knowledge distributes over a conjunction.

(7) $\mathsf{K}\neg\Diamond\mathsf{K}a$. From (6) with conjunction elimination.

(8) $\neg\Diamond\mathsf{K}a$. From (7), given that knowledge entails truth.

(9) $\mathsf{K}a$. From (6) with conjunction elimination.

(10) $\Diamond\mathsf{K}a$. From (9), with modal axiom **T1**.

(11) We have a contradiction (lines (8) and (10)). So, our assumption is false, i.e.,

(12) We do not know that the $\mathcal{KP}$ is false.

$(p \wedge \mathsf{K}p)$, (vi) p or (vii) $\mathsf{K}p$ could entail $\neg(p \wedge \mathsf{K}p)$.[13] But none of these putative logical entailments hold. If (i) held, then there are no truths, for any truth would entail its own falsity. And if (ii) held, then a truth would entail that we do not know it, so there would be no knowledge. Likewise, if (iii) is true, then if we know a truth, then it is false, which is absurd; if (iv) is true, then if we know something, then we would not know it, so again, there would be no knowledge. If (v) holds, then if we know a truth then it is not the case that we know it, so again, there would be no knowledge. And if (vi) holds, then if something is true, then either it is not true or else we do not know it; there would either be no truth or no knowledge. Likewise, if (vii) holds, there would either be no truth or no knowledge. So, for any truth p, if we are given p, we will not be able to logically infer a contradiction if we are also (only) given $\mathsf{K}p$; so p and $\mathsf{K}p$ will be logically consistent; and if consistency entails logical possibility, then given (any) p, it will be logically possible for us to know that p. That is, the $\mathcal{KP}$ is true.

4 Concluding Remarks

I argued that the following three claims entail that there is an omniscient being: (a) a fairly basic modal epistemic logic is sound; (b) the $\mathcal{KP}$ is true; and (c) if all truths are known, then there is an omniscient being. So we basically have an argument for the existence of an omniscient being. I do not know if the argument is sound, though I did defend (b) and (c), and the logical system in question is not particularly strong. However, although the argument is not conclusive as it stands, I will make the following modest claim in its favor: the argument is stronger, at least in certain respects, than some extant arguments for theism that receive attention, so perhaps it deserves attention as well? While the argument depends upon the truth of the $\mathcal{KP}$ and the claim that if all truths are known, there is an omniscient being, these claims appear more plausible than some of the principles or claims used in other extant arguments for theism, e.g., the principle of sufficient reason, or the claim that the existence of morality depends upon the existence of God etc.[14] And again, the atheist might reject the logical system used in the proof; the atheist might reject classical logic, the weak

[13]These are the only possible options. Given *only* p and $\mathsf{K}p$, there are only so many possible ways one can generate a contradiction. I believe the above options exhaust all possibilities.

[14]Of course, the principle of sufficient reason is often used in Cosmological Arguments.

epistemic logical system **T**, or the weakest modal system **K**. Note, however, that the system used in the proof is clearly weaker than the systems used in some other extant arguments for theism; e.g., modal system **K** is much weaker than **S5**, which is used in some contemporary modal ontological arguments. So, while the argument for theism given above might not be conclusive, it is arguably more plausible than some other extant arguments for theism, at least in certain respects. Theists should further explore the possibility that Fitch's proof can be adapted into an argument for theism.

Bibliography

[Beall, 2000] Beall J. C. (2000), "Fitch's Proof, Verificationism, and the Knower Paradox", in *Australasian Journal of Philosopohy*: 78, 241–247.

[Brogaard and Salerno, 2004] Brogaard, B. and Salerno, J. (2004), "Fitch's Paradox of Knowability", in *The Stanford Encyclopedia of Philosophy* (Summer 2004 Edition), edited by E. N. Zalta, URL = <http://plato.stanford.edu/archives/sum2004/entries/fitch-paradox/>.

[Church, 2009] Church A. (2009), "Referee Reports on Fitch's "A Definition of Value"", in [Salerno, 2009a], 13–20.

[Dummett, 1976] Dummett M. (1976), "What is a Theory of Meaning? (II)", in *Truth and Meaning*, edited by G. Evans and J. McDowell, Clarendon Press.

[Fitch, 1963] Fitch F. (1963), "A Logical Analysis of Some Value Concepts", in *The Journal of Symbolic Logic*: 28, 135–142.

[Hughes and Cresswell, 1996] Hughes G. and Cresswell M. (1996), *A New Introduction to Modal Logic*, London: Routledge.

[Hume, 1779/1980] Hume D. (1779/1980), *Dialogues Concerning Natural Religion*, Indianapolis: Hackett.

[Nozick, 1981] Nozick R. (1981), *Philosophical Explanations*, Cambridge, MASS: Harvard University Press.

[Salerno, 2009a] Salerno J. (ed.) (2009a), *New Essays on the Knowability Paradox*, Oxford: Oxford University Press.

[Salerno, 2009b] Salerno J. (2009b), "Knowability Noir: 1945–1963", in [Salerno, 2009a], 29–48.

[Szabo-Gendler and Hawthorne, 2002] Szabo-Gendler T. and Hawthorne J. (eds.)(2002), *Conceivability and Possibility*, Oxford: Oxford University Press.

[Tennant, 1997] Tennant N. (1997), *The Taming of the True*, Oxford: Oxford University Press.

[Williamson, 1982] Williamson T. (1982), "Intuitionism Disproved?", in *Analysis*: 42, 203–207.

Six Arguments against Physicalism

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The Divine Belief Theory of Truth: Might It Work?

Alexander Pruss

1 The theory

It follows from classical theism's doctrines of essential omniscience and the necessity of divine existence that

1. necessarily, p is true if and only if God believes p.

The Divine Belief Theory of Truth then says that for a proposition to be true just is for it to be believed in God.

This theory is simple and elegant. It will be particularly attractive to Christians who have a commitment to the mysterious idea that truth must be grounded in God (cf., John 14:6). And for classical theists the Divine Belief Theory carries no additional ontological commitment. For non-theists, the Divine Belief Theory requires the additional ontological commitment of believing in a perfect being. However, that additional ontological commitment also has additional explanatory value, as is exhibited in, say, the cosmological or teleological arguments.

We shall evaluate the theory against a barrage of objections, after stating it more precisely and discussing some of its merits.

2 Statement and some merits

2.1 Beliefs by a perfect beings

We have two ways of stating the fundamental claim of the Divine Belief Theory. We could take "God" to be a proper name or a definite description. Taking "God" to be a proper name makes for a simpler but poorer theory, for instance because it leaves it mysterious why we should particularly care about what this being believes. I propose that our best move here will be to take "God" to be a definite description from perfect being theology. Thus, I will take "God" to be shorthand for "the perfect being", i.e., the being that has all perfections. Our Divine Belief Theory then explains truth by:

(2) p is true if and only if the being that has all perfections believes p.

We can put this in a formal second-order language as:

(3) $True(p) \leftrightarrow Believes(\iota x \forall P(Perfection(P) \rightarrow P(x)), p)$.

There are precisely two fundamental non-logical concepts here: belief and perfection. It is a merit of the Divine Belief Theory that both concepts have significant uses outside of the Divine Belief Theory.

2.2 Sentential truth

Some theories of truth, like the Tarskian ones, apply directly to sentences and only indirectly to propositions. Divine Belief Theory applies directly to propositions, and hence owes an account of the truth of sentences. This is not hard to give in a standard way:

(4) A sentence s is true if and only if it expresses a belief of a perfect being.

This does require introducing the notion of expression to bridge the gap between sentences and propositions. Nonetheless, this is not a significant cost for the Divine Belief Theory, in that sententially-based theories will need to make a similar move in order to define the truth of proposition, for instance by saying:

(5) A proposition p is true if and only if it is expressed by a true sentence.

Moreover, a propositionally-based theory of truth has the advantage of not having any problems with accounting for the possibility of ineffable propositions that are true – these would be truths that cannot be expressed by a sentence of any language. I do not know if there are ineffable truths, but it seems an advantage of an account that it does not need to commit to there not being any.

2.3 Some merits

Two merits has already been seen. First, the theory defines truth by a biconditional that classical theists already accept. Thus, the arguments for classical theism provide support for the truth of this biconditional. Of course it is a further move to say that this biconditional correctly tells us *what truth is*, but at least the classical theist has reason for confidence that the theory is not subject to refutation by counterexample. Second, the theory helps explain how truth is grounded in God.

The Divine Belief Theory of Truth also neatly dovetails with the Divine Thought Theory of Propositions on which propositions are divine thoughts.[1] Some of these thoughts are then thought affirmatively by God, and those are the truths, while others are thought negatively by God, and those are the falsehoods. Together the theories account for the ontology of propositions and for their truth values. And we may even combine this with a version of the Thomistic idea that God's power to realize his thoughts makes some of them be possible,[2] thereby yielding a unified theistic theory of the nature propositions, their modal status and their truth.

Finally, the theory helps explain why the fact that p is true makes it non-instrumentally valuable to believe p. For it is *prima facie* valuable to be like the perfect being, and truths are simply those propositions that the perfect being believes.

[1] [Plantinga, 1993]: 121.

[2] E.g., Alexander R. Pruss in [Pruss, 2011] defends a view on which the power of God and of created causes grounds possibility claims. On Pruss's view, it appears that while creaturely powers co-ground some possibility claims, God's power is always by itself sufficient to ground them.

3 Objections

3.1 The Euthyphro objection

The Divine Belief Theory of Truth initially resembles the Divine Command Theory of Obligation, on which something is obligatory provided that God commands (or wants or wills) it. The standard objection to the Divine Command Theory is the *Euthyphro* objection: Does God command an action because it is obligatory or is it obligatory because God commands it? If God commands an action because it is obligatory, then we have explanatory circularity as what makes actions obligatory is God's commanding them. On the other hand, if the action is obligatory because God commands it, then it is difficult to see what kinds of reasons God could have for commanding as he does. And if God commands without reason, then he is arbitrary. There are, of course, many responses to the *Euthyphro* dilemma,[3] but nonetheless the dilemma provides a powerful argument against the Divine Command Theory.

We can come up with a parallel objection. Does God believes a proposition p because p is true, or is it true because he believes it? We get explanatory circularity if God believes p because p is true. But what reason could God have to believe p if the truth of p is not the reason? And if God believes p without reason, then he is not rational.

However, there is a simple way out. Consider ⟨Socrates is sitting⟩ ("⟨s⟩" is shorthand for "the proposition that s"). According to the theory, this proposition is true because God believes it. But why does God believe that Socrates is sitting? We better not say that God believes it because it is true. And we need not! We can, instead, say that God believes that Socrates is sitting because Socrates is sitting.

And this is in fact the better explanation even in the case of ordinary human observations of Socrates as sitting. That the proposition ⟨Socrates is sitting⟩ is true is a second-order fact in part about the realm of propositions. That Socrates is sitting is a first-order fact about Socrates. It is the first- order fact that explains how it is that light bounces of Socrates and into the eyes of the observer. The observer does not look at a Platonic realm of propositions and find the proposition ⟨Socrates is sitting⟩ instantiating the property of truth. Indeed, if we somehow had done that, this would in the first instance have given us a reason to believe the second-

[3]E.g., [Evans, forthcoming].

order proposition ⟨⟨Socrates is sitting⟩ is true⟩, and only then to infer from it the first-order proposition ⟨Socrates is sitting⟩. Instead, we look at Socrates, and his being seated explains why we form the belief that he is sitting.

Explanation is a relation between propositions. On the above account, the proposition ⟨God believes p⟩ is explained by the proposition p, rather than by the higher-order proposition ⟨p is true⟩. This may not hold in all cases, though. For some divine beliefs might be explained by divine efficacious willings – God knows that if he wills that electrons be charged, then electrons are charged, and so he believes it because he wills it. But in those cases there will also be no arbitrariness, since God will have reasons for willing as he does.

3.2 Knowledge

Here is an almost complete theory of knowledge.

(6) For any agent x, that x knows p is grounded in four conditions: (i) that x believes p, (ii) that p is true, (iii) that x is justified with respect to p, and (iv) that the anti-Gettier condition holds.

Of course I don't know how to fill out the "anti-Gettier" condition, but this won't affect the argument, nor will the objection to the Divine Belief Theory be affected by replacing justification with reliability or warrant.

Now suppose that x is God. It seems that then x knows p is grounded only in the satisfaction of *three* conditions. For the truth condition then is just a repeat of the belief condition. But surely to ground the fact that God knows that Socrates is sitting, we need the fact that Socrates is sitting. The truth condition in the theory of knowledge can't be collapsed into to the belief condition, even in the case of God.

One could bite the bullet. After all, there is nothing strange about conditions in an account collapsing or trivializing in special cases. Still, there is a kind of anti-realist feel to this response. There are, fortunately, two better responses.

The first response is that in the preferred version of the Divine Belief Theory, we took "God" to be short for "the perfect being". Suppose now that "Y–" is a name of God. Then (6) yields:

(7) That Y– knows p is grounded in the satisfaction of four conditions: (i) that Y– believes p, (ii) that the perfect being believes p, (iii)

that Y– is justified with respect to p, and (iv) that the anti-Gettier condition holds.

Granted, Y– *is* the perfect being, and even necesssarily so. But nonetheless, the conditions that Y– believes p and that the perfect being believes p are distinct conditions, and there is no collapse.

But what if we substituted "the perfect being" for the x in (6)? Then we would indeed get three conditions:

(8) That the perfect being knows p is grounded in three conditions: (i) that the perfect being believes p, (ii) that the perfect being is justified with respect to p, and (iii) that the anti-Gettier condition holds.

But it is not clear that (8) follows from (6). For the "grounds" operator is intensional (indeed, hyperintensional). And while it might be acceptable to substitute a name for a variable in an intensional context, thus getting (7), substituting a definite description is often unacceptable. For instance, consider the following special case of the necessity of identity, which states that

(9) $\forall x(x = Plato \rightarrow \Box(x = Plato))$.

I.e., anything identical with Plato is necessarily so identical. But we had better not put the definite description "Socrates' most famous student" in for the x, as then we'll get the false claim that necessarily Socrates' most famous student is Plato.

The second answer is this. I know that electrons are charged. But perhaps instead of this fact being partially grounded in the second-order fact that the proposition ⟨Electrons are charged⟩ is true, the relevant ground is just the first-order fact that electrons are charged. If so, then we should reformulate (6) as follows:

(10) For all s, for any agent x, that x knows that s is grounded in four conditions: (i) that x believes that s, (ii) that s, (iii) that x is justified with respect to the proposition that s, and (iv) that the anti-Gettier condition holds,

where the quantification over s is substitutional. Thus, that God knows that electrons are charged will be grounded in the facts (i) that God believes that electrons are charged, (ii) that electrons are charged, (iii) that God is justified with respect to the proposition that electrons are charged,

and (iv) that the anti-Gettier condition holds. And since truth no longer shows up in the second condition, there is no collapse of that condition into the first.

In the last solution I have used substitutional quantification. But van Inwagen has argued[4] that substitutional quantification makes no sense unless it is defined in terms of truth and metalinguistic quantification. If his argument is successful, then "For all s, P(s)" would have to be defined to hold in terms of a meta-linguistic quantification like:

(11) for every sentence s, the sentence formed by putting s in the place of x in "P(x)" is true.

However, I have defined truth in terms of divine belief. This may raise the worry that there is an objectionable circularity somewhere.

But I did not use substitutional quantification to explain propositional truth or divine belief, but only in an account of divine knowledge. Here we can see why it is better to define truth in terms of divine belief rather than in terms of divine knowledge. And we can now give the metalinguistic quantification paraphrase of (10):

(12) ∀s∀x("That x knows that s is grounded in four conditions: (i) that x believes that s, (ii) that s, (iii) that x is justified with respect to the proposition that s, and (iv) that the anti-Gettier condition holds" express a belief of the perfect being).

There is no circularity here.

There is, however, one residual problem. If there are ineffable truths, i.e., truths that are not expressible by any sentence, then God will know them. But (10) and (12) will not apply in the case of ineffable truths – they only apply to propositions that can be expressed in the form "the proposition that s", for a sentence s. Earlier I said that it was a merit of a theory of truth if it could handle ineffable truths, and likewise it would be a merit of a theory of knowledge if it could do so. This is a reason to prefer the first answer to the collapse objection.

3.3 Epistemological circularity

It seems that I have reason to think that the perfect being believes snow is white because I have reason to believe that it's *true* that snow is white, and

[4][Van Inwagen, 1981].

I have reason to believe on the basis of the arguments for classical theism that there is a unique perfect being and that being believes all truths. But of course if truth just is belief by a perfect being, this reasoning becomes circular.

Again, however, the now-familiar move of replacing second-order claims with first order ones will work. I have reason to believe that snow is white, and I have reason to believe that there is a perfect being who is such that if snow is white, then he believes that snow is white (I can generalize this using substitutional quantification – I expect that worries about ineffable propositions do not come up here, because I think all my beliefs can be expressed in language, at least the language of thought). So, the perfect being believes that snow is white.

In any case, even if truth just is belief by God, we might have evidence for truth that is only indirectly evidence for belief by God. After all, I can know that there is water somewhere without knowing that there is H_2O there, and I might infer that I am justified in believing that I have two hands from the obvious fact that I know I have two hands, even though my knowledge that I have two hands is partly grounded in my justification.

3.4 Atheists and truth

Of course one would not expect atheists to accept this account, unless they are so strongly convinced of the failure of other theories of truth that they are willing to give up their atheism. It is beyond my intentions to argue here for the failure of other theories of truth, since I am only defending the Divine Belief Theory against objections and it is not my intention to show that the theory is actually true. But one may wonder if there isn't something problematic about offering a theory of truth on which atheists end up contradicting their atheism whenever they say that a proposition p is true, since in so doing they are affirming that God believes p?

There is nothing problematic here, however. To give an account of truth as divine belief is like giving an account of water as H_2O. It is possible to believe in water without believing in hydrogen or oxygen. It may be that a belief in water *implicitly* commits one to a belief in hydrogen and oxygen. But nonetheless to affirm that water exists does not involve affirming that hydrogen and oxygen exist. If it did, then the chemical structure of water wouldn't have required the empirical research it did. Likewise, even if truth just is divine belief, it is possible to believe something is true without believing it is divinely believed. Granted, if the theory is right, it would

be metaphysically impossible for anything to be true without there being a God. But there is nothing strange about the suggestion that some intelligent people believe a metaphysical impossibility. After all, on a classical under- standing of God, either God's existence is metaphysically necessary or it is metaphysically impossible – God cannot merely contingently exist. So, either theists are believing in a metaphysical impossibility when they believe that God exists, or atheists are believing in a metaphysical impossibility when they believe that God does not exist.

3.5 The Liar Paradox

In our case, a standard strengthened Liar sentence:

(13) Sentence (13) does not express a true proposition,

yields something like

(14) Sentence (14) does not express a belief of the perfect being.

And paradox results in exactly the same way as from the standard liar paradox, given classical logic and the rules:

(15) From "The perfect being believes s" infer "s"

(16) From "s" infer "The perfect being believes s".

If it is a criterion of adequacy on a theory of truth that it resolve the Liar Paradox, the Divine Belief Theory fails. Now, there are theories of truth that as by design avoid the liar paradox, but they each have serious problems, such as not allowing arbitrarily deeply nested attributions of truth[5]), or losing some rules of classical logic like excluded middle[6], or having unspecified ad hoc exceptions to inference rules[7]. It may be better not to insist on a theory of truth by itself resolving the Liar Paradox.

Is there a response to the Liar *consistent* with the Divine Belief Theory? I think so. Meaning is not a function of sentence types but of token speech acts, and neither (13) nor (14) manages to express a proposition. Hence, since true propositions and beliefs are propositions:

(17) Sentence (13) does not express a true proposition.

[5][Tarski, 1983].
[6][Kripke, 1975]: 690–716.
[7][Horwich, 2005]: 42.

(18) Sentence (14) does not express a belief of the perfect being.

Paradoxically, but not self-contradictorily, (17) and (18) are true even though they are exactly similar to the meaningless tokens (13) and (14) which do not express propositions.[8]

3.6 Similarity to occasionalism

Occasionalism brings God in where intuitively there are explanations on the level of creation, and thereby robs the created order of some of its reality. The heat of the burner doesn't cause water to boil: God just happens to habitually will water to boil after it is heated. Science is robbed of its proper independence. Perhaps the Divine Belief Theory can be similarly criticized.

Notice, however, that the Divine Belief Theory of Truth allows full scope to scientific explanations entirely within the created order. Scientific explanations are first-order. Scientists do not explain why it is true that the sky is blue, but why the sky is blue. Sometimes, of course, the phrase "it is true" may be used in scientific explanations as given by scientists, but it is eliminable. Thus, we might say that the sky is blue because such-and-such law is true. But "such-and-such a law is true" could simply be replaced by "it is a law that" followed by a statement of the law.

Still, even though science is not robbed of its proper independence, perhaps interpersonal trust is. I find you trustworthy, so I believe that what you testify to is true, and thus I believe the things you say. Is it appropriate to invoke a perfect being here by replacing this with: I believe that what you testify to is probably believed by God, and thus I believe the things you say?

Maybe it is very appropriate, though. After all, interpersonal trust is a species of love of neighbor. And God may be involved in all our love of neighbor (cf., 1 John 4:7-12), perhaps since we should love our neighbor for being in the image of God. And a part of our neighbor's being in the image of God is that our neighbor is the sort of being that will normally testify only to the things that God believes.

[8]Cf., The discussion of indexicality, statements, sentences and the Liar in [Sainsbury, 1995]: Sections 5.7–5.8.

4 Conclusions

A number of obvious objections to the Divine Belief Theory fail. The typical tool was to replace second-order propositions about some proposition p being true with simply p, e.g., by no longer taking knowing that s to be partly grounded in the second-order claim that s is true, but simply in the fact that s. Minimalists[9] also make a similar move of decreasing or removing substantive explanatory reliance on truth claims. Note, however, that a result of this move is that the overall usefulness of having a theory of truth somewhat decreases the less the concept of truth is used explanatorily.

While one might have a residual feeling that the Divine Belief Theory is invoking God in an inappropriate context, Christian theology also holds that God and truth are intimately connected, so such invocations may be precisely called for.

I do not at present have a view as to whether the Divine Belief Theory is actually true. But I know of no decisive objection to it. But of course there may be objections that I have missed. Hence it is time for discussion.

Bibliography

[Evans, forthcoming] Evans S. C., *God and Moral Obligation*, Oxford.

[Horwich, 2005] Horwich P. (2005), "Truth", 2nd edition, Oxford.

[Kripke, 1975] Kripke S. (1975), "Outline of a theory of truth", in *Journal of Philosophy*, 72: 690–716.

[Plantinga, 1993] Plantinga A. (1993), *Warrant and Proper Function*, Oxford.

[Pruss, 2011] Pruss A. (2011), *Actuality, Possibility and Worlds*, Continuum.

[Sainsbury, 1995] Sainsbury R. M. (1995), *Paradoxes*, Cambridge.

[Van Inwagen, 1981] Van Inwagen P. (1981), "Why I don't understand substitutional quantification", in *Philosophical Studies*, 39: 281–285.

[Tarski, 1983] Tarski A. (1983), "The concept of truth in the languages of the deductive sciences", in *Logic, Semantics, Metamathematics, papers from 1923 to 1938*, edited by J. Corcoran, Hackett.

[9] E.g., [Horwich, 2005].

God and Necessity

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Makers and Models: Two Approaches to Truth, and their Merger

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God, Truth and other Enigmas,
edited by Mirosław Szatkowski
Walter de Gruyter, 2014

God and Good: Does God's Existence Imply that Anything is Good

Jan Woleński

God's existence is taken in this paper for granted. Although I am an agnostic (in the sense, that, on my view, proofs of God's existence or non-existence impossible) are or even atheist (in the sense, that I do not believe in God), I admit that a neutral ontological language is possible in which questions concerning God's existence can be rationally discussed. Assume that **X** is a set of statements about God, for instance, accepted by a (rational) theologian (although the problem of concrete denomination is not relevant, I will work in the frameworks of Christian doctrine). There is nothing wrong in presupposing that **X** is consistent. If so, **X** has a model, let say, **M**. Since 'God' is a proper name, it has a reference, at least in the standard semantics within the universe of **M**. Other possibility consists in considering 'God' as a part of the predicate 'is a God', which refers to a set (possibly empty) as its reference. Note that such semantic settings do not depend whether God really exists or not. On the other hand, they make some discussions on theology and its existential involvement more easier than debates starting from proofs of God's existence or their criticism. Assume that A is the sentence 'there is x such that x = God' (this form is preferable according to first-order syntax) which is true in **M** and B refers to the sentence 'there is x such that x is good' (for simplicity I will frequently use more ordinary locutions). Now, our problem may be framed in ta fairly simple way:

(1) Does A logically imply B?

My answer to (1) is negative and this paper tries justifies that is should be such. In order to do that, I will analyze possible affirmative answers to (1).

The first way to derive B from A is to say that since God is good, there is something good. Clearly, this strategy requires the premise 'God is good' as indispensable. Denote it by the letter C. However, C is not obvious *per se*. Of course, many theologians take C as granted, but it is hard to agree *a priori* with this opinion.[1] First of all, C has various interpretations depending on an invoked ethical theory, for instance, the virtue theory (Aristotle, Thomas Aquinas), the duty theory (Kant) and the utilitarian theory (Bentham, Mill). Should we take into account intentions or consequences? In fact, particular interpretations offer different and partially inconsistent accounts of God's goodness, even if we agree with theologians that goodness belongs to His basic perfections or even constitutes the most fundamental one. The crucial difficulty in this respect consists in relation of God to evil. Is evil a consequence of admitting human freedom by God or perhaps the state of the world stems from Gods intention to maximize goodness? The pessimist with respect to God's intention can observe that any inspection of the world and what is going in it motivates saying that our reality was created by the Malissimus (the worst power) but not by the best (or even a good) God. To sum up, reasons for accepting C are not compelling and seem arbitrary.

There is still one problem with deriving B from A. It seems that common intuitions suggest the conclusion that God's existence entails that something is good and is different from God. Formally speaking, we need to obtain a conclusion of the form

(2) There is x such that x is good and $x \neq$ God.

Clearly, (2) requires that x n question stands in a relation to God in order to possess the property of being good (I do not enter into the problem of the nature of good as a property; the only important qualification is that goodness is understood as moral or ethical). Although it is fairly possible that x is eternal and it is good because co-exists with God, the most plausible account of the relation involved in (2) consists, at least according to standard theological proposals, in understanding x as created by God. This view will be constantly assumed in my further analysis. Let me note that no particular idea of creation by God matters in this

[1] See the discussion in [Garcia, 2009].

context. One can think about *creatio ex nihilo* (creation from nothing) or continuous creation in Whitehead's sense.

In order to justify (2), we can eventually employ the theory of transcendental concepts (transcendentalia).[2] This monumental ontological theory was elaborated in the Middle Ages, particularly by Thomas Aquinas and it is accepted by his contemporary Neo-Thomist followers. The Schoolmen considered the transcendentals as the most general and overcategorial (*transcendentalia omnia genera transcendunt*) notions. It was (and still is) controversial how many transcendentals there are. Leaving aside truth (*verum*), thing (*res*), one (*unum*) and beauty (*pulchrum*), we can concentrate on two notions, namely *ens* (being) and *bonum* (goodness) as relevant for our problem. The concept of being is decisively distinguished in every version of the theory of transcendentals (**TT**, for brevity) and other transcendental are compared with it. **TT** is based on the following general principle:

(3) if T and T' and are transcendentals, they are mutually convertible.

Its particular instance is captured by the statement (in Latin):

(4) *Ens et bonum convertuntur.*

This last thesis means that being and good are co-extensional. On the other hand, they are not co-intensional. Roughly speaking, *bonum* in this context expresses a property of being, namely that it is good. Although transcendentals are concepts, they are not universals (denominations of *genera*). Assume that P is an universal. It entails, that non-P is universal as well. In general, if P and non-P are universals, there exists an universal U such that U is a genus, but P and non-P are its species. This property allows to define universals by *genus proximum et differentiam specificam* (for instance, man (or Man) is a rational animal). This strategy is not available in the case of transcendentals, because they are not subordinate to more general concepts. Consequently, we cannot define *ens* and *bonum* by invoking a property functioning as a *differentia specifica*.

The application of (4) to the discussed problem seems to be straightforward, but it is not such. The reason is that the set X of assertions {God exists, God created being, created being is different from God, being is good} does not entail (2), because God's existence is a necessary

[2]This theory is extensively presented in [Aertsen, 1996]. See also [Woleński, 1997]: 358–370 and [Woleński, 2004] (or [Woleński, 2011]: 43–50); the second paper is employed in the present essay.

condition of creation, but not sufficient. In order to complete the entire reasoning, one should assume that God had to create being. However, it is a very controversial theological issue. For instance, Catholicism accepts that God's creation was (I ignore the problem whether a temporal, or rather atemporal aspect of God's activities can be rendered by the past tense) an absolutely free act. However, there are other alternatives, for instance, that God was necessitated to create contingent being by His very essence or at least motivated to execute the best possibility (the best possible world).[3] If God's existence constitutes a necessary condition of being, then we obtain only the statement that good being could be impossible without God. Yet we have a model with God, but without being different from Him, for instance, instantiated by Spinoza's pantheism. The adding the premise that creation was necessary, solves the problem, because (2) logically follows from X + {God necessary created being different from Him}. Other alternatives introduce complications. In particular, if creation by God was absolutely free, it is unclear why God decided to create being. If one say that we should not ask such a question, our theology becomes not quite rational, but if we decide that God was necessitated or motivated, the question remains open and requires an additional explanation, for instance, by adding the premise that God's goodness as His inherent perfection contributed to the act of creation. Anyway, **TT** in its classical setting is not sufficient for justifying (2) by God's existence.

TT leads to other problems. Consider the status of evil (*malum*). Clearly, having the property of being wrong is something opposite to goodness (having the property of being good). Consequently, if *ens et bonum convertuntur*, then *malum* is negative (it is convertible with non-being). This means that *malum* does not exist as being not a being at all. Observe, however, that 'the opposite' can be conceived understood either as a negativum (to not white with respect to be white) or as a privativum (to be blind with respect to be have no vision; for instance, vegetable are neither blind nor non-blind). Due to the relative character of negativa and privative, one can say privativa consist in lacking of respective positive properties. Logically speaking, if P is a positivum and P' acts as its functions as its negativum, they are mutually contradictories, but, on the other hand, if both are related as positiva and privative, they are contraries. The standard way of relating *bonum* and *malum* in **TT** is captured by

[3]This problem is extensively discussed by B. Leftow in [Leftow, 2012].

(5) *Malum* is the privativum with respect to *bonum*.

This thesis presents the basic content of the theory of evil as a privativum (or the negative theory of *malum*): evil is the lack of goodness, although it is not only non-goodness. The negative (as privative) theory of evil assumes that we have an universe of items, for instance, the class of human actions, which can be qualified as good or wrong.

The statement (5) plays an important role in theology, because it serves to justify the view that God is no responsible for evil, because *malum* does not exist and, thereby, could not be created by Him. However, this defence of God's innocence with respect to *malum* seems to require that goodness and evil are understood metaphysically, not ethically.[4] Clearly, if (4) holds, *malum* must be identified (this word is used with some exaggeration here) with nothingness. In fact, the Schoolmen distinguished (the same concerns *malum*) methaphysical *bonum* (*ens* as contrasted with *non-ens*), physical *bonum* (for instance, having vision as contrasted with being blind with respect to creatures which can use eyes at all) and ethical *bonum* (for instance, to be just as contrasted to be unjust). There is no problem if the principle (4) is applied to metaphysical or physical *bonum* and *malum* (or saying more carefully, one can defend this thesis as ontologically sound). On the other hand, (4) is much less satisfactory when regulates the use *bonum* and *malum* as ethical properties. In fact, Thomas Aquinas, perhaps guided by some difficulties (see below), has offered also another approach to bonum and malum, which was based on the idea of proper (right) desire (*appetitus*). The main point is expressed by

(6) x is good if and only if it is an object of a proper desire.

This definition taken together with TT implies that *malum ethicum* is a lack of human desires consisting in aiming at what they should not do (I do not enter into the problem of what is the proper desire). However, the lack of a proper desire does not imply that no other desire is lacking as well.

Now we have the following question: are *malum* in the sense of (5) and *malum* in the sense (6) coextensive? The answer "no" seems correct, because if something is a *bonum metaphysicum*, it not automatically an

[4]Yet we obtain a strange consequence if the *creatio ex nihilo* is assumed. Since nothing (not-being) is a malum or even the *malum*, God has created *bonum* (= *ens*) from *malum*. Although God is omnipotent, this result seems ridiculous, particularly if *bonum* and *malum* are understood ethically.

object of honest desire. A more general explanation points out that *bonum ethicum* and *malum ethicum* behave as modal predicates or operators (in the broad sense, including alethic, deontic, axiological, expressing various propositional attitudes, etc. modalities).[5] Consequently, the forms 'Q is good' and 'Q is wrong' should be understand respectively as 'it is good that Q' and 'it is wrong that Q' (I consider the letter Q as standing for a proposition, for instance, 'it is good that people tell truth'; in the case of the predicative version, that is, 'Q is good (wrong)' the letter Q stands for a reified sentence, for instance 'telling truth'). If we consider modal instances for *bonum* and *malum*, we have the following mutually exclusive possibilities (I use predicative forms and disregard instantiations of the excluded middle, like 'everything is P or it not the case that everything is P'):

(7) Everything is good and reversely (strong moral optimism, see (5));
(8) Everything is wrong and reversely (strong moral pessimism);
(9) Everything is good or wrong (moral dualism);
(10) Everything is neither good not wrong (morally neutral) (non-cognitivism);
(11) Everything is good or neutral (weak moral optimism);
(12) Everything is wrong or neutral (weak moral pessimism);
(13) Everything is good, wrong or neutral.

The positions (7), (8), (9), (11) and (12) seem counterintuitive, although (9) has actually occurred in the history as Manicheism. The assertion (10) is coherent with all views, relatively frequent in moral philosophy, that axiological predicated are grounded in feeling, emotions, etc., that is, non-cognitive mental acts. (13) is presumably the most coherent with ordinary intuitions. Note that (13) is the only formula being a logical truth of extended modal logic (see Logical Appendix below for other logical principles of this kind).

A more detailed discussion of (7) – (13) would require a closer analysis of 'good' and 'wrong' as axiological predicates, particularly deciding whether they refer to genuine properties of beings or function as projections of subjective (for instance, emotional) mental states. Since I already noted (see above) that discussing of this issue exceeds this paper, I abstain from further remarks about the semantic status of 'good' and 'wrong'. Fortunately,

[5]This treatment is similar to Duns Scotus' theory of disjunctive transcendentalia. For Scotus, not all transcendental are co-extensional with *ens*.

we can easily see that (7) – (13) are consistent with the statement 'God exists'. God could create (a) only goodness; (b) only evil; (c) only goodness or evil neutral item; (d) only neutral items; (e) only good or neutral items; (f) only wrong or neutral items; (g) good items, wrong items or neutral items). If someone is a theist, he or she may add that God's existence is a necessary condition of which possibility from (7) to (13) obtains. On the other hand, God's existence does not constitute a sufficient condition. Although (7), (9), (11) and (13) state that something is good and different from God, that is, generate models in which (2) is true, His existence does not entail (2). In order to construct a valid inference ending with (2) as the conclusion, we must add some additional premises, for instance, asserting God's moral perfection, the necessity of creation, etc. Moreover, atheism (understood as denying God's existence) and agnosticism (understood as suspending the view whether God exists or not) are also perfectly consistent with the listed positions numbered as (7) – (13). This shows that **TT** does not solve the problem of logically following (2) from the assertion that God exists. In general, modal analysis supports only that being a *bonum*, a *malum* or an axiological neutrality implies being an *ens*. And this conclusion is too weak in order to solve anything in moral philosophy related to God's existence.

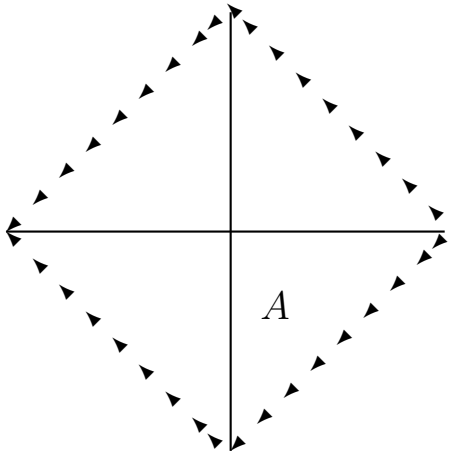
The last question to be discussed concerns the Hume thesis (**HT**) as applied to normative and evaluative statements.[6] Let the formula $\bullet Q$ represents a modal normative or evaluative sentence, where $\bullet$ is a normative (like 'it is obligatory, permitted, indifferent', etc.) or evaluative (like 'it is good, wrong, neutral', etc.) operator, and Q is a sentence without normative or evaluative ingredients (a purely descriptive sentence). **HT** says that Q does not logically entail $\bullet Q$. **HT** additionally supports that (2) is not entailed by the sentence 'God exists', because the former is evaluative in its part 'Something is good', but the latter is purely descriptive. Thus, in order to obtain (2) from God's existence, one needs add some evaluative premises, for instance, 'God is good' or 'God creates good beings', etc. Yet such supplements can be insufficient (see above) for obtaining the required conclusion, that is, the statement (2). The reason is constantly the same: the additions can constitute a necessary condition, but not sufficient one. **HT** also shows why the famous Dostoyevsky's reasoning (from *The Brothers* Karamazov) captured by the conditional 'if there is no God, everything is permitted' is incorrect. It is so, because its antecedent has a purely descriptive content, but its consequent is normative. In order to

[6]See [Woleński, 2006] or [Woleński, 2011]: 155–162.

ground Dostoyevsky's claim, one should assume that God is the highest normative authority and His orders must be obeyed. My general conclusion is there is no way to infer any evaluations or norms from God's existence as the only premise – the opposite view is committed to the naturalistic fallacy.

A Formal Appendix

The modal character of *bonum* and *malum* suggests the following logical diagram (D):



This diagram (it is a generalized logical square for modalities) displays several formal relations between sentences: α – it is good that Q, β – it is wrong that Q, γ – it is not wrong that Q, δ – it is not good that non-Q), ν – is it is good that Q or it is wrong that Q, μ – it is not good that Q and it is not wrong that Q (it is neither good nor wrong that Q; it is indifferent (neutral) that Q), κ – Q, λ – non-Q). Good and wrong are considered here as axiological modalities, which have analogical logic to deontic logic. In particular, we have the following dependencies (I neglect here reductions via interdefinability, for example 'it is wrong that Q' is equivalent to 'it is not good that non-Q'; $\vdash$ – the symbol of provability):

(14) $\vdash \neg(\alpha \wedge \beta)$;
(15) $\vdash \alpha \Rightarrow \gamma)$;
(16) $\vdash \beta \Rightarrow \delta)$;
(17) $\neg \vdash (\kappa \Rightarrow \alpha)$ (the Hume thesis for goodness);
(18) $\neg \vdash (\lambda \Rightarrow \beta)$ (the Hume thesis for evil);
(19) $\neg \vdash (\alpha \Rightarrow \kappa)$ (the converse of the Hume thesis for goodness);

(20) $\neg \vdash (\beta \Rightarrow \lambda)$ (the converse of the Hume thesis for evil);
(21) $\vdash (\alpha \Leftrightarrow \neg\delta)$;
(22) $\vdash (\beta \Leftrightarrow \neg\gamma)$;
(23) $\vdash (\nu \Leftrightarrow \neg\mu)$;
(24) $\vdash (\mu \Rightarrow \gamma)$;
(25) $\vdash (\mu \Rightarrow \delta)$;
(25) $\vdash (\alpha \vee \beta \vee \gamma)$.

The relations noted in (14) – (26) have their paraphrases in the statements:

(27) No objects is simultaneously good and wrong;
(28) If an object is good, it is not wrong;
(29) If an object is wrong, it is not good;
(30) It is not the case (on logical grounds), that if an object is, it is good;
(31) It is not the case (on logical grounds), that if an object is not, it is wrong;
(32) It is not the case (on logical grounds), that if an object is good, it is;
(33) It is not the case (on logical grounds), that if an object is wrong, it is not;
(34) An object is good if and only if it is not wrong;
(35) An object is wrong if and only if it is not good;
(36) An object is indifferent if and only is neither good nor wrong;
(37) If an object is indifferent, it is not good;
(38) If an object is indifferent, it is not wrong;
(39) Every object is good or wrong or indifferent.

Accepting (D), each of (14) – (24) presents a logical truth on ethical transcendentals. Note that **HT** is assumed as a logical principle.

Bibliography

[Aertsen, 1996] Aertsen J. (1996), *Medieval Philosophy and the Transcendentals. The Case of Thomas Aquinas*, Leiden: E. I. Brill.

[Bilková and Tomala, 2006] Bilková M. and Tomala O. (eds) (2006), *Logica Yearbook 2005*, Praha: Filosofia.

[Garcia, 2009] Garcia L. (2009), "Moral Perfection", in *The Oxford Handbook of Philosophical Theology*, edited by T. P. Flint and M. C. Rea, Oxford: Oxford University Press, 217–238.

[Leftow, 2012] Leftow B. (2012), *God and Necessity*, Oxford: Oxford University Press.

[Woleński, 1997] Woleński J. (1997), "Two Theories of Transcendentals", in *Axiomathes*: VIII, 367–380.

[Woleński, 2004] Woleński J. (2004), "Malum, Transcendentalia and Logic", in *Phenomenology and Analysis. Essays on Central European Philosophy*, edited by A. Chrudzimski and W. Huemer, Frankfurt am Main: Ontos Verlag, 358–370; reprinted in [Woleński, 2011]: 43–50.

[Woleński, 2006] Woleński J. (2006), "A Generalization of Hume's Thesis", in *Philosophia Scientiae*: 10, 111–115; reprinted (with additions) in [Bilková and Tomala, 2006]: 215–223.

[Woleński, 2011] Woleński J. (2011), *Essays on Logic and Its Applications in Philosophy*, Frankfurt am Main: Peter Lang.

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