

# Ontological Arguments

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Ontological arguments are arguments, for the conclusion that God exists, from premises which are supposed to derive from some source other than observation of the world—e.g., from reason alone. In other words, ontological arguments are arguments from nothing but analytic, *a priori* and necessary premises to the conclusion that God exists.

The first, and best-known, ontological argument was proposed by St. Anselm of Canterbury in the 11th. century C.E. In his *Proslogion*, St. Anselm claims to derive the existence of God from the concept of a *being than which no greater can be conceived*. St. Anselm reasoned that, if such a being fails to exist, then a greater being—namely, a *being than which no greater can be conceived, and which exists*—can be conceived. But this would be absurd: nothing can be greater than a being than which no greater can be conceived. So a being than which no greater can be conceived—i.e., God—exists.

In the seventeenth century, René Descartes defended a family of similar arguments. For instance, in the *Fifth Meditation*, Descartes claims to provide a proof demonstrating the existence of God from the idea of a supremely perfect being. Descartes argues that there is no less contradiction in conceiving a supremely perfect being who lacks existence than there is in conceiving a triangle whose interior angles do not sum to 180 degrees. Hence, he supposes, since we do conceive a supremely perfect being—we do have the idea of a supremely perfect being—we must conclude that a supremely perfect being exists.

In the early eighteenth century, Gottfried Leibniz attempted to fill what he took to be a shortcoming in Descartes' view. According to Leibniz, Descartes' arguments fail unless one first shows that the idea of a supremely perfect being is coherent, or that it is possible for there to be a supremely perfect being. Leibniz argued that, since perfections are unanalysable, it is impossible to demonstrate that perfections are incompatible—and he concluded from this that all perfections can co-exist together in a single entity.

In more recent times, Kurt Gödel, Charles Hartshorne, Norman Malcolm and Alvin Plantinga have all presented much-discussed ontological arguments which bear interesting connections to the earlier arguments of St. Anselm, Descartes and Leibniz. Of these, the most interesting are those of Gödel and Plantinga; in these cases, however, it is unclear whether we should really say that these authors claim that the arguments are *proofs* of the existence of God.

Critiques of ontological arguments begin with Gaunilo, a contemporary of St. Anselm. Perhaps the best known criticisms of ontological arguments are due to Immanuel Kant, in his *Critique of Pure Reason*. Most famously, Kant claims that ontological arguments are vitiated by their

reliance upon the implicit assumption that “existence” is a predicate. However, as Bertrand Russell observed, it is much easier to be persuaded that ontological arguments are no good than it is to say exactly what is wrong with them. This helps to explain why ontological arguments have fascinated philosophers for almost a thousand years.

In various ways, the account provided to this point is rough, and susceptible of improvement. Sections 1–5 in what follows provide some of the requisite embellishments, though—as is usually the case in philosophy—there are many issues taken up here which could be pursued at much greater length. Sections 6–8 take up some of the central questions at a slightly more sophisticated level of discussion. Section 9 is a quick overview of very recent work on ontological arguments:

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## 1. History of Ontological Arguments

1078: St. Anselm, *Proslogion*. Followed soon after by Gaunilo's critique *In Behalf of the Fool*.

1264: St. Thomas Aquinas, *Summa*. Criticises an argument which somehow descends from St. Anselm.

1637: Descartes, *Meditations*. The Objections—particularly those of Caterus and Gassendi—and the Replies contain much valuable discussion of the Cartesian arguments.

c1680: Spinoza, *Ethics*. Intimations of a defensible mereological ontological argument, albeit one whose conclusion is not (obviously) endowed with religious significance.

1709: Leibniz, *New Essays Concerning Human Understanding*. Contains Leibniz's attempt to complete the Cartesian argument by showing that the Cartesian conception of God is not inconsistent.

1776: Hume, *Dialogues Concerning Natural Religion*. Part IX is a general attack on *a priori* arguments (both analytic and synthetic). Includes a purported demonstration that no such arguments can be any good.

- 1787: Kant, *Critique of Pure Reason*. Contains famous attack on traditional theistic arguments. Three objections to “the ontological argument”, including the famous objection based on the dictum that existence is not a predicate.
- 1831: Hegel, *Lectures of 1831*. Hegel makes repeated assertions in these lectures that there is a successful ontological argument, though he nowhere says what the argument actually is. Some scholars have claimed that the entire Hegelian corpus constitutes an ontological argument. Since no one has ever said what the premises of this alleged argument are, there is good reason for scepticism about this scholarly claim.
- 1884: Frege, *Foundations of Arithmetic*. Existence is a second-order predicate. First-order existence claims are meaningless. So ontological arguments—whose conclusions are first-order existence claims—are doomed.
- 1941: Hartshorne, *Man's Vision of God*. Defence of modal ontological arguments, allegedly derived from *Proslogion* 3.
- 1960: Malcolm, “Anselm's Ontological Argument”. Defence of modal ontological arguments by a famous ordinary language philosopher.
- 1970: Lewis, “Anselm and Actuality”. The key critique of ontological arguments. All ontological arguments are either invalid or question-begging; moreover, in many cases, they have two closely related readings, one of which falls into each of the above categories.
- 1974: Plantinga, *The Nature of Necessity*. Plantinga's “victorious” modal ontological argument.
- 1995: Gödel, *Collected Works Volume III*. Gödel's ontological argument.
- 2004: Sobel, *Logic and Theism*. Detailed critique of ontological arguments. See, especially, chapters 2–4, pp. 29–167.

For a useful discussion of the history of ontological arguments in the modern period, see Harrelson 2009.

## 2. Taxonomy of Ontological Arguments

According to a modification of the taxonomy of Oppy 1995, there are eight major kinds of ontological arguments, viz:

1. definitional ontological arguments;
2. conceptual (or hyperintensional) ontological arguments;
3. modal ontological arguments;
4. Meinongian ontological arguments;
5. experiential ontological arguments;
6. mereological ontological arguments;
7. higher-order ontological arguments; and
8. ‘Hegelian’ ontological arguments;

Examples of all but the last follow. These are mostly toy examples. But they serve to highlight the deficiencies which more complex examples also share.

Note: I provide no example of a ‘Hegelian’ ontological argument because I know of no formulation of such an argument. Many people assert that Hegel provided an ontological argument; but, when pressed for a list of the premises of the argument, Hegel’s friends fail to deliver. Here, in my view, they follow Hegel’s own precedent: his lectures on ‘the ontological argument’ are full of assertions that there is a successful ontological argument, but he gives no argumentative support for those assertions, not any indication of what the premises of the target argument might be.

1. God is a being which has every perfection. (This is true as a matter of definition.) Existence is a perfection. Hence God exists.
2. I conceive of a being than which no greater can be conceived. If a being than which no greater can be conceived does not exist, then I can conceive of a being greater than a being than which no greater can be conceived—namely, a being than which no greater can be conceived that exists. I cannot conceive of a being greater than a being than which no greater can be conceived. Hence, a being than which no greater can be conceived exists.
3. It is possible that that God exists. God is not a contingent being, i.e., either it is not possible that God exists, or it is necessary that God exists. Hence, it is necessary that God exists. Hence, God exists. (See Malcolm 1960, Hartshorne 1965, and Plantinga 1974 for closely related arguments.)
4. [It is analytic, necessary and a priori that] Each instance of the schema “The  $F G$  is  $F$ ” expresses a truth. Hence the sentence “The existent perfect being is existent” expresses a truth. Hence, the existent perfect being is existent. Hence, God is existent, i.e. God exists. (The last step is justified by the observation that, as a matter of definition, if there is exactly one existent perfect being, then that being is God.)
5. The word ‘God’ has a meaning that is revealed in religious experience. The word ‘God’ has a meaning only if God exists. Hence, God exists. (See Rescher 1959 for a live version of this argument.)
6. I exist. Therefore something exists. Whenever a bunch of things exist, their mereological sum also exists. Therefore the sum of all things exists. Therefore God—the sum of all things—exists.
7. Say that a God-property is a property that is possessed by God in all and only those worlds in which God exists. Not all properties are God properties. Any property entailed by a collection of God-properties is itself a God-property. The God-properties include necessary existence, necessary omnipotence, necessary omniscience, and necessary perfect goodness. Hence, there is a necessarily existent, necessarily omnipotent, necessarily omniscient, and necessarily perfectly good being (namely, God).

Of course, this taxonomy is not exclusive: an argument can belong to several categories at once. Moreover, an argument can be ambiguous between a range of readings, each of which belongs to different categories. This latter fact may help to explain part of the curious fascination of ontological arguments. Finally, the taxonomy can be further specialised: there are, for example, at least four importantly different kinds of modal ontological arguments which should be distinguished. (See, e.g., Ross 1969 for a rather different kind of modal ontological argument.)

### **3. Characterisation of Ontological Arguments**

It is not easy to give a good characterisation of ontological arguments. The traditional characterisation involves the use of problematic notions—analyticity, necessity, and *a priori*—and also fails to apply to many arguments to which defenders have affixed the label “ontological”. (Consider, for example, the claim that I conceive of a being than which no greater can be conceived. This claim is clearly not analytic (its truth doesn't follow immediately from the meanings of the words used to express it), nor necessary (I might never have entertained the concept), nor *a priori* (except perhaps in my own case, though even this is unclear—perhaps even I don't know independently of experience that I have this concept.)) However, it is unclear how that traditional characterisation should be improved upon.

Perhaps one might resolve to use the label “ontological argument” for any argument which gets classified as “an ontological argument” by its proponent(s). This procedure would make good sense if one thought that there is a natural kind—ontological arguments—which our practice carves out, but for which is hard to specify defining conditions. Moreover, this procedure can be adapted as a *pro tem* stop gap: when there is a better definition to hand, that definition will be adopted instead. On the other hand, it seems worthwhile to attempt a more informative definition.

Focus on the case of ontological arguments for the conclusion that God exists. One characteristic feature of these arguments is the use which they make of “referential vocabulary”—names, definite descriptions, indefinite descriptions, quantified noun phrases, etc.—whose ontological commitments—for occurrences of this vocabulary in “referential position”—non-theists do not accept.

Theists and non-theists alike (can) agree that there is spatio-temporal, or causal, or nomic, or modal structure to the world (the basis for cosmological arguments); and that there are certain kinds of complexity of organisation, structure and function in the world (the basis for teleological arguments); and so on. But theists and non-theists are in dispute about whether there are perfect beings, or beings than which no greater can be conceived, or ... ; thus, theists and non-theists are in dispute about the *indirect* subject matter of the premises of ontological arguments.

Of course, the premises of ontological arguments often do not deal directly with perfect beings, beings than which no greater can be conceived, etc.; rather, they deal with descriptions of, or ideas of, or concepts of, or the possibility of the existence of, these things. However, the basic point remains: ontological arguments require the use of vocabulary which non-theists should certainly find problematic when it is used in ontologically committing contexts (i.e. not inside the scope of prophylactic operators—such as “according to the story” or “by the lights of theists” or “by the definition”—which can be taken to afford protection against unwanted commitments).

Note that this characterisation does not beg the question against the possibility of the construction of a successful ontological argument—i.e., it does not lead immediately to the conclusion that all ontological arguments are question-begging (in virtue of the ontologically committing vocabulary which they employ). For it may be that the vocabulary in question only gets used in premises under the protection of prophylactic operators (which ward off the unwanted commitments.) Of course, there will then be questions about whether the resulting

arguments can possibly be valid—how could the commitments turn up in the conclusion if they are not there in the premises?—but those are further questions, which would remain to be addressed.

## 4. Objections to Ontological Arguments

Objections to ontological arguments take many forms. Some objections are intended to apply only to particular ontological arguments, or particular forms of ontological arguments; other objections are intended to apply to all ontological arguments. It is a controversial question whether there are any successful general objections to ontological arguments.

One general criticism of ontological arguments which have appeared hitherto is this: none of them is *persuasive*, i.e., none of them provides those who do not already accept the conclusion that God exists—and who are reasonable, reflective, well-informed, etc.—with either a *pro tanto* reason or an all-things-considered reason to accept that conclusion. Any reading of any ontological argument which has been produced so far which is sufficiently clearly stated to admit of evaluation yields a result which is invalid, or possesses a set of premises which it is clear in advance that no reasonable, reflective, well-informed, etc. non-theists will accept, or has a benign conclusion which has no religious significance, or else falls prey to more than one of the above failings.

For each of the families of arguments introduced in the earlier taxonomy, we can give general reasons why arguments of that family fall under the general criticism. In what follows, we shall apply these general considerations to the exemplar arguments introduced in section 2.

(1) Definitional arguments: These are arguments in which ontologically committing vocabulary is introduced solely via a definition. An obvious problem is that claims involving that vocabulary cannot then be non-question-beggingly detached from the scope of that definition. (The inference from ‘By definition, God is an existent being’ to ‘God exists’ is patently invalid; while the inference to ‘By definition, God exists’ is valid, but uninteresting. In the example given earlier, the premises licence the claim that, as a matter of definition, God possesses the perfection of existence. But, as just noted, there is no valid inference from this claim to the further claim that God exists.)

(2) Conceptual arguments: These are arguments in which ontologically committing vocabulary is introduced solely within the scope of hyperintensional operators (e.g. ‘believes that’, ‘conceives of’, etc.). Often, these operators have two readings, one of which can cancel ontological commitment, and the other of which cannot. On the reading which can give cancellation (as in the most likely reading of ‘John believes in Santa Claus’), the inference to a conclusion in which the ontological commitment is not cancelled will be invalid. On the reading which cannot cancel ontological commitment (as in that reading of ‘John thinks about God’ which can only be true if there is a God to think about), the premises are question-begging: they incur ontological commitments which non-theists reject. In our sample argument, the claim, that I conceive of an existent being than which no greater being can be conceived, admits of the two kinds of readings just distinguished. On the one hand, on the reading which gives cancellation, the inference to the conclusion that there is a being than which no greater can be conceived is plainly invalid. On the

other hand, on the reading in which there is no cancellation, it is clear that this claim is one which no reasonable, etc. non-theist will accept: if you doubt that there is a being than which no greater can be conceived, then, of course, you doubt whether you can have thoughts *about* such a being.

(3) Modal arguments: These are arguments with premises which concern modal claims about God, i.e., claims about the possibility or necessity of God's attributes and existence. Suppose that we agree to think about possibility and necessity in terms of possible worlds: a claim is possibly true just in case it is true in at least one possible world; a claim is necessarily true just in case it is true in every possible world; and a claim is contingent just in case it is true in some possible worlds and false in others. Some theists hold that God is a necessarily existent being, i.e., that God exists in every possible world. Non-theists do not accept the claim that God exists in the actual world. Plainly enough, non-theists and necessitarian theists disagree about the layout of logical space, i.e., the space of possible worlds. The sample argument consists, in effect, of two premises: one which says that God exists in at least one possible world; and one which says that God exists in all possible worlds if God exists in any. It is perfectly obvious that no non-theist can accept this pair of premises. Of course, a non-theist can allow—if they wish—that there are possible worlds in which there are contingent Gods. However, it is quite clear that no rational, reflective, etc. non-theist will accept the pair of premises in the sample argument.

(4) Meinongian arguments: These are arguments which depend somehow or other on Meinongian theories of objects. Consider the schema 'The  $F$   $G$  is  $F$ '. Naive Meinongians will suppose that if  $F$  is instantiated with any property, then the result is true (and, quite likely, necessary, analytic and a priori). So, for example, the round square is round; the bald current King of France is bald; and so on. However, more sophisticated Meinongians will insist that there must be some restriction on the substitution instances for  $F$ , in order to allow one to draw the obvious and important ontological distinction between the following two groups: {Bill Clinton, the sun, the Eiffel Tower} and {Santa Claus, Mickey Mouse, the round square}. Choice of vocabulary here is controversial: Let us suppose (for the sake of example) that the right thing to say is that the former things exist and the latter do not. Under this supposition, 'existent' will not be a suitable substitution instance for  $F$ —obviously, since we all agree that there is no existent round square. Of course, nothing hangs on the choice of 'existent' as the crucial piece of vocabulary. The point is that non-theists are not prepared to include god(s) in the former group of objects—and hence will be unpersuaded by any argument which tries to use whatever vocabulary is used to discriminate between the two classes as the basis for an argument that god(s) belong to the former group. (Cognoscenti will recognise that the crucial point is that Meinongian ontological arguments fail to respect the distinction between nuclear (assumptible, characterising) properties and non-nuclear (non-assumptible, non-characterising) properties. It should, of course, be noted that neither Meinong, nor any of his well-known modern supporters—e.g. Terence Parsons, Richard Sylvan—ever endorses a Meinongian ontological argument; and it should also be noted that most motivate the distinction between nuclear and non-nuclear properties in part by a need to avoid Meinongian ontological arguments. The reason for calling these arguments "Meinongian" is that they rely on quantification over—or reference to—non-existent objects; there is no perjorative intent in the use of this label.)

(5) Experiential arguments: These are arguments which try to make use of ‘externalist’ or ‘object-involving’ accounts of content. It should not be surprising that they fail. After all, those accounts of content need to have something to say about expressions which fail to refer (‘Santa Claus’, ‘phlogiston’, etc.). But, however the account goes, non-theists will insist that expressions which purport to refer to god(s) should be given exactly the same kind of treatment.

(6) Mereological arguments: Those who dislike mereology will not be impressed by these arguments. However, even those who accept principles of unrestricted composition—i.e., who accept principles which claim, e.g., that, whenever there are some things, there is something which is the sum or fusion of all of those things—need not be perturbed by them: for it is plausible to think that the conclusions of these arguments have no religious significance whatsoever—they are merely arguments for, e.g., the existence of the physical universe.

(7) Higher-Order arguments: The key to these arguments is the observation that any collection of properties, that (a) does not include all properties and (b) is closed under entailment, is possibly jointly instantiated. If it is impossible that God exists — as all who deny that God exists suppose, on the further assumption that, were God to exist, God would exist of necessity — then it cannot be true both that the God-properties are closed under entailment and that there are properties that are not God-properties. Those who take themselves to have good independent reason to deny that there are any gods will take themselves to have good independent reason to deny that there are God-properties that form a non-trivial collection that is closed under entailment.

Even if the forgoing analyses are correct, it is important to note that no argument has been given for the conclusion that no ontological argument *can* be successful. Even if all of the kinds of arguments produced to date are pretty clearly unsuccessful—i.e., not such as ought to give non-theists reason to accept the conclusion that God exists—it remains an open question whether there is some other kind of hitherto undiscovered ontological argument which does succeed. (Perhaps it is worth adding here that there is fairly widespread consensus, even amongst theists, that no known ontological arguments for the existence of God are persuasive. Most categories of ontological argument have some actual defenders; but none has a large following.)

Many other objections to (some) ontological arguments have been proposed. All of the following have been alleged to be the key to the explanation of the failure of (at least some) ontological arguments: (1) existence is not a predicate (see, e.g., Kant, Smart 1955, Alston 1960); (2) the concept of god is meaningless/incoherent/ inconsistent (see, e.g., Findlay 1949); (3) ontological arguments are ruled out by “the missing explanation argument” (see Johnston 1992); (4) ontological arguments all trade on mistaken uses of singular terms (see, e.g., Barnes 1972); (5) existence is not a perfection (see almost any textbook in philosophy of religion); (6) ontological arguments presuppose a Meinongian approach to ontology (see, e.g., Dummett 1993); and (7) ontological arguments are question-begging, i.e., presuppose what they set out to prove (see, e.g., Rowe 1989). There are many things to say about these objections: the most important point is that almost all of them require far more controversial assumptions than non-theists require in order to be able to reject ontological arguments with good conscience. Trying to support most of these claims merely in order to beat up on ontological arguments is like using a steamroller to crack a nut (in circumstances in which one is unsure that one can get the steamroller to move!).



Of course, all of the above discussion is directed merely to the claim that ontological arguments are not dialectically efficacious—i.e., they give reasonable non-theists no reason to change their views. It might be wondered whether there is some other use which ontological arguments have—e.g., as Plantinga claims, in establishing the reasonableness of theism. This seems unlikely. After all, at best these arguments show that certain sets of sentences (beliefs, etc.) are incompatible—one cannot reject the conclusions of these arguments while accepting their premises. But the arguments themselves say nothing about the reasonableness of accepting the premisses. So the arguments themselves say nothing about the (unconditional) reasonableness of accepting the conclusions of these arguments. Those who are disposed to think that theism is irrational need find nothing in ontological arguments to make them change their minds (and those who are disposed to think that theism is true should take no comfort from them either).

## 5. Parodies of Ontological Arguments

Positive ontological arguments—i.e., arguments FOR the existence of god(s)—invariably admit of various kinds of parodies, i.e., parallel arguments which seem at least equally acceptable to non-theists, but which establish absurd or contradictory conclusions. For many positive ontological arguments, there are parodies which purport to establish the non-existence of god(s); and for many positive ontological arguments there are lots (usually a large infinity!) of similar arguments which purport to establish the existence of lots (usually a large infinity) of distinct god-like beings. Here are some modest examples:

(1) By definition, God is a non-existent being who has every (other) perfection. Hence God does not exist.

(2) I conceive of a being than which no greater can be conceived except that it only ever creates  $n$  universes. If such a being does not exist, then we can conceive of a greater being—namely, one exactly like it which does exist. But I cannot conceive of a being which is greater in this way. Hence, a being than which no greater can be conceived except that it only ever creates  $n$  universes exists.

(3) It is possible that God does not exist. God is not a contingent being, i.e., either it is not possible that God exists, or it is necessary that God exists. Hence it is not possible that God exists. Hence God does not exist.

(4) It is analytic, necessary, and a priori that the  $F G$  is  $F$ . Hence, the existent perfect being who creates exactly  $n$  universes is existent. Hence the perfect being who creates exactly  $n$  universes exists.

There are many kinds of parodies on Ontological Arguments. The aim is to construct arguments which non-theists can reasonably claim to have no more reason to accept than the original Ontological Arguments themselves. Of course, theists may well be able to hold that the originals are sound, and the parodies not—but that is an entirely unrelated issue. (All theists—and no non-theists—should grant that the following argument is sound, given that the connectives are to be interpreted classically: “Either  $2+2=5$ , or God exists. Not  $2+2=5$ . Hence God exists.” It should be completely obvious that this argument is useless.)

There are some very nice parodic discussions of Ontological Arguments in the literature. A particularly pretty one is due to Raymond Smullyan (1984), in which the argument is attributed to “the unknown Dutch theologian van Dollard”. A relatively recent addition to the genre is described in Grey 2000, though the date of its construction is uncertain. It is the work of Douglas Gasking, one-time Professor of Philosophy at the University of Melbourne (with emendations by William Grey and Denis Robinson):

1. The creation of the world is the most marvellous achievement imaginable.
2. The merit of an achievement is the product of (a) its intrinsic quality, and (b) the ability of its creator.
3. The greater the disability or handicap of the creator, the more impressive the achievement.
4. The most formidable handicap for a creator would be non-existence.
5. Therefore, if we suppose that the universe is the product of an existent creator, we can conceive a greater being—namely, one who created everything while not existing.
6. An existing God, therefore, would not be a being than which a greater cannot be conceived, because an even more formidable and incredible creator would be a God which did not exist.
7. (Hence) God does not exist.

This parody—at least in its current state—seems to me to be inferior to other parodies in the literature, including the early parodies of Gaunilo and Caterus. To mention but one difficulty, while we *might* suppose that it would be a greater achievement to create something if one did not exist than if one did exist, it doesn't follow from this that a non-existent creator is greater (*qua* being) than an existent creator. Perhaps it might be replied that this objection fails to take the first premise into account: if the creation of the world really is “the most marvellous achievement imaginable”, then surely there is some plausibility to the claim that the creator must have been non-existent (since that would make the achievement more marvellous than it would otherwise have been). But what reason is there to believe that the creation of the world is “the most marvellous achievement imaginable”, in the sense which is required for this argument? Surely it is quite easy to imagine even more marvellous achievements—e.g., the creation of many worlds at least as good as this one! (Of course, one might also want to say that, in fact, one cannot conceive of a non-existent being's actually creating something: that is literally inconceivable. Etc.)

## 6. Gödel's Ontological Argument

There is a small, but steadily growing, literature on the ontological arguments which Gödel developed in his notebooks, but which did not appear in print until well after his death. These arguments have been discussed, annotated and amended by various leading logicians: the upshot is a family of arguments with impeccable *logical* credentials. (Interested readers are referred to Sobel 1987, Anderson 1990, Adams 1995b, and Hazen 1999 for the history of these arguments, and for the scholarly annotations and emendations.) Here, I shall give a brief presentation of the version of the argument which is developed by Anderson, and then make some comments on *that* version. This discussion follows the presentation and discussion in Oppy 1996, 2000.

Definition 1:  $x$  is God-like if and only if  $x$  has as essential properties those and only those properties which are positive

Definition 2:  $A$  is an essence of  $x$  if and only if for every property  $B$ ,  $x$  has  $B$  necessarily if and only if  $A$  entails  $B$

Definition 3:  $x$  necessarily exists if and only if every essence of  $x$  is necessarily exemplified

Axiom 1: If a property is positive, then its negation is not positive.

Axiom 2: Any property entailed by—i.e., strictly implied by—a positive property is positive

Axiom 3: The property of being God-like is positive

Axiom 4: If a property is positive, then it is necessarily positive

Axiom 5: Necessary existence is positive

Axiom 6: For any property  $P$ , if  $P$  is positive, then being necessarily  $P$  is positive.

Theorem 1: If a property is positive, then it is consistent, i.e., possibly exemplified.

Corollary 1: The property of being God-like is consistent.

Theorem 2: If something is God-like, then the property of being God-like is an essence of that thing.

Theorem 3: Necessarily, the property of being God-like is exemplified.

Given a sufficiently generous conception of properties, and granted the acceptability of the underlying modal logic, the listed theorems do follow from the axioms. (This point was argued in detail by Dana Scott, in lecture notes which circulated for many years and which were transcribed in Sobel 1987 and published in Sobel 2004. It is also made by Sobel, Anderson, and Adams.) So, criticisms of the argument are bound to focus on the axioms, or on the other assumptions which are required in order to construct the proof.

Some philosophers have denied the acceptability of the underlying modal logic. And some philosophers have rejected generous conceptions of properties in favour of sparse conceptions according to which only some predicates express properties. But suppose that we adopt neither of these avenues of potential criticism of the proof. What else might we say against it?

One important point to note is that no *definition* of the notion of “positive property” is supplied with the proof. At most, the various axioms which involve this concept can be taken to provide a *partial* implicit definition. If we suppose that the “positive properties” form a set, then the axioms provide us with the following information about this set:

1. If a property belongs to the set, then its negation does not belong to the set.
2. The set is closed under entailment.
3. The property of having as essential properties just those properties which are in the set is itself a member of the set.
4. The set has exactly the same members in all possible worlds.
5. The property of necessary existence is in the set.
6. If a property is in the set, then the property of having that property necessarily is also in the set.

On Gödel's theoretical assumptions, we can show that *any* set which conforms to (1)–(6) is such that the property of having as essential properties just those properties which are in *that* set is exemplified. Gödel wants us to conclude that there is just one intuitive, theologically interesting set of properties which is such that the property of having as essential properties just the properties in that set is exemplified. But, on the one hand, what reason do we have to think that there is *any* theologically interesting set of properties which conforms to the Gödelian specification? And, on the other hand, what reason do we have to deny that, if there is one set of theologically interesting set of properties which conforms to the Gödelian specification, then there are many theologically threatening sets of properties which also conform to that specification?

In particular, there is some reason to think that the Gödelian ontological argument goes through just as well—or just as badly—with respect to other sets of properties (and in ways which are damaging to the original argument). Suppose that there is some set of independent properties  $\{I, G_1, G_2, \dots\}$  which can be used to generate the set of positive properties by closure under entailment and “necessitation”. (“Independence” means: no one of the properties in the set is entailed by all the rest. “Necessitation” means: if  $P$  is in the set, then so is necessarily having  $P$ .  $I$  is the property of having as essential properties just those properties which are in the set.  $G_1, G_2, \dots$  are further properties, of which we require at least two.) Consider any proper subset of the set  $\{G_1, G_2, \dots\}$ — $\{H_1, H_2, \dots\}$ , say—and define a new generating set  $\{I^*, H_1, H_2, \dots\}$ , where  $I^*$  is the property of having as essential properties just those properties which are in the newly generated set. A “proof” parallel to that offered by Gödel “establishes” that there is a being which has as essential properties just those properties in this new set. If there are as few as 7 independent properties in the original generating set, then we shall be able to establish the existence of 720 distinct “God-like” creatures by the kind of argument which Gödel offers. (The creatures are distinct because each has a different set of essential properties.)

Even if the above considerations are sufficient to cast doubt on the credentials of Gödel's “proof”, they do not pinpoint where the “proof” goes wrong. If we accept that the role of Axioms 1, 2, 4, and 6 is really just to constrain the notion of “positive property” in the right way—or, in other words, if we suppose that Axioms 1, 2, 4, and 6 are “analytic truths” about “positive properties”—then there is good reason for opponents of the “proof” to be sceptical about Axioms 3 and 5. Kant would not have been happy with Axiom 5; and there is at least some reason to think that whether the property of being God-like is “positive” ought to depend upon whether or not there is a God-like being.

## 7. A Victorious Ontological Argument?

The “victorious” modal ontological argument of Plantinga 1974 goes roughly as follows: Say that an entity possesses “maximal excellence” if and only if it is omnipotent, omniscient, and morally perfect. Say, further, that an entity possesses “maximal greatness” if and only if it possesses maximal excellence in every possible world—that is, if and only if it is necessarily existent and necessarily maximally excellent. Then consider the following argument:

1. There is a possible world in which there is an entity which possesses maximal greatness.
2. (Hence) There is an entity which possesses maximal greatness.

Under suitable assumptions about the nature of accessibility relations between possible worlds, this argument is valid: from it is possible that it is necessary that  $p$ , one can infer that it is necessary that  $p$ . Setting aside the possibility that one might challenge this widely accepted modal principle, it seems that opponents of the argument are bound to challenge the acceptability of the premise.

And, of course, they do. Let's just run the argument in reverse.

1. There is no entity which possesses maximal greatness.
2. (Hence) There is no possible world in which there is an entity which possesses maximal greatness.

Plainly enough, if you do not already accept the claim that there is an entity which possesses maximal greatness, then you won't agree that the first of these arguments is more acceptable than the second. So, as a proof of the existence of a being which possesses maximal greatness, Plantinga's argument seems to be a non-starter.

Perhaps somewhat surprisingly, Plantinga himself agrees: the “victorious” modal ontological argument is not a proof of the existence of a being which possesses maximal greatness. But how, then, is it “victorious”? Plantinga writes: “Our verdict on these reformulated versions of St. Anselm's argument must be as follows. They cannot, perhaps, be said to *prove* or *establish* their conclusion. But since it is rational to accept their central premise, they do show that it is rational to accept that conclusion” (Plantinga 1974, 221).

It is pretty clear that Plantinga's argument does not show what he claims that it shows. Consider, again, the argument: “Either God exists, or  $2+2=5$ . It is not the case that  $2+2=5$ . So God exists.” It is just a mistake for a theist to say: “Since the premise is *true* (and the argument is valid), this argument *shows* that the conclusion of the argument is *true*”. No-one thinks that that argument *shows* any such thing. Similarly, it is just a mistake for a theist to say: “Since it is *rational* to accept the premise (and the argument is valid), this argument *shows* that it is *rational* to accept the conclusion of the argument”. Again, no one thinks that that argument *shows* any such thing. But why don't these arguments *show* the things in question? There is room for argument about this. But it is at least plausible to claim that, in each case, any even minimally rational person who has doubts about the claimed status of the conclusion of the argument will have exactly the same doubts about the claimed status of the premise. If, for example, I doubt that it is rational to accept the claim that God exists, then you can be quite sure that I will doubt that it is rational to accept the claim that either  $2+2=5$  or God exists. But, of course, the very same point can be made

about Plantinga's argument: anyone with even minimal rationality who understands the premise and the conclusion of the argument, and who has doubts about the claim that there is an entity which possesses maximal greatness, will have exactly the same doubts about the claim that there is a possible world in which there is an entity which possesses maximal greatness.

For further discussion of Plantinga's argument, see—for example—Adams 1988, Chandler 1993, Oppy 1995 (70–78, 248–259), Tooley 1981, and van Inwagen 1977).

## 8. St. Anselm's Ontological Argument

There is an enormous literature on the material in *Proslogion II-III*. Some commentators deny that St. Anselm tried to put forward any proofs of the existence of God. Even among commentators who agree that St. Anselm intended to prove the existence of God, there is disagreement about where the proof is located. Some commentators claim that the main proof is in *Proslogion II*, and that the rest of the work draws out corollaries of that proof (see, e.g., Charlesworth 1965). Other commentators claim that the main proof is in *Prologion III*, and that the proof in *Proslogion II* is merely an inferior first attempt (see, e.g., Malcolm 1960). Yet other commentators claim that there is a single proof which spans at least *Proslogion II-III*—see, e.g., Campbell 1976 and, perhaps, the entire work—see, e.g., La Croix 1972. I shall ignore this aspect of the controversy about the *Proslogion*. Instead, I shall just focus on the question of the analysis of the material in *Proslogion II* on the assumption that there is an independent argument for the existence of God which is given therein.

Here is one translation of the crucial part of *Proslogion II* (due to William Mann (1972, 260–1); alternative translations can be found in Barnes 1972, Campbell 1976, Charlesworth 1965, and elsewhere):

Thus even the fool is convinced that something than which nothing greater can be conceived is in the understanding, since when he hears this, he understands it; and whatever is understood is in the understanding. And certainly that than which a greater cannot be conceived cannot be in the understanding alone. For if it is even in the understanding alone, it can be conceived to exist in reality also, which is greater. Thus if that than which a greater cannot be conceived is in the understanding alone, then that than which a greater cannot be conceived is itself that than which a greater can be conceived. But surely this cannot be. Thus without doubt something than which a greater cannot be conceived exists, both in the understanding and in reality.

There have been many ingenious attempts to find an argument which can be expressed in modern logical formalism, which is logically valid, and which might plausibly be claimed to be *the* argument which is expressed in this passage. To take a few prime examples, Adams 1971, Barnes 1972 and Oppenheimer and Zalta 1991 have all produced formally valid analyses of the argument in this passage. We begin with a brief presentation of each of these analyses, preceded by a presentation of the formulation of the argument given by Plantinga 1967, and including a presentation of some of the formulations of Lewis 1970. (Chambers 2000 works with the analysis of Adams 1971.)

### 8.1 Formulation 1

1. God exists in the understanding but not in reality. (Assumption for *reductio*)
2. Existence in reality is greater than existence in the understanding alone. (Premise)
3. A being having all of God's properties plus existence in reality can be conceived. (Premise)
4. A being having all of God's properties plus existence in reality is greater than God. (From (1) and (2).)
5. A being greater than God can be conceived. (From (3) and (4).)
6. It is false that a being greater than God can be conceived. (From definition of "God".)
7. Hence, it is false that God exists in the understanding but not in reality. (From (1), (5), (6).)
8. God exists in the understanding. (Premise, to which even the Fool agrees.)
9. Hence God exists in reality. (From (7), (8).)

See Plantinga 1967.

## 8.2 Formulation 2

1. The Fool understands the expression "the being than which no greater can be conceived". (Premise)
2. If a person understands an expression "*b*", then *b* is in that person's understanding. (Premise)
3. If a thing is in a person's understanding, then the person can conceive of that thing's existing in reality. (Premise)
4. Each thing which exists in reality is greater than any thing which exists only in the understanding. (Premise)
5. If a person can conceive of something, and that thing entails something else, then the person can also conceive of that other thing. (Premise)
6. If a person can conceive that a specified object has a given property, then that person can conceive that something or other has that property. (Premise)
7. Hence the being than which no greater can be conceived exists in reality. (From (1)-(6), by a complex series of steps here omitted.)

See Barnes 1972.

## 8.3 Formulation 3

1. There is a thing *x*, and a magnitude *m*, such that *x* exists in the understanding, *m* is the magnitude of *x*, and it is not possible that there is a thing *y* and a magnitude *n* such that *n* is the magnitude of *y* and  $n > m$ . (Premise)
2. For any thing *x* and magnitude *m*, if *x* exists in the understanding, *m* is the magnitude of *x*, and it is not possible that there is a thing *y* and magnitude *n* such that *n* is the magnitude of *y* and  $n > m$ , then it is possible that *x* exists in reality. (Premise)
3. For any thing *x* and magnitude *m*, if *m* is the magnitude of *x*, and it is not possible that there is a thing *y* and a magnitude *n* such that *n* is the magnitude of *y* and  $n > m$ , and *x* does not exist in reality, then it is not possible that if *x* exists in reality then there is a magnitude *n* such that *n* is greater than *m* and *n* is the magnitude of *x*. (Premise)

4. (Hence) There is a thing  $x$  and a magnitude  $m$  such that  $x$  exist in the understanding, and  $x$  exists in reality, and  $m$  is the magnitude of  $x$ , and it it not possible that there is a thing  $y$  and a magnitude  $n$  such that  $n$  is the magnitude of  $y$  and  $n > m$ . (From 1, 2, 3)

See Adams 1971.

#### 8.4 Formulation 4

1. For any understandable being  $x$ , there is a world  $w$  such that  $x$  exists in  $w$ . (Premise)
2. For any understandable being  $x$ , and for any worlds  $w$  and  $v$ , if  $x$  exists in  $w$ , but  $x$  does not exist in  $v$ , then the greatness of  $x$  in  $w$  exceeds the greatness of  $x$  in  $v$ . (Premise)
3. There is an understandable being  $x$  such that for no world  $w$  and being  $y$  does the greatness of  $y$  in  $w$  exceed the greatness of  $x$  in the actual world. (Premise)
4. (Hence) There is a being  $x$  existing in the actual world such that for no world  $w$  and being  $y$  does the greatness of  $y$  in  $w$  exceed the greatness of  $x$  in the actual world. (From (1)-(3).)

See Lewis 1970.

Lewis also suggests an alternative to (3) which yields a valid argument:

(3') There is an understandable being  $x$  such that for no worlds  $v$  and  $w$  and being  $y$  does the greatness of  $y$  in  $w$  exceed the greatness of  $x$  in  $v$ .

and two alternatives to (3)—not presented here—which yield invalid arguments. (Of course, there further two alternatives are crucial to Lewis' overall analysis of the passage: essentially, Lewis suggests that Anselm equivocates between an invalid argument with plausible premises and a valid argument with question-begging premises. In this respect, Lewis' analysis is quite different from the other analyses currently under discussion.)

#### 8.5 Formulation 5

1. There is (in the understanding) something than which there is no greater. (Premise)
2. (Hence) There is (in the understanding) a unique thing than which there is no greater. (From (1), assuming that the “greater-than” relation is connected.)
3. (Hence) There is (in the understanding) something which is the thing than which there is no greater. (From (2), by a theorem about descriptions.)
4. (Hence) There is (in the understanding) nothing which is greater than the thing than which there is no greater. (From (3), by another theorem about descriptions.)
5. If that thing than which there is no greater does not exist (in reality), then there is (in the understanding) something which is greater than that thing than which there is no greater. (Premise)
6. (Hence) That thing than which there is no greater exists (in reality). (From (4) and (5).)
7. (Hence) God exists. (From (6).)

See Oppenheimer and Zalta 1991.



Oppenheimer and Zalta 2011 provides a “simplified” version of this argument, in which the number of controversial assumptions is reduced. Since they also provide a clear reason for thinking that this new version of the argument is not persuasive, I shall not consider it further here.

## 8.6 Critical Appraisal

Considered as interpretations of the argument presented in the *Proslogion*, these formulations are subject to various kinds of criticisms.

*First*, the modal interpretations of Lewis 1970 and Adams 1971 don't square very well with the rest of the *Proslogion*: the claim that “being than which no greater can be conceived” should be read as “being than which no greater is possible” would have us render the claim of *Proslogion* 15 to be that God is a being greater than any which is possible. And that is surely a bad result.

*Second*, the Meinongian interpretations of Barnes 1972, Adams 1971 and Oppenheimer and Zalta 1991 produce arguments which, given the principles involved, could easily be much simplified, and which are *obviously* vulnerable to Gaunilo-type objections.

Consider, for example, the case of Oppenheimer and Zalta. They have Anselm committed to the claim that if anyone can understand the phrase “that than which *F*”, then there is something in the understanding such that *F* (see their footnote 25); and they also have him committed to the claim that if there is something which is the *F*-thing, then it—i.e., the *F*-thing—has the property *F* (see page 7). Plainly though, if Anselm is really committed to these principles, then he could hardly fail to be committed to the more general principles: (1) if anyone can understand the phrase “an *F*”, then there is at least one *F*-thing in the understanding; and (2) if there are some things which are the *F*-things, then they—i.e., the *F*-things—must have the property *F*. (It would surely be absurd to claim that Anselm is only committed to the less general principles: what could possibly have justified the restrictions to the special cases?)

But, then, mark the consequences. We all understand the expression “an existent perfect being”. So, by the first claim, there is at least one existent perfect being in the understanding. And, by the second claim, any existent perfect being is existent. So, from these two claims combined, there is—in reality—at least one existent perfect being.

This argument gives Anselm everything that he wants, and very much more briefly. (The *Proslogion* goes on and on, trying to establish the properties of that than which no greater can be conceived. How much easier if we can just explicitly build all of the properties which want to “derive” into the initial description.) So, if Anselm really were committed to the principles which Oppenheimer and Zalta appear to attribute to him, it is hard to understand why he didn't give the simpler argument. And, of course, it is also hard to understand why he didn't take Gaunilo's criticism. After all, when it is set out in this way, it is obvious that the argument proves far too much.

*Third*, some of the arguments have Anselm committed to claims about greatness which do not seem to correspond with what he actually says. The natural reading of the text is that, if two

beings are identical save that one exists only in the understanding and the other exists in reality as well, then the latter is greater than the former. But Barnes 1971, for example, has Anselm committed to the much stronger claim that any existing thing is greater than every non-existent thing.

Given these kinds of considerations, it is natural to wonder whether there are *better* interpretations of *Proslogion II* according to which the argument in question turns out *NOT* to be logically valid. Here is a modest attempt to provide such an analysis:

We start with the claim that the Fool understands the expression “being than which no greater can be conceived”, i.e., even the Fool can entertain the idea or possess the concept of a being than which no greater can be conceived. Now, entertaining this idea or possessing this concept requires the entertainer or possessor to recognise certain relationships which hold between given properties and the idea or concept in question. For example, given that you possess the concept of, or entertain the idea of, a smallest really existing Martian, it follows that you must recognise some kind of connection between the properties of being a Martian, really existing, and being smaller than other really existing Martians, and the concept or idea in question.

Following Anselm, we might say that, since you understand the expression “smallest really existing Martian”, there is, in your understanding, at least one smallest really existing Martian. (Or, apparently following Descartes, one might say that real existence is “part of”—or “contained in”—the idea of a smallest really existing Martian.) However, in saying this, it must be understood that we are not actually predicating properties of anything: we aren't supposing that there is something which possesses the properties of being a Martian, really existing, and being no larger than any other Martian. (After all, we can safely suppose, we don't think that any Martians really exist.) In other words, we must be able to have the concept of, or entertain the idea of, a smallest really existing Martian without believing that there really are any smallest Martians. Indeed, more strongly, we must be able to entertain the concept of a smallest really existing Martian—and to recognise that the property of “really existing” is part of this concept—while nonetheless maintaining that there are no smallest existent Martians.

It will be useful to introduce vocabulary to mark the point which is being made here. We could, for instance, distinguish between the properties which are *encoded* in an idea or concept, and the properties which are *attributed* in positive atomic beliefs which have that idea or concept as an ingredient. The idea “really existing Santa Claus” encodes the property of real existence; but it is perfectly possible to entertain this idea without attributing real existence to Santa Claus, i.e., without believing that Santa Claus really exists.

We can then apply this distinction to Anselm's argument. On the one hand, the idea “being than which no greater can be conceived” encodes the property of real existence—this is what the *reductio* argument establishes (if it establishes anything at all). On the other hand, it is perfectly possible to entertain the idea of a being than which no greater can be conceived—and to recognise that this idea encodes the property of real existence—without attributing real existence to a being than which no greater can be conceived, i.e., without believing that a being than which no greater can be conceived really exists.

Of course, the argument which Anselm actually presents pays no attention to this distinction between encoding and attributing—i.e., between entertaining an idea and holding a belief—and nor does it pay attention to various other niceties. We begin from the point that the Fool entertains the idea of that than which no greater can be conceived (because the Fool understands the words “that than which no greater can be conceived”). From this, we move quickly to the claim that even the Fool is “convinced”—i.e., believes—that that than which no greater can be conceived possesses the property of existing in the understanding. And then the *reductio* argument is produced to establish that that than which no greater can be conceived cannot exist only in the understanding but must also possess the property of existing in reality as well (and all mention of the Fool, and what it is that the Fool believes, disappears).

As it stands, this is deeply problematic. How are we supposed to regiment the references to the Fool in the argument? Is the *reductio* argument supposed to tell us something about what even the Fool believes, or ought to believe? Are the earlier references to the Fool supposed to be inessential and eliminable? How are we so much as to understand the claim that even the Fool believes that that than which no greater can be conceived exists in the understanding? And how do we get from the Fool's *understanding* the words “that than which no greater can be conceived” to his *believing* that that than which no greater can be conceived possesses the property of existing in the understanding?

Following the earlier line of thought, it *seems* that the argument might go something like this:

1. (Even) the Fool has the concept of that than which no greater can be conceived.
2. (Hence) (Even) the Fool believes that that than which no greater can be conceived exists in the understanding.
3. No one who believes that that than which no greater can be conceived exists in the understanding can reasonably believe that that than which no greater can be conceived exists only in the understanding.
4. (Hence) (Even) the Fool cannot reasonably deny that that than which no greater can be conceived exists in reality
5. (Hence) That than which no greater can be conceived exists in reality.

While this argument does not look very compelling, it is plausible to claim that it would have seemed compelling to someone who failed to attend to the distinction which we have drawn between entertaining ideas and holding beliefs, and who was also a bit hazy on the distinction between the vehicles of belief and their contents. When the Fool entertains the concept of that than which no greater can be conceived he recognises that he is entertaining this concept (i.e., he believes that he is entertaining the concept of that than which no greater can be conceived—or, as we might say, that the concept is in his understanding). Conflating the concept with its object, this gives us the belief that that than which no greater can be conceived possesses the property of existing in the understanding. Now, suppose as hypothesis for *reductio*, that we can reasonably believe that that than which no greater can be conceived possesses the property of existing only in the understanding. Ignoring the distinction between entertaining ideas and holding beliefs, this means that we when we entertain the idea of that than which no greater can be conceived, we entertain the idea of a being which exists only in the understanding. But that is absurd: when we entertain the idea of that than which no greater can be conceived, our idea encodes the property

of existing in reality. So there is a contradiction, and we can conclude that, in order to be reasonable, we must believe that that than which no greater can be conceived exists in reality. But if any reasonable person must believe that that than which no greater can be conceived exists in reality, then surely it is the case that that than which no greater can be conceived exists in reality. And so we are done.

No doubt this suggestion about the interpretation of Anselm's argument is deficient in various ways. However, the point of including it is illustrative rather than dogmatic. In the literature, there has been great resistance to the idea that the argument which Anselm gives is one which modern logicians would not hesitate to pronounce invalid. But it is very hard to see why there should be this resistance. (Certainly, it is not something for which there is much argument in the literature.) The text of the *Proslogion* is so rough, and so much in need of polishing, that we should not be too quick to dismiss the suggestion that Anselm's argument is rather more like the argument most recently sketched than it is like the logically valid demonstrations provided by commentators such as Barnes, Adams, and Oppenheimer and Zalta.

## 9. Ontological Arguments in the 21st Century

Many recent discussions of ontological arguments are in compendiums, companions, encyclopedias, and the like. So, for example, there are review discussions of ontological arguments in: Leftow 2005, Matthews 2005, Lowe 2007, Oppy 2007, and Maydole 2009. While the ambitions of these review discussions vary, many of them are designed to introduce neophytes to the arguments and their history. Given the current explosion of enthusiasm for compendiums, companions, encyclopedias, and the like, in philosophy of religion, it is likely that many more such discussions will appear in the immediate future.

Some recent discussions of ontological arguments have been placed in more synoptic treatments of arguments about the existence of God. So, for example, there are extended discussions of ontological arguments in Everitt 2004, Sobel 2004, and Oppy 2006. In my view, all serious students of ontological arguments should make a careful examination of Sobel's treatment of these arguments. Sobel provides one chapter on 'classical ontological arguments': Anselm, Descartes, Spinoza, and Kant's critique of ontological arguments; one chapter on 'modern modal ontological arguments': Hartshorne, Malcolm and Plantinga; and one chapter on Gödel's ontological argument. Sobel's analyses are very careful, and make heavy use of the tools of modern philosophical logic.

There has been one recent book devoted exclusively to the analysis of ontological arguments: Dombrowski 2006. Dombrowski is a fan of Hartshorne: the aim of his book is to defend the claim that Hartshorne's ontological argument is a success. While Dombrowski's book is a useful addition to the literature because of the scope of its discussion of ontological arguments—for example, it contains a chapter on Rorty on ontological arguments, and another chapter on John Taylor on ontological arguments—I think that the case that it makes for Hartshorne's argument is pretty unpersuasive. This opinion has been widely shared by reviewers of the book, even those who have some sympathy for process theism.

Finally, there has been some activity in journals. The most significant of these pieces is Millican 2004, the first article on ontological arguments in recent memory to appear in *Mind*. Millican argues for a novel interpretation of Anselm's argument, and for a new critique of ontological arguments deriving from this interpretation. Needless to say, both the interpretation and the critique are controversial, but they are also worthy of attention. Among other journal articles, perhaps the most interesting are Pruss 2010, which provides a novel defence of the key possibility premise in modal ontological arguments, and Pruss 2009, which kick-started recent discussion of higher-order ontological arguments. There is also a chain of papers in *Analysis* initiated by Matthews and Baker (2010)

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