

A Probabilistic Defense of Proper *De Jure* Objections to Theism¹

Brian C. Barnett

St. John Fisher College

2017

Abstract: A common view among nontheists combines the *de jure* objection that theism is epistemically unacceptable with agnosticism about the *de facto* objection that theism is false. Following Plantinga, we can call this a “proper” *de jure* objection—a *de jure* objection that does not depend on any *de facto* objection. In his *Warranted Christian Belief*, Plantinga has produced general arguments against all proper *de jure* objections. Here I first show that this argument is logically fallacious (it makes subtle probabilistic fallacies disguised by scope ambiguities), and proceed to lay the groundwork for the construction of actual proper *de jure* objections.

1. Introduction

Theism is often the target of two main objections: (i) the *de facto* objection, according to which theism is false and (ii) the *de jure* objection, according to which theism is, for some relevant group of persons (e.g., typical, reasonably well-educated adult human beings in the contemporary world), unreasonable, irrational, unjustified, evidentially unsupported, or in some other way epistemically unsatisfactory.² These two objections are *prima facie* independent of one another—independent in the sense that the success of one would not guarantee (or make probable) the success of the other. And if they are indeed independent of one another in this sense, this fact would seem to be of significant benefit to nontheists, including both atheists and agnostics. It would benefit agnostics by making it possible for them to consistently endorse the *de jure* objection (thereby supporting their position over theism) without simultaneously committing themselves to the success of the *de facto* objection (thereby maintaining their distance from atheism). Of course, this benefit would not accrue to atheists, since they, unlike agnostics, will need to endorse the *de facto* objection whether or not they also endorse the *de jure* objection. However, independence would benefit atheists for at least two other reasons: first, it legitimates a bracketing strategy whereby the *de facto* objection is set aside in order to focus exclusively on the *de jure* objection for those who might be more likely convinced by the latter than the former; second, having two good independent objections to a competing view on any issue is preferable to having just one.

Theists, of course, would like to dispense with *all* objections to theism. It would appear to be a significant step in this direction if one could reduce the two major classes of objections to a single class by establishing that the *de jure* objection would have to be dependent on the *de facto* objection, i.e., that there can be no *proper de jure* objections to theism, thereby precluding the aforementioned benefits of independence from accruing to nontheism. My primary aim in this paper is to establish that this strategy fails. For the most part, I will focus specifically on the arguments in Plantinga’s *Warranted Christian Belief* (hereafter *WCB*), since it is there that

Plantinga originally devises the strategy in question (in terms of Christian belief as the particular type of theism and warrant as the particular type of positive epistemic status) and provides the only sustained defense of it to date. I will argue that one version of Plantinga's widely discussed argument has gone largely ignored in the literature and potentially bypasses the existing objections to the other versions. But I will also argue that once we resolve various ambiguities in the argument, it can be proven fallacious on purely formal, probabilistic grounds. After removing this major roadblock to the possibility of proper *de jure* objections, it is still up to nontheists to actually provide such objections. I will end by laying the groundwork for proceeding with this project. In particular, I will outline various available strategies, discuss their comparative promise, make some concrete proposals, and address final objections.

2. Plantinga's Arguments and Unsatisfactory Objections

For those unfamiliar with Plantinga's *WCB*, a brief overview will be helpful. After setting up the book's central questions in the preface and spending Part I on clearing away preliminary objections to there being a "sensible" *de jure* question about theistic belief to be asked in the first place (one that is coherent and not worthy of immediate dismissal), Plantinga devotes Part II to a survey of the various potential types of positive epistemic status in terms of which the *de jure* objection might be interpreted. He considers various types of rationality and justification, dismissing each as making for a poor version of the objection, until in the last chapter of the section he finally arrives at his own preferred interpretation in terms of warrant, which Plantinga defines as "that further quality or quantity (perhaps it comes in degrees), whatever precisely it may be, enough of which distinguishes knowledge from mere true belief" (153).³ At that stage, Plantinga outlines and tweaks the proper-functionalist account of warrant developed and defended in his two previous books in the trilogy of which *WCB* is the third (though the details of this account of warrant need not concern us here). With a full understanding of the *de jure* objection in hand, Part III develops and defends the coherence of a model of theistic (and specifically Christian) belief formation and regulation, built on Biblical scripture, as well as on the work of Aquinas and Calvin—a model which, together with his account of warrant, implies (or makes probable) that theistic (specifically Christian) belief is warranted, at least if there are no convincing defeaters for it.⁴ Plantinga then spends Part IV, the final part of the book, responding to alleged defeaters for theistic (Christian) belief. If successful, it follows that if theistic (Christian) belief is true, then it is probably warranted. Call this conditional *the Bridge Claim*, since it claims to bridge the gap between the ontological claim that God exists (or that Christianity is true) and the epistemological claim that theism (or some specific version thereof) is warranted. If the Bridge Claim correct, it supposedly follows that the denial of its consequent (which is to be equated with the only sensible understanding of the *de jure* objection) implies the denial of its antecedent (which is to be equated with the *de facto* objection). Hence, the *de jure* objection (at least any sensible version of it) entails the *de facto* objection. In other words, there is no such thing as a successful proper *de jure* objection.

This argument has a number of potential vulnerabilities. It is possible to resist by claiming that Plantinga's discussion of the various possible interpretations of the *de jure* objection overlooks some legitimate interpretations.⁵ It is possible to agree that the *de jure* objection is best understood in terms of warrant yet deny Plantinga's proper-functionalist account of it, on which he relies to argue that the Aquinas/Calvin model entails (or makes

probable) that Christian belief is (probably) warranted if true, which in turn is needed to establish the Bridge Claim (or the Christian version of it).⁶ It is possible to accept Plantinga's account of warrant yet reject the Aquinas/Calvin model.⁷ Even granting Plantinga everything up to and including the Aquinas/Calvin model, it is still possible to accept that theism (Christian belief) is probably warranted in the absence of defeaters but maintain that plausible defeaters exist (either because Plantinga skipped over some worthy candidates or gave fallacious reasons for dismissing the defeaters he did discuss).⁸

I think there is something to all of these criticisms. However, they are ultimately unsatisfactory in the sense that Plantinga's argument generalizes in a way that bypasses them entirely. In fact, Plantinga himself suggests such a generalization (2003: 186-191). He points out that if God exists and created us in his image and loves us and desires us to know him and so on, then he would want theism (at least for certain theists, e.g., Christians or some subset thereof) to be warranted, and being all-powerful, could make that happen. So, if theism is true, it is warranted (at least for some special group of theists). To argue that theism is unwarranted is in effect to argue that theism is false. Hence, any warrant version of the *de jure* criticism entails the *de facto* objection. This version of the argument does not depend on Plantinga's specific account of warrant. Neither does it depend on the Aquinas/Calvin model. Moreover, it is plausible that the argument can be further generalized to eliminate the exclusive focus on warrant simply by replacing "warrant" with "positive epistemic status" throughout, leaving it open to interpretation.⁹ I'll call this more general version of Plantinga's argument the "Generalized Reduction Argument" (since it purports to reduce the *de jure* criticism to the *de facto* criticism).

Even the Generalized Reduction Argument remains vulnerable to a different sort of objection—namely, the objection that a positive epistemic status for theism is something that God does not have the ability to guarantee without thereby interfering with the something of equal or greater value, such as free will or faith.¹⁰ Whether this type of objection succeeds depends on several highly contentious matters, such as the nature and value of free will and faith, how such values stack up against the allegedly competing value of positive epistemic status, and the scope of omnipotence. I think most of us can agree that the objection has enough potential to at least justify a hedge in the Bridge Claim: if God exists, then theism *probably* has positive epistemic status (for the relevant group of theists). In fact, Plantinga himself adds this hedge, though for reasons peculiar to his understanding of positive epistemic status in terms of warrant in combination with his account of warrant. But the issues here (free will, the value of faith, the scope of omniscience, etc.) are too controversial to convince all parties to the discussion to go further than a mere hedge by opting for an outright denial of (or even agnosticism with respect to) the Bridge Claim. Ideally, a stronger objection would bypass such controversial matters. And this stronger sort of objection is precisely what I intend to provide. I will argue that the flaw in the Generalized Reduction Argument runs deeper—at a logical level. Specifically, the argument makes a fallacious probability inference subtly disguised by a scope ambiguity in the Bridge Claim.

3. An Analysis of Plantinga's Logic

Begin with a closer look at the logic of the Generalized Reduction Argument. Here's a rough, informal characterization of the argument:

The Generalized Reduction Argument (Informal Version)

- P1. The Bridge Claim: If theism (or some specific version thereof) is true, then it probably has positive epistemic status (for some relevant group of individuals).
P2. The *De Jure* Objection: Theism (or whatever version of it is specified in the Bridge Claim) does not have positive epistemic status (for the relevant group).
∴ C. The *De Facto* Objection: Theism is false.

The logic of this informal version is puzzling. First, note that the Bridge Claim includes a probability qualification. This is because Plantinga admits that there is at least some very small chance that theism fails to be warranted given God's existence. Second, note that there is no probability qualification in P2. This means that P2 is not quite the consequent of P1. Nor does P2 entail the consequent of P1, since contingent claims, such as the claim that theism is warranted, can be probable yet turn out to be false. In fact, for this same reason, the premises are consistent with the falsity of the conclusion and the argument is therefore deductively invalid. Of course, we could interpret it as an inductive argument, but it will do just as well to keep it deductive and add a probability qualification to P2, since the *de jure* arguer had better not claim P2 with certainty anyway.

Now, once we add a probability operator to P2, this invites the question of whether the negation in P2 should take wide or narrow scope. In order to see the distinction, it will help to introduce some symbolization. First, let S be the proposition that theism has some particular positive epistemic status for some specified group, and let P[x] be the probability of any proposition x. Let's also agree to express the claim that x is probable as the claim that $P[x] > P[\sim x]$, which is equivalent to the claim that $P[x] > \frac{1}{2}$. (However, if you prefer, you are welcome to replace $P[x] > P[\sim x]$ and $P[x] > \frac{1}{2}$ with $P[x] \gg P[\sim x]$ and $P[x] \gg \frac{1}{2}$.¹¹) Given these stipulations, we have the choice between revising (2) to say that $P[\sim S] > \frac{1}{2}$ or to say that $\sim(P[S] > \frac{1}{2})$. But note that the latter is not strong enough to plausibly count as a *de jure* objection. It simply says that S isn't probable, which leaves open the possibility that S isn't improbable either, whereas the *de jure* arguer wants to say more strongly that theism does not have positive epistemic status, or at least probably does not. So, $P[\sim S] > \frac{1}{2}$ is the better choice.

To complete our symbolization of the Generalized Reduction Argument, let G be the proposition that God exists (and let's use the wedge "∨" for inclusive disjunction, the tilde "∼" for negation, and the arrow "→" for the ordinary English indicative conditional). We then get the following:

The Generalized Reduction Argument (Narrow Scope Reading)

- P1. $G \rightarrow (P[S] > \frac{1}{2})$
P2. $P[\sim S] > \frac{1}{2}$
∴ C. $\sim G$

This is not quite an instance of modus tollens, since the second premise is not identical to the denial of the consequent of the first premise. However, the second premise does entail the denial

of the consequent. So, we still get a valid argument. Unfortunately, it isn't the only possible interpretation. The problem is that the language Plantinga uses to express the Bridge Claim is ambiguous. In cases in which an English sentence contains an operator (such as the probability operator) in the consequent of what appears to be a conditional, the sentence is often ambiguous between a wide and narrow scope reading. So, it is somewhat unclear whether Plantinga really intended to assert a conditional with a probability operator in the consequent, or the probability of an entire conditional. In our symbolization, the ambiguity is between $G \rightarrow P[S] > \frac{1}{2}$ (as we have it in the narrow scope reading of the Generalized Reduction Argument) and $P[G \rightarrow S] > \frac{1}{2}$. However, if we instead adopt this alternative interpretation of the Bridge Claim, G is now in the scope of the probability operator, which means that we can only get a good inference if we revise the conclusion by placing G within the scope of the probability operator there as well. But since a negation is involved, we again have a choice between $P[\sim G] > \frac{1}{2}$ and $\sim(P[G] > \frac{1}{2})$. However, only the former expresses a genuine *de facto* objection. So, our second potential interpretation of the Generalized Reduction Argument is as follows:

The Generalized Reduction Argument (Wide Scope Reading)

- P1. $P[G \rightarrow S] > \frac{1}{2}$
 P2. $P[\sim S] > \frac{1}{2}$
 \therefore C. $P[\sim G] > \frac{1}{2}$

Unfortunately, there is another ambiguity in Plantinga. Although in some places Plantinga uses “if.., then...” language to express the Bridge Claim, which suggests an indicative conditional (whatever the scope of the probability operator), whereas in other places he instead uses “given that” language, which in probabilistic contexts usually expresses conditional (relative) probability—the probability of some proposition x given (or on, or relative to) some proposition y , written $P[x|y]$, as opposed to the absolute (i.e., unconditional or nonrelative) probability of x , which does not take its relation to y into account. So, perhaps the Bridge Claim does not involve an indicative conditional at all. Perhaps we should interpret it as a claim about a conditional probability ($P[S|G]$) rather than as a claim about the absolute probability of the corresponding conditional ($P[G \rightarrow S]$). If so, this yields a third interpretation of the Generalized Reduction Argument:

The Generalized Reduction Argument (Conditionalized Reading)

- P1. $P[S|G] > \frac{1}{2}$
 P2. $P[\sim S] > \frac{1}{2}$
 \therefore C. $P[\sim G] > \frac{1}{2}$

Now that we've sorted out the structural ambiguities, there are other interpretational issues to address before we can proceed to the evaluatory stage.

First, there is the question of how to understand the claim that God exists, primarily dependent upon which conception of God we adopt. Popular among philosophers is the Anselmian conception, according to which God is a perfect being.¹² Plantinga himself seems to opt for the strong version of this, according to which God exists necessarily, if at all, and

possesses his perfections essentially.¹³ We will keep this strong Anselmian conception in mind in what follows, but will not restrict ourselves to it.

Second, there is also the question of how to interpret the probability operator.¹⁴ Probabilities can be divided into three kinds: (i) objective probability (which measures certain features of the mind-independent world), (ii) epistemic probability (which measures the strength to which a given person possesses a given epistemic status toward a given proposition), and (iii) subjective probability (which measures a person's credences, i.e., degrees of belief or levels of confidence). There are also various views about how each kind of probability is fixed, e.g., by some frequency (whether actual or hypothetical), the mathematical limit of some sequence of hypothetical frequencies, propensity, causal laws, modality, or some other standard. For what it's worth, Plantinga explicitly indicates that his intended interpretation of probability in the context of the Generalized Reduction Argument is epistemic (2003: 190). But to preempt potential confusion here, it should be added that, although in the same passage Plantinga also appeals to objective probability (for which he maintains a modal view (2003: 188)), this is only because his account of epistemic probability is cashed out in terms of his proper-functionalist account of warrant (1993: Chapters 8 and 9), according to which warrant requires reliability in (the relevant segment of) our belief-forming faculties (when operating in the environment for which they are designed), and Plantinga in turn understands such reliability in terms of objective probability. So, ultimately, Plantinga's concern is with epistemic probability, though objective probability plays a role. It will be helpful to keep this in mind as we proceed. However, there will be no need to restrict ourselves to any particular interpretation of probability, as we shall see.

Although I will not presuppose any particular interpretation of probability, I will assume that the probability operator obeys the standard probability calculus. This is relatively uncontroversial for objective probability. But it is questionable given an epistemic or subjective interpretation, since agents can fail (even rationally) to notice certain logical inconsistencies or logical deductions that the standard probability calculus reflects. However, we can at least assume the standard laws of mathematical probability capture probability for *agents who are sufficiently logically competent*. Given this point, which Plantinga himself makes elsewhere (1993: 173), my argument will still show that sufficiently logically competent *de jure* arguers can consistently agree with the Bridge Claim and simultaneously refuse the *de facto* objection. Although my argument may not apply to *de jure* arguers who are logically incompetent in some respect, it should already be clear that there is some sense in which such agents can be consistent in agreeing to the Bridge Claim yet refusing the *de facto* objection precisely due to their logical incompetence.¹⁵ In any case, sufficiently logically competent *de jure* arguers are probably the only ones theists are (or should be) worried about anyway.

As part of the standard probability calculus, I'll be assuming the so-called Ratio Formula, which gives us the classical means by which to relate conditional probabilities to corresponding absolute probabilities:

The Ratio Formula: $P[x|y] = P[x\&y]/P[y]$, for all x and y such that $P[y] \neq 0$, and undefined otherwise.¹⁶

Although this formula is no longer universally accepted (see Hajek 2003), there are several things to be said in favor of adopting it here. First, my own view is that the standard justifications for the formula (which can be found in most decent probability primers) are convincing (at least given my earlier idealized assumption of agential logical competence), whereas the arguments against it are either fallacious or infringe upon idealization. But I cannot take the time to press these points here. More important for current purposes is that Plantinga himself seems to accept the formula (see, for example, Plantinga (2000: 231), where he simply stipulates the Ratio Formula as the definition of conditional probability).¹⁷ In any case, the Ratio Formula turns out to be a necessary assumption for the conditionalized reading of the Generalized Reduction Argument to get off the ground. Those who deny the Ratio Formula do not offer an alternative formula. They instead view $P[x|y]$ as primitive, not calculable in terms of absolute probabilities. So, on their view, there is no systematic means by which to relate $P[S|G]$ to $P[\sim G]$ and $P[\sim S]$, and therefore no reliable way to determine whether the narrow scope reading is valid.¹⁸

Also as part of the backdrop of the standard probability calculus, I will be assuming classical logic, in particular the Law of Excluded Middle and the Law of Noncontradiction. If we were to abandon these assumptions, we'd need to adjust the probability calculus in various ways (e.g., to allow nonzero probabilities for contradictions and nonmaximal probabilities for disjunctions of contradictories). While this might be troublesome in certain contexts (though I doubt it), it seems no harm here, since the usual motivations for denying classical logic (stemming from alleged paradoxes, future contingent propositions, and the like) don't seem to apply to propositions like S or G or logical constructions thereof. More substantively, by endorsing classical logic, I also mean to adopt its usual treatment of the indicative conditional:

The Horseshoe Analysis: For all propositions, x and y , the indicative conditional, $x \rightarrow y$, is truth-functionally equivalent to the corresponding material conditional, $x \supset y$, which is defined as $\sim x \vee y$.¹⁹

At this point matters become contentious, since the Horseshoe Analysis is controversial. However, as with the previous assumptions, there are several things to be said in favor of adopting it here. For one, I think that the analysis is true (though not adequately defended in the existing literature).²⁰ But again, I won't try to press this point here. Second, although I cannot find in print any clear indication that Plantinga agrees, I also cannot find any reason to think that he disagrees. Third, and most important here, if we do not adopt the Horseshoe Analysis, the wide and narrow scope versions of the Generalized Reduction Argument run into immediate trouble. They do not get footing unless we have a reliable means to determine how the absolute probability of a conditional relates to the absolute probabilities of its antecedent and consequent. (This is obvious for the wide scope reading, but we shall see later that it is likewise necessary for the narrow scope reading.) The Horseshoe Analysis gives us such a means, unlike any plausible alternative analysis. This is to be expected, since those who deny the Horseshoe Analysis deny that the indicative conditional is truth-functional, and if we cannot determine the *truth* value of the indicative conditional by determining the *truth* values of its antecedent and consequent, then it is hard to see how we could determine how *likely* the conditional is to be true by determining how *likely* its antecedent and consequent are.

There is one prominent thesis in the literature on conditionals that might initially appear to bypass this problem. Whereas some alternatives to the Horseshoe Analysis propose a non-truth-functional set of truth conditions (e.g., by going modal), there is one alternative that refuses to give any such conditions. It simply gives a probabilistic condition for the degree of acceptability of a conditional (where probability is to be understood as subjective or epistemic):

The Formalized Ramsey Thesis: $P(x \rightarrow y) = P[y|x]$, for all x and y such that $P[x] \neq 0$.²¹

If we combine this with the Ratio Formula, then by the Transitivity of Identity, we get the following result:

The Ramsified Ratio Formula: $P[x \rightarrow y] = P[x \& y]/P[y]$, for all x and y such that $P[x] \neq 0$.

We could then perform the necessary calculations to evaluate the wide scope and conditionalized readings of the Generalized Reduction Argument. But there are intractable problems for this approach. First, the triviality proofs of Hajek (1989 and 1994) (building on earlier triviality proofs of Lewis 1976, Stalnaker 1976, and Carlstrom and Hill 1978, et al.), convincingly show that the Ramsified Ratio Formula cannot be true as long as we take indicative conditionals to be propositions (i.e., bearers of truth). This has led some (e.g., Bennett 2003) to keep the Ramsified Ratio Formula and opt for Adams's NTV ("No Truth Value") theory (1975: 1-42; 1981), according to which indicative conditionals lack truth values (despite having probabilities).²² But those like me who find this implausible are forced to reject the Ramsified Ratio Formula (and therefore reject either the Formalized Ramsey Thesis or the Ratio Formula). Even if we accept the Ramsified Ratio Formula, the wide scope reading of the Generalized Reduction Argument collapses into the conditionalized reading, and the former will therefore inherit all of the problems I will later raise for the latter.²³ The narrow scope reading will not similarly collapse, but there I will show that the criticisms I shall offer using the Horseshoe Analysis apply equally well if we drop the analysis and instead adopt the Ramsified Ratio Formula.

This shows that the assumptions I have outlined above, though controversial, are well motivated in the current context: if they fail, Plantinga's logic is already unconvincing for other reasons. So, I shall hereafter take these assumptions for granted.

4. A Critique of Plantinga's Logic

Supposing that the above three formal interpretations of the Generalized Reduction Argument are the only three plausible disambiguations of the informal version, I will now argue that there is no interpretation on which the Generalized Reduction Argument is convincing (given the assumptions developed in the previous section). I will take the interpretations in reverse order, since the latter two are easiest to refute.

4.1 Critique of the Conditionalized Reading

On the conditionalized reading of the Generalized Reduction Argument, the inference is to $P[\sim G] > \frac{1}{2}$ from $P[S|G] > \frac{1}{2}$ and $P[\sim S] > \frac{1}{2}$. However, assuming the standard mathematical

laws for probability operators, we can easily demonstrate that the inference is invalid. To prove this, we need to show that there are possible values for $P[S|G]$ and $P[\sim S]$ greater than $\frac{1}{2}$ that are consistent with $\sim(P[\sim G] > \frac{1}{2})$, i.e., consistent with $P[G] \geq \frac{1}{2}$. For example, let $P[\sim S] = \frac{5}{9}$ and $P[S|G] = \frac{7}{9}$. Now we can calculate $P[G]$ to prove that it's $\geq \frac{1}{2}$. To do so, we will also need a value for $P[S\&G]$. It will be consistent with our stipulations as long as it takes a value $0 \leq P[S\&G] \leq P[S]$ and $0 \leq P[S\&G] \leq P[G]$. It will do to suppose that $P[S\&G] = \frac{7}{18}$. Then $P[G] = P[S\&G]/P[S|G] = (\frac{7}{18})/(\frac{7}{9}) = \frac{1}{2}$.

In order to resist this argument, one will need to hold that, even though the general argument form of the conditionalized reading is invalid, it nevertheless holds for propositions of a certain kind, among which are S and G. I can only think of two ways in which this might be argued.

First, one might argue that $P[S|G] = \frac{7}{9}$ is too low. In fact, if we increase it slightly to $P[S|G] = \frac{8}{9}$, then $P[G] = P[S\&G]/P[S|G] = (\frac{7}{18})/(\frac{8}{9}) = \frac{7}{16} < \frac{1}{2}$, yielding Plantinga's conclusion. However, the problem with this type of strategy is the coarseness of our probabilistic judgments on topics such as this. They are not so precise as to discriminate between $\frac{7}{9}$ and $\frac{8}{9}$.

Second, on modal understandings of probability, necessary propositions have probability 1 and their negations have probability 0.²⁴ Suppose we combine such a view with a strong Anselmian conception of God, according to which God is essentially perfect and necessarily exists, if at all. On this combination of views, it turns out that $P[G] = 0$ or 1; it cannot possibly take any intermediate value. In particular, it cannot possibly be $\frac{1}{2}$ —the value I earlier proved it would take if my starting values for $P[\sim S]$, $P[S|G]$, and $P[S\&G]$ were correct. So, those starting values are impossible and the proof does not succeed.²⁵

There are three plausible responses to this objection. First, the *de jure* arguer need not commit to the strong Anselmian conception. Second, the *de jure* arguer need not commit to a modal interpretation of probability. In fact, Plantinga's aim is to undercut *all* proper *de jure* arguments, not just those proposed by strong Anselmians with a modal understanding of probability. So, I will hereafter assume that we can allow $0 < P[G] < 1$ as a possible value in *de jure* arguments. In any case, even if we cannot make sense of $P[G] = \frac{1}{2}$, we can still make sense of neutrality about whether $P[G] = 0$ or 1. This leads us to our third and final response. Suppose we grant a modal interpretation of probability and the strong Anselmian conception. On this combination of views, Plantinga's first premise ($P[S|G] > \frac{1}{2}$) requires that $P[G] = 1$ —independently of the value for $P[S]$. Therefore, Plantinga's first premise would beg the question against *de jure* arguers.

4.2 Critique of the Wide Scope Reading

On the wide scope reading of the Generalized Reduction Argument, the inference is to $P[\sim G] > \frac{1}{2}$ from $P[G \rightarrow S] > \frac{1}{2}$ and $P[\sim S] > \frac{1}{2}$. Again, we can easily demonstrate that this inference is invalid. To prove this, we need to show that there are possible values for $P[G \rightarrow S]$ and $P[\sim S]$ greater than $\frac{1}{2}$ and that are consistent with $\sim(P[\sim G] > \frac{1}{2})$, i.e., consistent with $P[G] \geq \frac{1}{2}$. For example, let $P[G \rightarrow S] = \frac{7}{9}$ and $P[\sim S] = \frac{11}{18}$. Now we can calculate $P[G]$ to prove that it's $\geq \frac{1}{2}$. To do so, we will also need a value for $P[\sim G\&S]$. It will be consistent with our stipulations

as long as it takes a value $0 \leq P[\sim G \& S] \leq P[S]$ and $0 \leq P[\sim G \& S] \leq P[\sim G]$. It will do to suppose that $P[\sim G \& S] = \frac{1}{9}$. Now, notice that $P[G \rightarrow S] = P[G \supset S] = P[\sim G \vee S] = P[\sim G] + P[S] - P[\sim G \& S]$, which implies that $P[\sim G] = P[G \rightarrow S] - P[S] + P[\sim G \& S] = \frac{7}{9} - \frac{7}{18} + \frac{1}{9} = \frac{1}{2}$.

For the same reasons given in the previous subsection, it will not do to fuss with the values chosen as counterexamples for the proof. We do not have sufficiently fine-grained probabilistic intuitions to differentiate the values chosen for the proof and values required to entail the *de facto* objection that $P[\sim G] > \frac{1}{2}$. The *de jure* arguer need not operate on the strong Anselmian conception. She need not operate on a modal interpretation of probability. And if she does operate on both the modal interpretation and strong Anselmian conception, then Plantinga's premises will beg the question. However, this last reason holds for a different reason in this context than in the previous subsection. To see this, note that Plantinga's first premise ($P[G \rightarrow S] > \frac{1}{2}$) depends on the value of $P[G]$: if $P[G] = 0$, then $P[G \rightarrow S] = P[G \supset S] = P[\sim G \vee S] = P[\sim G] + P[S] - P[\sim G \& S] = 1 + P[S] - P[S] = 1 > \frac{1}{2}$; but if $P[G] = 1$, then $P[G \rightarrow S] = P[G \supset S] = P[\sim G \vee S] = P[\sim G] + P[S] - P[\sim G \& S] = P[S]$, which might or might not be $> \frac{1}{2}$. So, on the strong Anselmian conception combined with a modal interpretation of probability, whether or not Plantinga's first premise is true depends on whether or not God actually exists. So, it is legitimate for the *de jure* arguer to be neutral about this premise.

4.3 Critique of the Narrow Scope Reading

And we now arrive at the first and most literal reading of the Generalized Reduction Argument, which infers $\sim G$ from $G \rightarrow (P[S] > \frac{1}{2})$ and $P[\sim S] > \frac{1}{2}$. Unfortunately, this interpretation is complicated by numerous difficulties, primarily because it mixes graded probabilistic judgments concerning S with all-or-nothing alethic judgments about G , and it is difficult to know how to relate the two.

For example, in probabilistic contexts, some take absolute assertions as a lazy way of expressing maximal probability (certainty). If so, the narrow scope reading of the Bridge Claim will be taken to mean $(P[G] = 1) \rightarrow (P[S] > \frac{1}{2})$, in which case the conclusion of the narrow scope reading of the Generalized Reduction Argument ($\sim G$) will need to be understood as $\sim(P[G] = 1)$. Alternatively, in probabilistic contexts, some take absolute assertions as a lazy way of expressing that the claim in question is probable. If so, the narrow scope reading of the Bridge Claim will be taken to mean $(P[G] > \frac{1}{2}) \rightarrow (P[S] > \frac{1}{2})$, in which case the conclusion of the narrow scope reading of the Generalized Reduction Argument will need to be understood as $\sim(P[G] > \frac{1}{2})$. However, if we interpret the conditional in either of these two ways, the Generalized Reduction Argument is automatically ruined because both conclusions ($\sim(P[G] = 1)$ and $\sim(P[G] > \frac{1}{2})$) are compatible with $P[G] = \frac{1}{2}$, which means that the *de jure* arguer will be consistent in maintaining neutrality about G , even while agreeing with the Bridge Claim.

However, it would be a mistake to interpret the antecedent of the narrow scope reading of the Bridge Claim probabilistically. Generally speaking, assertions of truth should not be reinterpreted probabilistically, since truths do not generally entail their own probabilities: truths can be improbable, just as falsehoods can be probable. An exception might be made concerning the relation between God's existence and the probability of his existence, at least when we combine a modal understanding of probability with the strong Anselmian conception. As pointed

out earlier, combining these two views implies that either $P[G] = 1$ (if God actually exists) or $P[G] = 0$ (if God actually does not). So, perhaps the above interpretations are permissible in this particular case after all. But this leads to a new twist: if the *de jure* arguer has to maintain $\sim(P[G] = 1)$ or $\sim(P[G] > \frac{1}{2})$, then on the modal understanding of probability combined with the strong Anselmian conception, this is tantamount to denying God's actual existence, thereby vindicating the Generalized Reduction Argument. But, again, this sort of reasoning will only convince *de jure* arguers operating on both a strong Anselmian conception and modal understanding of probability.

No matter how we interpret the antecedent of the narrow scope reading of the Bridge Claim—probabilistically or otherwise—there is a more fundamental problem with the current interpretation of it: unlike previous interpretations, the current interpretation does not follow from the considerations Plantinga offers in favor of it. Plantinga says that God intended for us to know him, instilling in many theists positive epistemic status. This is a relation between G and S , not G and $P(S)$. So, Plantinga's reasons do not directly support $G \rightarrow (P[S] > \frac{1}{2})$. They at best directly support $P[S|G] > \frac{1}{2}$ or $P[G \rightarrow S] > \frac{1}{2}$ —the wide and narrow scope interpretations of the Bridge Claim. In order to directly support $G \rightarrow (P[S] > \frac{1}{2})$, we'd need to argue not just that God makes S true but that he makes S probable. It is much less obvious that this is true. Even if we grant that God makes S true, it does not automatically follow that he thereby also makes S probable, since there are improbable truths. Perhaps God would make an additional effort to make S probable. However, on some conceptions of probability—such as probability as a measure of logical possibility—probabilities are not things that can be manipulated, even by God, supposing that God is bound by logic and necessity. But even if he could make S probable, it is not clear that he would. This is especially so on the epistemic interpretation of probability on which Plantinga is operating. On that interpretation, God's desire for S to be probable is the desire for us to have positive epistemic status toward S , i.e., the desire for us to have positive epistemic status for the belief that theism has positive epistemic status—a second-order epistemic status. It is dubious whether God would bother with this second-order epistemic status. After all, there must be some positive integer n , such that for all $m > n$, we do not have m^{th} -order positive epistemic status toward theism. Since we know there are such limitations on human beings, it follows that God must have stopped somewhere for whatever reason. Perhaps it was at $n = 1$. At any rate, Plantinga has not argued otherwise, and it is difficult to see how a plausible argument would go. *De jure* arguers therefore are free to dismiss the current interpretation of the Bridge Claim.

4.4 Plantinga's Dilemma

This completes our survey of the possible interpretations of the Generalized Reduction Argument. We have found each lacking in some significant respect or other, and can sum up by finally stating the cumulative results in the form of a dilemma for Plantinga:

Plantinga's Dilemma

- P1. The theological considerations offered by Plantinga for relating God's existence to positive epistemic status do not support the narrow scope reading of the Bridge Claim.

- P2. Although Plantinga's theological considerations plausibly support the wide scope and conditionalized readings of the Bridge Claim, probability calculations reveal that the corresponding interpretations of the Generalized Reduction Argument are invalid.
- ∴ C. The Generalized Reduction Argument either has a false premise (due to P1) or is invalid (due to P2), and is therefore unsound either way.

5. Actual Proper *De jure* Objections

So far, I have devoted my efforts to the negative project of casting doubt on the Generalized Reduction Argument. I now turn to the positive half of the project, where I discuss the construction of actual proper *de jure* objections. I do not intend here to provide any decisive line of argumentation. Instead, my goal is to do some preliminary work for those who do wish to carry out such a project. Specifically, I will sketch some strategies for *de jure* arguers, discuss their comparative virtues and vices, and preempt some possible objections.

5.1 A Formal Proper *De jure* Objection for Factive Positive Epistemic Status

The first type of proper *de jure* objection is purely formal (in the sense that it can be derived purely from logical and probabilistic relations between propositions without added substantive philosophical presuppositions). In order to get such an objection, we need to focus on factive positive epistemic statuses, such as knowledge and perhaps warrant.²⁶ Let *S* be any such status with respect to *G*. Since there is a one-directional entailment from *S* to *G*, it is plausible that $P[S] < P[G]$. If agnostics avoid either the strong Anselmian conception or a modal understanding of probability, so that non-maximal values of $P[G]$ are allowed, and if they can argue that in fact $P[G] = P[\sim G] = \frac{1}{2}$, it follows that $P[S] < P[G] = \frac{1}{2}$, yielding the result that $P[S] < \frac{1}{2}$.

To elaborate on the significance of this, let's distinguish between two types of agnostics. First, *the equal-weight agnostic about G* sees the scale of evidence as equally balanced between *G* and $\sim G$ and therefore judges that $P[G] = \frac{1}{2}$. Second, *the inscrutability agnostic about G* reserves judgment about how the evidence comparatively fares, consequently judges $P[G]$ to be inscrutable, and therefore takes no attitude toward its value. Now, it strikes me as immediately intuitive that for agnostics of both types, agnosticism is also the proper *default* stance toward any claim to factive positive epistemic status with respect to *G*. That is, in either case, they should be neutral about claims to factive positive epistemic status toward *G*—*without special reason to push them to one side or the other*. However, since equal-weight agnostics about *G* have the above argument for $P[S] < \frac{1}{2}$, it turns out rather surprisingly that their proper default stance toward factive positive epistemic status is *disbelief*. Since $P[S] < \frac{1}{2}$ does not follow for inscrutability agnostics about *G*, *their* proper default stance toward factive positive epistemic status remains agnosticism. This yields a surprising discrepancy between the two types of agnostics.²⁷

5.2 A Plantingan Proper *De jure* Objection for Knowledge and Warrant

If we do not simply rely on the factivity of a given positive epistemic status, we can no longer derive *formal* proper *de jure* objections. We shall have to bring in more substantive

philosophical claims. Interestingly, there are significant prospects for doing so on Plantingan grounds.

Suppose equal-weight agnostics can plausibly establish that $P[G] = P[\sim G] = \frac{1}{2}$. Let W be the proposition that theism is warranted for some specific group of people. Then $P[W] = P[W|G]P[G] + P[W|\sim G]P[\sim G] = \frac{1}{2}P[W|G] + \frac{1}{2}P[W|\sim G]$, which is $< \frac{1}{2}$ when $P[W|G] + P[W|\sim G] < 1$, i.e., when $P[W|G] < 1 - P[W|\sim G]$. So, if agnostics can defend this inequality, they have a proper *de jure* objection. They can make use of the fact that many atheists, agnostics, and even theists (including Plantinga himself), agree that $P[W|\sim G]$ is nearly zero.²⁸ They would just need to argue that it is *sufficiently* low, viz., closer to zero than $P[W|G]$ is to 1. In other words, they'd need to argue that W is somewhat more certain that W is false under $\sim G$ than that W is true under G .

But how could this be done? Well, here's a suggestion. Agnostics might argue that, while it is fairly clear that the sort of God under discussion would want W to be true for the target group of people, this nevertheless remains far from certain due to the existence of various significant doubts (including the fact that God and his desires would be quite complex and largely obscure to mere humans, not to mention the possibility that faith and free will conflict with theistic warrant). So, the doubts here are non-negligible. But on the other side, there aren't any comparable doubts for the claim that theism would be unwarranted if there's no God. In fact, not only are the reasons for attributing warrant to theism absent if God does not exist, but there are also strong positive reasons to think theism couldn't have such a status. Agnostics could here appeal to Plantinga's (in)famous evolutionary argument against naturalism to argue that if God doesn't exist there couldn't be warrant for any proposition at all, much less for something like theism.²⁹ Of course, most agnostics will not want to go this route because it, in conjunction with agnosticism, would entail that agnostics have no warrant for any of their own beliefs. But perhaps that's not so worrisome, as long as agnostics could continue to reasonably claim some other (non-factive) positive epistemic status (e.g., justification or rationality) toward the propositions they accept.

So, pending further work, it might turn out that agnostics have a plausible case for the conclusion that there are more doubts about W under G than there are about $\sim W$ under $\sim G$. If so, then they can plausibly conclude that $P[W|G] < 1 - P[W|\sim G]$ and therefore that $P[W] < \frac{1}{2}$, even though $P[G] = P[\sim G] = \frac{1}{2}$. The objection carries over to knowledge as well, since knowledge requires warrant.

5.3 G-S Independent Proper De jure Objections

Formal and Plantingan proper *de jure* objections unfortunately possess a certain weakness. Let's distinguish between two types of proper *de jure* objection:

G-S Dependent Objections: Proper *de jure* objections that derive from some claim about the relationship between G and S .

G-S Independent Objections: Proper *de jure* objections that do not derive from any claim about the relationship between G and S .

The formal and Plantingan proper *de jure* objections are G-S dependent because they rely on claims about how God's existence bears on positive epistemic status for theism—claims mathematically represented by the inequalities $P[S] < P[G]$ and $P[S|G] < 1 - P[S|\sim G]$. But the problem with these inequalities is that they are weak. They are weak in the sense that they become dubious once “<” is replaced by “<<.” So, although they would suffice to establish that $P[S] < \frac{1}{2}$, they would not suffice to establish that $P[S] \ll \frac{1}{2}$. And I do not know of any clear G-S dependent objections that would allow us to convincingly establish that $P[S] \ll \frac{1}{2}$. Moreover, there is some room to argue that if $P[S] < \frac{1}{2}$ but $\sim(P[S] \ll \frac{1}{2})$, then this at best supports suspension of judgment rather than disbelief in the claim that theism has positive epistemic status, and therefore does not qualify as a proper *de jure* objection. In my own view, $P[S] < \frac{1}{2}$ suffices for disbelief. But I do not wish to argue that here. So, for those who think that $P[S] < \frac{1}{2}$ is insufficient to license disbelief, I recommend G-S independent *de jure* objections, which have the potential to bypass the problem.

In order to present a G-S independent objection, one needs to set aside whether God exists and whatever implications his existence might have for positive epistemic status, instead focusing exclusively on direct doubts about positive epistemic status. There is a wide array of possibilities here. First, there are objections of the traditional type, where one argues that theism is unjustified or irrational or unreasonable or that no one could possibly know such a thing. But there are also approaches that remain relatively unexplored. For example, there are some prospects for an improper basing objection: even if there are sufficiently good reasons for theism, most people do not actually form their theistic beliefs on the basis of those reasons but instead do so on the basis of wishful thinking, poor reasoning, a stubborn commitment to tradition, or the like. Alternatively, one might argue that even if theism is likely justified, rational, reasonable, and even true, it is Gettiered or “lotteried” or involves some other such epistemic accident or poor epistemic luck. It is easy to see why one might think theism faces the lottery problem: the problem of religious diversity. Any particular brand of exclusive monotheistic belief asserts but one of many possible gods and religious beliefs that have equal but competing chances of being right. It is not quite so easy to see why one might think theistic belief is Gettiered. It is probably most plausible in the case of theistic belief based on religious experience. *De jure* objectors have sometimes claimed that religious experience is the result of hallucination, misperception, misinterpreted perception, or the like. One response sometimes given to this sort of objection is that such mechanisms could be the means by which God reveals his presence. Perhaps *de jure* objectors could argue that this gives theistic belief the structure of Gettier's original cases. Of course, perhaps there are other, non-deviant mechanisms by which God experientially reveals his presence. But if the *de jure* arguer can come up with grounds for thinking that at the very least the deviant mechanisms are most common, it is perhaps possible to liken the non-deviant cases to seeing a real barn in fake-barn country.

Even if one or more of these suggestions is *prima facie* plausible, they face one last potential difficulty that stands out for all G-S independent objections. Remember that my earlier discussion of Plantinga did not decisively refute his Generalized Reduction Argument on any interpretation. It simply showed that on no interpretation is it sound *given some plausible probability assignments*. Other possible probability assignments would work. So, what I've shown is merely that the Generalized Reduction Argument cannot be relied on without further

information that would be difficult to acquire. G-S dependent objections have an advantage here, since they make claims about the G-S relationship and therefore at least have the potential to refute the Generalized Reduction Argument (on some or all interpretations). G-S independent objections are at a disadvantage here, since by definition they have no such potential. Instead, their strategy must be to deny that the Generalized Reduction Argument is conclusive (due to the worries from my earlier discussion), leave open that it *could* turn out to be sound for reasons we do not now have, and argue that until we acquire such reasons it is legitimate to ignore the Generalized Reduction Argument and tentatively proceed with *de jure* objections.

One potential problem here is that theists might object that this strategy yields *de jure* objections that do not count as “proper” if the Generalized Reduction Argument is in fact sound on some interpretation—whether or not we know it to be. The question this raises is about how we are to understand the term “proper.” There are two possible interpretations:

Strongly proper: A *de jure* objection is strongly proper if *as a matter of fact* it does not entail (or make probable) the *de facto* objection.

Weakly proper: A *de jure* objection is weakly proper if we *do not have good reason to infer* from it the *de facto* objection.

Given my worries about the Generalized Reduction Argument, it is clear that even G-S independent objections can be weakly proper. It is possible but still questionable whether or not they are also strongly proper. They are perhaps both weakly and strongly proper. But at the very least, we can rest assured that they are proper in some important sense.

6. Where This Leaves Us

It looks like there is little hope for theists to simplify the defense of their position from *de jure* objections by appeal to the claim that such objections are improper. It is clear that some such objections are at least weakly proper, are potentially strongly proper, and the prospects for establishing that they are not strongly proper are dim. This does not mean that theism is refuted. What it means is that theists must deal with each *de jure* objection one at a time, and independently of the *de facto* objection. There is no quick and easy path to circumvent this challenge. Perhaps as somewhat of a consolation, it also means that atheists do not have a quick and easy path to win over agnostics. Were there to be a convincing reduction of *de jure* objections to *de facto* objections, agnostics already convinced of a *de jure* objection would then have a reason to infer a *de facto* objection and convert to atheism. Given that there is no such reduction, agnostics can rest safe and secure in the blanket of their preferred proper *de jure* objection until some convincing independent *de facto* objection comes to light.³⁰

References

Adams, Ernest W. 1975. *The Logic of Conditionals*. Dordrecht: Reidel.

- Adams, Ernest W. 1981. "Truth, Proof, and Conditionals." *Pacific Philosophical Quarterly* 62: 323-339.
- Baker, Deane-Peter. 2005. "Plantinga's Reformed Epistemology: What's the Question?" *International Journal for the Philosophy of Religion* 57: 77-103.
- Beilby, James. 2007. "Plantinga's Model of Warranted Christian Belief." In *Alvin Plantinga*, edited by D.-P. Baker. New York: Cambridge UP, 125-165.
- Beilby, James K., ed. 2002. *Naturalism Defeated? Essays on Plantinga's Evolutionary Argument against Naturalism*. Ithaca, NY: Cornell UP.
- Bennett, Jonathan. 2003. *A Philosophical Guide to Conditionals*. New York: Oxford UP.
- Carlstrom, Ian F., and Christopher S. Hill. 1978. "Review of Adams's *The Logic of Conditionals*." *Philosophy of Science* 45: 155-158.
- Clark, Kelly James. 2007. "Pluralism and Proper Function." In *Alvin Plantinga*, edited by D.-P. Baker. New York: Cambridge UP, 166-187.
- Coffman, E. J. 2008. "Warrant Without Truth?" *Synthese* 162 (2): 173-194.
- Edgington, Dorothy. 1986. "Do Conditionals Have Truth Conditions?" *Critica* 18 (52): 3-39.
- Feldman, Richard. 2003. "Plantinga on Exclusivism." *Faith and Philosophy* 20 (1): 85-90.
- Findlay, J. N. 1948. "Can God's Existence Be Disproved?" *Mind* 57 (226): 176-183.
- Fitelson, Branden, and Elliott Sober. 1998. "Plantinga's Evolutionary Arguments against Evolutionary Naturalism." *Pacific Philosophical Quarterly* 79: 115-129.
- Gale, Richard M. 2001. "Alvin Plantinga's Warranted Christian Belief." *Philo* 4 (2): 138-147.
- Gale, Richard M. 2007. "Evil and Alvin Plantinga." In *Alvin Plantinga*, edited by D.-P. Baker. New York: Cambridge UP, 48-70.
- Grice, H.P. 1967a. "Logic and Conversation." In his *Studies in the Way of Words*. Cambridge, Mass." Harvard UP, 22-40.
- Grice, H.P. 1967b. "Indicative Conditionals." In his *Studies in the Way of Words*. Cambridge, Mass." Harvard UP, 58-87.
- Hajek, Alan. 1989. "Probabilities of Conditionals—Revisited." *Journal of Philosophical Logic* 18: 423-428.
- Hajek, Alan. 1994. "Triviality on the Cheap?" In *Probability and Conditionals: Belief Revision and Rational Decision*, edited by E. Fells and B. Skyrms. New York: Cambridge UP, 113-140.

- Hajek, Alan. 2003. "What Conditional Probability Could Not Be." *Synthese* 137 (3): 273-323.
- Howard-Snyder, Daniel, Frances Howard-Snyder, and Neil Feit. 2007. "Infallibilism and Gettier's Legacy." *Philosophy and Phenomenological Research* 66 (2): 304-327.
- Huemer, Michael. 2005. "Logical Properties of Warrant." *Philosophical Studies* 122 (2): 171-182.
- Jackson, Frank. 1987. *Conditionals*. Oxford: Blackwell.
- Kvanvig, Jonathan. 2007. "Two Approaches to Epistemic Defeat." In *Alvin Plantinga*, edited by D.-P. Baker. New York: Cambridge UP, 107-124.
- Leftow, Brian. 2010. "Necessity." In *The Cambridge Companion to Christian Philosophical Theology*, edited by C. Taliaferro and C. Meister. New York, NY: Oxford University Press, 15-30.
- Lewis, David. 1976. "Probability of Conditionals and Conditional Probability." In his *Philosophical Papers*, vol. 2. New York: Oxford UP, 133-152.
- Long, Todd R. 2010. "A Proper *De jure* Objection to the Epistemic Rationality of Religious Belief." *Religious Studies* 46: 375-394.
- Lycan, William G. 2001. *Real Conditionals*. New York: Oxford UP.
- Mellor, D.H. 2005. *Probability: A Philosophical Introduction*. New York: Routledge.
- Merricks, Trenton. 1995. "Warrant Entails Truth." *Philosophy and Phenomenological Research* 55 (4): 841-855.
- Merricks, Trenton. 1997. "More on Warrant's Entailing Truth." *Philosophy and Phenomenological Research* 57 (3): 627-631.
- Moon, Andrew. 2012. "Warrant Does Entail Truth." *Synthese* 184 (3): 287-297.
- Morris, Thomas V. 1991. "The Concept of God." In *Our Idea of God: An Introduction to Philosophical Theology*. Notre Dame, Indiana: University of Notre Dame Press, 27-46.
- Plantinga, Alvin. 1974. *The Nature of Necessity*. New York, NY: Oxford University Press.
- Plantinga, Alvin. 1993a. *Warrant and Proper Function*. New York: Oxford University Press.
- Plantinga, Alvin. 1993b. *Warrant: The Current Debate*. Oxford: Oxford UP.
- Plantinga, Alvin. 1997. "Warrant and Accidentally True Belief." *Analysis* 57 (2): 140-145.
- Plantinga, Alvin. 2000. *Warranted Christian Belief*. New York: Oxford UP.

- Ramsey, Frank P. 1929. "Law and Causality." Reprinted in *Foundations: Essays in Philosophy, Logic, Mathematics, and Economics*, edited by D.H. Mellor. London: Routledge, 128-151.
- Ryan, Sharon. 1996. "Does Warrant Entail Truth?" *Philosophy and Phenomenological Research* 56 (1): 183-192.
- Sennett, James F. 1994. "Is God Essentially God?" *Religious Studies* 30 (3): 295-303.
- Senor, Thomas D. 2002. "A Critical Review of Alvin Plantinga's *Warranted Christian Belief*." *International Philosophical Quarterly* 42 (3): 389-396.
- Sosa, Ernest. 2007. "Natural Theology and Natural Atheology: Plantinga's Evolutionary Argument Against Naturalism." In *Alvin Plantinga*, edited by D.-P. Baker. New York: Cambridge UP, 93-106.
- Stalnaker, Robert C. 1970. "Probability and Conditionals." Reprinted in *Ifs: Conditionals, Belief, Decision, Chance, and Time*, vol. 15, edited by W. Harper, G.A. Pearce, and Robert Stalnaker, 2012. Springer Science and Business Media, 107-128.
- Stalnaker, Robert C. 1976. "Letter to van Fraassen." In *Foundations of Probability Theory, Statistical Inference, and Statistical Theories of Science*, vol. 1, edited by W. Harper and C. Hooker. Dordrecht: Reidel, 302-306.
- Swinburne, Richard. 2001. "Plantinga on Warrant." *Religious Studies* 37 (2): 203-214.
- Wykstra, Stephen J. 2002. "Not Done in a Corner: How to Be a Sensible Evidentialist about Jesus." *Philosophical Books* 43: 81-135.
- Zagzebski, Linda. 1994. "The Inescapability of Gettier Problems." *The Philosophical Quarterly* 44 (174): 65-73.

Notes

- ¹ This paper is currently under review at *Religious Studies*.
- ² I borrow the terms "*de facto*" and "*de jure*" from Plantinga (2000: ix).
- ³ Roughly, "a belief has warrant for a person *S* only if that belief is produced in *S* by cognitive faculties properly (subject to no dysfunction) in a cognitive environment that is appropriate for *S*'s kind of cognitive faculties, according to a design plan that is successfully aimed at truth" (156). But note that Plantinga proceeds to modify this in rather complex ways.
- ⁴ According to the developed version of this model, human beings are made in God's image, which includes being instilled with special cognitive faculties—namely a *sensus divinitatis* (sense of divinity) and the "internal instigation of the Holy Spirit"—which, when functioning properly (i.e., as God designed) (and it might not due to sin), reveals to our intellects the existence of God (and other essential truths of Christianity) and "seals them upon our hearts." Christian belief is therefore "basic" (produced innately, not deliberately by inference or argument), and, given Plantinga's epistemology, is "properly" so (i.e., justified, rational, and warranted).
- ⁵ Todd Long (2010).
- ⁶ Wykstra (2002), Senor (2002), and Swinburne (2001).
- ⁷ See Baker (2005) for a critical overview of a good range of such objections.
- ⁸ Beilby (2007), Clark (2007), Feldman (2003), Gale (2001), Gale (2007), and Kvanvig (2007).

⁹ One might understand positive epistemic status as a specific positive epistemic status, such as rationality, justification, warrant, or knowledge. Another option is to interpret it as an all-things-considered epistemic evaluation.

¹⁰ Long (2010).

¹¹ Plantinga would presumably prefer this adjustment himself, since he holds that a proposition being more probable than not is an insufficient standard for belief (*WCB*, 271, n. 56).

¹² For a good explication and defense of this conception over others, I recommend Morris (1991).

¹³ See Plantinga (1974: 214-215), where he adopts the argument of J.N. Findlay (1948: 108-118). For further defense of the idea that perfection requires necessary existence, see Brian Leftow (2010). And for some reasons to contest that perfection requires possessing the various perfections essentially, see James Sennett (1994).

¹⁴ For a good, introductory overview of the philosophy of probability and the standard probability calculus, I highly recommend Mellor's book (2005).

¹⁵ If, for example, Q follows from P only via a complex deductive chain that I am not currently capable of seeing, there is some sense in which I am internally consistent in simultaneously accepting P but denying Q.

¹⁶ I borrow the name given to it by Hajek (2003: 273).

¹⁷ Plantinga presumably would only accept the Ratio Formula as an idealization when it comes to epistemic conditional probability, since in earlier work he gives his own alternative account of non-idealized epistemic conditional probability (1993a: Chapter 9). See the next endnote.

¹⁸ Although Plantinga gives an analysis of conditional probability, it is not a function with absolute probabilities as inputs. Here is his "first approximation" (for which he later makes some qualifications): " $P(A/B) = \langle x, y \rangle$ iff $\langle x, y \rangle$ is the smallest interval which contains all the intervals which represent the degree to which a rational human being *S* (for whom the conditions necessary for warrant hold) could believe *A* if she believed *B*, had no undercutting defeater for *A*, had no other source of warrant for either *A* or for $\neg A$, was aware that she believed *B*, and considered the evidential bearing of *B* on *A*" (1993a: 168).

¹⁹ I borrow the name from Bennett (2003: 20). Note that this is a weak version of the analysis in the sense that it only goes so far as to say that the material and indicative conditionals have identical *truth conditions*. A stronger version would go further by claiming that they have the same *meaning*. I will be neutral about the stronger version here, since it is irrelevant to anything I will say in this paper.

²⁰ I am convinced by Jackson's argument from the "or-to-if" inference (1987: 4-6), and other similar arguments, and think the responses to it are problematic. But when it comes to explaining away the apparent counterexamples to the Horseshoe Analysis currently available in the literature, all that is available is the Gricean defense from conversational implicature (1967a and 1967b) and the Jacksonian defense from conventional implicature (1987). My own defense departs from the implicature route altogether and is planned as the subject of a future paper.

²¹ "The Formalized Ramsey Thesis" is my own name for a proposal about how to formalize a claim that is sometimes called "the Ramsey Test" or "Ramsey Thesis" or "Ramsey Test Thesis," after its author, Frank Ramsey, in a much-discussed footnote (1929: 143): "If two people are arguing 'If *A* will *C*?' and are both in doubt as to *A*, they are adding *A* hypothetically to their stock of knowledge and arguing on that basis about *C* ... We can say they are fixing their degrees of belief in *C* given *A*." Others have called the proposed formalization "Stalnaker's Hypothesis" (owing to Stalnaker's 1970 discussion of it, though he was not the first to do so) or "the Equation" (Edgington 1986).

²² I borrow the name for Adams's theory from Lycan (2001: 49).

²³ But we can easily see that there is no such collapse if we accept the Horseshoe Analysis and Ratio Formula. First, when $P[x] = 0$, $P[x \rightarrow y]$ remains defined, whereas $P[y|x]$ does not. But even when $P[x] \neq 0$ and $P[y|x]$ is defined, the conditional probability is not generally the same as the probability of the corresponding conditional. As can easily be proven, the relationship between the two probabilities is this: $P[x \rightarrow y] = 1 - P[x] + P[x]P[y|x]$ (when $P[x] \neq 0$), from which it follows that the two probabilities are equal just in case $P[y|x] = 1$, which is the trivial case in which *x* makes *y* maximally probable or *y* is already maximally probable and *x* has no effect on it.

²⁴ By "modal understanding of probability," I mean an understanding where (a) the probability of a proposition measures the degree to which the proposition is possible (whether the modality is understood physically, metaphysically, logically, or epistemically) and (b) "necessary" in "necessary proposition" expresses the same type of modality as is measured by the probability. Given this type of probability, it follows that any necessary proposition receives maximal probability (i.e., probability 1) and any impossible proposition receives minimal probability (i.e., probability 0).

²⁵ Thanks to Edward Wierenga for this objection.

²⁶ Many have argued that warrant indeed entails truth, e.g., Zagzebski (1994), Merricks (1995 and 1997), and Plantinga (1997). For opposing views, see Ryan (1996), Huemer (2005), Coffman (2008), D. Howard-Snyder et al. (2007), and Moon (2012).

²⁷ In fact, this generalizes. For any proposition Q , if $P[Q] = \frac{1}{2}$, then $P[S_Q] < \frac{1}{2}$, where S_Q is the proposition that Q has some factive positive epistemic status (unless there is perhaps some strange Q such that Q also entails S_Q). So, the proper default stance toward S_Q is disbelief for equal-weight agnostics about Q but agnosticism for inscrutability agnostics about Q .

²⁸ At least, for some such instances of S , such as theistic knowledge or warrant.

²⁹ Plantinga (1993: Chapter 12), Plantinga (2000: 227-240), Fitelson and Sober (1998), Beilby (2002), and Sosa (2007).

³⁰ I am grateful to Edward Wierenga for his fascinating philosophical theology seminar on Plantinga's *Warranted Christian Belief* at the University of Rochester several years ago, during which I developed the foundational ideas of this paper. I am also grateful for his penetrating critique of the initial, rudimentary version of my central argument, the response to which required me to navigate through a vast philosophical terrain, ultimately yielding the more subtle line of thinking presented here.