

50 YEARS OF GETTIER: A NEW DIRECTION IN RELIGIOUS EPISTEMOLOGY?

Ian Church
Saint Louis University

A man will be imprisoned in a room with a door that's unlocked and opens inwards; as long as it does not occur to him to pull rather than push it.

– *Culture and Value* (1980), Ludwig Wittgenstein, 42e

Abstract: In this paper, I lend credence to the move toward non-reductive religious epistemology by highlighting the systematic failings of Alvin Plantinga's seminal, religious epistemology when it comes to surmounting the Gettier Problem. Taking Plantinga's account as archetypal, I argue that we have systematic reasons to believe that no reductive theory of knowledge (religious or otherwise) can viably surmount the Gettier Problem, that the future of religious epistemology lies in non-reductive models of knowledge.

Epistemology is on the move. Ever since 1963 when Edmund Gettier challenged the sufficiency of the standard analysis of knowledge with a series of counterexamples, all attempts to defend it have been shown either to lead to further Gettier-style counterexamples or to produce analyses of knowledge that are unfeasible. And as such, there is a growing movement in contemporary epistemology away from reductive accounts of knowledge toward alternative, non-reductive models.¹

Philosophers working within religious epistemology, however, have yet to follow suit. How we think about knowledge (be it reductively or non-reductively) can easily affect how we think about related concepts like warrant and rationality, and how we think about knowledge, warrant, and rationality can easily, in turn, alter the philosophical landscape surrounding issues like the warrant of religious beliefs, the knowledge of God and his attributes, the epistemic value of sacred texts, etc. It is important, then, that religious epistemology remains in touch with developments in contemporary epistemology more broadly. Most work within contemporary religious epistemology, however, has not yet explored or even considered the possibility of utilizing *non-reductive* models. In this paper, I lend credence to the move toward non-reductive religious epistemology by highlighting the systematic failings of Alvin Plantinga's seminal, religious epistemology when it comes to

¹ The seminal case being Timothy Williamson's non-reductive model in his landmark work, *Knowledge and its Limits* (2000). See Greenough and Pritchard (2009).

surmounting the Gettier Problem. Taking Plantinga's account as archetypal, I argue that we have systematic reasons to believe that no reductive theory of knowledge (religious or otherwise) can viably surmount the Gettier Problem, that the future of religious epistemology lies in non-reductive models of knowledge.

This work is carried out in four sections. In Section 1, I propose a brief diagnosis of the Gettier Problem, which predicts that Gettier counterexamples cannot be feasibly avoided within the reductive model of knowledge.² With this diagnosis in hand, we turn to consider the most iconic and seminal religious epistemology of the twentieth century, Alvin Plantinga's analysis of knowledge in terms of properly functioning cognitive faculties—a view that developed throughout his monumental *Warrant Trilogy*. Plantinga's epistemology is meant to offer a viable reductive account that is immune to Gettier counterexample. Taking Plantinga's epistemology as archetypal for reductive, religious models of knowledge, our goal in the second and third sections is to apply my diagnosis of Gettier problems to each iteration of Plantinga's epistemology. In Section 2, we elucidate and critique Plantinga's analysis of knowledge as it is found in *Warrant and Proper Function* (1993). In Section 3, we elucidate and critique the proposed modifications to Plantinga's original account found, first, in "Respondeo" (1996) and "Warrant and Accidentally True Belief" (1997) and, then, in *Warranted Christian Belief* (2000). In both sections, we find our proposed diagnosis of Gettier problems vindicated, with each iteration and proposal failing precisely along the lines the proposed diagnosis of Gettier Problems predicts. I will suggest that the failure of Plantinga's epistemology to viably surmount the Gettier Problem is not localized to his account, that seemingly parallel arguments could be made against divergent religious epistemologies committed to the reductive model of knowledge, that the future of religious epistemology lies in non-reductive models. But how so? What affect would a turn toward non-reductive models of knowledge have on religious epistemology at large? In Section 4, I try to address these questions and give us an example of how a *non-reductive turn* might affect religious epistemology, specifically when it comes to debates surrounding the epistemic status of religious beliefs.

Section 1: A Very Brief Diagnosis of the Gettier Problem

According to the standard analysis of knowledge, knowledge is something like *warranted true belief*—where "warrant" is whatever is taken to bridges the gap between *true belief* and *knowledge*.³ In other words, warrant, truth, and belief are (according to the standard analysis) taken to be necessary and jointly sufficient for knowledge, such that whenever there is a true belief that is (sufficiently) warranted there is knowledge.

Gettier problems are counterexamples to this analysis of knowledge; in other words, they are cases where a given belief is warranted and true but (intuitively) not instances of knowledge. In particular, Gettier cases are (roughly)

² See Linda Zagzebski's "The Inescapability of Gettier Problems" (1994) and Ian Church's "Getting 'Lucky' with Gettier" (2013).

³ In any case, this is the sort of analysis Plantinga explicitly endorses.

scenarios where a warranted belief is true, but only luckily so—being true for reasons not captured by the warrant. The Gettier Problem, then, is the problem of trying to develop an analysis of knowledge that does not fall prey to such counterexamples.

The normal diagnosis of the Gettier counterexamples is that so long as a given theory of warrant allows for warranted false beliefs, it will be possible to generate cases where a given warranted belief is true for reasons not captured by the warrant.⁴ In other words, if whatever we take to bridge the gap between true belief and knowledge (the warrant) bears some violable relationship to truth, then it will be possible for that belief to be so warranted and true for reasons unrelated to the warrant. The Gettier counterexamples, it seems, demand an infallibilistic account of warrant, an account of warrant that does not allow for warranted false beliefs.

The problem, however, is that genuinely infallibilistic theories of warrant almost always (if not always) seem to lead to skepticism.⁵ If a given belief can be warranted only if it is impossible for that belief to be so warranted and false, then warrant (let alone knowledge), it seems, is largely (if not entirely) unattainable. This state of affairs has lead some scholars—Zagzebski 1994, Floridi 2004, and Church 2013—to conclude that the Gettier Problem cannot be feasibly solved, that advocates of the reductive model of knowledge face a dilemma: take warrant to bear a fallible relationship to truth and face Gettier counterexamples or take warrant to bear an infallible relationship to truth and face the threat of radical skepticism.⁶ As we turn to consider the analysis of knowledge found in Plantinga's religious epistemology, this is the diagnosis of the Gettier Problem that I will work from and that we will see vindicated.

Section 2: Gettier and Plantinga's 1993 Epistemology

Knowledge, for Plantinga, is warranted true belief.⁷ Plantinga's 1993 theory of warrant can be approximately summarized as:

Plantinga's 1993 Warrant: A belief B is warranted for S when B is formed by cognitive faculties (of S's) that are functioning properly in the right environment in accord with a good design plan aimed at truth.⁸

⁴ This approach to the Gettier Problem permeates the literature (see Howard-Snyder et al. 2003). For some examples, see

Dretske 1978; Nozick 1981; Chisholm 1982; Goldman 1986; Sturgeon 1993.

⁵ I say "genuinely" here because sometimes philosophers claim a theory of warrant is infallibilistic (and thereby Gettier-proof) without seeing the skeptical worry. As we will see in Section 2, the skeptical worries do not arise in such cases because the given theory of warrant is not genuinely infallibilistic (and thereby not genuinely Gettier-proof).

⁶ There is, of course, a third option: deny that Gettier counterexamples are genuinely incompatible with knowledge. Given the widespread and common intuition that this is manifestly not the case, we will not be considering this option here.

⁷ Or more accurately, *sufficiently* warranted true belief.

⁸ See Plantinga 1993, 19.

In other words, a given belief, B, will be warranted for Plantinga if and only if the following four conditions are met:

- 1) the cognitive faculties involved in the production of B are functioning properly;
- 2) [the] cognitive environment is sufficiently similar to the one for which [the agent's] cognitive faculties are designed;
- 3) the design plan governing the production of the belief in question involves, as purpose or function, the production of true beliefs.;
- 4) the design plan is a good one: that is, there is a high statistical or objective probability that a belief produced in accordance with the relevant segment of the design plan in that sort of environment is true. (Plantinga 1993, 194)⁹

While we could certainly spend more time developing each of these conditions, given our current purposes (and for the sake of brevity), such a compendious rendering of Plantinga's account of knowledge is sufficient.

Now, how does such an account fare against the Gettier Problem? Given the proposed diagnosis of Section 1, this comes down to what relationship Plantinga assumes warrant bears to truth—whether it bears an infallible or a fallible relationship to truth. The question then becomes: Is it possible, on Plantinga's account, to form a warranted false belief? If it is possible, then warrant is not bearing an infallible relationship to truth. If it is not possible, then warrant is bearing a fallible relationship to truth. Thankfully, Plantinga seems to answer this very question for us:

On an adequate account of warrant, what counts is not whether my experience somehow *guarantees* the truth of the belief in question (and how *could* it do a thing like that?), but whether I hold it with sufficient confidence and whether it is produced in me by cognitive faculties successfully aimed at the truth and functioning properly in an appropriate environment. If so, it has warrant; and if it is also true it constitutes knowledge. (Plantinga 1993b, 55 – emphasis Plantinga's)¹⁰

Plantinga is (reasonably) assuming that warrant bears a close but not infallible relationship to truth. It is, on Plantinga's account, possible to have a warranted

⁹ For other tabulations of Plantinga's 1993 account of warrant (what later iterations refer to as the "nutshell" or "central core" of warrant) see Chignell 2003, 445; Plantinga 2000, 156.

¹⁰ Quoted in Klein 1996, 106. Notice that Plantinga seems to express one of the guiding intuitions of this paper: that infallibilism about warrant is ultimately unfeasible. Plantinga also seems to expressly allow for warranted false beliefs in 1993, 40–41. To be sure, in later iterations of his epistemology, Plantinga denies the possibility of warranted false beliefs in an attempt to surmount Gettier counterexamples (see Plantinga 1996, 311–312, 329). We will consider the success of such a venture in the next section.

false belief. On the proposed diagnosis, then, Plantinga's 1993 theory of warrant, his 1993 epistemology, will be susceptible to Gettier counterexample.

And indeed, there was a flurry of cases that demonstrated the vulnerability of Plantinga's 1993 theory of knowledge to Gettier counterexample. For example, Linda Zagzebski, in "The Inescapability of Gettier Problems" (1994), offered the case of Lucky Mary:

Lucky Mary: Suppose that Mary has very good eyesight, but it is not perfect. It is good enough to allow her to identify her husband sitting in his usual chair in the living room from a distance of fifteen feet in somewhat dim light (the degree of dimness can easily be specified). She has made such an identification in these circumstances many times. . . . There is nothing at all unusual about either her faculties or the environment in these cases. Her faculties may not be functioning perfectly, but they are functioning well enough, so that if she goes on to form the belief "My husband is sitting in the living room," that belief has enough warrant to constitute knowledge when true and we can assume that it is almost always true. . . . Suppose Mary simply misidentifies the chair-sitter who is, let us suppose, her husband's brother. Her faculties may be working as well as they normally do when the belief is true and when we do not hesitate to say it is warranted in a degree sufficient for knowledge. . . . Her degree of warrant is as high as it usually is when she correctly identifies her husband. . . . We can now easily emend the case as a Gettier example. Mary's husband could be sitting on the other side of the room, unseen by her. (Zagzebski 1994, 67–68)

Similarly, Peter Klein, in his paper "Warrant, Proper Function, Reliabilism, and Defeasibility" (1996), offered the case of Lucky Ms. Jones:

Lucky Ms. Jones: Jones believes that she owns a well-functioning Ford. She forms this belief in perfectly normal circumstances using her cognitive equipment that is functioning just perfectly. But as sometimes normally happens (no deception here), unbeknownst to Jones, her Ford is hit and virtually demolished—let's say while it is parked outside her office. But also unbeknownst to Jones, she has just won a well-functioning Ford in the Well-Functioning Ford Lottery that her company runs once a year. (Klein 1996, 105)

In both of these cases, the protagonist in question seems to be using properly functioning cognitive faculties. Arguably there is nothing wacky about the environment in these cases—the respective environments are perfectly earth-like, the cognitive faculties in question are not operating in a brain in a vat or on a planet of Alpha Centauri, and there are no liars or illusions at work. And presumably the relevant cognitive faculties in both cases are operating in accord with a design plan that is both (i) good and (ii) aimed at truth; unless we can distinguish the cognitive faculties at work in these cases from the everyday cognitive faculties of perception, memory, or credulity, denying that they meet

either of these conditions will lead us directly to some unhappy skeptical conclusions.

No doubt, Plantinga tried to build some anti-Gettier strategies into his 1993 account of warrant. In *Warrant and Proper Function* (1993b), Plantinga argued, first, that the environment in Gettier counterexamples (as understood in his 1993 account) is somehow uncongenial for the relevant cognitive faculties—that his second condition on warrant is unmet in Gettier cases (see Plantinga 1993b, 35). And later, Plantinga argued that the relevant segments governing the production of a Gettierized belief are not “aimed at truth”—denying that his third condition on warrant is met (see Plantinga 1993b, 38–39). As Richard Feldman (1996) and Peter Klein (1996) have pointed out, however, such strategies (at least in their 1993 iteration) simply don’t work—either leading to further Gettier counterexamples or producing other unsavory epistemic conclusions. And what is more, Plantinga, in “Respondeo” (1996) and “Warrant and Accidentally True Belief” (1997), seemed to concede as much.

According to Plantinga’s reductive religious epistemology, a belief is warranted if it is produced by properly functioning cognitive faculties that are operating in a congenial environment and in accord with a good design plan aimed at truth. And given Plantinga’s 1993 reading of such a definition, warrant bears a close but not inviolable relationship to truth. And in accord with our proposed diagnosis of the Gettier Problem, Plantinga’s account of knowledge fell prey to Gettier counterexample. Thus far, the diagnosis of Gettier counterexamples proposed in Section 1 seems completely on target. However, we are far from finished with Plantinga’s reductive religious epistemology. After accepting that his 1993 account of knowledge was susceptible to counterexample, Plantinga admits that cases like Lucky Mary and Lucky Ms. Jones show that a given belief can be produced by cognitive faculties functioning properly in the right kind of environment in accord with a good design plan aimed at truth and nevertheless fail to have warrant.¹¹ In the next section, we will explore the series of two modifications Plantinga proposes to his environment proviso—starting with “Respondeo” (1996) and “Warrant and Accidentally True Belief” (1997) and working our way to Plantinga’s final modifications in *Warranted Christian Belief* (2000)—and discover that neither of them is any more successful at precluding Gettier counterexamples than his original 1993 account, failing precisely along the lines predicted in Section 1.

Section 3: Plantinga’s Modifications

Plantinga notes that in his original account the environment proviso was more or less a general environmental condition—an environmental condition that required warranted beliefs to be formed in an earth-like environment, an environment with “the presence and properties of light and air, the presence of visible objects, of other objects detectable by our kind of cognitive system, of some objects not so detectable, of regularities of nature, the existence of other people, and so on” (Plantinga 1996, 313). Plantinga has us call this notion of environment the “maxi-environment.” However, as shown by the

¹¹ See Plantinga 1996, 308–329.

aforementioned cases, having a congenial maxi-environment alone is not sufficient for avoiding Gettier counterexamples. So Plantinga introduces the concept of what he calls a cognitive “mini-environment.” Plantinga explains:

We can think of a cognitive mini-environment of a given exercise of cognitive powers E as a *state of affairs* (or propositions)—one that includes all the relevant epistemic circumstances obtaining when that belief is formed. Consider any current belief B I hold and the exercise E of cognitive powers that produced it: the mini-environment M for E (call it “MBE”) includes the state of affairs specified by my cognitive maxi-environment, but also much more specific features of my epistemic situation. (Plantinga 1996, 314)

According to Plantinga, the aforementioned “cognitive environmental pollution” and the abiding “lack of resolution” highlighted by Gettier cases like Lucky Mary and Lucky Ms. Jones are not found in their respective maxi-environments but rather in the mini-environments of the relevant exercises of cognitive powers. In other words, the cognitive pollution and lack of resolution come from a given MBE not being favorable for said E.

As such, Plantinga adds the following resolution condition to his *Warrant and Proper Function* (1993) account of warrant:

Resolution Condition: A belief B produced by an exercise E of cognitive powers has warrant only if MBE is favorable for E. (Plantinga 1996, 328)

Not only does a given belief’s cognitive maxi-environment need to be “sufficiently similar to the one for which [its] cognitive faculties are designed” (the original second condition on warrant), its *mini*-environment needs to be favorable for the exercise of cognitive faculties that produced it. To be sure, Plantinga goes on to say that we can make a given MBE as full and detailed as we please, with the exception of truth or falsehood of the given belief—lest mini-environments where a given belief is only luckily true, as in Gettier cases, be deemed favorable (Plantinga 1996, 314–315). As such, the relevant MBEs of cases like Lucky Mary and Lucky Ms. Jones will, respectively, include the presence of visiting brothers-in-law and Fords being unforeseeably destroyed. Plantinga’s hope, then, is to explicate favorability in such a way that it deems the relevant MBEs in such cases as unfavorable—precluding the corresponding beliefs from being warranted and therefore precluding their (mistakenly) being deemed knowledge by his account. At the heart of Plantinga’s anti-Gettier strategy and his proposed modifications is his explication of “favorability.”

Section 3.1: 1996/1997 Favorability

Just what does it mean for a mini-environment to be “favorable” for a given exercise of cognitive powers? While Plantinga is initially skeptical as to whether this kind of detail is “attainable or necessary here,” nevertheless, in “Respondeo” (1996) and “Warrant and Accidentally True Belief” (1997), Plantinga posits the following definition (1996, 327):

1996/1997 Mini-Favorability: MBE is favorable for E, if and only if, if S were to form a belief by way of E, S would form a true belief. (Plantinga 1997, 144; Plantinga 1996, 328)

At first blush, it may seem as though Mini-Favorability is completely ineffectual. It would seem as though the mini-environment of the particular exercise of cognitive powers that produced Ms. Jones's belief that she owns a Ford is indeed favorable as the belief is true. Plantinga avoids this hurdle, however, by specifying that Mini-Favorability's counterfactual semantics are non-standard (i.e., non-Lewisian, non-Stalnakerian)—“the truth of *p* and *q* is not sufficient for the truth of the counterfactual *if p then q*” (Plantinga 1996, 328).¹² Mini-Favorability is “a point where the usual semantics for counterfactuals is inadequate” (Plantinga 1996, 328–329).¹³ The counterfactual semantics that Plantinga instead stipulates is one where “the counterfactual is true only if there is no *sufficiently close* possible world in which *p* is true but *q* is not” (Plantinga 1996, 329 - emphasis Plantinga's). In other words, according to Plantinga, a given MBE is favorable for E, if and only if, if S were to form a belief by way of E in MBE, S would form a true belief in *all close possible worlds*. As such, the MBEs of the relevant cases are not meant to be favorable for their corresponding exercises of cognitive powers; seemingly, so it goes, in many close possible worlds, the protagonist's belief in question would be false. Subsequently, if the MBE is not favorable in such cases, then Plantinga's resolution condition on warrant is not met.

Perhaps realizing that Gettier cases will be unavoidable so long as warrant is not infallibly connected to truth, Plantinga's 1996/1997 account of warrant, where his new Resolution Condition is understood in terms of 1996/1997 Mini-Favorability, is meant to “[guarantee] that no false belief has warrant” (1996, 329). It is meant to be impossible for a warranted belief to be false, and as such it is supposed to be impossible for a warranted belief to only be true for reasons not captured by the warrant. As such, according to our proposed diagnosis of the Gettier Problem, Plantinga's 1996/1997 account of warrant and corresponding religious epistemology should be immune to Gettier counterexamples but unfeasible, leading to some skeptical conclusion. At first blush, however, no such conclusion seems to be at hand. Does this mean that Plantinga has found an exception to our diagnosis of Gettier counterexamples, finding a viable reductive solution to the Gettier Problem?

Unfortunately for Plantinga (and fortunately for the proposed diagnosis), the answer is no. Plantinga was simply wrong about his 1996/1997 account's infallibilism. Despite what Plantinga says, his 1996/1997 account of warrant simply does not “guarantee that no false belief has warrant.” Consider the following familiar scenario: Ms. Jones believes that she owns a well-functioning Ford, and she forms this belief under good circumstances using properly functioning cognitive equipment. But, as it happens, a freak event occurs; Ms.

¹² Also see Plantinga 1997, 144n.

¹³ Plantinga goes on to reference some other points where the standard counterfactual semantics are inadequate. Quantum effects: “perhaps in fact the photon went through the right slit rather than the left; that is not enough to entail that if it had gone through either slit, it would have gone through the right” (1996, 328–329). Die tossing: “I toss the die; it comes up 5. That is not sufficient to entail that if I had tossed the die, it would have come up 5” (1996, 329).

Jones's car is utterly destroyed by a stray meteor. In such a scenario, Ms. Jones's belief seems to meet all of Plantinga's original 1993 conditions on warrant and it seems to satisfy his Resolution Condition as understood in terms of 1996/1997 Mini-Favorability—presumably, in all close possible worlds, Ms. Jones's Ford is not hit by a roaming meteor. As such, Plantinga's 1996/1997 account of knowledge *does* allow for warranted false beliefs; and as such, it should, according to the proposed diagnosis, be susceptible to Gettier counterexample. And this is precisely what we find. To produce such a counterexample, simply stipulate that Ms. Jones wins that "Well-Functioning Ford Lottery" in all close possible worlds (perhaps one of her friends rigged the lottery without Ms. Jones knowing about it), and then we have produced a Lucky Ms. Jones-like counterexample to Plantinga's revised account of warrant. Again, our proposed diagnosis of Gettier problems seems to get it exactly right.

And as much is vindicated in the relevant literature. In "Gettier and Plantinga's Revised Account of Warrant" (2000), Thomas Crisp has leveled a similar Gettier counterexample against Plantinga's 1996/1997 account:

Prune Guessing: Suppose your uncle runs the town's annual guess-the-number-of-prunes-in-the-jar contests. Your prankish friend takes it on good authority that the jar contains 138 prunes and lets you in on the secret. Unbeknownst to both you and your friend, though, the number he is given is incorrect. Now, suppose further that your uncle has taken ill with an unusual brain fever and has come to believe that the fate of the nation hangs on your winning the contest. Since he can't remember how many prunes were in the jar to begin with, he empties it and refills it with the exact number of prunes indicated on your contest entry card. The day of the contest arrives and the town gathers for the beloved counting of the prunes. You believe firmly that the jar contains 138 prunes. And indeed it does. But your belief is true by accident: had your uncle not taken ill with the fever, your belief would have been false. (2000, 47)

Again, the protagonist's belief in Crisp's case seemingly meets not only the original conditions for warrant but also the conditions of favorability set out in 1996/1997 Mini-Environment Favorability. The full and detailed state of affairs in the relevant MBE would include the presence of the uncle's fever and his delusional conviction about national security such that in no close possible worlds is the belief formed by the pertinent exercise of cognitive powers false; though, again, clearly the belief is still only luckily true. And indeed, by the time Plantinga wrote *Warranted Christian Belief* (2000), he seems to have realized this problem with his 1996/1997 modification.¹⁴ According to Plantinga, his 1996/1997 account of mini-environment favorability is simply insufficient because "the relevant counterfactual itself can be true 'just by accident'"—a feature that should be simply impossible if his 1996/1997 account of warrant

¹⁴ Though Crisp's paper is not explicitly mentioned, Plantinga credits Crisp with prompting his later 2000 modification. See Plantinga 2000, 159n. Presumably if Crisp's paper did not explicitly prompt the change in Plantinga's account, we can assume that informal ancillary conversations between Crisp and Plantinga on account of said paper did.

really was infallibilistic regarding truth (2000, 159). To illustrate as much, Plantinga provided his own Gettier counterexample to his 1996/1997 account:

Foggy Fake Barns: Suppose I am driving through [fake barn territory] on an early September morning when there is a good deal of mist and fog. I glance to the right and see a real barn; as it happens, all the nearby fake barns (which outnumber the real ones) are obscured by the morning mist; I say to myself, “Now that is a fine barn!” The belief I form is true; the relevant counterfactual is also true because of the way the fake barns are obscured by mist; but the belief does not have warrant sufficient for knowledge. (Plantinga 2000, 159–160)

Once again, the protagonist’s belief in Foggy Fake Barns seems to meet not only the original 1993 conditions for warrant but also the conditions of favorability set out in 1996/1997 Mini-Environment Favorability. The full and detailed state of affairs in the relevant MBE would include the presence of the fog such that in no close possible worlds is the belief formed by the pertinent exercise of cognitive powers false; though clearly the belief is still only luckily true.¹⁵

Stymied once again, Plantinga went back to the drawing board, so to speak, and proposed a different account of favorability in *Warranted Christian Belief* (2000).¹⁶ If Plantinga’s environmental condition on warrant, in particular his Resolution Condition on mini-environments, is meant to be his anti-Gettier condition, his 1996/1997 modification is simply insufficient. As such, in a final attempt to surmount Gettier counterexamples via reductive analysis, Plantinga tries once more to explicate mini-environment favorability.

Section 3.2: 2000 Favorability

While Plantinga is again unsure as to whether “we can say anything more definite” as to what it means for a mini-environment to be favorable for a given exercise of cognitive powers—beyond our intuition that a given mini-environment will be favorable for a given exercise insofar as that “exercise can

¹⁵ For another worry on the 1996/1997 conception of “favorability” concerning mini-environments, see Chignell 2003, 448.

¹⁶ Other aspects of Plantinga’s 1996/1997 account were critiqued as well, though failing to motivate a change in the 2000 account. For example, in “Gettier and Plantinga’s Revised Account of Warrant” (2000), Thomas Crisp argued that no state of affairs fulfills Plantinga’s definition of mini-environments. In sum, Crisp’s worry is that “for any exercise E of one’s cognitive power in maximally specific circumstances C, there will be . . . reasons for doubting that there is a *closest* state of affairs to C that neither includes nor precludes the proposition that E yields true belief” (2000, 45). The “reasons for doubting” that Crisp mentions are that for any given state of affairs that is taken to be closest to C, we can think of one that is closer. In other words, there may be an infinite series of states of affairs that get closer and closer to C indeterminate in regard to the truth of the given belief such that one never arrives at a “closest” point. Though I have not fully elucidated Crisp’s argument by any means, let me just note that by my lights Plantinga is not putting nearly the same amount of weight on there being a “closest state of affairs . . .” as Crisp assumes. After all, Plantinga invites us to make a given mini-environment as full and as detailed *as we please* (1996, 314)—seemingly implying that getting to the absolute “closest state of affairs . . .” is not centrally important to Plantinga’s account.

be counted on to produce a true belief" in that mini-environment—he is, in *Warranted Christian Belief* (2000), nevertheless compelled to try (Plantinga 2000, 159). Again, Plantinga attributes the aforementioned "lack of resolution"—the lack of fit between the proper function of the given cognitive faculties and the environment in which they operate. And Plantinga characterizes this "lack of fit" in *Warranted Christian Belief* (2000) as a discrepancy between a given mini-environment as *perceived* (or detected) by the pertinent agent and the mini-environment *in full* (Plantinga 2000, 160). In other words, the discrepancy causing the "lack of resolution" is between a given MBE and the conjunction of states of affairs that are *detectible* via the said agent's exercise of cognitive powers E, or DMBE (Plantinga 2000, 160). Hence, to preclude this "lack of resolution" so understood, Plantinga proposes a new conception of mini-environment favorability that aims to track warrant ascriptions along with the absence of this sort of discrepancy:

2000 Mini-Favorability: MBE is favorable just if there is no state of affairs S included in MBE but not in DMBE such that the objective probability of B with respect to the conjunction of DMBE and S falls below r , where r is some real number representing a reasonably high probability. (Plantinga 2000, 160)¹⁷

Plantinga's hope, then, is that something like 2000 Mini-Favorability will provide not only a clearer understanding as to what is required in his Resolution Condition but also a successful defense against Gettier-style counterexamples.

According to Plantinga's analysis of knowledge, the original 1993 conditions for warrant are sufficient for warrant once the environmental condition is amended with his Resolution Condition, now understood in terms of 2000 Mini-Favorability; and warrant, so understood, is with truth and belief meant to be both necessary and jointly sufficient for knowledge.¹⁸ In support of his second attempt at specifying MBE favorability, Plantinga has us consider another Gettier case:

Peter and Paul: I am not aware that Paul's look-alike brother Peter is staying at his house; if I'm across the street, take a quick look, and form the belief that Paul is emerging from his house, I don't know that it's Paul, even if in fact it is (it could just as well

¹⁷ One may worry that Mini-Favorability 2000 sneaks knowledge into the definition of warrant, since, as Thad Botham notes, having a proposition p be detectable to S could perhaps be seen as simply akin to having S know p (2003, 434). If this were the case then Plantinga's account of knowledge would appear to be viciously circular. However, according to Botham, Plantinga presumably has a viable response to this worry. He says: "A merchant's scale detects its being the case that the goods weigh 400 pounds, but the scale cannot detect its being the case that a handful of chocolates weighs three ounces. A thermostat detects its being the case that the room's ambient temperature is eighty degrees Fahrenheit but cannot detect the temperature to four significant digits. A speedometer detects the automobile's moving 50 miles per hour but cannot detect the precise rate of 50.2 miles per hour. Even though the scale, thermostat, and speedometer detect various states of affairs only when they function properly, they do not have knowledge. Neither do they have anything close to justified or warranted beliefs. Thus it's not clear that detection entails anything as strong as knowledge or justified belief" (Botham 2003, 434).

¹⁸ See Plantinga 2000, 161.

have been Peter emerging); . . . if Peter would not have been in the neighborhood, I would have known. (Plantinga 2000, 157)

As Plantinga notes, the resolution problem in this case “arises because I can’t (for example) distinguish Paul from Peter from across the street just by looking” (Plantinga 2000, 160). By taking a glance across the street toward Paul’s house the protagonist can detect all sorts of things (“the appearance of a person, of a man, of someone across the road, and the like”), but he cannot with such a glance tell the difference between Paul and Peter from across the street (Plantinga 2000, 160). This discrepancy between the DMBE and the MBE in the case of Peter and Paul is such that B is seemingly not probable in respect to DMBE. Likewise, cases like Lucky Ms. Jones and Lucky Mary seem to be defused as well. Though Ms. Jones in the case of Lucky Ms. Jones can detect through her pertinent exercise of cognitive powers that she had earlier driven her Ford to the office, she could not detect that the Ford she drove to the office was destroyed. Though Mary in the case of Lucky Mary can detect through her pertinent exercise of cognitive faculty that a husband-like figure is sitting in the living room, she could not detect that the figure is actually her husband’s brother. In accord with Plantinga’s analysis, in Lucky Ms. Jones and Lucky Mary, just like in the case of Peter and Paul, there is a discrepancy between the respective DMBE and the MBE such that the relevant beliefs are not objectively probable in respect to their given DMBEs.

Has Plantinga finally developed a reductive religious epistemology that avoids Gettier counterexample? According to our proposed diagnosis, this will depend on whether or not it is possible for a warranted belief, as elucidated in *Warranted Christian Belief* (2000), to be false. If it is possible, then, according to the proposed diagnosis, Plantinga’s 2000 account of knowledge should still be susceptible to Gettier counterexample. If it is not possible to have a warranted false belief, then, according to the proposed diagnosis, Plantinga’s 2000 account of knowledge will be Gettier-proof but unpalatable, leading to radical skepticism.

Although in *Warrant and Proper Function* (1993) Plantinga seems to expressly allow for false belief having warrant, this certainly does not seem to be his position in his revised accounts.¹⁹ As we already noted, Plantinga fully intended for his 1996/1997 account of warrant to “[guarantee] that no false belief has warrant” (Plantinga 1996, 329). And while Plantinga is nowhere near as explicit in *Warranted Christian Belief* (2000) on this score, he nevertheless seems to imply as much. Consider the following passage:

[T]here can be mini-environments for a given exercise of our faculties, in which it is just by accident, dumb luck, that a true belief is formed, if one is indeed formed. A true belief formed in such a mini-environment does not have warrant sufficient for knowledge, even if it has some degree of warrant. To achieve that more exalted degree of warrant, the belief must be formed in a mini-environment such that the exercise of cognitive powers

¹⁹ See Plantinga 1996, 311–312, 329.

producing it can be counted on to produce a true belief. (Plantinga 2000, 161)²⁰

Given that “being counted on to produce a true belief” is Plantinga’s synonymous lingo for mini-environment favorability, Plantinga is saying in this passage that mini-environment favorability precludes the possibility of a luckily true belief. And given that luckily true beliefs are lucky because they could just have easily been false, Plantinga seems to be saying that mini-environment favorability precludes the possibility of a false belief. In other words, Plantinga in his most recent work seems to take warrant as inviolably related to truth.²¹

And even if this is not the correct way to read such passages, we might have nevertheless *guessed* that Plantinga is assuming that warrant bears an inviolable relationship to truth simply on the grounds that it is extremely difficult to think of a false belief that could satisfy 2000 Mini-Favorability, let alone the other conditions on warrant. One seems utterly at a loss for thinking of any false belief that would not have *some* epistemically relevant state of affairs that is not detectable by the given exercise of cognitive powers that would be included in the respective mini-environment. It seems like for any given false belief there will be some state of affairs not included in the given DMBE that undermines whatever reason(s) we may have to believe said belief.

If there is not a false belief that meets Plantinga’s conditions for warrant, then it will not be possible for a belief to be so warranted but true for other reasons. In other words, if there is not a false belief that meets Plantinga’s conditions for warrant, then his account should be immune to Gettier counterexamples. As such, in accord with our proposed diagnosis of Gettier problems, Plantinga’s account should be unpalatable, leading to skeptical conclusions. Fortunately for the proposed diagnosis (though unfortunately for Plantinga’s account), this is exactly what has been noted in the literature. As critics have repeatedly pointed out, 2000 Mini-Favorability is simply too strong—for many instances that we would intuitively deem knowledge there is *some* state of affairs that would be included in the given MBE but not the DMBE that would significantly reduce the given belief’s objective probability in respect to DMBE and that state of affairs.²² Thad Botham (2003) provides the following three cases:

Only Paul: Consider a version of the [Paul and Peter case] where we stipulate that Paul is an only child, thereby removing Peter from the scene. In addition, the moment before you believe the proposition “There’s Paul,” his uncle—unbeknownst to you—lies to a friend, telling her that Paul has an identical twin brother who’s visiting Paul at that very moment and that he just spoke with each of them on the telephone. Paul’s uncle asserts this falsehood while in London, thousands of miles away. (Botham 2003, 435–436)

²⁰ Plantinga is not clear in such passages as to how a given belief can have any degree of warrant without meeting all of the conditions of warrant. It is reasonable to assume that this relates to the other woes afflicting Plantinga’s understanding of degrees of warrant. See Markie 1996.

²¹ This understanding of Plantinga’s 2000 account of warrant was affirmed during my personal correspondence with Plantinga while presenting at the University of Notre Dame in 2009.

²² See Botham 2003; Chignell 2003.

Tiny Fake Barns: Consider . . . [the case of Fake Barns] with the following alteration. Rather than constructing life-sized barn facades, the locals manufacture model barns so tiny that standard passersby cannot view them. Perhaps the tiny barns are only two inches in height, built to suit ant communities. As you drive through the heart of this anomalous territory, you see one of the only real barns and believe the proposition “That’s a fine barn.” (Botham 2003, 436)

Dalmatian: Suppose you observe a Dalmatian by looking through a window into the backyard. You believe the proposition “There’s a Dalmatian.” However, there is a state of affairs [S]—being such that there are ten mechanical Dalmatians in the backyard, each of which appears like a real Dalmatian—that together with [the given DMBE] renders the objective probability of your belief less than reasonably high. Nonetheless, the owner locked all of the robotic Dalmatians in a shed in his backyard to prevent them from rusting. Indeed, they’ve resided in the shed for about ten years, the lock is rusted shut, and no one has known the key’s whereabouts for at least two years. (Botham 2003, 436)

Andrew Chignell (2003) provides a similar case:

Song Sparrow: Johnson . . . has acquired his ornithological training by reading some birding books and by listening to recordings of birdcalls. Johnson hasn’t seen a song sparrow (*Melospiza melodia*) before, but he is familiar with their plumage, body shape, and calls. Unbeknownst to him, however, song sparrows have suffered from a devastating virus in recent weeks, and there are now only two of them left on the entire continent. The Lincoln’s sparrow (*Melospiza lincolni*), which looks and sounds very similar to the song sparrow, has been unaffected by the virus and there are still quite a few of them living in Johnson’s region. As Johnson strolls through the forest, he hears what seems to him to be the call of a song sparrow. He approaches the relevant tree to get an up-close look at the bird. The bird is, in fact, one of the two remaining song sparrows on the continent. Johnson studies the bird for some time: it looks to him like the song sparrow pictured in his books, and its call sounds like the recordings he has heard. On this basis these observations, Johnson assents, with a degree of strength that is just enough to put him over the threshold required for knowledge, to the proposition that the bird he is observing is a song sparrow. (Chignell 2003, 449)

In all four of these cases we intuitively think that the given protagonists possess knowledge—knowledge that “there’s Paul,” “that’s a fine barn,” “there’s a Dalmatian,” “that’s a song sparrow,” respectively—however, in all four cases there is a state of affairs that “together with [the respective DMBE] makes the objective probability of [the protagonist’s] belief less than reasonably high” (Botham 2003, 436). Though the protagonists in such cases seem to know their

respective beliefs, the conditions for warrant in Plantinga's 2000 account are not met, given 2000 Mini-Favorability.

And to be sure, the problem is general. Plantinga's 2000 account of warrant does not just fail to track knowledge across a limited range of cases, it seems to lead us directly into radical skepticism. Not only is it extremely difficult to think of a false belief that would satisfy Plantinga's 2000 Mini-Favorability, it is extremely difficult to think of a true belief that satisfies it. For almost any given belief there is going to be *some* state of affairs that would reduce the objective probability of said belief in light of the perceived mini-environment (DMBE). Take my belief that grass is green, for example—a belief that is presumably quite epistemically secure. There may be any number of facts that might (either individually or in conjunction) reduce the objective probability of such a belief in light of the mini-environment as I perceive it: it might be the case that color blindness runs in my family; it might be the case that lots of people use the terms “green” and “grass” in ways that I do not;²³ I might have a personal history of getting some colors a bit mixed up, etc. As such, according to Plantinga's 2000 account of warrant, I presumably do not know that grass is green! Take my belief that I am now in pain. Again, there seem to be any number of facts that might (either individually or in conjunction) reduce the objective probability of such a belief in light of the mini-environment as I perceive it: it may be the case that I have a history of hypochondria; it may be the case that I am prone to exaggeration, etc. Again, according to Plantinga's 2000 account of warrant, I presumably do not know that I am now in pain—another radical conclusion. Given Plantinga's infallibilism about warrant, his assumption that his modified account of warrant “guarantees” truth, he can seemingly avoid Gettier counterexample, but only at the cost of skepticism—precisely as our proposed diagnosis would predict.

In response to the Gettier problems afflicting his 1993 account of warrant, Plantinga amended his environmental condition to preclude not only ill-suited maxi-environments but also unfavorable mini-environments. And in his 1996/1997 and his 2000 modifications, Plantinga tentatively tried to say a bit more about what it means for a mini-environment to be favorable for a given exercise of cognitive competence. Both attempts, as we have now seen, seem to fall flat—either leading to further Gettier counterexamples or leading to unsavory skeptical conclusions. But maybe the lesson to be learned from all this is that Plantinga should not try to explain what does not warrant or need explanation. After all, as we have already said, in “Respondeo” (1996) Plantinga worries that perhaps elucidation of mini-environment is neither “attainable or necessary” (1996, 327). In *Warranted Christian Belief* (2000) Plantinga is again unsure as to whether “we can say anything more definite” as to what it means for a mini-environment to be favorable for a given exercise of cognitive powers beyond our intuition that a given mini-environment will be favorable for a given exercise insofar as that “exercise can be counted on to produce a true belief” in that mini-environment (Plantinga 2000, 159). Perhaps Plantinga should just leave his account of warrant somewhat underdefined—omitting any explication

²³ This state of affairs would presumably apply even if I was completely orthodox in my use of such terms. In other words, there may be lots of people who misuse such terms; but as far as the state of affairs as stated above is concerned, I would not know if I was one of them.

of what precisely it means for a mini-environment to be favorable for a given exercise of cognitive faculty.

Sadly, I do not think this is viable strategy for Plantinga to take for at least two reasons. First of all, leaving his account of warrant underdefined in this way would seem negligent. For fifty years, people have been wrestling with the Gettier Problem, with little success; so if we tried to simply say that Gettier counterexamples can be avoided so long as one's environment is suitably favorable, there will be deserved protests and outcries if no explication of favorability is given. Secondly, leaving his account of warrant underdefined in this way would simply mean that the problems that afflict it would be likewise underdefined. Even if he does not try to explain what it means for a given mini-environment to be favorable, our proposed diagnosis of Gettier problems would still apply. Assuming that Plantinga wants warrant to bear some relationship to truth, the question we need to ask is whether that relationship is inviolable or not. If it is not, if it is possible to have a warranted false belief, then presumably Plantinga's account of warrant, even left underdefined, is going to be susceptible to Gettier cases of the following form:

Under-Defined Plantinga Counterexample: S forms the belief B as a result of an exercise of cognitive faculties E. S's cognitive faculties are functioning properly in accord with a good design plan aimed at truth, and the maxi and mini environments are favorable for E. By some accident B is not true for reasons related to E (since we are agreeing for the time being that this is possible), but what is more, by some other accident, B still happens to be true (divorced from E). As such, though S has a warranted true belief that B, S does not know that B.

And if warrant, left underdefined, *does* inviolably track truth, then skeptical worries will continue to loom large. Presumably, if warrant needs to guarantee the truth of the belief in question, then Plantinga's environmental proviso (his anti-luck/anti-Gettier condition) needs to preclude any possibility for a false belief, which will be tantamount to requiring a perfect cognitive environment—a condition that presumably few of even our most secure beliefs can meet.

After realizing that his fallibilistic 1993 conception of warrant was susceptible to Gettier counterexample, Plantinga proposed a series of two modifications that sought to strengthen his account of warrant so as to preclude Gettier problems. Unfortunately for Plantinga, both proposals (like his original account) failed precisely along lines predicted by our proposed diagnosis of Gettier counterexamples. Plantinga's 1996/1997 modification offered a strengthened account of warrant that was, nevertheless, ultimately still fallibilistic. As such, it fell prey to strengthened Gettier counterexamples. Plantinga's 2000 modification produced an account of warrant that seemed genuinely infallibilistic, an account of warrant where warrant inviolably tracks truth. As predicted, this led to unsavory skeptical conclusions. And in all of this, the lines taken by Plantinga's critics in the contemporary literature time and time again affirmed our verdicts and our proposed diagnosis of the Gettier Problem.

Section 4: Possible Implications

We have seen how Alvin Plantinga's seminal analysis of knowledge in terms of properly functioning cognitive faculties has systematically failed to surmount the Gettier Problem. From *Warrant and Proper Function* (1993), to "Respondeo" (1996) and "Warrant and Accidentally True Belief" (1997), to *Warranted Christian Belief* (2000), Plantinga's epistemology, in its various stages and iterations, systematically fails in exactly the way the common and grim diagnosis of the Gettier Problem in Section 1 would predict. Whenever Plantinga's account assumed a close but not infallible relationship between warrant and truth, he faced Gettier counterexamples. Whenever it assumed an infallible relationship, he faced unsavory skeptical conclusions. And what is more, our proposed diagnosis explains and informs not only the development of Plantinga's religious epistemology, but also the critiques leveled against it. Time and time again, there was a revealing correspondence between our proposed diagnosis of Gettier counterexamples and the shortcomings of Plantinga's epistemology as explicated in the relevant literature.²⁴ This all has shown that (arguably) the best religious epistemology has to offer fails to provide a viable, Gettier-proof analysis of knowledge. What is more, we have seen that Plantinga's religious epistemology fails *systematically*, precisely along the lines of the common and grim diagnosis of Gettier counterexamples predicted in Section 1—lending credence to the thought that the sort of problems afflicting Plantinga's account generalizes, that Gettier counterexamples cannot be viably avoided. And all of this goes to suggest that perhaps the future of religious epistemology lies with non-reductive models of knowledge.

Let's say that's all correct. Let's assume that Plantinga's seminal, reductive account of knowledge does indeed systematically fail to viably surmount the Gettier Problem. And let's assume that such a failure does indeed give us reason to doubt that any other reductive account could do any better. And let's assume that this should push philosophers working on religious epistemology toward non-reductive models of knowledge. So what? What affect would a non-reductive turn within religious epistemology have on its various projects? As I suggested at the beginning of this paper, it seems like how we think about knowledge (be it reductively or non-reductively) can easily affect how we think about related concepts like warrant and rationality, and how we think about knowledge, warrant, and rationality can easily, in turn, alter the philosophical landscape surrounding issues like the warrant of religious beliefs, the knowledge of God and his attributes, the epistemic value of sacred texts, etc. But how?

While it is not the aim of this paper to explore just how far-reaching a non-reductive turn in religious epistemology might be, it nevertheless would be valuable to see an example of how such a turn might affect a major project within religious epistemology. As such, continuing with Plantinga's seminal religious

²⁴ Within such literature there were a number of diverse proposals trying to salvage Plantinga's reductive religious epistemology. See, for example, Botham 2003; Chignell 2003; Crisp 2000. Unfortunately, because of our limited goals and space, we are not able to consider such proposals here; however, given the proposed diagnosis of Gettier problems and the light of experience, I think we have excellent *prima facie* reason to suspect that such proposals are ultimately no more successful.

epistemology in terms of properly functioning cognitive faculties, in this section I explore how a non-reductive adaptation might affect debates surrounding the epistemic status of religious beliefs.

What might a non-reductive adaptation of Plantinga's epistemology look like? To start, consider Timothy Williamson's (2000) seminal, non-reductive model of knowledge. Williamson's is a *knowledge-first* epistemology; knowledge is taken to be conceptually primitive, such that it does not yield a reductive analysis in terms of necessary and jointly sufficient conditions that are more conceptually basic. Knowledge, for Williamson, is a *state of mind*. More precisely, knowledge is a *factive* mental state. Williamson's positive account of knowledge can be summarized in the following three points: for any given factive mental state, Φ :

- 1) "S Φ that p " entails that " p ."
- 2) "Know" is (merely) a factive mental state.
- 3) "S Φ that p " entails "S knows that p ."²⁵

And Williamson has helpfully left the door open for some creative reinterpretations or additions to his account. First of all, Williamson has given us little explanation as to what a mental state is.²⁶ We are presumably meant to have an intuitive enough grasp of such terminology so as to proceed without hindrance; however, the point to make is that there is nothing about Williamson's account of mental states that precludes virtue-theoretic concepts like proper-function. And secondly, while Williamson's account of knowledge does not yield a reductive analysis, it does suite *necessary conditions*. As Williamson says himself, "[t]he present account of knowing makes no use of such concepts as *justified*, *caused*, and *reliable*. Yet knowing seems to be highly sensitive to such factors over a wide range of cases. Any adequate account of knowing should enable one to understand these connections" (2000, 41). Williamson acquiesces that he only "adumbrate[s] a strategy without carrying it out" in *Knowledge and its Limits* – a project that future iterations of Williamson's epistemology should seemingly pursue (2000, 41).

It is worth keeping in mind that once Williamson recognizes that knowledge seems sensitive to safety, for example, he modifies his account accordingly – dubbing safety a necessary condition for knowledge.²⁷ Consider Alvin Goldman's Fake Barns case:

Fake Barns: Henry is driving in the country with his son. For the boy's edification Henry identifies various objects on the landscape as they come into view. "That's a cow," says Henry, "That's a tractor," "That's a silo," "That's a barn," etc. Henry has no doubt

²⁵ See Williamson 2000, 29, 34.

²⁶ A similar understanding of Williamson can be found in Cassim 2009, 13.) After all, it seems as though we can easily identify paradigmatic examples of mental states ("love, hate, pleasure, pain . . . believing that it is so, conceiving that it is so, hoping or fearing that it is so, wondering whether it is so, intending or desiring it to be so"), so all we need to do is extrapolate from these to get a rough and ready understanding of how Williamson is wanting to think of knowledge (Williamson 2000, 21).

²⁷ See Williamson 2000, chap. 5-7

about the identity of these objects; in particular, he has no doubt that the last-mentioned object is a barn, which indeed it is. Each of the identified objects has features characteristic of its type. Moreover, each object is fully in view, Henry has excellent eyesight, and he has enough time to look at them reasonably carefully, since there is little traffic to distract him. . . . Suppose we are told that, unknown to Henry, the district he has just entered is full of papier-mâché facsimiles of barns. These facsimiles look from the road exactly like barns, but are really just façades, without back walls or interiors, quite incapable of being used as barns. They are so cleverly constructed that travelers invariably mistake them for barns. Having just entered this district, Henry has not encountered any facsimiles; the object he sees is a genuine barn. But if the barn on that site were a facsimile, Henry would mistake it for a barn. (Goldman 1976, 772–773)²⁸

In such a case, the protagonist, Henry, sees a barn. And given that “seeing” is straightforwardly a factive mental state, by Williamson’s reckoning, Fake Barns should be a quintessential case of knowing; however, we have the strong intuition that Henry does *not* know that “That’s a barn” in an area with so many papier-mâché facsimiles of barns in the neighborhood. And insofar as Fake Barns seems to suggest that knowledge is sensitive to safety, Williamson is more than happy to add safety as a necessary condition on knowledge so as to avoid such counterexamples.

As such, if the case could be made that knowledge is sensitive to proper function, then it seems like Williamson’s account could be easily amended to incorporate a proper function condition for knowledge. Consider a case originally developed by Plantinga in which our protagonist has a brain lesion that causes him reliably to believe he has a brain lesion:

Brain Lesion: Suppose . . . that S suffers from this sort of disorder and accordingly believes that he suffers from a brain lesion. Add that he has no evidence at all for this belief: no symptoms of which he is aware, no testimony on the part of physicians or other expert witnesses, nothing. (Add, if you like, that he has much evidence against it, but then add also that the malfunction induced by the lesion makes it impossible for him to take appropriate account of this evidence.) Then the relevant [process] will certainly be reliable but the resulting belief—that he has a brain lesion—will have little by way of warrant for S. (Plantinga, 1993, p. 199)²⁹

S’s brain lesion causes him to be in a mental state such that he believes that he has a brain lesion. What is more, this mental state seems to be factive. As a

²⁸ It is worth noting that such cases are not Gettier counterexamples (see Zagzebski 1994, 66). Notably, Duncan Pritchard (2010) does not consider Fake Barns to be a Gettier case, because the protagonist (Henry in our case) does not make a “cognitive error.” See Pritchard, Millar, and Haddock 2010, 35–36. According to Pritchard, in order for a case to be a Gettier case a cognitive error has to be committed by the protagonist in question.

²⁹ Also quoted in Pritchard (2005), p. 188. Another case that highlights the importance of the sensitivity of knowledge to epistemic virtue (like proper function) can be found in Greco 1999, 286.

matter of fact, let's stipulate, having a brain lesion like S's is just the sort of thing that causes people to believe they have brain lesions. However, as Duncan Pritchard has noted, "We have a strong intuition that there is something epistemically amiss about forming true beliefs via malfunctions in this way" (Pritchard 2005, 188).

As it stands, it's not obvious how Williamson's model of knowledge can ultimately account for cases like Brain Lesion. Safety, to be sure, won't be much help. What is driving our intuition that the protagonist in Brain Lesion does not possess knowledge is not that the belief is unsafe *per se*. Instead, it is the fact that the relevant belief is in no way a cognitive achievement on the part of the protagonist, the epistemic agent himself or herself. The relevant belief is in no way tied to the epistemic faculties of the protagonist. As such, trying to dissolve Brain Lesion with safety is a red herring. The case can be easily reimagined such that the belief is safe—we can stipulate that the protagonist has the brain lesion in all close possible worlds, that the sort of brain lesion afflicting the protagonist is apt for producing self-referential veritic beliefs, etc.—however, that wouldn't shift our intuition that the protagonist lacks knowledge regarding the existence of the brain lesion. Knowledge, it seems, is highly sensitive to the role of epistemic agents—the proper functioning of their faculties, their cognitive abilities, etc.—in belief formation across a range of cases; however, Williamson's model of knowledge does not account for such features. As it stands, Williamson's model needs to specify another necessary condition for knowledge. As it stands, Williamson's model, it seems, needs to account for *proper function*.

One straightforward strategy for developing a non-reductive adaptation of Plantinga's theory of knowledge would be to add a proper function condition onto Williamson's non-reductive model of knowledge. In other words, in the same way that Williamson adds a safety condition of his choosing as a necessary condition of knowledge to address cases like Fake Barns, we could (and presumably should) add a proper function condition as a necessary condition of knowledge to address cases like Brain Lesion. Drawing from and adapting Plantinga's account, we could add a condition like PF:

PF: Knowledge that *p* entails that *p* was formed by properly function cognitive faculties, in the right environment, according to a good design plan, aimed at truth.

The non-reductive adaptation of Plantinga's theory of knowledge that I am proposing, then, takes knowledge to be conceptually primitive and explicates it as factive mental state, where one of the necessary conditions for knowledge is PF. Call this account *non-reductive proper functionalism*.

Non-reductive proper functionalism can, it seems, capture the heart of Plantinga's theory of knowledge without committing to an analysis in terms of necessary, jointly sufficient, and conceptually more primitive conditions. Within *Warranted Christian Belief* (2000), Plantinga builds upon his theory of knowledge to develop a religious epistemology, a religious epistemology that defends the view that theistic belief (specifically Christian belief) is warranted—where *warrant* is taken to be whatever bridges the gap between true belief and

knowledge in his analysis.³⁰ How would building upon *non-reductive proper functionalism* affect Plantinga's religious epistemology?

The affect would be substantial. At the heart of Plantinga's religious epistemology is the claim that theistic belief, via the *sensus divinitatis*, is or at least can be properly basic. What is the *sensus divinitatis*? Drawing from John Calvin, Plantinga explains that the *sensus divinitatis* is:

"...a kind of faculty or a cognitive mechanism, what Calvin calls a *sensus divinitatis* or sense of divinity, which in a wide variety of circumstances produces in us beliefs about God. These circumstances, we might say, trigger the disposition to form the beliefs in question; they form the occasion on which those beliefs arise. Under these circumstances, we develop or form theistic beliefs—or, rather, these beliefs are formed in us; in the typical case we don't consciously choose to have those beliefs. Instead, we find ourselves with them, just as we find ourselves end with perceptual and memory beliefs. (You don't and can't simply decide to have this belief, thereby acquiring it.)" (2000, 172–173)

As traditionally conceived by Plantinga and other advocates of reformed epistemology, properly basic theistic belief—being formed via the *sensus divinitatis*—enjoys warrant. In other words, just as beliefs formed via perception or memory might be viably taken to be properly basic and enjoy the positive epistemic status of warrant, so too theistic belief formed via the *sensus divinitatis* might be viably taken to be properly basic and enjoy the positive epistemic status of warrant. But given *non-reductive proper functionalism*, Plantinga's reformed epistemology would take on a substantially different character.

To start, if the *sensus divinitatis* is akin to perception and memory, it looks like the positive epistemic status enjoyed by theistic belief won't be (or just be) *warrant*, it will be nothing less than *knowledge*! According to non-reductive proper functionalism—having been built off of Williamson's non-reductive model of knowledge—seeing that *p* amounts to knowing that *p*. As such, if, as many reformed epistemologists claim, the *sensus divinitatis* is like seeing, then if you perceive via the *sensus divinitatis* that *p* then you know that *p*. This shift alone will seemingly have a massive effect on both Plantinga's religious epistemology and the diverse work that has built upon and/or significantly engaged with Plantinga's religious epistemology. If religious epistemology needs to be non-reductive, as I have suggested, and if this reimagining of reformed epistemology in terms of *knowledge* as oppose to warrant (or justification or positive epistemic status) is a result, then that, by itself, is more than sufficient reason to think that a non-reductive turn within religious epistemology will have a significant effect on and within religious epistemology. Without going into too much detail, let's consider a few reasons why this is the case.

First of all, such a reimagined religious epistemology arguably affords a greater fit between religious epistemology and the exegesis of various sacred, religious texts. For example, various passages within the Christian canon—passages often cited by advocates of reformed epistemology—seem to attribute

³⁰ See Plantinga 2000, xi–xii.

nothing less than *knowledge* (not warrant) to *perceptions* afforded by general revelation.³¹ Now, of course, it is no straightforward matter unpacking ancient texts within the parlance of contemporary epistemology, and I am not in any way suggesting that the use of “knowledge” in such texts and not “warrant” in any obvious way lends credence to a non-reductive account of religious epistemology. That said, however, I think the boldness of non-reductive accounts like non-reductive proper functionalism—boldly claiming knowledge and not just warrant—affords at least a surface-level fit with such texts, and that fit seems to have *prima facie* value.

But, of course, such boldness would also change the dialectic between theists and atheists and agnostics.³² Theists, it seems, could not only claim warrant for their theistic belief but *knowledge*. Many of the contemporary debates surrounding the existence of God center on the weighing of justification, warrant, or evidence in favor or against the existence of God.³³ But if theists can now viably claim *knowledge* and atheists and agnostics can, at best, only claim *something less than knowledge*, then that dialectic could potentially face a significant shift. And this is going to put new pressure on understanding and developing a framework for understanding *higher-order* religious knowledge. If theists claim to know that God exists, surely the agnostic and the atheist would like to know *how* they know that! Do theists have a *sensus* *sensus* *divinitatis*? And this might even lead to increased interest in and focus on intersections between religious epistemology and recent developments in cognitive science of religion.³⁴ Alternatively, this might force a shift towards cashing out the dialectic *purely* in terms of other epistemic goods like justification or evidence. In other words, if epistemic goods that are aimed at building up to knowledge via a reductive analysis should be abandoned (because of Gettier problems), and if atheists and agnostics won't accept theistic claims of *knowledge* (via the *sensus* *divinitatis*), then perhaps religious epistemology should just give up on knowledge altogether and simply focus on other epistemic goods for their own sake.

And finally, a move toward non-reductive religious epistemology would also affect issues within *religious disagreement*. First of all, it is not obvious that a theist claiming to know that God exists—knowing via *sensus* *divinitatis*—can or should treat non-theists as epistemic peers who are (by hypothesis) lacking or ignoring a *sensus* *divinitatis*. Perhaps we could easily imagine reducing the credence we ascribe to a *warranted* belief (or even withholding it) when faced with peer disagreement; however, it is not as clear that we should (or could) reduce the credence in (or withhold) a belief that we are taking to be *knowledge* (and knowledge that is arguably of a similar pedigree as visual perception) when dissenting peers are, again by hypothesis, lacking (or ignoring) relevant epistemic content provided by the *sensus* *divinitatis*.³⁵ Can dissenting peers ever

³¹ See Romans 1:18-21. Some other passages that seem to show the connection between religious faith in the Christian tradition and knowledge include: 1 John 4:8; 1 Thess. 5:5; Galatians 4:8; Job 18:21; Psalm 135:5.

³² And depending on the specific deliverances of the *sensus* *divinitatis*, this shift might also affect dialectics within debates surrounding religious pluralism and religious diversity.

³³ This is the sort of dialectic we see frequently in Plantinga and Tooley 2008.

³⁴ See Barrett and Church 2013.

³⁵ It's worth noting that work on the noetic affects of sin might also need to adjust to a non-reductive turn within religious epistemology.

be genuine, epistemic peers if they are lacking such content? Does this give theists a free pass when it comes to dogmatism? Some might think so and argue that such dogmatism is completely permissible. Others might resist a move toward dogmatism and argue that acquiring *knowledge* via the *sensus divinitatis* does not actually lead to it. Others still might agree that acquiring *knowledge*, instead of warrant, via the *sensus divinitatis* opens the door to dogmatism yet find such dogmatism *impermissible*.³⁶ In any case, there are a host of new and interesting issues, questions, and objections that arise within the philosophy of religious disagreement once we give up reductive models of knowledge and court non-reductive alternatives (like non-reductive proper functionalism).

Conclusion

Epistemology is on the move, and it's time that *religious* epistemology catches up. There is a growing body of literature that suggests that the project of providing a viable reductive analysis of knowledge—analyzing knowledge in terms of necessary, jointly sufficient, and conceptually primitive (or at least *more* primitive) conditions like *warrant*, *truth*, and *belief*—is doomed to fail. “Knowledge” does not and cannot yield analysis; all attempts at analysis lead, it seems, to either Gettier counterexamples or to radical skepticism. But even so, most work within contemporary religious epistemology has not yet explored or even considered the possibility of utilizing *non-reductive* models.

The goal of this paper was to push religious epistemology in that direction. To do this, I highlighted the systematic failure of the seminal reductive analysis of knowledge within the religious epistemology literature—Alvin Plantinga’s analysis of knowledge in terms of properly functioning cognitive faculties—to surmount the Gettier Problem. Alvin Plantinga’s reductive account of knowledge is broadly considered to offer a high-water mark for religious reductive analyses of knowledge. As we have seen, however, Plantinga’s reductive analysis of knowledge is simply unable to viably surmount the Gettier Problem. Whenever Plantinga’s account assumed a close but not infallible relationship between warrant and truth, it faced Gettier counterexamples. Whenever it assumed an infallible relationship, he faced unsavory skeptical conclusions. Again, our proposed diagnosis of Gettier problems explained and informed not only the development of Plantinga’s religious epistemology, but also the critiques leveled against it. Time and time again, there was a revealing correspondence between our proposed diagnosis and the shortcomings of Plantinga’s epistemology as explicated in the relevant literature. This work has shown that (arguably) the best religious epistemology has to offer fails to provide a viable, Gettier-proof analysis of knowledge. What is more, we have seen that Plantinga’s religious epistemology fails systematically, precisely along the lines of the common and grim diagnosis of Gettier counterexamples predicted in Section 1—lending credence to the thought that the sort of

³⁶ Perhaps such a person would argue that if the reductive approach to knowledge cannot viably avoid Gettier counterexamples, and if non-reductive religious epistemology leads to dogmatism in this way, then perhaps we should, again, just give up on knowledge in favor of other epistemic goods.

problems afflicting Plantinga's account generalize, that Gettier counterexamples cannot be viably avoided. And all of this goes to suggest that perhaps the future of religious epistemology lies with non-reductive models of knowledge.

What does such a future look like? That's a question that is beyond the intended scope of this paper; however, we noted (in Section 4) some areas for future research—areas where a shift toward non-reductive religious epistemology will seemingly have a significant effect. From religious epistemology's fit with the exegesis of various sacred, religious texts, to the dialectic between theists and atheists and agnostics, to the epistemology of religious disagreements, we noted how a shift toward non-reductive religious epistemology can change the philosophical landscape in striking ways. And we've only scratched the surface. In this paper, I motivated a new direction for religious epistemology; future research is needed to fully explore where this new direction leads us.³⁷

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