

RELIABILITY IN PLANTINGA'S ACCOUNT OF EPISTEMIC WARRANT

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Abstract

In this paper I consider the reliability condition in Alvin Plantinga's proper functionalist account of epistemic warrant. I begin by reviewing in some detail the features of the reliability condition as Plantinga has articulated it. From there, I consider what is needed to ground or secure the sort of reliability which Plantinga has in mind, and argue that what is needed is a significant causal condition which has generally been overlooked. Then, after identifying eight versions of the relevant sort of reliability, I examine each alternative as to whether its requirement, along with Plantinga's other proposed conditions, would give us a satisfactory account of epistemic warrant. I conclude that there is little to no hope of formulating a reliability condition that would yield a satisfactory analysis of the sort Plantinga desires.

Introduction

In two companion volumes, *Warrant: The Current Debate* and *Warrant and Proper Function*,¹ Alvin Plantinga has offered an extensive, fascinating, and provocative treatment of the notion of epistemic warrant. Plantinga takes epistemic warrant to be that "quality or quantity enough of which, together with truth and belief, is sufficient for knowledge" (WPF, p. v). Thus, on his view knowledge amounts to belief that is both true and sufficiently warranted. After critically reviewing a wide variety of accounts of epistemic warrant in *WCD*, Plantinga proposes and defends his own in *WPF*. According to his

proposal, which has been dubbed *proper functionalism*,² a belief is warranted if and only if it is produced or sustained by the proper function in a congenial cognitive environment of a cognitive faculty or module which is both aimed at truth and reliable with respect to that aim when functioning properly in a suitable environment. Furthermore, given that these conditions are satisfied, the degree of warrant that a belief enjoys is a function of the degree of firmness of that belief.

In order to explicate the main conditions in his account of epistemic warrant, Plantinga introduces the notion of a *design plan*. He explains the notion as follows: "The design plan of an organism or artifact specifies how it works when it works properly—that is (for a large set of conditions), it specifies how the organism *should* work" (WPF, p. 22). In addition to specifying various circumstances and responses, the design plan of a thing also specifies its end or purpose. Roughly, then, we can say that a belief has warrant, according to Plantinga, if and only if it is formed in accordance with the design plan for the faculties which produce or sustain it, provided that design plan is a good one from an epistemic point of view.

In this paper, my aim is to consider what it would take to be a cognitive faculty with a good epistemic design plan. That is, I aim to explore the reliability condition in the proper functionalist account of epistemic warrant. Plantinga's treatment of this condition leaves it relatively imprecise. What exactly is required for the sort of reliability called for in Plantinga's account? Can the reliability constraint be filled out in such a way as to be satisfactory for a proper functionalist account of epistemic warrant? I shall begin by reviewing in some detail the features of the reliability condition as Plantinga has articulated it. From there, I shall consider what is needed to ground or secure the sort of reliability which Plantinga has in mind, and argue for the need for a significant causal condition which has generally been overlooked. Then, after enumerating eight versions of the relevant sort of reliability, I shall examine each alternative as to whether it might be employed satisfactorily in the service of a proper functionalist account of epistemic warrant. In the end, my contention will be that there is no form of reliability such that its requirement, along with Plantinga's other proposed conditions, will give us a satisfactory proper functionalist account of epistemic warrant.

I

To begin, let us take a closer look at the two closely related constraints on the aim and reliability of cognitive faculties or mechanisms which are, we might say, *warrant-capable*—i.e. capable of producing or sustaining warranted beliefs. According to Plantinga, warrant does not supervene upon just *any* belief that results from the proper function of the cognitive faculty or module that produces it in an appropriate cognitive environment. Our cognitive apparatus is complex, consisting in a variety of parts or segments with multifarious purposes or aims. Whether a belief has warrant is dependent in part upon the aim of the cognitive faculties or module by which it is formed or sustained, and according to Plantinga, for warrant the aim of the relevant faculties must be the production or retention of true beliefs.

Furthermore, the relevant faculties or modules must be "*successfully aimed at truth*" (WPF, p. 49, emphasis Plantinga's). That is, the design plan with respect to those faculties must be a good one. The goodness of a design plan with respect to a particular faculty or module or segment is, according to Plantinga, determined by the reliability of that faculty or module or segment with respect to its aim. Let us refer to an aim of true belief production as an *alethic aim*,³ and to reliability in the production of true beliefs as *alethic reliability*. Thus, according to Plantinga, warrant capability requires both alethic aim and alethic reliability.⁴ He cashes out this alethic reliability in terms of objective probability.

[T]he module of the design plan governing its production must be such that it is objectively highly probable that a belief produced by cognitive faculties functioning properly according to that module (in a congenial environment) will be true or verisimilitudinous. (WPF, p. 17)

Note that the reliability called for is not reliability under just any possible circumstances whatsoever. Rather, the reliability in question is a matter of the probability of true belief production provided things go according to design plan specifications. Let us call alethic

reliability so qualified *alethic D-reliability*. Plantinga takes alethic D reliability of cognitive faculties to be not only necessary for the relevant (part of the) design plan to be so far forth a good one, but also sufficient for it to be so. Thus, alethic D reliability (along with alethic aim) seems to be necessary and sufficient for warrant capability⁵ (Henceforth, unless otherwise noted, all references to reliability will be to alethic D-reliability.)

There is another interesting and important feature of the sort of reliability Plantinga has in mind. Reliability, as Plantinga sees it, is a transworld affair—a matter not only of how things are in the actual world, but of how things are across a relevant class of possible worlds. Reliability is, as was noted earlier, a matter of objective probability, and objective probability has a transworld dimension. In elaborating on the relevant notion of reliability, Plantinga describes reliable faculties as follows

[T]hey not only *do* produce true beliefs, but *would* produce true beliefs even if things were moderately different. (They produce true beliefs in most of the appropriately nearby possible worlds, that is, most of the appropriately nearby possible worlds *W* meet the following condition: necessarily, if *W* had been actual, then our cognitive faculties would have produced mostly true beliefs.) (WPF, p. 18)

Beyond this, Plantinga leaves the relevant notion of reliability fairly vague. The project of the remainder of this paper is to try to specify precisely what it is that is required for an alethically-aimed cognitive mechanism to be alethically D-reliable, hence warrant-capable, in the sense envisioned by Plantinga.

Before plunging in, however, it is necessary to draw a distinction between two kinds of belief. Some beliefs are such as to be dependent for warrant on some other belief's (or beliefs') having warrant. Call such beliefs *epistemically dependent beliefs* and the faculties that produce or sustain them *epistemically dependent faculties*. Epistemically dependent beliefs are parasitic upon some other warranted beliefs in the sense that (a) they presuppose some prior beliefs and (b) enjoy warrant only if those prior beliefs do. Memory beliefs (cf WPF, p. 61), beliefs based upon testimony (cf WPF, pp. 83ff), and of course, inferential beliefs⁶ are examples of epistemically dependent beliefs. On

the other hand, beliefs that are not dependent in this way for their epistemic status—e.g., beliefs based on perception and beliefs based on introspection—and the faculties which produce them, are *epistemically independent*. Such beliefs, if warranted, have, we might say, *original warrant*. Warranted epistemically dependent beliefs, on the other hand, have *derived warrant*.

The reason for introducing the distinction between epistemic dependence and independence with respect to beliefs and the faculties that produce them is that the reliability constraint for warrant will differ significantly in the two sorts of cases. The proper functionalist cannot simply say that to be warrant-capable a mechanism that produces epistemically dependent beliefs must be reliable in the same way that an epistemically independent mechanism must be. Since epistemically dependent beliefs are at the mercy of the beliefs upon which they are epistemically dependent not only for warrant but also for their likelihood of being true, alethic reliability (in the way we have been thinking of it, at least) is not really what is needed for the warrant capability of the faculties which produce or maintain them. Thus, we must analyze the goodness of design plans relative to these different kinds of faculties somewhat differently.⁷

Obviously, there is a priority of epistemic independence in that there would be no beliefs having derived warrant if there were no originally warranted beliefs. Therefore, in order to keep this paper to a manageable length, I propose to restrict our investigation to a consideration of what exactly is required for alethic D-reliability of epistemically independent cognitive faculties—i.e. those faculties aimed at producing epistemically independent beliefs, beliefs having original warrant. Henceforth, I shall have in mind epistemically independent faculties in our consideration of the reliability constraint on warrant capability.

II

What exactly is required for an alethically-aimed cognitive mechanism to be D-reliable? Say that a particular hypothetical cognitive faculty or module, CM, has the function of producing epistemically

independent beliefs of a particular sort (e.g., perceptual beliefs of some sort, or beliefs about one's current emotions, or basic mathematical beliefs, or beliefs about future earthquakes in the geographical vicinity of one's residence, or beliefs about the gender of one's yet unborn child,⁸ or what have you)⁹ What would it take for CM to be a reliable mechanism and thus meet the proper functionalist's reliability constraint? Obviously, it would at least have to be highly probable that CM produce true beliefs under design plan conditions—i.e. provided CM functions properly in a congenial environment. What would ground such a probability? How could such reliability be secured?

It seems initially plausible that for such a probability to be grounded, CM must work in such a way (at least usually, and when working properly in the right sort of environment) that it is under the effective control of the facts (e.g., occurrences of events or obtainings of states of affairs) which make its belief outputs true—i.e. of the truth-makers, or what I call *T-facts*, for the true beliefs which CM produces or sustains.¹⁰ It seems highly unlikely, if not impossible, that CM be reliable without its operation normally being causally tied to, or involving causally in some significant way, the *T-facts* for the true beliefs that it produces.¹¹ Let us refer to causation of true belief production in which the *T-fact* plays a significant causal role as *T-causation*. The suggestion then is that a high objective probability of *T-causation* (given the obtaining of design plan conditions) is necessary for reliability. True belief that is not the result of significant *T-causation* is, let us say, *T-accidental*. So for CM to be reliable, it must be likely, given satisfaction of design specifications, that it produce true beliefs, and it must be likely that those true beliefs are not *T-accidentally* produced, but rather the results of significant *T-causation*. For this to be the case, it would seem that *T-causation* must be included somehow in the design plan for CM. CM must be "designed" in such a way as to involve *T-facts* causally in the production of beliefs when it is functioning properly in a suitable environment.

Taking our cue from Plantinga, we can employ the semantical apparatus of possible worlds—and more particularly, *appropriately nearby possible worlds*—to distinguish a variety of possible formulations of

the reliability condition in the proper functionalist account of epistemic warrant. On Plantinga's view, if CM is reliable, then most of CM's appropriately nearby possible worlds (henceforth ANPWs, for short) are such that CM produces mostly true beliefs provided things go according to design specifications.

How are CM's ANPWs to be delineated? What constitutes an ANPW for CM relative to the issue of alethic D-reliability? Assuming that the idea of an ANPW makes sense, perhaps the first question to settle is this: what are we to take CM's ANPWs to be *appropriately nearby*? I take it that in any given case the base (reference, root) world for CM's ANPWs will be whatever world it is in which CM's reliability is a matter of interest. If CM is an actual cognitive mechanism, and we are interested in its actual reliability—i.e. its reliability in the actual world, then the ANPWs for CM will be keyed to the actual world. If our interest is in a mechanism that is possible but not actual, or if our interest is in the reliability of an actual faculty in some other possible world rather than this one, then the ANPWs for the mechanism in question will be keyed to some possible world other than the actual one. Strictly speaking, then, reliability is *reliability in a particular possible world*.

There is an additional complication here that must be addressed. Presumably, the design plan for CM has in view some particular world or sort of world. How precisely is the base world—the one in which CM's reliability is in question—related to the world or sort of world for which CM is designed to produce true beliefs? The base world for CM might or might not be of the sort in which CM is designed to produce true beliefs. If not, it might or might not be relatively similar to the sort of world for which CM is designed. Since our concern has to do with the goodness of a design plan for a cognitive mechanism, let us assume henceforth that the base world for CM is either (a) the world for which CM is designed or (b) a world of the sort for which CM is designed. Given this restriction, any ANPW for CM will be relatively similar to the world or sort of world that is in view in CM's design plan, at least with respect to whatever is relevant to the determination of reliability.

With all this in mind, what is needed for a possible world to be an ANPW for CM? I think that we must assume minimally that an

ANPW for CM is such that the proper function and cognitive environment conditions specified by the design plan for CM are at least sometimes satisfied. That is, for a possible world W to be an ANPW for CM it must be a world in which CM at least sometimes functions properly in a cognitive environment that is sufficiently similar to that in which CM is designed to work with the end of producing true beliefs.¹² Otherwise, W would be irrelevant to the matter of D-reliability. Of course, if it is the case that the proper function condition must be met at least sometimes in W , then W must be a possible world in which there are cognitive subjects possessing CM. Furthermore, for W to be an ANPW for CM, it must be a possible world in which there are states of affairs or events of the sort about which CM is designed to produce beliefs. For example, if CM is a mechanism for producing beliefs about significant near future seismic activity, then for a possible world W to be an ANPW for CM, W must be a world in which quakes sometimes occur in the region(s) in which those subjects having CM are (at least sometimes) to be found. Since it is D-reliability that we are concerned to explicate, the ANPWs for a cognitive mechanism would be determined (in part, at least) by the potential for satisfaction of design plan conditions. The design plan for the cognitive mechanism in question thus plays a determining role in what counts as an ANPW for that mechanism. Doubtless more is required for a complete explication of the notion of an ANPW *vis a-vis* D-reliability, but this much seems to me to capture the core of the notion.

We are now in a position to consider the question of what precisely is needed for the reliability called for in the proper functionalist account of warrant. Now, to be alethically D-reliable, CM must produce true beliefs usually, if not always, in most, if not all, of its ANPWs when things go according to design plan specifications. Furthermore, as noted earlier, a high probability of significant T causation seems to be needed to ground such reliability. Therefore, for CM to be reliable there must be a high probability (given proper function and so forth) that a belief which results from CM's operation is a product of significant T causation. That is, in most, if not all, of CM's ANPWs, it must be the case that most, if not all, beliefs produced by CM under design plan conditions are significantly T-

caused true beliefs. Thus, we can distinguish eight different versions of alethic D-reliability, depending upon whether the true belief production and T causation conditions must obtain always, or merely most of the time, in all, or merely most, of CM's ANPWs.¹³

EIGHT VERSIONS OF ALETHIC D-RELIABILITY

- R1 CM is R1 reliable iff all of CM's ANPWs are such that (a) all beliefs produced by CM when functioning properly in a congenial cognitive environment are true beliefs and (b) all of those true beliefs result from significant T causation
- R2 CM is R2 reliable iff all of CM's ANPWs are such that (a) all beliefs produced by CM when functioning properly in a congenial cognitive environment are true beliefs and (b) at least most of those true beliefs result from significant T causation
- R3 CM is R3 reliable iff all of CM's ANPWs are such that (a) at least most beliefs produced by CM when functioning properly in a congenial cognitive environment are true beliefs and (b) all of those true beliefs result from significant T-causation
- R4 CM is R4 reliable iff all of CM's ANPWs are such that (a) at least most beliefs produced by CM when functioning properly in a congenial cognitive environment are true beliefs and (b) at least most of those true beliefs result from significant T-causation
- R5 CM is R5 reliable iff most (but not all) of CM's ANPWs are such that (a) all beliefs produced by CM when functioning properly in a congenial cognitive environment are true beliefs and (b) all of those true beliefs result from significant T causation
- R6 CM is R6 reliable iff most (but not all) of CM's ANPWs are such that (a) all beliefs produced by CM when functioning properly in a congenial cognitive environment are true beliefs and (b) at least most of those true beliefs result from significant T-causation
- R7 CM is R7 reliable iff most (but not all) of CM's ANPWs are such that (a) at least most beliefs produced by CM when functioning properly in a congenial cognitive environment are true

beliefs and (b) all of those true beliefs result from significant T-causation

- R8 CM is R8 reliable iff most (but not all) of CM's ANPWs are such that (a) at least most beliefs produced by CM when functioning properly in a congenial cognitive environment are true beliefs and (b) at least most of those true beliefs result from significant T causation

The eight forms of reliability distinguished above represent all the relevant possibilities in this context. R1 is obviously the strongest or most restrictive version of reliability, while R8 is the weakest, most inclusive, version. Corresponding to each of these versions of reliability is a version of Plantinga's reliability constraint on warrant capability. For example, corresponding to R4 reliability is the condition that for warrant capability a cognitive faculty or mechanism must be reliable in the sense of R4. Thus, we have eight possible formulations of the reliability condition for epistemic warrant to consider.

III

Are any of these versions of reliability such as to give us a satisfactory reliability constraint for a proper functionalist account of epistemic warrant? Let us begin by considering R8 since it is the weakest version. For CM to be reliable in this sense means that in most, but not all, of its ANPWs, at least most of the beliefs it produces when functioning under design plan conditions are true, and at least most of those true beliefs are T-caused. Given Plantinga's own characterization of D-reliability, this seems initially closer to what he has in mind than any of the other varieties.

A reliability constraint in terms of R8, however, will not do. In the first place, it is doubtful that R8 reliability is possible. A question arises here as to what accounts for the fact that the majority of ANPWs for CM are possible worlds for CM such that under design conditions, CM usually, if not always, produces true beliefs, and usually, if not always, those true beliefs are due to significant T causation. If CM were R8 reliable, then a minority of its ANPWs would be such

that when CM functions properly in a congenial cognitive environment, it produces mostly, or only, false beliefs. That is, given R8 reliability, it is possible (relative to CM's ANPWs),¹⁴ though objectively improbable,¹⁵ that CM produce mostly, or nothing but, false beliefs when working the way it is designed to work in the sort of environment for which it is designed. What could account for this objective improbability? *Ex hypothesi*, in the cases that count with respect to D reliability, (a) CM functions properly, and (b) the cognitive environment is sufficiently like that for which CM is designed. Thus, the likelihood in those possible worlds that CM produce false beliefs is not explicable in terms of either cognitive malfunction or unsuitable cognitive environment. What else could explain this?

Really the question is this: if it is possible for a world such as this—i.e. a world in which the proper function of CM in a congenial environment produces mostly, or nothing but, false beliefs—to be an ANPW for CM, is it possible that CM be reliable? Is allowance of such ANPWs for CM compatible with CM's being reliable? Is it possible that CM be alethically D reliable, yet usually or always produce false beliefs when functioning properly in a congenial cognitive environment?

It is not clear that such is possible. Frankly, I am inclined to think that it is impossible, and thus that the R-possibility of producing predominantly false beliefs under design plan conditions entails lack of D-reliability. If it is R-possible for CM to produce mostly false beliefs under conditions which satisfy design specifications, would it not be the case that there are just as many (if not more) ANPWs for CM in which it produces mostly false beliefs under design plan conditions as there are ANPWs for CM in which it produces mostly true beliefs under design plan conditions? I see no reason to think not. In fact, it seems intuitively that this would be the case.

Indeed, the problem is actually greater than what has been suggested thus far, for R8 also allows ANPWs for CM in which proper function in a congenial environment yields true beliefs about as frequently as false ones. If possible worlds for CM of this variety can be among CM's ANPWs along with those in which the function of CM under design plan conditions yields mostly false beliefs, it is highly implausible that these together should constitute only a minority of

CM's total set of ANPWs. It seems that it should be at least as likely, if not more so, that CM *not* usually produce true beliefs when design plan conditions obtain as that it usually produce true beliefs under such conditions.

There is further reason to question the possibility of R8 reliability. Assuming that CM is R8 reliable, there will be ANPWs for CM in which proper function of CM in the right sort of environment usually—or even always—produces true beliefs, and does so T-accidentally. While such worlds cannot constitute the majority of CM's ANPWs if it is R8 reliable, they can be ANPWs for CM. That being the case, it is relevantly possible (i.e. R-possible), even if improbable, that CM be inerrant, yet produce all of its beliefs in a T-accidental manner. Although its proper function in a congenial environment always yields true beliefs, the function of CM in such a possible world is in no significant way etiologically linked to the facts which make those beliefs true.

That a cognitive mechanism that is reliable has among its ANPWs possible worlds of this sort—i.e. worlds in which the mechanism in question produces only true beliefs, but does so T-accidentally—is counterintuitive. It is difficult to see how a cognitive faculty that is designed to produce true beliefs of a certain sort in a manner that involves significant T causation when things go according to design specifications could be functioning properly if its function *never* involves significant T causation. How can CM sensibly be said to function properly in a congenial environment if it is designed to involve significant T-causation in belief production but never does so? And if it is R-possible under design conditions that CM do what it is designed to do, but never in the way it is designed to do it, in what sense can CM's design plan rightly be said to be a good one? Hence, we again encounter reason to doubt that such reliability is possible.

Thus, it is unlikely that a form of D-reliability, such as R8, that allows the R-possibility of either predominantly false belief production or predominantly T-accidental true belief production is possible. However, even if R8 reliability is possible, there are strikingly counterintuitive consequences for a proper functionalist account of epistemic warrant with a reliability constraint construed in terms of it. First, notice again that worlds in which CM produces mostly or

nothing but false beliefs when things go according to design plan specifications are not excluded from CM's total set of ANPWs. This means (as we have already seen) that R8 reliability leaves open the R-possibility that the proper function of CM in a congenial environment yield at least mostly false beliefs. Yet, those beliefs (as well as any true beliefs which result from proper function of CM in such worlds) would, on Plantinga's analysis, enjoy warrant if the reliability constraint is construed in terms of R8 reliability. In fact, in some of these worlds, proper function of CM occasionally yields warranted true beliefs—i.e. knowledge—and this in spite of the fact that in those worlds CM usually produces false beliefs when functioning properly! That such beliefs should enjoy epistemic warrant is wildly counterintuitive, or should certainly seem so from the proper functionalist's perspective.

Secondly, if R8 reliability is possible, and if it is the sort of reliability required for warrant capability according to the proper functionalist analysis, then (again, as we have already seen) CM might produce mostly or nothing but T accidental true beliefs. In such cases the beliefs produced by CM would be not only true beliefs, but (on the present construal of Plantinga's account) also warranted beliefs—i.e. knowledge. This result is also counterintuitive. The problem is that such beliefs, albeit formed by the proper function of an R8 reliable cognitive mechanism that is in fact inerrant in suitable circumstances, just happen to be true. That is, they just happen to be true in the sense that they are in no way causally linked in their formation to the relevant T facts, their T-facts have nothing of a causal or explanatory nature to do with their coming to be. CM's inerrancy is felicitous to be sure (given the aim of truth), but does not seem sufficient to ground knowledge, CM's exemplification of R8 reliability notwithstanding. If Plantinga's reliability constraint is construed in terms of R8 reliability, the conditions he proposes for epistemic warrant are not jointly sufficient for its exemplification.

We may conclude, therefore, that R8 reliability is not satisfactory for the proper functionalist's purposes. It seems likely to be a form of reliability that is impossible. However, even if it is possible for a cognitive mechanism to possess this sort of reliability, construing the reliability constraint in the proper functionalist analysis of war-

rant in terms of it leaves the analysis vulnerable to counterexamples. Thus, we would not have an acceptable proper functionalist account of epistemic warrant by construing the reliability condition in terms of R8 reliability.

Each of the points just made with respect to R8 reliability applies *mutatis mutandis* to the R5, R6, and R7 versions of reliability. Each of the versions R5 through R7 leaves open the same sorts of possibilities that have proved problematic for R8. Consequently, they also can be dismissed as candidates for the sort of reliability needed for a defensible proper functionalist account of epistemic warrant.

What about R4 reliability? CM is R4 reliable if and only if all its ANPWs are such that most, if not all, of the beliefs it produces when things go according to design plan specifications are true, and most, if not all, of those true beliefs it produces are the results of significant T-causation. Thus we don't have the problem of CM's having any ANPWs in which its proper function in a suitable environment produces mostly or only false beliefs and/or T-accidental beliefs. Might this version of reliability suffice for the proper functionalist's purpose? There are at least two problems here.

First, it is doubtful that R4 is a possible form of D-reliability. The formulation of R4 reliability clearly precludes from the class of CM's ANPWs any possible worlds for CM in which the proper function of CM in an appropriate environment does not at least usually produce true beliefs and this at least usually by way of significant T-causation. This is good from an epistemic point of view, of course. But what accounts for the fact that CM has absolutely no ANPWs of these sorts? Given the R-possibility under design plan conditions of false belief production, and the R-possibility as well of T-accidental true belief production, that CM should have no ANPWs whatsoever in which it is *not* usually the case that CM yields T-caused true beliefs under design plan conditions strikes me as even more counterintuitive than that such worlds should constitute only a minority of CM's ANPWs (which was the first difficulty noted in my consideration of R8 reliability above). If belief production which does not involve significant T-causation is R-possible for CM when functioning properly in an appropriate environment, what is barring the other sorts of worlds—e.g., worlds in which the operation of CM under design plan

conditions produces mostly T-accidental true beliefs and/or mostly false beliefs—as ANPWs for CM? What could make CM such that non-T-caused belief formation, though R-possible, is objectively unlikely? It seems likely that the R-possibility of non-T-caused belief formation under design plan conditions opens the door to the possibility of other sorts of worlds as ANPWs for CM—worlds which are in fact precluded by R4. But, of course, that would open a Pandora's box, for it would land us back in one of the forms R5 through R8, and the quagmire of difficulties that we have seen to attend those! Unless the questions raised here can be plausibly answered, I see no reason for thinking that R4 is a viable sort of reliability.

Another question arises because of the R-possibility presupposed by R4 of belief formation which, though it satisfies design specifications, does not involve significant T-causation. How can there be belief formation which lacks significant T-causation if design plan conditions obtain and if CM is reliable? If CM is reliable and its design plan calls for the involvement of significant T-causation when it functions properly in a congenial cognitive environment, then how is production of either T-accidental true beliefs or false beliefs R-possible if things go as they should?¹⁶ It is not altogether clear that such is R-possible for a cognitive mechanism that is reliable in a way which is grounded in significant T-causation, for in such cases of non-T-caused belief production it is doubtful that both the proper function and cognitive environment conditions are satisfied.¹⁷ Frankly, it is not clear to me that such reliability can be achieved if belief production is not essentially belief production involving significant T-causation when design plan conditions are satisfied in the ANPWs of the faculty.¹⁸

Against this, it might be suggested that non-T-caused belief production by a reliable mechanism is R-possible in the following way. Say that CM is alethically D-reliable, and the design plan for CM calls for CM to form a belief of a certain sort in the event that certain conditions are satisfied, including the exemplification of a certain property or set of properties, *P*, by some object which is related causally to CM's function in forming the belief it does. Let us say further that (a) if a thing is a thing of the sort CM is designed to form beliefs about, then it has *P*, and (b) it is not necessarily the case that

if a thing exemplifies *P* it is the sort of thing CM is designed to form beliefs about. However, we must add the caveat that the probability must be high that if a thing exemplifies *P* it is the sort of thing about which CM is designed to form beliefs. (If it were not highly likely that a thing exemplifying *P* is the sort of thing about which CM is designed to form beliefs, the environment would be significantly “deceptive” or “misleading,” hence leaving the environment condition for warrant unsatisfied.) In such a case, CM produces a belief of the sort it is designed to produce because of the exemplification of *P* and the causal link between that and CM’s function when functioning as it ought. This does not guarantee that the fruit of CM’s operation is a true belief, however, since something else might possess *P*, thus causing CM to “misfire” (in the sense of producing a false belief, not in the sense of failing to function properly). So, perhaps it is possible (i.e. R possible) in this way that a cognitive faculty or mechanism be alethically D-reliable, yet not infallible in circumstances that meet design plan specifications. If so, then it is reasonable to assume that T-accidental true belief production by CM under design conditions is R-possible as well.¹⁹

However, there might be another difficulty here. Even if R4 is a viable version of reliability, it still might not give us what is needed for a satisfactory proper functionalist account of warrant. Consider two examples, the first of which is by Robert Audi:

Example A

Suppose that when I first visit the Smiths I have no idea that they have a photographic collection which includes very realistic, life-size pictures of themselves. When I approach the door to their living room I see, just twelve feet before me, and constituting all I can see through the doorway, a life-size picture of Jane, standing facing me and smiling like the good hostess she is, with the background looking just like the living room’s rear wall. I say “hello” before I get close enough to realize that I see only a photograph of her. I discover that the picture is so lifelike that this happens to everyone who knows Jane and enters unaware of the photograph. I might thus be

quite justified, for a moment, in my belief that Jane is opposite me. As it happens, however, Jane is standing opposite me—in the next room, right behind the wall on which the picture is hung (Audi 1988, pp. 103–4)

Example B

I am in my college residence hall room with my door shut when, at about 6:00 a.m., I hear someone sneeze eight times in rapid succession in the hallway outside my door. I know that Ron, who lives just two doors down, usually sneezes eight to ten times in rapid succession at about this time as he walks from his room to the restroom at the end of the hall. Furthermore, Ron is the only resident who usually sneezes like this, and is usually one of only three or four residents who are up at this early hour. In fact, I've developed the habit of forming a belief that Ron is in the hall each morning when I hear the telltale series of sneezes. Naturally, then, this morning I assume that Ron is in the hall. Now, in fact Ron is in the hall at the time, but it is not he who has just sneezed. Rather, another resident, Tyler, who (unbeknownst to me) has a cold and is also in the hall at the time, is the one who has just sneezed.

Each of these examples seems explicable in terms of the sort of scenario described a couple of paragraphs back—i.e. by reference to something other than the intended object exemplifying the characteristic which ordinarily facilitates the identification of that object. Note that in each example, the true belief which is produced is produced in a T-accidental manner. Furthermore, in neither case does that true belief constitute knowledge. Concerning example A, Audi comments: "My belief that she is opposite me is thus true, as well as justified. But I do not know that she is opposite me" (Audi, p. 104). Similarly, in example B I do not know that Ron is in the hall, although my belief that he is is true and seems reasonable under the circumstances.

Are Plantinga's conditions for epistemic warrant satisfied in these examples? If so, then these examples constitute counterexamples to

the sufficiency of Plantinga's conditions. If not, then these examples, and examples relevantly similar to them, are irrelevant to the issue of alethic D reliability, hence pose no challenge to proper functionalism. There is no reason to doubt that the relevant cognitive mechanisms are functioning properly in these cases. Furthermore, it is reasonable to take the mechanisms involved as warrant-capable, and the possible worlds envisioned in the examples as ANPWs for the relevant mechanisms. Thus, the real question is whether Plantinga's cognitive environment condition is met in these examples.

In an attempt to deal more effectively with the Gettier problem, in more recent writings Plantinga has drawn a distinction between the *maxi-environment* and the *mini-environment* of the operation of a particular cognitive mechanism.²⁰ The *maxi-environment* consists in the more general or global features of our cognitive environment—e.g., general characteristics of our cognitive environment on earth such as the presence of light, air, visible objects, regularities of nature, etc.—and is what is in view in the design plan for a cognitive mechanism. The *mini-environment*, on the other hand, is a more local state of affairs and much more specific, including “all the relevant epistemic circumstances obtaining when [a] particular belief is formed” (Plantinga 1996, p. 314). The *mini-environment* of the operation of a cognitive faculty might include, for example, the presence of barn facsimiles in the countryside, or the fact that a particular thermometer is no longer working. Plantinga maintains that in any given case of belief formation or maintenance, both the *maxi-* and *mini-*environments must be favorable if the belief is to enjoy warrant. That is, for warrant the relevant *maxi-environment* must be within design plan parameters and the relevant *mini-environment* must be such that it can be counted on to be truth-conducive. Plantinga refers to the latter requirement as the *resolution condition*.

While much more might be said about this distinction, for our purposes it is sufficient to note that in all likelihood Plantinga would maintain that the *maxi* environment in each of our cases above, A and B, is sufficiently congenial, but that the *mini* environment in each case is not. That is, the *mini-environment* in each case is such that it cannot be counted on in the interest of producing true beliefs. The painting of Jane in example A and the presence of the sneezing

Tyler along with the quiet Ron in the hallway in example B render the mini-environments unfavorable to the production of true beliefs. Thus, it is doubtful that Plantinga would concede that A and B are counterexamples to his proposed account of warrant.

I am inclined to think that the problem in each of our cases, A and B, is the T-accidental way in which the belief is produced. If that is the *real* problem, then whether or not *these* particular cases counterinstantiate proper functionalism, there is nevertheless an important lesson to be learned from them. To be satisfactory, the proper functionalist conditions for epistemic warrant must not allow for T-accidental true beliefs to count as warranted beliefs or knowledge. But construing the proper functionalist's reliability constraint in terms of R4 reliability leaves open this very possibility.²¹ The problem is that a T-accidental true belief just happens to be true in the sense that the T-fact has nothing of causal significance to do with the formation of the belief in question. The subject's *having* such a belief is wholly explicable without reference to the fact that makes the belief's content true. It seems doubtful that knowledge can be belief that just happens to be true in this sense, even if that belief is produced by the proper function of a reliable cognitive faculty in appropriate circumstances.²²

Regardless of what should be said to this last issue, it seems clear from our previous considerations that we have failed once again to arrive at a form of reliability which can be used to give us a satisfactory proper functionalist analysis of epistemic warrant. R2 reliability—according to which all of CM's ANPWs are such that given the obtaining of design plan conditions CM produces nothing but true beliefs, and at least most of those are T-caused—is similar enough to R4 in the relevant respects to inherit the same difficulties. In addition, the possibility of R2 is suspect due to its presupposition of the R-possibility of T-accidental true belief production, but the R-impossibility of false belief production. What could account for the R-possibility of one but not the other? Thus, R2 also may be ruled out as the kind of reliability needed for the proper functionalist analysis.

What about R3? CM is reliable in the sense of R3 if and only if all its ANPWs are such that at least most of the beliefs which it produces when functioning properly in the right sort of environ-

ment are true ones, and all of those true beliefs are significantly T caused. Unfortunately, R3, like R2 and R4, is not clearly possible. R3 allows some degree of probability, albeit only a small degree, of false belief production by CM when functioning properly in a suitable environment. Again, it is not clear how a cognitive faculty can be D-reliable if it is R-possible for it to produce false beliefs when design plan conditions are satisfied. The possibility of a cognitive faculty exemplifying R3 is even more dubious when we observe that R3 also presupposes the R-impossibility of T-accidental true belief production when things go according to design plan specifications. It is difficult to see how CM could produce false beliefs when functioning properly, but not true beliefs that do not result from significant T causation.

However, what if R3, contrary to my suspicion, is possible? We might begin by observing that proper functionalism with a reliability constraint construed in terms of R3 has a consequence (assuming design specifications are realized) which might be considered a virtue, especially in the light of some of our previous considerations of the other candidate forms of D-reliability. If CM is R3 reliable, all true beliefs it forms are T-caused. There are no T-accidental true beliefs, hence no T-accidental knowledge by the proper functionalist analysis if the reliability condition is construed in terms of R3. *Ceteris paribus*, this gives R3 a bit of an edge over every other form of D-reliability considered so far.

Yet, it would be premature to conclude that requirement of R3 reliability would yield a satisfactory proper functionalist account of warrant (assuming that R3 is possible). In fact, it is not at all clear that it would. For one thing, introducing a causal relation to T-facts as a necessary condition for knowledge has possible deleterious consequences for proper functionalism. One might well ask, for example, what real epistemological work the proper functionalist's conditions are doing if T-causation is necessary for knowledge.²³

There is also a question about whether certain parts of our normal cognitive apparatus which seem clearly to be warrant-capable and which produce epistemically independent beliefs are R3 reliable. It seems highly unlikely that all of our warrant-capable epistemically independent cognitive mechanisms are R3 reliable. (For example,

it seems improbable that our sense perceptual faculties would be reliable in such a way as to preclude the possibility of producing T-accidental true beliefs.) If it is the case that any of our faculties for producing epistemically independent beliefs are warrant capable, yet not R3 reliable, as seems likely, then obviously R3 reliability is not necessary for original warrant after all, and if proper functionalism requires reliability of the R3 variety for original warrant, then the proper functionalist's conditions are too strong.

Thus, R3 seems not to be adequate for the proper functionalist's purposes. It remains only to consider the strongest version of reliability, R1, and see how proper functionalism fares if construed in terms of it.

If our cognitive faculty, CM, is reliable in the sense of R1, then in any of its ANPWs, when things go according to design plan specifications it produces nothing but true beliefs which are significantly T-caused. The possibility of R1 is not questionable in the way that the possibility of each of the other versions of reliability (R2 through R8) is, since in the case of R1 reliability there is no R-possibility either of T-accidental true belief production or of false belief production when design plan conditions are realized. By default, R1 seems to be what is needed for the proper functionalist's reliability condition. Be that as it may, it is doubtful that the proper functionalist will be prepared to construe the reliability condition in terms of R1.

First, given R1 reliability as the kind required for warrant, notice that all warranted beliefs are (and must be) true beliefs. There can (in the sense of R-possibility) be no false beliefs that enjoy a degree of warrant sufficient for knowledge. On this proposal, knowledge just is warranted belief. In fact, *only true beliefs may have any degree of warrant whatsoever*, whether sufficient for knowledge or not, if R1 is required for warrant capability. Recall that according to Plantinga's proposal, degree of warrant is determined by the relative firmness of the belief.²⁴ Thus, to have any degree of warrant at all, the design plan conditions must be satisfied. If R1 is the sort of reliability required for warrant, then there can be no false beliefs that have any degree of warrant whatsoever. This is a consequence that the proper functionalist might wish to avoid, for he or she might well regard some false beliefs as epistemically warranted, or at least as having

some warrant (as do, I suspect, most epistemologists of other persuasions as well) ²⁵

Secondly, relative to the relevant ANPWs, any cognitive mechanism that is reliable in the sense of R1 is infallible with respect to the production of true belief^e when functioning under design plan conditions. Any belief produced by the proper function in a congenial cognitive environment of an R1 reliable cognitive mechanism will inevitably be the result of significant T causation, and any T caused belief is *ipso facto* true. This will likely be judged to be too strong by the proper functionalist and by most other epistemologists as well.

Of course, along with this ANPW-relative infallibility comes an other odd consequence—really the flip side of the coin, so to speak. If proper function in an appropriate environment entails (relative to the relevant ANPWs) true belief production, then production of a false belief entails failure with respect to the proper function and/or cognitive environment conditions—i.e. false belief production entails either (a) cognitive malfunction or (b) inappropriate cognitive environment, or both (a) and (b). Again, it is unlikely that the proper functionalist will find this acceptable.

Thus, it appears unlikely that the strongest form of reliability, R1, even if needed for proper functionalism, and even if logically compatible with proper functionalism, will be considered satisfactory by the proponent of proper functionalism. Requirement of R1 reliability will likely seem (to the proper functionalist, at least) to be an inordinately high demand for epistemic warrant capability.

However, and more importantly, even if the proper functionalist concedes that R1 is required for warrant capability, it still seems unlikely that such a requirement will yield a satisfactory proper functionalist analysis of warrant. As in the case of R3, there would be questions of (a) whether Plantinga's conditions (i.e. proper function, congenial cognitive environment, etc.) are really doing any epistemological work and (b) whether all of our actual warrant-capable epistemically independent cognitive faculties are reliable in the sense of R1. With respect to the former question, it seems more likely that what ultimately accounts for warrant where it is exemplified is something (e.g., appropriate T-causation) which the obtaining of Plantinga's conditions occasions or effectuates rather than the ob-

taining of those conditions itself²⁶ As to the latter question, suffice it to say that it is exceedingly unlikely that all our warrant capable cognitive faculties (which produce epistemically independent beliefs) are R1 reliable

Conclusion

Our investigation has failed to locate a form of reliability that will supply what is needed for Plantinga's reliability condition for warrant in cases of epistemically independent beliefs To recapitulate, I have argued that T-causation must be built into the design plan for a cognitive faculty or mechanism which produces epistemically independent beliefs to be warrant-capable on Plantinga's terms—i e to be alethically D reliable I delineated eight possible ways of construing an alethic D reliability condition which incorporates T-causation in a significant way Yet, out of those eight, none has proven satisfactory for proper functionalism Seeing no other relevant alternatives to these eight, I must conclude that the prospects for developing a tenable proper functionalism look rather bleak, provided of course that such an account of epistemic warrant must include a reliability condition such as that sketched by Plantinga²⁷

Bibliography

- Audi, Robert (1988) *Belief, Justification and Knowledge* Belmont, California Wadsworth
- Fales, Evan (1994) Review of Plantinga's *Warrant and Proper Function* *Mind* 103 393
- Feldman, Richard (1993) "Proper Functionalism" *Nous* 27 34–50
- Plantinga, Alvin (1993) *Warrant and Proper Function* Oxford Oxford University Press
- (1993) *Warrant The Current Debate* Oxford Oxford University Press
- (1995) "Reliabilism, Analyses and Defeaters" *Philosophy and Phenomenological Research* 55 427–64
- (1996) "Respondeo" Jonathan Kvanvig (ed) *Warrant in Contemporary Epistemology Essays in Honor of Plantinga's Theory of Knowledge* Lanham, Maryland Rowman & Littlefield

- (2000) *Warranted Christian Belief* Oxford Oxford University Press
- Sennett, James (1992) *Modality, Probability, and Rationality A Critical Examination of Alvin Plantinga's Philosophy* New York Peter Lang
- Sosa, Ernest (1993) "Proper Functionalism and Virtue Epistemology" *Nous* 27 51–65
- Steup, Matthias (1993) "Proper Functioning and Warrant after Seven Vodka Martinis," *Philosophical Studies* 72 89–109
- Wingard, John C, Jr (1999) "Proper Functionalism, Reliability, and Degrees of Epistemic Warrant" *Southern Journal of Philosophy* 37 653–64
- (2000) "Is Proper Function Necessary for Epistemic Warrant?" *Southwest Philosophy Review* 16 133–41
- Zagzebski, Linda (1996) *Virtues of the Mind* Cambridge, UK Cambridge University Press

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Notes

¹ Alvin Plantinga, *Warrant The Current Debate* (Oxford Oxford University Press, 1993) and *Warrant and Proper Function* (Oxford Oxford University Press, 1993) Hereafter, I shall refer to these volumes as WCD and WPF respectively

² For the first instances of this, see Richard Feldman (1993) and Ernest Sosa (1993)

³ From the Greek word for truth, *αληθεια*

⁴ It is in principle possible that a cognitive mechanism be reliable with respect to truth while not being aimed at truth Such a mechanism would be alethically reliable only accidentally (even if felicitously from an epistemic point of view) with respect to the relevant (part of the) design plan and would not be warrant capable on Plantinga's account

⁵ I have argued elsewhere that alethic D reliability is not (along with the alethic aim) sufficient for warrant capability See my "Proper Functionalism, Reliability, and Degrees of Epistemic Warrant" (Wingard 1999)

⁶ The distinction being drawn here should not be confused with a distinction between epistemically (or *properly*) basic and non basic beliefs. Obviously, beliefs that get their warrant by being held on the evidential basis of other warranted beliefs (i.e. epistemically non-basic beliefs) are epistemically dependent. However, not all epistemically dependent beliefs are epistemically non basic. Although Plantinga does not use the terminology of epistemic dependence which I am introducing here, he in effect argues that warranted memory beliefs and warranted beliefs based upon testimony are epistemically basic, yet epistemically dependent. While such beliefs are not based upon other beliefs in the subject's noetic structure, they do depend for their epistemic status (i.e. their status as epistemically warranted or unwarranted) on the epistemic status of other beliefs. In fact, epistemic status of a belief might be dependent on that of a belief(s) in another subject's belief set. In the case of a testimony based belief, the epistemic status of the belief of the recipient of the testimony is dependent upon the epistemic status of the corresponding belief of the bearer of that testimony.

⁷ I have discussed this matter briefly, attempting to indicate something of what the difference comes to, at the end of "Proper Functionalism, Reliability, and Degrees of Epistemic Warrant," p. 662.

⁸ The last two cognitive mechanisms suggested here are purely hypothetical. As envisioned here, such mechanisms would differ significantly from the actual cognitive endowment of human beings.

⁹ There is a question about how cognitive faculties are to be individuated. This question has been raised, for instance, in Feldman (1993), pp. 42–3 and in Matthias Steup (1993, see p. 106). It is not necessary here to take a position on that issue.

¹⁰ The sort of causal connection envisioned here might include not only cases in which CM's production of a true belief is brought about in some significant sense by the belief's T fact (truth maker), but also cases in which both the T fact and CM's production of the corresponding true belief are effects of a common cause. What is clearly not in view here is so called 'self-fulfilling prophecy'—the sort of case in which belief actually brings about the truth of its propositional content.

¹¹ Say, for example, that CM's function (ordinarily at least) is not causally tied to T facts in the case of true belief production. Usually, when true belief is the result of the proper function of CM, the relevant T fact has nothing to do with the formation of the belief, nothing to do with the way CM works to form that belief. Thus, for any true proposition *p* which is the content of a belief produced by the proper function of CM in a suitable environment, it is not usually the case that CM produces the belief that *p*.

because it is the case that p . The fact that makes p true has nothing to do ordinarily with CM's forming a belief that p . How could such a mechanism be reliable? Even though it seems possible that CM be largely accurate, or even inerrant, in its belief production (that is, there is some possible world in which this is the case), it seems highly unlikely, if not impossible, that CM be reliable in any robust, transworld sense.

¹² It might be thought that for W to be an ANPW for CM it must be the case that CM usually (rather than just occasionally) functions properly and that the cognitive environment is at least usually (rather than just occasionally) suitable. Otherwise, such a possible world is not sufficiently nearby. I shall refrain from delving into a consideration of this matter here, for it seems to me not to be necessary for the purposes of the present investigation. What does seem clearly necessary is that CM function properly, at least sometimes, in a suitable cognitive environment in any world which is an ANPW for CM.

¹³ Each of these formulations should be read in such a way that it is understood that there is a relatively high objective probability, given that things go according to design plan specifications, that belief formation by CM will involve significant T causation. This point needs to be made because of the relative vagueness of the word "most" which is used in several of the formulations.

¹⁴ The kind of possibility in view here is not merely metaphysical or broadly logical possibility, but (more narrowly) possibility within CM's set of ANPWs. Hereafter, I shall refer to this sort of possibility as *R possibility*, indicating that the sort of possibility in view is restricted to those worlds that are relevant to the reliability of the cognitive faculty in question—i.e. the set of ANPWs. A similar designation will be used for any cases of impossibility or necessity restricted in this way. Otherwise, modal terms are to be understood in the broadly logical sense.

¹⁵ That is, it is improbable in the transworld sense.

¹⁶ Obviously, this question applies to all the other versions of reliability which I have distinguished as well, with the exception of R1.

¹⁷ It seems at least likely that *any* non T caused belief production by an alethically D reliable cognitive mechanism could be explained by reference to cognitive malfunction and/or unsuitability of the cognitive environment. James F. Sennett, although not considering the possible relation between significant T causation and reliability, seems to suspect that Plantinga's account of warrant entails this sort of result in cases of false belief production. See Sennett (1992), p. 176, n. 42, where he suggests that on Plantinga's view, "the production of any false belief could conceivably be attributed to

cognitive malfunction or environmental pollution ”

¹⁸ It is clearly R possible, of course, that a warrant-capable cognitive faculty or module produce true beliefs T accidentally in cases in which things do not go according to the design plan specifications relative to that faculty or module. This occurs in Gettier type cases in which a true belief is formed either in a cognitive environment that does not meet design plan specifications or by cognitive malfunction. In such cases, true beliefs are produced in a way that is not only accidental *vis a vis* the design plan (*D accidental*, we might say)—the kind of accidentality Plantinga notes in such cases (cf *WPF*, pp. 31–7), but T-accidental as well. Obviously, such cases do not count with respect to the issue of whether a faculty is alethically D-reliable.

¹⁹ Evan Fales puts the point nicely: “A system which is highly reliable can fail, if it can fail, it can also succeed where, but for luck, it would have failed.” See Fales’ review of *WPF* in *Mind* 103 (1994), p. 393.

²⁰ See Plantinga’s “Respondeo” (Plantinga 1996), especially pages 313–29, also his *Warranted Christian Belief* (Plantinga 2000), pp. 156–61.

²¹ Or so it seems on first blush, at any rate. Would the *resolution condition* close the door to the possibility of T accidental warranted true beliefs? It is not clear that Plantinga intends that it do so. If it does, his theory then runs the risk of collapsing into a causal theory of some sort, in which the distinctive proper functionalist conditions do not really do the epistemological work that he intends. This seems to me to be a real problem for Plantinga’s view if the resolution condition is to be taken in this strong sense.

²² This point should not be confused with the one made earlier (*viz.*, in my discussion of the R8 brand of reliability) about the counterintuitive status of warranted belief which results from the proper function of a faculty which is reliable but which might rarely, if ever, produce beliefs in a way that involves significant T-causation. The earlier point had to do with how a particular belief forming mechanism might usually, or even always, work and the possibility of warrant if it works that way. The present point has to do with how such a mechanism might occasionally work and the possibility of warrant when it works in that manner. That T accidentally formed belief might constitute knowledge is highly questionable. This is particularly clear, I think, in cases of beliefs that arise from perception and introspection. In such cases, it seems to me that T-accidentality would prevent the exemplification of epistemic warrant. Of course, if the possibility of T accidentality in the formation of true beliefs is problematic in the case of R4 reliability, then it will be similarly problematic for R2 and R5 through R8.

²³ One who thinks that false beliefs can be warranted (i.e. have a sufficient degree of warrant for knowledge) might reply that the proper functional

ist's conditions explain how it is that false beliefs can be warranted. But that does not seem sufficient here, given the importance which Plantinga attaches to those conditions. Furthermore, there is some question as to whether Plantinga thinks it possible for false beliefs to be warranted. (See note 25 below.)

²⁴ I have argued that this way of accounting for the relative quantity of warrant is wholly unsatisfactory in my "Proper Functionalism, Reliability, and Degrees of Epistemic Warrant."

²⁵ We should note that it is not completely clear what Plantinga's position is on the issue of whether a false belief may be epistemically warranted. In fact, he seems to have developed some reservations about the possibility of a false belief's being warranted. James F. Sennett, in a note (*Modality, Probability, and Rationality*, p. 176, n. 42) reports the following: "Plantinga has related to me in conversation (July 1989) that he believes a belief can only enjoy the highest degrees of warrant if it is true." In "Reliabilism, Analyses and Defeaters," *Philosophy and Phenomenological Research* 55 (1995): 427–64, Plantinga makes the logical point (p. 437) that "[w]e can consistently add to my account that no false belief has a degree of warrant sufficient for knowledge." While not a categorical denial of the possibility of a false belief's having much warrant, this statement (in its context) is suggestive of a hesitance on Plantinga's part to admit such a possibility. More recently still, in his "Respondeo," Plantinga claims (p. 312) that his "account isn't committed to the possibility that a false belief should have warrant sufficient for knowledge." Furthermore, according to Linda Zagzebski, "Plantinga has said in conversation that he is not opposed to the position that warrant in the degree sufficient for knowledge entails truth." See her *Virtues of the Mind* (Zagzebski 1996), p. 287, n. 13. (I am thankful to an anonymous referee for this journal for calling this last example to my attention.) So perhaps a requirement of R1 would not for this reason be troublesome to Plantinga after all. However, we should note that even if Plantinga is reticent to admit that a false belief might have a degree of warrant sufficient for knowledge, there is no evidence whatsoever of a similar reticence on his part with respect to the possibility of a false belief's having some small degree of warrant—a degree that falls short of that necessary for knowledge in the case of a true belief. Yet such is impossible if R1 is necessary for warrant capability. Of course, this raises a question about his proposed way of accounting for the relative quantity of epistemic warrant. But I shall resist the temptation to probe that issue here.

²⁶ I have argued elsewhere that this is *at least as likely* on the very evidence that Plantinga adduces for the necessity of his proposed conditions for epis-

temic warrant See my "Is Proper Function Necessary for Epistemic Warrant?" (2000)

²⁷ I am grateful to Harvey Siegel, Risto Hilpinen, Ramon Lemos, Leonard Carrier, and Aron Edidin for helpful comments on earlier versions of this paper I also wish to thank Alvin Plantinga for some insightful comments in some personal correspondence on an earlier paper of mine—comments which provided the impetus for this paper Finally, I wish to express gratitude for helpful comments and criticisms on the penultimate draft of this paper to two anonymous referees for this journal