

*Anti-realism, Theism and the Conditional Fallacy\**

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In his presidential address to the APA, “How to be an Anti-realist” (1982, 64–66), Alvin Plantinga argues that the only sensible way to be an anti-realist is to be a theist.<sup>1</sup> Anti-realism (AR) in this context is the epistemic analysis of truth that says,

(AR) necessarily, a statement is true if and only if it would be believed by an ideally [or sufficiently] rational agent/community in ideal [or sufficiently good] epistemic circumstances.

Plantinga demonstrates, with modest modal resources, that AR entails that necessarily, ideal epistemic circumstances obtain. It is a contingent matter whether ideal epistemic circumstances obtain for worldly agents and communities. Hence, the lesson, according to Plantinga, is that an anti-realist should be a theist.

In the present paper we evaluate whether anti-realism entails that necessarily ideal epistemic circumstances obtain. A more careful analysis of Plantinga’s argument appears in section 1. We notice that Plantinga’s interpretation of anti-realism harbors an ambiguity of quantifier scope and that only on the less plausible placement of the quantifiers does AR obviously entail that necessarily ideal epistemic circumstances obtain. In section 2 we evaluate an alternative version of Plantinga’s argument developed by Michael Rea. Rea’s argument gets the quantifiers straight, but depends on logical resources that the anti-realist has independent reason to reject. After evaluating Rea’s argument we conclude that an anti-realist need not be a theist and is not committed to the necessary existence of

ideal epistemic circumstances. In section 3, the lesson we draw is this. Plantinga's and Rea's results reinforce the idea that counterfactual analyses of truth as epistemic are instances of a more general problem of philosophical analysis. Counterfactual analyses tend to commit a "conditional fallacy". We think that neither Plantinga nor Rea has provided resources to show that AR must perpetrate the fallacy. Nonetheless, we conclude that, without a radical revision of the logic, the counterfactual analysis of truth as epistemic cannot avoid perpetrating some version of the fallacy.

### 1. Plantinga's Result

Consider Plantinga's argument that anti-realism implies the necessary existence of an ideal epistemic situation. It begins with the following core idea: if, necessarily, truth is that which would be believed in ideal circumstances, then it would be believed that ideal circumstances obtain if they do obtain. Here is why. As an instance of this theory of truth: in every world, if it is true that ideal circumstances obtain, it would be believed that they obtain if ideal conditions were to obtain. So, in a closest world where ideal circumstances obtain, it would be believed that they obtain.

The upshot for anti-realism roughly is this. Since anti-realism claims that truth just is that which would be believed in ideal circumstances, it is actually true that ideal conditions obtain. And since this follows from a theory of truth, which is a necessary thesis, ideal conditions obtain necessarily. Now the obtaining of epistemically ideal conditions includes the existence of a properly placed epistemic agent/community. So the theory in question implies that necessarily there is a properly placed epistemic agent/community. Since human placement in epistemic circumstances (not to mention human existence) is a contingent matter, Plantinga suggests that the only sensible way to be an anti-realist is to be a theist.

Plantinga's presentation of the argument reveals his logical commitments. He employs classical logic and a modal system at least as strong as S4. Let  $p$  be a place-holder for sentence letters, and  $Q$  be the specific sentence expressing that the relevant epistemic idealization obtains.<sup>2</sup>  $B$  is the propositional operator, such that  $Bp$  says that  $p$  is rationally believed by a properly placed epistemic agent/community.  $\leftrightarrow$  is our strict biconditional (i.e., the necessary material biconditional), and  $\Box \rightarrow$  the David Lewis conditional.<sup>3</sup>  $\Diamond$  and  $\Box$  express possibility and necessity, respectively. They will be treated as dual operators. The accessibility relation  $R$  must be reflexive and transitive, but it need not be symmetric. The remaining logical terminology is standard. A version of the argument proceeds as follows:

- |   |   |
|---|---|
| 1. $(\forall p)(p \leftrightarrow (Q \Box \rightarrow Bp))$ | AR  |
| 2. $Q \leftrightarrow (Q \Box \rightarrow B(Q))$            | from 1, by substitution                                       |
| 3. $Q \leftrightarrow (Q \Box \rightarrow B(Q))$            | from 2, given the reflexivity of R                            |
| 4. $Q$  | Assump. (for $\rightarrow$ -introduction)                     |
| 5. $Q \Box \rightarrow B(Q)$                                | from 3, 4, by detachment                                      |
| 6. $B(Q)$   | from 4, 5, by detachment                                      |
| 7. $Q \rightarrow B(Q)$                                     | from 4–6, by $\rightarrow$ -introduction                      |
| 8. $\Box(Q \rightarrow B(Q))$                               | from 2, 3–7, by closure (necessities entail only necessities) |
| 9. $Q \Box \rightarrow B(Q)$                                | from 8  |
| 10. $Q$   | from 3, 9, by detachment                                      |
| 11. $\Box\Box(Q \rightarrow B(Q))$                          | from 8, given the transitivity of R                           |
| 12. $\Box(Q \Box \rightarrow B(Q))$                         | from 8–9, 11, by closure                                      |
| 13. $\Box Q$  | 2, 3&9–10, 12, by closure                                     |

At line 1 we assume that anti-realism (AR) is true. Line 1 says, necessarily,  $p$  is true just in case  $p$  would be believed if ideal epistemic conditions were to obtain. Line 2 is an instance of AR substituting  $Q$  for the variable  $p$ . Line 2 says, necessarily, ideal conditions obtain if and only if it would be believed that they obtain if ideal conditions were to obtain. At line 3 we derive the material biconditional from the strict biconditional. Then we assume for material conditional-introduction that ideal conditions obtain. This, together with line 3, gives us line 5, trivially. 4 and 5 jointly entail 6, which allows us to introduce the material conditional at line 7.<sup>4</sup> Line 7 follows from line 3, which is a necessary thesis, and only necessities follow from necessities. So at line 8 we necessitate the conditional. Plantinga allows that a necessary conditional is sufficient for the corresponding counterfactual. This gives us the counterfactual at line 9. Line 9 detaches  $Q$  from the biconditional at line 3. Moreover, “by the unimpeachable principle that what is necessary is necessarily necessary, [line 8] is equivalent to [line 11]”.<sup>5</sup> But now 8 entails 9 and, and as line 11 reveals, 8 is necessary. So, by closure, we necessitate line 9 at line 12. And finally, since 3 and 9 jointly entail 10 and both lines 3 and 9 are necessary (as is revealed by lines 2 and 12, respectively), 10 is necessary as well. That is, we conclude at line 13 that ideal epistemic conditions obtain, necessarily.

The conclusion that, necessarily, conditions are epistemically ideal is said to enjoin theism. Here is why. The statement that ideal epistemic conditions obtain (i.e.,  $Q$ ) includes a commitment to the existence of a properly placed rational agent. If  $Q$  is necessary, then so is the existence of a rational agent along with her proper epistemic placement. Presumably, the existence of natural agents and any placement they enjoy is contingent. Plantinga concludes then that the only way sensibly to be an anti-realist is then to be a theist. We might make a further point to strengthen Plantinga’s thesis. If,

necessarily, truth just is that which would be believed in ideal circumstances and ideal circumstances obtain of necessity, it follows that, necessarily, a statement is true if and only if it is rationally believed. So, necessarily, there is an omniscient being, viz., the being posited in ideal epistemic circumstances. Anti-realism apparently does have substantial theistic consequences.

### Replies to Plantinga

Let us consider whether Plantinga's result is valid. In Plantinga's formulation of the argument (not presented here), there are employed some exclusively classical principles, including a classical form of DeMorgan's theorem. Through the work of Michael Dummett, doubts have been raised about the unrestricted validity of exclusively classical principles, when truth is epistemic.<sup>6</sup> Developments in this area favor intuitionistic reasoning. The anti-realist favoring intuitionistic logic, for instance, might then object to Plantinga's employment of exclusively classical principles.

The Dummettian worry may be suppressed. Our presentation of the argument, if not Plantinga's, is intuitionistically respectable.<sup>7</sup> Hence, Dummettian qualms about classical logic are not to the point.<sup>8</sup>

A second objection regarding validity is this. Plantinga's reasoning presupposes that a necessarily true conditional is sufficient for the corresponding counterfactual, hence the derivation from line 8 to line 9. This move presupposes a particular view about how to treat counterfactuals with impossible antecedents. It presupposes that counterfactuals with impossible antecedents are vacuously true. Accordingly, if a necessarily true conditional is true in virtue of its antecedent being necessarily false, then the corresponding counterfactual is vacuously true. But an alternative analysis treats a counterfactual as false when it embeds an impossible antecedent (Lewis, 1973, 25). And so, on the alternative non-vacuous truth analysis, it is not generally the case that necessary conditionals are sufficient for their corresponding counterfactual. Embracing this analysis, it might be suggested that line 8 does not entail line 9 (since  $Q$  may be impossible), and Plantinga's result is invalid.

This criticism is amiss. On the non-vacuous truth reading, line 8 entails line 9, if AR is true. That is because on the non-vacuous truth reading,  $Q$  is possible if AR is true. Interpret as false those subjunctives embedding impossible antecedents. And suppose that  $Q$  is impossible. Then  $Q \Box \rightarrow B(\neg Q)$  is false. The instance of anti-realism substituting  $\neg Q$  for the variable, viz.,  $\neg Q \Leftrightarrow (Q \Box \rightarrow B(\neg Q))$ , then gives us  $\neg\neg Q$ . But that contradicts our assumption that  $Q$  is impossible. So by reductio  $Q$  is possible on the non-vacuous truth reading. Therefore, the necessarily true conditional,  $\Box(Q \rightarrow B(Q))$ , entails in this context the corresponding subjunctive,  $Q \Box \rightarrow B(Q)$ , even if subjunctives with impossible antecedents are false. Plantinga's result (that anti-realism implies the necessity of our epistemic

ideality) is valid if subjunctives with impossible antecedents are treated either as always true or as always false.

Alternatively, and more plausibly, counterfactuals with necessarily false antecedents are to be treated as sometimes true, sometimes false. On this characterization, making the case for the possibility of Q is not straightforward.<sup>9</sup> And the anti-realist who accepts this characterization may deny the unrestricted validity of the inference from a strict conditional to the corresponding counterfactual. If the strict conditional is true in virtue of the impossibility of Q then, on the sometimes-true-sometimes-false analysis of the subjunctive conditional, it is an open question whether  $Q \Box \rightarrow B(Q)$  is true.<sup>10</sup> Plantinga's move from the strict conditional to the corresponding counterfactual is not justified.

So if an anti-realist finds the theistic consequences problematic, a solution to the problem may come in the form of a critique of Plantinga's implicit treatment of the counterfactual. But even if this critique is not forthcoming, a very serious objection may be raised against Plantinga's formulation of anti-realism.

Plantinga's formulation of anti-realism involves a dire ambiguity. The ambiguity appears in talking loosely of "ideal epistemic circumstances". Is the anti-realist saying that there are circumstances ideal for the evaluation of any truth, or that for each truth there is a set of circumstances (not necessarily the same set) ideal for the evaluation of it? These two readings provide us with subject-matter non-specific and subject-matter specific readings of anti-realism, respectively, because the latter, but not the former, avows an epistemic idealization that is specific to the subject-matter of the statement. Presently we argue that the paradox (or theistic consequence) emerges only if we strap the anti-realist with the less plausible of the two readings.

Let us now treat Q as a variable rather than as a constant. It ranges over statements expressing that the relevant epistemic idealization obtains. The subject-matter non-specific reading has the following logical form:

*Subject-matter Non-specific Anti-realism:*  
 $(\exists Q)(\forall p)(p \leftrightarrow (Q \Box \rightarrow Bp))$

The claim here is that there is an ideal set of epistemic conditions such that, for all p, p is true if and only if it would be rationally believed were those conditions to obtain. Alternatively, the anti-realist may hold that, for each statement p, there is an epistemic idealization specific to p, such that p is true if and only if p would be rationally believed were that idealization to be achieved. On this reading, to say that truth is what would be believed in ideal epistemic circumstances is to say that each statement has its own epistemic idealization and a statement is true if and only if it would be

believed in such subject-matter specific circumstances. We may represent this version of the thesis as follows:

*Subject-matter Specific Anti-realism:*

$(\forall p)(\exists Q)(p \rightarrow (Q \Box \rightarrow Bp))$

The difference between the two readings is one of quantifier scope. The former commits us to at least one epistemic idealization at which all truths would be believed, and the latter commits us, for each truth, to an idealization at which it would be believed (though not necessarily the same idealization). The non-specific formulation entails the specific formulation, but not vice versa.

Subject-matter non-specific anti-realism we would expect to be unpopular even among anti-realists. It requires a commitment to the existence of an epistemic situation appropriate for the evaluation of any statement. It is difficult to imagine what such a situation would be like and even more difficult to understand how such a situation is possible, if the relevant epistemic agents are human. If the ideal epistemic situation is humanly unattainable, then it is unclear what explanatory advantage anti-realism has over realism. With the realist, the anti-realist would be forced to admit that truth may not be understood in terms of *our* epistemic capabilities. Of course, if the relevant epistemic agents are to be understood as super-human or divine, then the stronger subject-matter non-specific anti-realism may be more readily embraced. But then it should not be any surprise, and so not at all interesting to discover (via Plantinga's result) that anti-realism has theistic consequences. For the existence of supernatural entities is then explicitly presupposed in the thesis.

Subject-matter specific anti-realism is the logically weaker and more plausible thesis. And it is the only one of the two alternatives with the potential for explanatory gain.

Now, Plantinga's conclusion follows from the subject-matter non-specific reading of anti-realism. That is, granting the non-specific idealization, Plantinga's result is valid (given a popular reading of the counterfactual). But is the result valid when AR is read in the subject-matter specific way? Apparently not. For on the subject-matter *specific* reading, we cannot unrestrictedly derive line 2,  $Q \Leftrightarrow (Q \Box \rightarrow B(Q))$ , from line 1, which now reads,  $(\forall p)(\exists Q)(p \Leftrightarrow (Q \Box \rightarrow Bp))$ . For on that reading  $Q$  need not express the epistemic idealization required properly to evaluate the truth of  $Q$  itself. Formally, it should be clear that the move from line 1,  $(\forall p)(\exists Q)(p \Leftrightarrow (Q \Box \rightarrow Bp))$ , to line 2,  $Q \Leftrightarrow (Q \Box \rightarrow B(Q))$ , is invalid owing to existential quantifier restrictions.

Subject-matter specific anti-realism does not entail theism by way of Plantinga's reasoning, because it does not ensure that the epistemic idealization required for the proper evaluation of the statement  $Q$  is  $Q$  itself. This

brand of anti-realism apparently does not, however, guarantee that there are no such “Q-equivalences”. And if there is at least one case where the conditions ideal for determining the truth of a statement is the same as the conditions ideal for determining that those conditions are ideal, then Plantinga’s reasoning will go through even on the subject-matter specific reading.

For this very reason Crispin Wright suggests that the subject-matter specific reading does not fare better than the non-specific reading (Wright, 2000, 343–344). His claim is that there is no principled reason to suppose that  $Q_p$  (i.e., the epistemic idealization required for the evaluation of statement  $p$ ) never expresses the same proposition as  $Q_{Q_p}$  (i.e., the epistemic idealization required for the evaluation of  $Q_p$  itself). And if there is just one case where  $Q_p$  is strictly equivalent to  $Q_{Q_p}$ , then a version of Plantinga’s result does go through on the subject-matter specific reading. So whether or not the specific reading blocks the result, Wright says, hinges on whether there is a principled argument against the possibility of these Q-equivalences. Wright’s challenge to the proponent of subject-matter specific anti-realism is to show, for the general case, that  $Q_p$  (the epistemic idealization for the proper evaluation of  $p$ ) is never the same as  $Q_{Q_p}$  (the epistemic idealization for the proper evaluation of  $Q_p$  itself). Wright concludes that without this demonstration subject-matter specific anti-realism fares no better than the non-specific thesis.

Wright’s point is inconclusive, since it merely suggests that the burden of proof lies with the anti-realist. But where does it rest? With the anti-realist to show that there are no Q-equivalences or with her opponent to show that there is at least one. We do not wish to debate the burden of proof issue. The important lesson to draw from Wright’s discussion is that the debate can be decided with an answer to the question of whether there are any Q-equivalences. The remainder of the paper is dedicated to answering this question.

Actually, things are more difficult for the anti-realist than they already appear. Wright claims that the challenge is for the anti-realist to show that there are no Q-equivalences. But the anti-realist needs to prove something stronger, namely that there are no Q-implications. Notice that Plantinga’s reasoning does not require that  $Q$  be strictly equivalent to the statement expressing its epistemic idealization. It requires only that  $Q$  be strictly implied by the statement expressing its epistemic idealization. We will return to this point more carefully in the next section. But if this is correct, the challenge for the anti-realist is, more strongly, to show that there is no statement  $p$  that is entailed by  $Q_p$  (the statement that expresses the epistemic idealization for  $p$ ).

## 2. Rea’s Result

In his paper ‘Theism and Epistemic Truth Equivalences’ (2000), Michael Rea develops an argument that aims to show that subject-matter specific

idealizations do not free anti-realism from theistic consequences. In particular he maintains that subject-matter specific anti-realism entails what he calls ‘near-theism’.

Near-theism is the view that (1) there is a necessarily existent rational agent/community and (2) necessarily, there exists an omniscient agent/community.

Clause 1 says that one and the same rational agent/community exists in every possible world. Clause 2 says that in every possible world some omniscient agent/community exists, but not necessarily the same agent/community. Clause 2 entails clause 1 on a very modest modal assumption. As Rea notes it is eminently plausible that contingently existing rational beings might not have existed. There is then a possible world in which there are no contingently existing rational beings. That’s the modest assumption. Now suppose thesis 2 is correct. It says, among other things, that there are rational beings in every possible world. So, there are rational beings in every possible world, but there is a world where there are no contingently existing rational beings. Therefore, some worlds are occupied by necessarily existent rational beings. Given the equivalence relation of modal system S5, it follows that the actual world is occupied by necessarily existent rational beings. And that is clause 1 of near-theism. So in S5 clause 1 follows from clause 2, if contingently existing rational beings might not have existed. We do not intend to question the potential non-existence of contingently existing beings or the logical dependence of clause 1 on clause 2, so we will limit the entirety of our discussion to clause 2. With or without the modest modal assumption, Clause 2 is theism enough for our purposes.

Rea calls the conjunctive thesis ‘near-theism’ rather than ‘theism’, since the existence of a necessary agent, even if this agent is omniscient in every possible world, does not entail the existence of God. Nevertheless, the existence of God entails near-theism. Perhaps, as Plantinga seems to suggest, the existence of God is the most sensible explanation for the truth of near-theism (if near-theism is true). Granting this suggestion we will use the terms ‘theism’ and ‘near-theism’ synonymously.

Rea mentions that the result proving the theistic consequences of anti-realism requires classical reasoning, a modal logic at least as strong as S4, and the prominent view about counterfactuals, including that counterfactuals with impossible antecedents are true. But the anti-realist’s commitment to classical logic is doubtful.<sup>11</sup> And Rea’s favored treatment of the counterfactual (i.e., Plantinga’s favored treatment), we noted earlier, is questionable. Nonetheless, we do not wish to take serious issue on these matters, because, as we shall see, Rea’s result uncovers a problem for anti-realism that does not turn ultimately on an acceptance of these resources.

Rea makes significant use of the following theorem (he calls it T2):

$$(T2) [(P \Leftrightarrow (Q \Box \rightarrow R)) \& (Q \Leftrightarrow P)] \Rightarrow \Box P$$

T2 says that a necessary equivalence of the form  $P \Leftrightarrow (Q \Box \rightarrow R)$  entails  $\Box P$  whenever  $P$  is strictly equivalent to  $Q$ . Rea notices that T2 is derivable in a modal system no weaker than S4. Here is the proof.

Suppose the antecedent of T2:  $(P \Leftrightarrow (Q \Box \rightarrow R)) \& (Q \Leftrightarrow P)$ . Given the reflexivity of the accessibility relation, we may derive the corresponding material biconditionals,  $(P \leftrightarrow (Q \Box \rightarrow R))$  and  $(Q \leftrightarrow P)$ . Now suppose  $Q$  for  $\rightarrow$ -introduction. Applying  $Q$  to the latter biconditional gives us  $P$ . Applying  $P$  to the former biconditional gives us  $Q \Box \rightarrow R$ . And  $Q$  and  $Q \Box \rightarrow R$  jointly imply  $R$ . So, by  $\rightarrow$ -introduction,  $Q \rightarrow R$ . This conditional follows from two biconditionals both of which are necessary, so, by closure, the conditional is itself necessary,  $\Box(Q \rightarrow R)$ . Supposing with Rea that the strict conditional is sufficient for the corresponding counterfactual, it follows that  $Q \Box \rightarrow R$ . Supposing that the accessibility relation is transitive,  $\Box\Box(Q \rightarrow R)$  follows from  $\Box(Q \rightarrow R)$ . We learned that  $\Box(Q \rightarrow R)$  entails  $Q \Box \rightarrow R$ , and we now see that  $\Box(Q \rightarrow R)$  is necessary. So  $Q \Box \rightarrow R$  is necessary. Given our biconditional,  $P \leftrightarrow (Q \Box \rightarrow R)$ , and the counterfactual,  $Q \Box \rightarrow R$ , it follows that  $P$ . And since this biconditional and this counterfactual are necessary,  $P$  is necessary.  $[(P \Leftrightarrow (Q \Box \rightarrow R)) \& (Q \Leftrightarrow P)]$  logically implies  $\Box P$  in S4. That's the proof of T2.

How does T2 figure in a proof of theism from anti-realism? Well, instances of anti-realism share their logical form with the left conjunct of the antecedent of T2. Utilizing T2, a proof that anti-realism entails theism requires us (1) to define  $P$  as a statement such that  $\Box P$  straps the anti-realist with theism, and (2) to show that statement  $P$  is strictly equivalent to  $Q$ . Given the subject-matter specific reading of anti-realism, task 2 amounts to showing that  $P$  is strictly equivalent to the statement expressing the epistemic idealization relevant for the proper evaluation of  $P$ . And that is exactly what Rea aims to do.

Here is an observation that strengthens Rea's position. With the resources used to prove T2, we may derive a stronger thesis (call it T2\*):

$$(T2^*) [(P \Leftrightarrow (Q \Box \rightarrow R)) \& (Q \Rightarrow P)] \Rightarrow \Box P$$

The difference between T2 and T2\* is in the right conjunct of the antecedent. It requires not that  $P$  and  $Q$  be strictly equivalent but merely that  $Q$  strictly imply  $P$ . The proof of T2\* is the same as the proof of T2 (replacing  $Q \Rightarrow P$  for  $Q \Leftrightarrow P$ ), since the proof of T2 does not utilize the right-to-left component of  $Q \Leftrightarrow P$ . T2\* then makes it easier to prove theism from anti-realism, since the antecedent of T2\* is weaker (and so easier to satisfy) than the antecedent of T2. Theorem T2\*, being an implication

stronger than T2 and yet resting on the same logical resources, allows Rea to derive the relevant conclusion  $\Box P$  on weaker assumptions. We will hereafter utilize T2\* in place of T2. With T2\* in hand Rea's position requires that it be shown, not that Q is strictly equivalent to P, but merely that Q strictly implies P.

Consider Rea's main argument. Let  $\alpha$  be the sentence "there is a rational agent/community that possesses all the relevant evidence for the proper evaluation of any statement." In a nutshell  $\alpha$  says that, for some ideal agent/community, conditions are ideal for the proper evaluation of any statement.  $Q\alpha$  will then state that, for some agent/community, conditions are ideal for the proper evaluation of  $\alpha$ . The relevant instance of anti-realism then says that, necessarily,  $\alpha$  is true if and only if  $\alpha$  would be rationally believed if  $Q\alpha$ . Formally,  $\alpha \Leftrightarrow (Q\alpha \Box \rightarrow B\alpha)$ . Rea goes on to argue that  $Q\alpha$  strictly implies  $\alpha$ . Formally,  $Q\alpha \Rightarrow \alpha$ . We will eventually return to this premise and its motivation. For now notice that once conjoined these two statements,  $\alpha \Leftrightarrow (Q\alpha \Box \Rightarrow B\alpha)$  and  $Q\alpha \Rightarrow \alpha$ , satisfy the antecedent of T2\*. But then, by T2\*, it follows that necessarily  $\alpha$ . That is, necessarily there is a rational agent/community that possesses all the relevant evidence for the proper evaluation of any statement.

It is not difficult to see that this conclusion and anti-realism jointly entail clause 2 of Rea's near-theism. Clause 2 says, necessarily, there exists an omniscient agent/community. An omniscient agent/community is one that rationally believes all and only true propositions. Here is how to derive clause 2 from  $\Box\alpha$ .

Part I: Consider an arbitrary truth  $q$  at an arbitrary world. Then given  $\alpha$ , which says that "for some agent/community, conditions are ideal for the proper evaluation of any statement", it follows that, for that agent/community, conditions are ideal for the proper evaluation of  $q$ . Formally,  $Qq$ . Given the following instance of anti-realism,  $q \leftrightarrow (Qq \Box \rightarrow Bq)$ , it follows that  $Bq$  (i.e., said agent/community rationally believes  $q$ ). So, all truths are rationally believed by an esteemed agent/community. Part II: Consider a rational belief had by the esteemed agent/community posited by  $\alpha$ . That is, suppose that, for the relevant being,  $Bq$ . Since, for that community, conditions are ideal for the proper evaluation of any statement, conditions are (for that community) ideal for the proper evaluation of  $q$ . That is,  $Qq$ . Since  $Qq$  and  $Bq$  are both true, it follows that the closest Q-world is a B-world. So,  $Qq \Box \rightarrow Bq$ . By anti-realism,  $q$ . Therefore, only truths are rationally believed by the agent/community posited in  $\alpha$ . By part I and part II, all and only true propositions are believed by the community mentioned in  $\alpha$ . Now given the necessity of  $\alpha$ , it follows that, necessarily, all and only truths are rationally believed by the esteemed agent/community. That is, necessarily, there exists an omniscient agent/community.

To strengthen Rea's position even further it might be noted that theistic consequences follow from anti-realism on weaker modal resources. The

proof of T2\*,  $[(P \Leftrightarrow (Q \Box \rightarrow R)) \& (Q \Rightarrow P)] \Rightarrow \Box P$ , requires a modal system at least as strong as S4, but

$$(T2^{**}) [(P \Leftrightarrow (Q \Box \rightarrow R)) \& (Q \Rightarrow P)] \Rightarrow P$$

is provable in system T, the minimal standard modal logic with a reflexive accessibility relation. The difference between T2\* and T2\*\* is a necessary consequent. The consequent of T2\* is  $\Box P$ , while the consequent of T2\*\* is simply P. In the proof of T2\*, it is the transitive accessibility relation (and the corresponding thesis that what is necessary is necessarily necessary) that is required ultimately to necessitate P. Nevertheless, without transitivity P is derivable. So if everything else is in order, we may derive  $\alpha$  from anti-realism in system T.  $\alpha$  says that some rational agent/community is properly placed for the evaluation of any statement. The reasoning of “Part I” and “Part II”, which rests only upon  $\alpha$ , provides us with the conclusion that there is an omniscient agent/community. So, in a system as weak as T, the anti-realist is committed to the existence of an omniscient agent/community. Omniscience in the actual world is sufficiently theistic to worry the non-theistic anti-realist.

So the only way to be an anti-realist is to be a theist. Or is it? The theistic results depend not only on anti-realism but the thesis  $Q\alpha \Rightarrow \alpha$ . One question remains for the anti-realist. Why believe  $Q\alpha \Rightarrow \alpha$ ? That is, why believe, necessarily,  $\alpha$  is true if conditions are ideal for the proper evaluation of  $\alpha$ ? Here we consider Rea’s explanation.

Rea tells us this. Being in ideal epistemic circumstances with respect to p requires ideal reasoning with respect to p. And if p is the sort of proposition that an ideally reasoning being would accept or reject solely on the basis of evidence, then ideal epistemic circumstances require the possession of ideal evidence in favor of p or ideal evidence in favor of  $\neg p$ . Moreover, ideal evidence is taken to be infallible evidence. So if an agent is in ideal epistemic circumstances with respect to p (and deciding p is solely an evidential matter), then she has infallible evidence in favor of p or infallible evidence in favor of  $\neg p$  (Rea, 2000, 294).

Rea focuses on statement  $\alpha$ , which says that there is a rational agent/community that possesses all the relevant evidence for the proper evaluation of any statement. Presumably  $\alpha$  is the sort of proposition that an ideally reasoning agent/community would accept or reject solely on the basis of evidence. So ideal conditions for the evaluation of  $\alpha$  require infallible evidence for or against  $\alpha$ . Now suppose, for reductio, that conditions are ideal for the evaluation of  $\alpha$  and  $\alpha$  is false. Then some agent/community possesses infallible evidence against  $\alpha$ . Rea argues that this is not possible, because the only way for an agent/community to possess infallible evidence (for or) against  $\alpha$  is for that agent/community to possess all the relevant evidence for the proper evaluation of any statement. That is, the only way to

possess infallible evidence against  $\alpha$  requires that  $\alpha$  be true. And this presents us with a contradiction. Rea develops this line in (2000, 294–295). Therefore it is impossible that conditions are ideal for the evaluation of  $\alpha$  and  $\alpha$  is false:  $\neg\Diamond(Q\alpha \ \& \ \neg\alpha)$ . By classical reasoning, necessarily, conditions are ideal for the evaluation of  $\alpha$  only if  $\alpha$  is true:  $Q\alpha \Rightarrow \alpha$ .

The relevant instance of anti-realism,  $\alpha \Leftrightarrow (Q\alpha \ \Box\rightarrow \ B\alpha)$ , plus the above thesis,  $Q\alpha \Rightarrow \alpha$ , entail in S4 the theistic consequences. The consequence  $\Box\alpha$  follows by T2\*. It says, necessarily, there is a rational agent/community that possesses all the relevant evidence for the proper evaluation of any statement. And from this and anti-realism it follows that, necessarily, an omniscient agent/community exists. And, as we saw, theistic consequences follow even in the weaker modal system T.  $\alpha$  follows in system T via theorem T2\*\*, and from this and anti-realism it follows that there is an omniscient agent/community.

All the theistic consequences hang on whether  $Q\alpha \Rightarrow \alpha$ . And one wonders whether there is logical space for the anti-realist to maneuver around this commitment, perhaps by denying that sufficiently good epistemic conditions require *infallible* evidence or perhaps by denying the unrestricted use of classical logic. But we may bypass these difficult debates altogether, for as we shall presently see the heart of the problem for anti-realism is not located there. The problem is exceedingly more simple.

### 3. The Conditional Fallacy

Plantinga and Rea take their results to reveal theistic consequences of anti-realism. But the results are in fact instances of a more general problem that faces contemporary philosophical analysis. Versions of what is known as the *conditional fallacy* plague a counterfactual analysis when the antecedent of the counterfactual is not always logically independent of the analysandum (Shope, 1978). The problem arises, for instance, when (1) a statement P is said to be strictly connected to a counterfactual claim, as with  $P \Leftrightarrow (Q \ \Box\rightarrow \ R)$  or  $P \Rightarrow (Q \ \Box\rightarrow \ R)$ , and (2) some substitutions for P and Q are not logically independent of each other, e.g.,  $Q \Rightarrow P$  or  $Q \Rightarrow \neg P$ . When in this way the antecedent of the counterfactual is not logically independent of the analysandum, counterintuitive modal consequences often emerge. For instance, statements that are obviously contingent turn out to be necessarily true, or statements that are possible turn out to be impossible.

A familiar conditional fallacy emerges for the basic formulation of the *defeasibility theory* of knowledge. According to this theory, s knows that p just in case her justified belief has no defeaters. That is, necessarily, s's justified belief that p is knowledge if and only if there are no true statements q such that if s were justified in believing q she would not be justified in believing p. But then, absurdly, it is impossible for s to know that she does not believe p, if p happens to be true. For if p is true, it will be a defeater to

the claim that *s* does not believe *p*. Had *s* believed *p* (justifiably), then *s* would not be justified in believing that she does not believe *p* (Shope, 1983, pp. 52, 71, 201). Or so the argument goes. Defeasibility theory provides us with a strict implication, the right-hand side of which is a counterfactual:

$$(DT) sKp \Rightarrow (sJq \Box \rightarrow sJp)$$

We abbreviate here. But DT says, necessarily, *s* knows that *p* only if, for all true statements *q*, *s* would be justified in believing *p* if *s* were justified in believing *q*. And some substitution instances have it such that the explanandum and the antecedent of the counterfactual are not logically independent. We substitute  $\neg sBp$  for *p* and substitute *p* for *q*, giving

$$sK(\neg sBp) \Rightarrow (sJp \Box \rightarrow sJ(\neg sBp)),$$

but only to find that  $sJp$  entails the negation of  $sK(\neg sBp)$ . ‘*s* is justified in believing *p*’ entails that *s* does not know that she does not believe *p*. Moreover, a counterintuitive modal consequence ultimately emerges, namely, that if *p* is true, it is impossible to know that one does not believe *p*.

The claim that anti-realism entails theism is a misguided interpretation of Plantinga’s result. For the result is an instance of this more general problem for counterfactual analyses. Once this is acknowledged, the investigation turns to the question of whether there is a formulation of anti-realism that evades the fallacy. Can it be shown that there are no problematic instances of the analysis? Can it be shown that the epistemic idealization expressed by the antecedent of the counterfactual will always be (in the relevant ways) logically independent of the analysandum? We think not. Below we present a case where apparently the relevant logical dependency cannot be avoided.

Let *p* be the statement “epistemic conditions are ideal for determining whether some statement is true”. But then, at least in this case,  $Qp \Rightarrow p$ . For if conditions are ideal for determining whether *p*, then conditions are ideal for determining whether some statement is true. So we have shown that Wright’s challenge to the anti-realist cannot be met. There is at least one “Q-implication”, that is, one case where *p* is entailed by  $Qp$ . It follows, by T2\*, that  $\Box p$ . Necessarily, conditions are ideal for determining whether some statement is true. These conditions include the existence of a properly placed epistemic agent. So, necessarily, there is an epistemic agent. An anti-realist must then deny the possibility of truth in a world where there are no epistemic agents.

Unlike Rea’s argument (in particular his argument for  $Q\alpha \Rightarrow \alpha$ ), the above argument does not depend on a commitment to classical logic or on any special assumptions about epistemic ideality. *p* says, “epistemic conditions are ideal for determining whether some statement is true”. In so constructing *p*, we do not favor any particular interpretation of ‘are ideal

for' and so do not leave room for an anti-realist solution that turns on a special understanding of epistemic ideality. For whatever we mean by 'are ideal for' it will in this case be true that  $Qp \Rightarrow p$ . After all, if conditions are ideal for 'conditions are ideal for some statement', then trivially conditions are ideal for some statement.

The conclusion that, necessarily, there are epistemic agents, and so, no truths without epistemic agents, is not theism but a form of idealism. Anti-realism has counterintuitive modal consequences.

It may be objected that this consequence is not devastating, or even counterintuitive. If the bearers of truth are sentences or utterances (rather than propositions), then perhaps there are no truths without agents. The existence of sentences is mind-dependent. Our conclusion is a form of idealism and is devastating to anti-realism only if it implies that there cannot be "facts" in a world lacking epistemic agents. The intuition is that facts may obtain even if true sentences do not. So long as anti-realism allows that there may be facts without agents, anti-realism does not entail a problematic form of idealism.<sup>12</sup>

We agree with the point. That there may not be truths without minds does not by itself entail idealism, since it leaves open the question of whether there may be facts without minds. But the consequence that we derived from anti-realism does not allow for the possibility of facts without minds, even if sentences are treated as the bearers of truth and falsity. We showed that anti-realism implies that there are no *worlds* without epistemic agents, since we concluded that in every possible world there are agents. This is a stronger claim than the claim that there are no true statements without agents. And it is strong enough for a substantial form of idealism. If there are no uninhabited worlds, then a fortiori there are no uninhabited worlds occupied by facts.

What about the concerns surrounding classical logic? Unlike attempts to solve other paradoxes of anti-realism, an anti-realist solution to the current problem will unlikely come in the form of a call to jettison classical logic. Even if there are independent Dummettian reasons to deny the unrestricted validity of classical logic in these contexts, and we think there are, they will do no good. The crucial theorem, T2\*, we have proved without principles that are exclusively classical. The proof is valid in intuitionistic (and even minimal) logic. So, an anti-realist solution to the conditional fallacy will not come in the form of the familiar rejection of classical logic in favor of intuitionistic logic. If a more radical rejection of classical logic can save the day, perhaps motivated by its usefulness in solving other epistemic or semantic paradoxes, then the strategy will have to be evaluated when and if it is developed. Until then, anti-realism is in trouble.

Neither will much hope come in the form of an alternative semantical treatment of the counterfactual. The treatment must block the inference

from  $Qp \Rightarrow Bp$  to  $Qp \Box \rightarrow Bp$  in the proof of T2\*. A justification must be given for thinking that a strict conditional is not sufficient for the corresponding counterfactual. The only hope here will be to deny that counterfactuals with impossible antecedents always have the same truth value.<sup>13</sup> But that will not be enough. It must also be argued in a principled way that  $Qp$  is impossible whenever  $p$  is a statement that triggers a conditional fallacy. For example, when  $p$  is the statement ‘epistemic conditions are ideal for some statement’, it must be argued that it is *impossible* for conditions to be ideal for the proper evaluation of ‘conditions are ideal for some statement’. It is difficult to see how such an argument would go, since often enough it is the case that conditions are in fact ideal/sufficiently good for the evaluation of this statement. Conditions are currently sufficiently good for the evaluation of whether conditions are sufficiently good for some statement. To show that  $Qp$  is impossible will then be to show too much. An attempt to reinterpret  $\Box \rightarrow$  in a way that blocks the conditional fallacy will then carry with it unacceptable consequences of its own.

In conclusion, we believe that neither Plantinga nor Rea has shown that the *only* way to be an anti-realist is to be a theist. Plantinga did not consider the subject-matter specific formulation of anti-realism, and Rea unapologetically embraced classical logic and S4, which is highly controversial in this context. Moreover, focusing too closely on the issue of theism, neither of them focus upon the central problem for anti-realism. The counterfactual analysis of truth as epistemic is an instance of a more common mistake, the conditional fallacy. The important thing to notice is that an analysis that shares the relevant logical properties with AR has counterintuitive consequences. Our goal was to evaluate whether anti-realism can be formulated without these unfavorable consequences. We concluded, pace Plantinga and Rea, that the anti-realist may not be committed to the necessary existence of epistemic agents (or communities) that are omniscient. There is logical space (albeit non-classical) for a non-theistic anti-realism. But in the end the counterfactual analysis of truth as epistemic must fall prey to some counterintuitive consequences—viz., that epistemic agents must exist. We have argued that a solution to the problem will not come in the form of a moderate rejection of classical logic or a reinterpretation of epistemic ideality. We availed ourselves of exceedingly weak logical resources and a perfectly general account of the relevant epistemic idealization. And an anti-realist solution will unlikely be aided by an alternative semantical analysis of the counterfactual, since a life-saving analysis will show too much. Therefore, the counterfactual analysis of truth as epistemic cannot avoid the conditional fallacy, not without a massive revision of our logical resources.

## Notes

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<sup>1</sup> Plantinga credits Ernest Sosa for the idea behind the present argument.

<sup>2</sup> A question arises as to whether the expression of the achievement of epistemically ideal conditions will in fact be a sentence rather than an infinite set of sentences. Why assume that epistemic ideality is finitely axiomatizable? If it is not, then a precise formalization of anti-realism is impossible. Thanks to both Neil Tennant and Leonard Jacuzzo for raising the concern. The misbegotten regimentation of epistemic ideality appears in all the relevant literature, including Crispin Wright (2000, 341) and Micheal Rea (2000, 293). We may shelve this problem. The central focus of this paper, as will become clear, lies elsewhere. It lies with the prospects for providing a counterfactual analysis of truth.

<sup>3</sup> Lewis offers semantics for various subjunctives in Lewis (1973). On page 16 he favors the treatment that says, roughly, a counterfactual is true just in case (1) the antecedent is impossible or (2) the closest worlds where the antecedent is true are worlds where the consequent is true. It will become clear in the next section that Plantinga's reasoning commits him to this treatment.

<sup>4</sup> Lines 4 and 5 jointly entail 6, if the accessibility relation is reflexive. A world must be possible relative to itself, if it is to be a world closest to itself.

<sup>5</sup> We see here that Plantinga presupposes a transitive accessibility relation.

<sup>6</sup> More specifically, Dummett's doubts about the unrestricted validity of classical principles issue from a theory of truth as possible knowledge:  $\Box \forall p(p \leftrightarrow \Diamond Kp)$ . Analogous concerns issue from the foregoing counterfactual analysis of truth as that which would be believed in ideal epistemic circumstances. Given excluded middle—for all  $p$ ,  $p \vee \neg p$ —it follows from AR that in epistemically ideal conditions  $p$  would be believed or  $\neg p$  would be believed. But since we do not know a priori that every statement or its negation would be believed in ideal circumstances, the anti-realist concludes that we do not know a priori that excluded middle obtains, and so, may not treat it as unrestrictedly valid. The objection here is that without excluded middle we will be unable to justify, among other principles, the exclusively classical reasoning that Plantinga employs in his formulation of the argument for theism.

<sup>7</sup> Thanks to Neil Tennant for putting us on the intuitionistic track.

<sup>8</sup> A different concern about the employment of classical logic in related contexts is raised by J.C. Beall (2000), who argues that the logic of epistemic discourse is paraconsistent. If Beall is right and the conclusions that he draws carry over to the present discussion, then perhaps there is an objection from paraconsistency about our liberal use of detachment or about the employed semantics for the subjunctive conditional. We do not have any immediate objections to these concerns but wish only to note that many philosophers seem not to be attracted to paraconsistent approaches. Moreover, it remains an open question whether Beall's concerns, essentially involving the knowledge operator, can be carried over to the present discussion, which makes no use of that operator.

<sup>9</sup> On this interpretation one cannot presuppose in advance that  $Q \Box \rightarrow B(Q)$  and  $Q \Box \rightarrow B(\neg Q)$  will have the same truth-value when  $Q$  is impossible. Anti-realism will then not be of use in reducing  $\neg \Diamond Q$  to absurdity.

<sup>10</sup> This point is owed to Jon Kvanvig.

<sup>11</sup> See, for instance, Tennant (1997, Chapter 7), Salerno (2000) and Wright (2001).

<sup>12</sup> We owe this reply to Barry Smith.

<sup>13</sup> Recall that if such counterfactuals always have the same truth value, then  $Qp \Box \rightarrow Bp$  and  $Qp \Box \rightarrow B\neg p$  will have the same truth value *when  $Qp$  is impossible*. By anti-realism, this will give us a contradiction. By reductio,  $Qp$  is not impossible. But then  $Qp \Rightarrow Bp$  gives us  $Qp \Box \rightarrow Bp$  straightforwardly.

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