Skeptical Problems,
Semantical Solutions*

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Skeptics have often challenged our standard beliefs about the world by constructing alternative descriptions of how the world might be. The alternative description the skeptic offers is intended to have two essential features. First, the kind of world that would fit the skeptic’s description would be very different from the kind of world we believe ourselves to inhabit. Second, a world fitting the skeptic’s description would appear to its inhabitants just as our world appears to us. The skeptic challenges us to give reasons for holding on to our standard beliefs rather than taking our world to be one that fits the alternative description.

Many strategies have been employed in defense against this sort of skeptical attack. In this century, a number of philosophers have looked to linguistic considerations to defend our standard beliefs. This tradition includes verificationist attempts to show that the alternative description offered by the skeptic is not, after all, incompatible with our standard description, but actually equivalent to it. It also includes quite a different strand of semantical anti-skepticism which encompasses “paradigm case” arguments as well as certain arguments put forward by contemporary philosophers such as Donald Davidson (1984), Paul Horwich (1982), and, perhaps most famously, Hilary Putnam (1981). This second type of argument seeks to use semantical considerations to show that the skeptic’s alternative description of the world is not the true one.

It is this latter anti-skeptical strategy that I would like to examine here. I will begin by discussing two sorts of objections, one more technical and the other more intuitive, that have been brought against the method of dismissing a skeptic’s hypothesis about the (extralinguistic) world by linguistic means. This discussion will center on Putnam’s semantical refutation of an updated “brain-in-vat” version of Descartes’ “evil genius” hypothesis. Put-

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Putnam's semantical refutation of this hypothesis has received much critical attention, which has brought both the technical and intuitive objections into clear focus. My main purpose in discussing Putnam's argument is not, however, to evaluate our defenses against brain-in-vat skepticism. Both sorts of objection would, if sound, do more than undermine Putnam's argument: they would undermine the general anti-skeptical strategy under consideration. My purpose is to show that both the technical and the intuitive sorts of objection are unfounded. There is nothing illegitimate in the strategy of refuting skeptical hypotheses about the world by semantical means.

The legitimacy of this sort of argument is interesting in itself, for the light it throws on the relationship between our knowledge of words and our knowledge of the world those words describe. More importantly, though, I will argue that this sort of argument performs a vital epistemological function. Arguments of just this sort are indispensable for blocking a very simple and elegant (and decidedly non-Cartesian) skeptical strategy. This strategy would, if unchecked, allow the skeptic to undermine our knowledge in virtually every area, without even having to invent clever science-fiction (or religious fantasy) stories to explain our experience. Thus although reflection on the workings of our language provides no anti-skeptical panacea, it has a crucial and surprisingly pervasive role to play in justifying our beliefs about the world.

1. Putnamian Skepticism, and Putnam's Semantical Reply

Before giving Putnam's anti-skeptical argument, I would like to describe in more detail the skeptical possibility it is directed against. This is important, because the argument is directed against one particular version of the "brains-in-a-vat" hypothesis, and much of the discussion below will turn on considerations about just what hypothesis the skeptic is proposing.

According to the hypothesis advanced by Putnam's skeptic, not only are we all presently envatted, but we have always been envatted (and, to make Putnam's anti-skeptical case as strong as possible, always will be). Also, the computers that are stimulating us to produce our sensory experience are not to be thought of as being programmed by people who themselves are familiar with trees or tables; rather, we are to imagine that all sentient beings in the universe are in the same vat, and that the universe just happens to consist of automatic machinery tending to a big vat full of brains.

Having described the skeptical possibility in this way, Putnam goes on to argue that if the skeptic's hypothesis were true, our words 'table' and 'tree' would not refer to tables or trees; and, more importantly, that 'vat' would not refer to a large container of brains.

In fact, it seems to me that Putnam's semantical reply will work, if at all, to answer only very peculiar versions of brain-in-vat skepticism—versions that are, in effect, cooked up to be vulnerable to the semantical reply.
refer to the thing that we were all floating around in. The argument depends on a loosely formulated version of the kind of "causal" account of reference that Putnam and others have argued for in recent years. The idea is that, in order for our word 'vat' to refer to a particular kind of thing, it is necessary for our uses of the term to be causally connected—in an appropriate way—with things of that kind. And while (unlike the case with trees or tables) there would be some causal connections between the big vat and our uses of 'vat', these would not be the sort of connections that causal reference theories require; in fact, the same sort of causal connections would hold between the big vat and our uses of all of our words. Thus, argues Putnam, our word 'vat' would not refer to the kind of thing we were all floating around in.

If our word did refer to something, says Putnam, it would have to be something like our vat-images, or perhaps those electrical impulses or parts of the computer program that were causally responsible for those images. 'We are in a vat' would then mean something like that we were in a vat-image; but we are not in a vat-image on the skeptic's hypothesis. Putnam concludes that when we say 'we are in a vat', we say something false (or, perhaps, meaningless)—even on the skeptic's hypothesis. But if 'we are in a vat' is not true, then the skeptical hypothesis is not true, and we are not brains in a vat (of the special sort imagined).

For convenience in the following discussion, let us represent Putnam's argument schematically:

1. We are brains in a vat of the specified sort. (supposition for *reductio*)
2. The sentence 'we are in a vat', as used by brains in a vat of the specified sort, is not true. (from causal semantical theory, plus facts about the uses of the relevant words)

∴ 3. The sentence 'we are in a vat', as used by us, is not true. ((1), (2))

2 My rendering Putnam's argument against the truth of the sentence 'we are in a vat' as used in the situation described is compressed and uncritical. For example, I have made no attempt to assess the plausibility of the version of causal semantics Putnam employs. My concern here is with the consequences Putnam draws from his semantical assumptions, and, more broadly, with whether this sort of semantical claim can in principle be used in a satisfying anti-skeptical argument.

3 I should note that Putnam himself does not give a schema of this type; in fact, I cannot find a precise "official" statement of the argument anywhere in *Reason, Truth, and History*; and significantly different arguments are suggested in different places. My schema is quite faithful to at least some of Putnam's statements of his argument (see his formulation on pp. 14-15). It omits details of the semantical theory, as well as the arguments Putnam offers in support of causal semantics, because I do not want to concentrate on these issues. It also makes explicit the disquotational step that Putnam does not highlight. I want to stress that while I am using Putnam's argument to illustrate certain general points, my main purpose is not to provide thorough exegesis or criticism of this part of Putnam's book.
(4) The sentence 'we are in a vat', as used by us, is true iff we are in a vat. (disquotation)

:\: (5) We are not in a vat. ((3), (4); contradicts (1) to finish reductio)

:\: (C) We are not brains in a vat of the specified sort.

Putting the argument in this way emphasizes what I will call the "disquotational" step in Putnam's argument. This step—the transition from a claim (3) about the falsity of a certain sentence to a claim (5) about the extralinguistic world—is not emphasized by Putnam. However, it is this point in the argument that has become a focal point for criticism. Let us turn now to examining some of these criticisms in more detail.

2. Challenges to Disquotation

Why might one be suspicious of the use of disquotation in the argument schematized above? Putnam's critics have pointed out that on Putnam's own semantical assumptions, there are two quite different sets of truth-conditions the sentence 'we are in a vat' might express. When used by "normal" people living on a planet with trees, tables, vats, etc., it would express the proposition that the utterers were in a vat. When used by brains in the Putnamian predicament, it would express some other proposition altogether. But if that is so, then before applying disquotation to our own utterance to move from step 3 to the conclusion that we are not in a vat, we would have to first establish that we were "normal" people living in a normal world. Anthony L. Brueckner writes:

...if I do not know whether S is speaking English or vat-English, then I cannot apply [disquotation] to S's utterances of 'S is [in a vat]' and conclude that those utterances are true iff S is [in a vat]. Similarly, if I do not know whether I am speaking English or vat-English, then I cannot apply [disquotation] to my own utterances of 'I am [in a vat]' as a step toward the conclusion that I know that I am not [in a vat]...

Thus the anti-skeptical argument takes us to step 3 in the above schema, but can carry us no further without begging the skeptical question.

There is something initially troubling about this objection. On closer analysis, however, it seems to me to trade on a failure to account for an important asymmetry in the conditions for applying disquotation. Of course one may not apply disquotation to another speaker's words without first knowing that his words were being used univocally with one's own words. We can even easily imagine situations—being in a mixed-language crowd—where

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4 See Anthony L. Brueckner (1984); J. Harrison (1985); James Stephens and Lilly-Marlene Russow (1985); and Michael Kinghan (1086).

5 Brueckner, op. cit., p. 164. Brueckner actually discusses a slightly different sentence, since his formulation of Putnam's argument is a bit different from mine; however, the difference will not be material here.
one would really need additional information of this type before one could apply disquotation with any confidence. However, it is not at all obvious why one should think that this problem can infect *self-applied* disquotation. On the contrary, it would seem that in one's own case, no such additional information could possibly be useful. One can preclude the problematic possibility of equivocation *a priori*.

To put the point another way, disquotation is, on both the standard and skeptical hypotheses, a valid step *within* either English or vat-English. And surely we needn't know which of these languages we are speaking in order to know that we are speaking the one that we are speaking. But that seems to be the only thing we need to know, in order to apply disquotation to ourselves with confidence. For this reason, the plausibility of applying disquotation to ourselves does not seem to rest on first rejecting the brain-in-vat hypothesis. The anti-skeptical argument's reliance on disquotation in moving from step 3 to step 5, then, does not depend on any begging of the skeptical question.

Before resting content with our anti-skeptical use of disquotation, though, I would like to examine a possible avenue of reply for a skeptic who was threatened with disquotation-based refutation. Even if I am right in claiming that the plausibility of self-applied disquotation is independent of any rejection of the Putnamian skeptical hypothesis, this does nothing to show that disquotation is in any way *immune* from skeptical doubt. This observation suggests that the skeptic might respond by questioning disquotation, along with our usual assumptions about our surroundings, from the outset. For such a skeptic, a denial of disquotation would be *part of her skeptical hypothesis*. Against this revised sort of skepticism, we cannot, of course, use disquotation without begging the question.

This is important for the following reason: *if* the revised skeptical problem managed to retain the philosophical power and interest of the original, then our semantical anti-skeptical argument would have provided us with only temporary solace. It would have disposed of a certain skeptical hypothesis, only to leave us without resources to answer a simple and equally powerful variant of that hypothesis. And this point applies not only to the particular example of Putnam’s answer to his version of brain-in-vat skepticism; it applies in general to anti-skeptical arguments which share the semantical strategy Putnam’s argument employs. If disquotation could generally be challenged by the skeptic without diminishing the plausibility of her position, the semantical anti-skeptical strategy would be a fairly trivial curiosity, a mere dialectical temporizing step. Thus in order to assess the real value of the anti-skeptical strategy, we must look closely at the “disquotation-skeptical,” whose alternative hypothesis about the world includes an explicit denial of disquotation.

Let us consider the alternative hypothesis advanced by a skeptic who adds a denial of disquotation to the Putnamian version of brain-in-vat skepticism.
Like the more classical skeptic considered above, our disquotation-skeptic hypothesizes that we are merely brains; we are in a vat; we are floating in nutrient fluid; and our experiences are caused by computer-generated electrical impulses. Furthermore, her hypothesis concedes that the sentence ‘we are in a vat’, as we use it—as it is used immediately above, for instance—is false. (That is to say that this skeptic is willing to go along with the Putnamian argument up through step 3 in the above schematization.) However, the disquotation-skeptic’s hypothesis also explicitly denies disquotation (thereby rendering step 4 in the anti-skeptical argument question-begging). For later reference, let us note that the following claims are included in the disquotation-skeptic’s alternative hypothesis about the world:

(D1) We are in a vat;
(D2) ‘We are in a vat’ is false;
(D3) ‘We are not in a vat’ is true;
(D4) It’s not the case that (‘we are in a vat’ is true iff we are in a vat).

Let us first consider the plausibility of such a skeptical hypothesis. Now one obvious way in which such a hypothesis could be implausible would be if the logic of our language contained some general disquotational principle yielding the equivalence of sentences with other sentences which predicate truth of them. Such a principle might well be held to be part of the logic of “‘….’ is true,” just as Modus Ponens is part of the logic of “if…then….”. If disquotation is a logical principle, the disquotation-skeptic’s hypothesis is simply and immediately self-contradictory, and thus without epistemological interest.6

Moreover, even if disquotation is not a logical principle, it is at the very least an extremely plausible principle about language, or about our use of ‘true’. A skeptical argument which depends on denying such a principle, which boldly acknowledges that the sentences expressing its own alternative hypothesis are false, will fail to interest many of those who would be very interested in a skeptic who merely offered a different explanation of our sensory experience. Thus it is clear that the skeptic who is forced to deny disquotation in her alternative hypothesis must pay a significant—and possibly fatal—price in reduced plausibility.

However, reduced plausibility is not the only way in which the philosophical interest of disquotation-skepticism fails to match that of the more classi-
cal variety. Consider the beliefs about our surroundings that the external-world skeptic seeks to cast doubt on. In the usual version of brain-in-vat skepticism, a central belief that is cast into doubt is the one we express by using the sentence ‘we are not in a vat’. But now recall that the disquotation-skeptic’s hypothesis includes

(D3) ‘We are not in a vat’ is true.

It would seem that even on the assumption that the skeptical hypothesis is correct, we are not guilty of any error when we express our beliefs by uttering ‘we are not in a vat’! It turns out, then, that this peculiar sort of skeptical hypothesis provides no grounds at all for doubting the veracity of this central belief—the very sort of belief which philosophers since Descartes have been so concerned to rescue from skeptical doubt. Thus the price of denying disquotation is not all paid in plausibility; the disquotation-skeptic’s hypothesis also turns out to be sharply diminished in skeptical force.7

Now it might be thought that disquotation-skepticism differs from classical skepticism simply in calling different beliefs into question. Brueckner suggests at one point that the Putnamian strategy leaves behind a residue of skepticism about what our sentences say: “[t]he anti-skeptical strategy reconstructed herein fails in the end because it engenders a sort of skepticism about meaning or propositional content” (op. cit. p. 166). Thus it might be thought that while the disquotation-skeptic is unable to cast doubt on the veracity of the belief we express by saying ‘we are not in a vat’, such a skeptic might nevertheless succeed in casting doubt on our beliefs about the propositional contents or truth-conditions of our sentences.

Let us consider an example of such a belief. We can express a commonly held belief about the truth-conditions of the sentence ‘we are in a vat’ as follows:

7 In fact, it is hard to see how any skeptic whose alternative hypothesis includes (D3) can consistently claim to have left us without the knowledge that we are unenvatted. If we know that the belief we express by ‘we are not in a vat’ is true, how can it fail to be a case of knowledge? The skeptic might point out that on her alternative hypothesis, the proposition expressed by ‘we are not in a vat’ is not the proposition that we are not in a vat. So although we know something, we might not know that we are not in a vat; we know this only if we are in fact normal people with normal bodies, etc., speaking normal English.

However, the skeptic holding such a position admits that we know whatever proposition is expressed by ‘we are not in a vat’. Thus she admits that if we are in fact normal people in a normal world, we do know that we are not in a vat. And once this is admitted, the skeptic can show that we lack the knowledge in question only if she can show that we are not in fact normal people in a normal world. But surely she has not shown this to be the case. Thus it turns out that this line does not permit the disquotation-skeptic to consistently maintain that she has shown us to lack the knowledge that we are unenvatted.
‘We are in a vat’ is true iff we are in a vat.

And this common sense assertion is indeed denied in the alternative hypothesis put forth by our disquotation-skeptic, which asserts:

\[(D4) \text{ It’s not the case that } ('we are in a vat' is true iff we are in a vat).\]

However, even on the disquotation-skeptic’s hypothesis, sentence (C) is true, and (D4) is false (disquotational sentences are true in English or vat-English)! Thus when we (humans or brains) express our common sense beliefs by uttering (C), we say something true. The situation is exactly parallel to the situation regarding ‘we are in a vat’ itself; once again, we are not deceived or mistaken in any way.

It turns out, then, that the reduction in skeptical power that results from adding a denial of disquotation to one’s skeptical hypothesis is considerable. In fact, it is not entirely clear to me that the term ‘skepticism’ is wholly appropriate here. The classical skeptic begins her argument by offering a hypothesis about the world that is inconsistent with the standard hypothesis, yet empirically equivalent to it. She then uses this hypothesis to prove a particular point: insofar as we have no reason for preferring our standard hypothesis over the skeptical one, our beliefs are unjustified, or fail to constitute knowledge—this is the usual skeptical conclusion.

We might now wonder, however, why the fact that we cannot eliminate the skeptic’s hypothesis should cast any doubt at all on our beliefs? There is usually an implicit assumption made, that if the skeptic’s possibility were actual, our beliefs would be false; this would seem to be the purpose of ensuring that the skeptical hypothesis was incompatible with the standard one. But the disquotation-skeptic’s vat-hypothesis, by contradicting the sentences we believe while simultaneously calling them true, violates this implicit assumption. The resulting separation from one another of these hitherto closely intertwined strands in the skeptical argument creates a clean break between the skeptic’s usual starting-point and her customary conclusion. Thus while the disquotation-skeptic may start out arguing like a classical skeptic, the nature of her skeptical hypothesis prevents her from carrying the classical argument through.

It is important to note that this point does not depend on the peculiarities of Putnam’s particular version of external-world skepticism. The problems detailed above stem from the simple fact that the skeptic’s alternative hypothesis ends up calling true the very sentences whose negations it is using to contradict the beliefs it seeks to cast doubt on. The basic point, then, concerns the unpleasant consequences of failing to respect disquotation. To avoid
these consequences, the skeptic’s alternative theory must end up being consistent with disquotation.8

If there had not been such a radical difference in philosophical power between classical and disquotation-skepticism, there would have been a sense in which the semantical anti-skeptical argument would have been inconsequential, even though its disquotational step does not beg the question. As it is, however, disquotation-skepticism does not come close to preserving the philosophical interest of more classical skeptical problems. For this reason, it seems to me that we have no reason to think that dependence on disquotation undermines the power or interest of semantical anti-skepticism.9

3. The “Hocus-Pocus” Objection

I would now like to examine a more intuitive source of doubt, not focussed on disquotation, about the legitimacy of semantical anti-skeptical arguments. Let us again concentrate on Putnam’s reply to his brain-in-vat skeptic (though the points made will again apply to the general anti-skeptical strategy Putnam’s argument exemplifies). It is noteworthy that nothing in Putnam’s argument tells against the possibility—metaphysical, or even physical—that there exists, somewhere in the universe, a giant computer-controlled vat full of brains whose experiences match ours exactly. In fact, some of the brains might even now be having experiences qualitatively identical to those we have when we allay our skeptical worries by carefully thinking our way

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8 I should note that in certain possible cases, the last of the difficulties described above would not arise. In certain cases, the semantical theory employed in the anti-skeptical argument may not entail that on the skeptic’s hypothesis, the sceptic’s claims are false, but rather entail that they are not true. Such a semantical theory would presumably also not entail that the negations of the skeptic’s claims were true. In such a case, a disquotation-skeptic would not be forced to call true the sentences we used to express our ordinary beliefs.

Such a skeptic would still, of course, be committed to the intuitive absurdities involved in denying disquotation: she would be in the position of trying to undermine our beliefs by challenging us to refute a hypothesis which she herself admitted did not truly describe the world. Thus the philosophical interest of such a position is still severely diminished. More importantly, however, the availability of this skeptical option depends entirely on the nature of the semantical theory involved in the anti-skeptical argument. In Putnam’s particular example, I think that the semantical theory involved is too vague to determine this issue. In the more important cases to be described below, this skeptical option will not be available.

9 It is worth noticing, I think, that the philosophical weakness of disquotation-skepticism is important even if one holds the view that disquotational arguments do beg the question against the original skeptical hypothesis. On this view, reflection on language shows that the original skeptical hypothesis is already inconsistently with disquotation—this is why disquotation is supposed to be question-begging. But if that is so, then the original brain-in-vat hypothesis is essentially an instance of disquotation-skepticism, and hence far less interesting than it might first have appeared. Thus there is a sense in which the epistemological implications of linguistic reflection are independent of the whole issue of question-begging.
through a certain semantically-based anti-skeptical argument to the conclusion that we are not just brains in a Putnam-style vat! If that is so, how can going through Putnam’s semantical argument possibly provide us with any assurance at all that we are not, in fact, in that very predicament?

Another way of putting the problem is as follows: How can mere reflection on our use of language (rather than on more straightforwardly evidential considerations) give us any concrete information about the (extralinguistic) world? How can semantical theory be of any help in choosing between hypotheses which are in a natural sense empirically equivalent, and which admittedly both describe genuine possible situations beings might find themselves in? It might seem that an argument of the sort Putnam offers could not possibly give us any epistemic purchase on the difference between the “normal” situation and the situation of brains in a vat. There is something suspiciously “transcendental” about the argument’s strategy; less politely, it exudes an air of hocus-pocus.10

It seems to me, however, that this air of hocus-pocus may be dispelled by more careful inspection. To that end, I would like to look at some closely related cases, where our knowledge is intuitively less problematic. The first such case involves a man standing by himself in the middle of a vast, featureless desert. Exhausted and dehydrated, he thinks to himself “I wish I weren’t here; but, alas, here I am.” By and by, his condition worsens, and his thoughts turn philosophical. It suddenly occurs to him that things would look just the same to him if he weren’t standing right there, but instead were standing at a different spot nearby—say, that spot, about twenty feet to his left. This observation leads him straight into skepticism about what had seemed so obvious just moments before. “How do I know I am here, rather than there?” he wonders. “After all, no experience I’m having now would be different in the least, if I actually were over there!”

Now this is perhaps not what most people would consider to be a difficult or interesting skeptical problem. The answer seems obvious. One might put it, a little roughly, by saying that the way our man is referring to the two places in question—as ‘here’ and ‘there’—guarantees that it is the former he is occupying. This must not, of course, be interpreted to mean that the act of referring has somehow caused him to be at one place rather than another. Rather, to put it more precisely, the referential devices he is using work in

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10 These sorts of intuitive qualms have been reported by some of Putnam’s critics. Brueckner, after giving his final reconstruction of Putnam’s argument, writes:
Given the presuppositions of our anti-skeptical argument, it is difficult to avoid an uneasy feeling that there is some trick involved in the reasoning of the last paragraph. (op. cit.)

Stephens and Russow (op. cit) comment that Putnam’s response to the skeptic “seems to us too easy a way out to be right.” And Peter Smith (1984) asks “shouldn’t we be suspicious of all attempts to get large philosophical conclusions from thin semantic premises?”

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such a way as to guarantee the truth of his claim “I am here.” Were our man healthier, he could presumably have solved his skeptical problem easily, by adducing considerations of just this sort.

The interest of the case lies in the parallels between the considerations we rely on to solve the desert man’s problem, and the sort of considerations adduced by Putnam in solving his version of brain-in-vat skepticism. In each case, we are confronted with a skeptical hypothesis which coherently describes a situation a subject might find himself in. In each case, the skeptical hypothesis is in a natural sense empirically equivalent to the “normal” one: if the skeptical hypothesis were true, the subject’s experiences would be qualitatively identical to his actual experiences. Thus in each case it seems a mystery at first how one could possibly gain any sort of epistemic foothold that would enable one to eliminate one of the hypotheses. One has nothing that would naturally be considered “evidence” in favor of either possibility.

The answer, in each case, is more semantical than straightforwardly “evidential.” But reflection on the answer to the desert explorer’s problem seems to me to show that not all such answers involve “hocus-pocus.” (In fact, although the desert man’s skeptical doubts shouldn’t constitute a difficult philosophical puzzle, it is hard to see how they could be given any other sort of answer.) I conclude that there is nothing intrinsically wrong with giving this sort of reply to skeptical suggestions.

It is important to note that it is no criticism of this sort of reply to point out that the anti-skeptical argument could equally well be given by beings in the predicament described by the skeptic. In the desert case, if our man were twenty feet to the left (as the skeptic suggests) he could, of course, still run through the same refutation of the skeptical suggestion. But although he would be, by hypothesis, in the situation the skeptic actually describes, the refutation of what the skeptic would be suggesting in that situation would be sound. There is no paradox here; we must simply observe that if the man were in the spot twenty feet to the left, the skeptical suggestion in that situation would have a different content. The skeptic would be suggesting that, for all the man knew, he might be in the spot twenty feet further to the left—that is, forty feet to the left of the man’s actual position. And the semantical reply to the skeptic would successfully reject this possibility. Thus we may well acknowledge the fact that a certain anti-skeptical argument could be equally well rehearsed in the possible situation described by the skeptic; this does not show that this argument is sometimes unsound.

It might be objected that my desert example trades on a very special feature of language—the obvious indexicality of ‘here’ and ‘there’—that is not present in the brain-in-vat case, and that this disanalogy robs my argument of much of its force. Now I don’t think that this objection should be taken too seriously without a much better story about just how the disanalogy is relevant. The intuitive problem with the semantical strategy was that it seemed a
mystery how any linguistic argument could give us epistemic purchase on the choice between two coherent, empirically equivalent alternatives. An argument relying on indexicals like ‘here’ is not obviously any better off in this regard than one that does not involve such words; the “mystery” in each case should be precisely the same. Nevertheless, rather than pursue this line further, I would like to give another example, one which does not involve the same sort of obvious indexicality.

Consider the familiar “Twin Earth” example given years ago by Putnam: A distant planet exists which is just like Earth, except that the liquid that falls from the sky, fills the lakes, etc., on Twin Earth is not water, but has a different chemical structure. The Twin Earthian substance is superficially just like water; in fact, at a certain point in the history of science, the Twin Earthians (who happen to call the substance ‘water’ in their language) have all the same beliefs about it that we have about water. Putnam’s point in describing the example was that even though the Twin Earthians’ beliefs involving their word ‘water’ were precisely the same as ours, their word and ours had different extensions. If we wanted to refer to their substance by some common name, we’d have to invent a new one, say ‘twater’.

Now suppose a skeptic were to seize on this sort of possibility as the basis for an alternative hypothesis designed to undermine our beliefs about water. Her argument might go something like this: If we lived on a planet like Twin Earth, things would look, feel, taste, etc., just the same. But if that’s so, then how do we know that the substance which is (and has always been) filling our lakes, falling from the sky, etc., is in fact water rather than twater? Perhaps water only exists on Twin Earth! Mightn’t we all be victims of a massive mistake?

Again, we do not feel that this is a worrisome skeptical puzzle, even though no “evidence” seems available to decide between the skeptical hypothesis and the standard one. Again, if we ask what it is that allows us to dismiss the skeptic’s hypothesis, the answer seems to lie in semantical considerations—the very ones, in fact, that Putnam was trying to bring out in his example. Consider the following claim from the skeptic’s alternative hypothesis:

(S) The stuff that is (and has always been) filling our lakes and streams is not water; water occurs only on a distant planet.

For (S) to be true, ‘water’ (as we, and the skeptic, use it) would have to refer to a substance occurring only on a distant planet. But this cannot be so; the way our word ‘water’ gets its reference is via its connections to samples of

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1 I am ignoring, for the purposes of this example, the possibility that science will eventually be able to distinguish between the two substances. I do not see any way in which this affects the point in question.
the stuff that actually is (and has always been) filling our lakes and falling from our sky—our word refers to that stuff, whatever it turns out to be. Thus the skeptic’s sentence (S) must be false, and the world cannot have the chemical nature her hypothesis attributes to it. Once again, it seems that reflection on our use of language is sufficient (as well as necessary, perhaps!) to rebuff the skeptical challenge.

As in the previous case, we might acknowledge that the skeptic’s hypothesis describes a coherent, empirically equivalent possibility. And as in the previous case, we can even imagine a person in the situation actually described by the skeptic (i.e., a denizen of Twin Earth) running through our semantical anti-skeptical argument. But again, this doesn’t show that the semantical anti-skeptical argument fails in any situation; for the skeptical hypothesis rejected by the resident of Twin Earth would not describe his own situation. Our Twin Earthian would correctly conclude that his word ‘water’ applied to the stuff that was plentiful on his planet, and thus that he was not mistaken in the manner the skeptic would be suggesting.

In this example, the key word ‘water’ involved in the linguistic argument is not indexical in the same sense ‘here’ and ‘there’ are. Thus if it was thought that the desert explorer example’s reliance on the semantics of ‘here’ rendered it less persuasive, the present example might be seen as providing a closer analogy to the brain-in-vat case. (Of course, Putnam did use the term ‘indexical’ to describe the semantics of words such as ‘water’. But this sort of “indexicality” is equally present in the words involved in the brain-in-vat case—in fact, Putnam’s argument capitalizes on this very feature.)

Thus we have here another case where the common-sense argument for rejecting a purported skeptical puzzle is semantical rather than “evidential” in character. For me, at any rate, this semantical answer has no air of hocus-pocus about it; rather it seems like a fairly straightforward explanation of why the skeptic’s hypothesis is intuitively a non-starter. Yet the general strategy employed here (as in the desert explorer case) is quite parallel to the one Putnam employs in the brain-in-vat argument. We show that the skeptic’s alternative hypothesis, combined with certain assumptions about the semantics of our language, entails the falsity of certain sentences the skeptic uses to put forth the alternative theory. Once we see how this very same strategy works in intuitively unproblematic examples, I think that any air of hocus-pocus which might have seemed to linger about the idea of giving semantical answers to skeptical questions is thoroughly dispelled.12

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12 I should emphasize that the point of this section has not been to demonstrate the general refutability of skeptical challenges about locations or chemical compositions. The anti-skeptical arguments considered above depend explicitly upon the ways in which the skeptical challenges are stated; and somewhat similar challenges may, for all I’ve shown, be able to avoid these refutations. My concern here is simply to show that cer-
I have defended, at some length, the legitimacy of a certain argumentative strategy for defending knowledge claims against skeptical attack. However, the fact that a certain kind of argument is in general legitimate does not automatically render it especially useful or important. And indeed, a little reflection on the particular example of brain-in-vat skepticism might well suggest that this sort of argument, even if it doesn’t involve illicit use of disquotation or other hocus-pocus, still amounts to little more than a philosophical curiosity, without great significance for epistemology.

Consider the second premise in the anti-skeptical argument schematized above:

\[
\text{(2) The sentence ‘we are in a vat’, as used by brains in a vat of the specified sort, is not true.}
\]

This premise is not some immediate consequence of a causal theory of reference. It depends, in addition, on Putnam’s very careful specification of just what sort of vat-situation his skeptic is hypothesizing. We must assume, for example, that the brains have always been envatted, and that the computers causing their sensations are not programmed by beings who themselves live in a “normal” world populated by trees, tables, and vats. This sort of assumption is necessary if we are to preclude the possibility that the brains’ uses of ‘vat’ are caused in a way that would allow it to refer to vats.

There is no reason, however, that this sort of assumption should be part of every skeptic’s brain-in-vat hypothesis. A different skeptic might suggest, for instance, that we were taken from our beds asleep early this very morning, then drugged, debodied, and envatted, so that our present experiences are all caused by a computer. In this sort of situation, I think that common sense and reasonable causal theories of reference would agree that our words would not have changed their meanings. Thus the skeptic’s utterances of ‘we are in a vat’ would be \textit{true} on this hypothesis, and our anti-skeptical argument could not get off the ground.\textsuperscript{13}

Thus even if Putnam’s anti-skeptical argument provides a convincing answer to one particular version of brain-in-vat skepticism, other versions of the same problem will remain untouched by his argument. Furthermore, it might well be argued that there is no significant loss of philosophical interest in the skeptic’s move from a Putnamian brain-in-vat hypothesis to the recent-envatment version sketched above, because the problem posed by the recent-

\textsuperscript{13} Not surprisingly, the possibility of evading Putnam’s anti-skeptical argument in roughly this way has been noted by others. See Brueckner, op. cit., p. 152; and Smith, op. cit., p. 117.
envatment hypothesis is equivalent in power and plausibility to that posed by the Putnamian hypothesis. If this is true (and I think that it is at least arguably so), then Putnam's argument does not in the end provide us with significant relief from the general problem of brain-in-vat skepticism.14

Now I should make it clear that even if Putnam's argument falls short of accomplishing all we might like an anti-skeptical argument to accomplish, this fact is not due to any illegitimacy in the very idea of semantical anti-skepticism. Nevertheless, this potential shortcoming of Putnam's argument is noteworthy. If it obtained in general—if semantical anti-skeptical arguments were generally this easily escapable—then I think we would have to say that while they were interesting, they were ultimately without much epistemological importance.

I want to argue that this is not the case. There are certain skeptical challenges to our knowledge claims which are susceptible to semantical reply in a way that Cartesian skepticism, in general, isn't. Furthermore, some of these skeptical challenges happen to be peculiarly resistant to replies based on such non-semantical considerations as simplicity, ontological economy, or explanatory power. Against this sort of skeptical challenge, semantical replies will be more than just effective—they may provide us with our only means of answering the skeptic. Since skeptical arguments of this sort are also easy to construct in virtually every area of our knowledge, semantical anti-skepticism has a crucial and pervasive role to play in securing the justification of our beliefs.

Some examples of skeptical questions which seem to be answerable semantically (and perhaps only semantically) have been given in the last section, in the desert explorer and Twin Earth examples. However, each of these involves peculiarities which are best avoided in the present discussion: the former involves indexical language, and the latter relies on a science fiction story of questionable plausibility. The problem I would like to discuss now avoids these features, and is an instance of a simple skeptical strategy which

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14 This is not to accuse Putnam of attacking a straw man, however. Although Putnam does tend to say that, e.g., he has ruled out the possibility that we are brains in a vat, I think that such statements must be interpreted simply as careless formulations of the claim that he has ruled out the possibility that we are brains in a vat of the Putnamian sort. A philosopher of Putnam's caliber would not, I think, claim to have refuted a whole class of skeptical arguments on the basis of refuting one member of that class which he had deliberately and self-consciously constructed to be vulnerable to his anti-skeptical argument.

This leaves open the question of just what Putnam is trying to accomplish here. He says at one point that the problem is a "useful device for raising issues about the mind/world relationship"; perhaps the whole problem is supposed to be an illustration of his "internal realist" position that the way the world is is not independent of the way we think about it. Since my concern is not with the implications of semantical anti-skepticism for "metaphysical realism," I will simply leave this exegetical thread untied.
can be generalized to raise questions about virtually any aspect of our knowledge.

Consider a formulation of our physical theory; let us call it T. Suppose we take T and transform it by intersubstituting ‘electron’ and ‘molecule’ at every occurrence; call the result of the transformation T′. T′ seems to express a theory that is both incompatible with T (it contains such claims as ‘molecules have negative charge’) and empirically equivalent to T (any experimental result that could be explained by T is given a precisely analogous explanation by T′). Thus a skeptic might ask us: what reason could we possibly have for accepting T rather than T′?15

Skeptical questions of roughly this sort have, of course, been considered from time to time. Their interest lies largely in that they seem in some ways even harder to dismiss than ordinary skeptical challenges. The alternative theories they invoke do not rely on any kind of bizarre or implausible fantasy. We need not imagine malevolent demons, mad scientists, unusually vivid and coherent dreams, or improbable perceptual disturbances to explain our evidence. In fact, there is no apparent difference at all between the two theories in terms of simplicity, ontological economy, or explanatory power; from the standpoint of ordinary criteria for theory-choice, the two seem entirely equivalent. Thus although we feel that there should be some way of dismissing the skeptic’s suggestion—skeptical results shouldn’t come this easily!—it is not at all obvious what we should say.

The dominant response to this sort of problem has been to deny that T and T′ are incompatible.16 Nowadays, this claim would most likely be justified by taking theoretical terms to be somehow given meaning by their role in the theory in which they occur. Since the theoretical roles of ‘electron’ and ‘molecule’ in T′ are precisely the same as those of ‘molecule’ and ‘electron’ (respectively) in T, it is argued that ‘molecule’ as it occurs in T′ is simply synonymous with ‘electron’ in T, and vice-versa. Thus the two formulations are simply different ways of expressing the same theory; and no skeptical problem arises.

Now this is, of course, a semantical response to the skeptical challenge, albeit of a different sort than the ones we have been considering. But on closer inspection, this line of response does not quite succeed. It may well be true that theoretical terms get their references in some way from our theories. Indeed, it is hard to see how a term like ‘electron’ would get its reference in any other way—we don’t establish the term’s reference by pointing to electrons, after all. But this semantical picture of theoretical terms certainly does

15 This example is discussed in W. V. Quine (1975).
16 This was, of course, the standard positivist response to any case of empirical equivalence. For some more recent versions of this response, directed specifically at examples like the one in the text, see Quine, op. cit.; Hartry Field (1975); and Mark Wilson (1980).
not entail that the words the skeptic uses on a particular occasion must take their meaning from the theory she is currently putting forth, discussing, or contemplating.

In fact, most uses of the term ‘electron’ do not occur in the context of discussing any theory rich enough to connect the word to its reference. Moreover, many people who have very little understanding of physical theory use the term to make assertions about electrons; they can do this because they are using a word in a public language, and other speakers have had enough understanding of physical theory to forge the word-world connection for them.

In the present case, we may suppose that the skeptic, in putting forth $T'$ as an alternative explanation of the evidence, explicitly intends her words ‘electron’ and ‘molecule’ to be homophonic with the public use. And reasonable accounts of the semantics of theoretical terms give us no reason at all to suppose that she cannot do exactly this. There is, after all, something wildly implausible about the claim that a speaker’s words undergo dramatic changes in meaning, against her will, as her mood turns skeptical. Thus the claim that $T'$ cannot express an incompatible alternative to $T$ is, I think, insupportable.

A better answer to the electron/molecule skeptic, also semantical, proceeds along lines suggested in a paper by Paul Horwich. Suppose that the way our theoretical terms get their reference is something like the following: if there exist entities with the properties our standard theory attributes to, say, “electrons,” then our word ‘electron’ will refer to those entities. If something like this is true, then the electron/molecule skeptic can be refuted as follows: Suppose that $T'$, which we take at face value, were true. Then there would be a kind of entity having the properties our standard theory $T$ attributes to electrons (e.g., having negative charge, flowing through wires, etc.). Then our word ‘electron’ would (by the semantical principle above) refer to those entities with negative charge, etc. But in that case, our sentence ‘electrons have negative charge’ would be true, and the skeptic’s alternative theory $T'$, which contains the claim ‘electrons do not have negative charge’, would be false. Thus we show that the world is not the way $T'$ says it is, and the skeptical problem is resolved.

The general argumentative strategy here is, in fact, exactly analogous to the other examples we’ve been considering. The skeptic’s alternative theory

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17 See his op. cit. Although the argument I outline here is quite close to that given by Horwich, there is much in his treatment that I cannot accept. For example, the semantical principle upon which he bases his argument is not, I think, either applicable to all kinds of words, or to knowable a priori, as he claims. Also, the argument as he presents it is not explicitly disquotational. I will present what I take to be the best version of the anti-skeptical argument, without noting the places it diverges from that given by Horwich.

18 Semantical accounts of the theoretical terms along these lines have been advocated, for example, by Rudolf Carnap (1966) and David Lewis (1970).
describes a world that is, for all the argument shows, perfectly possible.\textsuperscript{19} We do not deny that the skeptic's alternative theory is empirically equivalent to the standard theory in the sense that they would give equally good explanations of experience; we may acknowledge that if we lived in a world correctly described by T', our experiences would be the same—even our experience of running through the anti-skeptical argument. But none of this, as we have seen, need undercut our argument's anti-skeptical force. By assuming the truth of the skeptic's hypothesis, along with a plausible semantical theory, we may derive the falsity of some of the sentences the skeptic is using to formulate her hypothesis. Disquotation then allows us to conclude, legitimately, that the world does not have the bizarre physical constitution suggested. The structure of the semantical replies to Putnam's brain-in-vat skeptic and our desert and Twin Earth skeptics is precisely replicated in this answer to the electron/molecule skeptic.

There are two important points to make about skeptical problems of this sort, and our semantical strategy for solving them. The first point is that semantical answers to problems of the electron/molecule sort are satisfying, in a way that Putnam's argument is not a satisfying solution to updated Cartesian skepticism. Remember that Putnam's argument ultimately fails to satisfy because the skeptic may avoid it, by switching to an equally powerful and equally plausible alternative—the recent-envatment hypothesis—which does not provide the raw materials for the semantical reductio. This sort of evasion is, however, not available to the skeptic in the present sort of problem.

Consider how the electron/molecule skeptic might try to change her alternative hypothesis so as to deprive us of materials needed in our reductio. In addition to disquotation (which should not, as we have seen, be challenged by the skeptic), our reductio depended on a certain account of the semantics of theoretical terms, and on facts about what the standard theory's claims involving 'electron' and 'molecule' were (that is, about what properties the standard theory attributed to "electrons" and "molecules"). Now neither of these claims are in any way immune to skeptical doubt. For instance, our claim about which properties are standardly attributed to "electrons" might be challenged by adding to the skeptical hypothesis an evil genius who deceives us each time we interview a physicist or consult a standard physics text. Some similar story might even be concocted to undermine our general semantical theory.

However, if the skeptic chooses to alter her alternative hypothesis by adding this sort of wrinkle, the peculiar power and plausibility of her original hypothesis will be lost. The epistemological interest of the alternative physi-

\textsuperscript{19} This is not to claim that it is possible that electrons could have positive charge; only that our refutation of the skeptic's suggestion does not preclude any such possibility.
cal theory in question depends crucially on the fact that it eschews just this sort of implausible fantasy, and that it seems to match the standard physical theory exactly, in terms of certain standard criteria for theory choice. Thus buttressing the alternative theory by invoking evil demons, mad scientists, bizarre dreams, or incredible perceptual mishaps does not really insulate the original electron/molecule puzzle from semantical refutation. Rather, it changes the subject. The new skeptical problem that results may be interesting in its own right (it will essentially be a variation of Cartesian skepticism). But it will certainly be importantly different from the original electron/molecule puzzle, which was interesting in its own right. The original problem poses a very distinctive epistemological challenge—a challenge which is met squarely by the semantical reply. Because the skeptic cannot evade this refutation while preserving the distinctive challenge, the semantical reply is ultimately a satisfying one.

The second point that should be made about the electron/molecule example concerns the generalizability of the skeptical strategy involved. The type of alternative hypothesis the skeptic employs is easily constructed—it involves merely switching two words in some formulation of our beliefs. This sort of tactic is not restricted to scientific theories. It may be used to generate epistemological puzzles in virtually any area we claim knowledge about (for example, N. L. Wilson (1959) considers the hypothesis generated by inter-substituting ‘Mark Anthony’ and ‘Julius Caesar’ in a standard historical theory).

The puzzles thus generated may seem trivial at first glance. One may have the feeling that there must be some easy way of answering this sort of skeptical challenge, if only because the skeptic’s alternative hypothesis is so easily constructed. But this sort of feeling euts no epistemological ice. If we are to justify our lack of worry about these puzzles, we must be able to answer them. If we could not in the end find some satisfying way of understanding and answering this sort of skeptical challenge, our lack of worry would be little more than a manifestation of a mysterious dogmatism. And given the generalizability of the skeptical strategy, virtually all of our knowledge would be seriously undermined.

In fact, I believe that this sort of puzzle is usually (though not always) answerable. Answers to various instances will depend on various kinds of empirical assumptions about our uses of words, and on various semantical accounts of different kinds of words. (For example, the solution to Wilson’s puzzle about Anthony and Caesar will rely on a semantical principle quite different from the one we used to solve Quine’s puzzle about electrons and molecules.) But the answers will by necessity be semantical ones, following in broad outline the ones we have been looking at. They will rely on linguistic, rather than more standardly “evidential” considerations. They will not dispute the skeptic’s claim to have described a possible situation which would
be in a natural sense empirically indistinguishable to us from the actual one. And they will rely on disquotation to reach their material conclusions about the world.20

Given that this anti-skeptical strategy is legitimate, we can see how our intuitive feeling, that we shouldn’t worry much about this sort of skeptical puzzle, may be justified. While the semantical strategy is far from being an anti-skeptical panacea, it does serve to immunize us against what would otherwise be a pervasive and virulent form of skepticism. In a sense, then, what I have been striving for is not a dramatic new cure for outstanding skeptical disorders, but rather a deeper understanding of our epistemic immune system. The legitimacy of semantical anti-skepticism is crucial to the justifiability of an enormous range of ordinary, intuitively unproblematic, belief. Fortunately for us, this anti-skeptical strategy is, in fact, legitimate.

REFERENCES

A fairly wide range of examples, both answerable and unanswerable, is discussed in my “Switched-Words Skepticism,” forthcoming in Philosophical Studies.

