

My aim is present a new semantical paradox having the incredible consequence that the answer to *any* question that one might entertain can right now be known a priori by means of a few easy steps (for example, the question whether there are extraterrestrials). The paradox bears similarity to Mates's Puzzle, which Mates thought showed that there can be no coherent notion of synonymy; for, if correct, this paradox would show that our received semantics for predicates is incoherent. This paradox, however, is syntactically much simpler than Mates's in that it does not concern multiply embedded predicates. According to the indicated standard semantical picture, predicates express either properties or concepts, and two sentences express the same thing if they arise from one another by substituting predicates that express the same property or concept. These principles are nearly universally accepted for the kind of elementary sentence I will be considering. (For exegetical purposes, I will focus on properties, but each step in the derivation of the paradox seems equally correct if we shift to concepts. I will return to this point at the close.)

Let us begin by considering a mundane fact about stipulative knowledge. Suppose you introduce a certain game by stipulating its rules (e.g., suppose you are the person who did this for American football). In the course of your stipulation you say, "When a team scores a touchdown, the team receives six points." Almost everyone recognizes that, having gone through this procedure, you come to *know* that, when a team scores a touchdown, the team receives six points, and you come to know this *a priori*.

So, are there extraterrestrials? You have no special empirical information whether there are. Let A be the sentence 'There are extraterrestrials'. Now suppose you say, "I am going to introduce the predicate 'G' by using (vs. mentioning) it in something I am about to say with stipulative intent. OK, here goes. If A, then the property of being G = the property of being true, and if not-A, then the property of being G = the property of being false." (See below for a remark about introducing a name, in place of a predicate.) Let us symbolize what you said thus:

$$(1) \quad (A \rightarrow (G = \text{True})) \ \& \ (\neg A \rightarrow (G = \text{False})).$$

('G', 'True', and 'False' are short for 'the property of being G', 'the property of being true', and 'the property of being false', respectively.) Let us suppose that, by making this stipulation, you introduced the predicate 'G' and you came to know (1) a priori.

Next notice that a logical consequence of (1) is that it is G that A. (Here 'It is G that A' has the same syntactic form as 'It is true that A'. Incidentally, here and below I use single quotation marks where corner quotation marks are strictly called for.) In symbols:

$$(2) \quad (A \rightarrow (G = \text{True})) \ \& \ (\neg A \rightarrow (G = \text{False})) \ \models \ G[A].$$

To see this, suppose that A. Then, by (1), it follows that being G = being true. Furthermore, given our supposition that A, it follows (by the truth schema) that it is true that A. Therefore, since being G = being true, it follows that it is G that A. On the other hand, suppose that not-A. Then, by (1), it follows that being G = being false. Furthermore, given our supposition that not-A, it follows that it is false that A. Therefore, since being G = being false, it once again follows that it is G that A. Thus, it is G that A on either supposition.

Suppose you go through this reasoning and thereby come to know (2) a priori. Then, using your a priori knowledge of (1) and (2), you infer that it is G that A. By this route you come to know a priori that it is G that A. That is, you come to know a priori: $[G[A]]$.

Assuming the standard semantical picture (that predicates express properties or concepts and two sentences express the same thing if they arise from one another by substituting predicates that express the same thing), we are ready to derive our paradoxical conclusion. Suppose that there are in

fact extraterrestrials. That is, suppose that A. Given this, it follows from (1) that the property of being G = the property of being true. That is, $G = \text{True}$. Therefore, given the standard semantical picture, it follows that 'It is G that A' and 'It is true that A' express the same thing, namely, that it is G that A (i.e., that it is true that A). Therefore, since you know a priori that it is G that A, it follows that you know a priori that it is true that A. (Note that this is not an inference that you make, rather, it is simply a redescription on our part of what you knew a priori at the end of your previously described reasoning.) Thus, you know a priori that it is true that there are extraterrestrials. Finally, since a person cannot know a priori that it is true that A without knowing a priori that A, it follows that you know a priori that A. Therefore, if there are extraterrestrials, then you know a priori that there are extraterrestrials.

On the other hand, perhaps there are no extraterrestrials. To handle this possibility, suppose instead that you perform a stipulation just like your original stipulation except that the sentence 'There are no extraterrestrials' replaces 'There are extraterrestrials'. Suppose that after your stipulation, you go through the same sort of inferences as above. Then, given the standard semantical picture, you would thereby come to know a priori that there are no extraterrestrials. Of course, since you do not know in advance which stipulation to make in order to get the relevant a priori knowledge, the solution is just to perform both of them! This way, you are guaranteed to obtain the a priori knowledge you are seeking.

Thus, by engaging in these two stipulations and associated inferences, you just that easily end up knowing a priori whether or not there are extraterrestrials. (This of course generalizes to any pair of propositions p and not-p.) This conclusion, I hope, is too absurd for anyone to accept. As a matter of fact, I myself have gone through this procedure several times but evidently to no effect.

Now one might think that the paradox gives us reason to abandon the standard semantical picture in favor of a nonstandard approach on which the objects of knowledge are linguistic objects (either natural-language sentences, language-of-thought sentences, or propositions involving words themselves as constituents). Although such approaches might be able to block the paradox, they evidently face a number of well-known difficulties (articulated by Church, Burge, Schiffer, and others): for example, difficulties having to do with the possibility of shared meaning and thought across divergent intelligent species. If this is so, there seems to be no alternative but to try to block the paradox within the standard setting. Accordingly, I will now briefly survey the main ways that an advocate of the standard picture might try to block the paradox.

One way to try to stop the argument is to follow certain direct reference theorists (e.g., Scott Soames) in holding that, although the standard semantical picture is correct, its prima facie counterintuitive consequences can be explained away as mere pragmatic (vs. genuine semantic) phenomena. But even if this move were acceptable in the familiar cases (e.g., Hesperus/Phosphorus cases), it has no chance of blocking the present paradox, for it is just incredible that 'You know a priori whether there are extraterrestrials' is literally true, whatever Gricean implicatures it might have.

The second way of trying to block the paradox is to follow certain other direct reference theorists (e.g., Nathan Salmon) in holding that knowledge is (in effect) a three-place relation in that it always involves a mode of presentation of the known proposition. If the three-place theory were otherwise correct, it could be used to block the penultimate inference (to your knowing a priori that it is true that A). The problem is that it is not otherwise correct; on the contrary, it can be shown to have an internal inconsistency of its own (see my "An Inconsistency in Direct Reference Theories," forthcoming). For this reason, it cannot be relied upon to resolve the paradox.

A third way to try to stop the argument is to challenge its first step. On the one hand, one could resist the claim that, by stipulatively uttering what you did, you successfully introduced the predicate 'G' (and thus fixed the property it expresses). But, absent further motivation, this move seems ad hoc:

it is difficult to see any relevant difference between this stipulation and stipulations that plainly succeed in introducing predicates. On the other hand, one could deny that, by making your stipulation, you came to know (1) a priori. But, once again, without further motivation, this move seems ad hoc, for it is difficult to see any relevant difference between your stipulation and stipulations that uncontroversially impart the associated stipulative knowledge (e.g., as in the football case described above).

(Aside on direct reference theory. Even if one refuses to accept that one can introduce *predicates* in this way and, in so doing, come to have the associated stipulative knowledge, one at least ought to accept that this can be achieved in the case of names. For example, in the original stipulation you might have instead said, "I hereby introduce the name 'n': if A, then n = the property truth, and if not-A, then n = the property falsehood." The rest of the argument would then go through more or less unchanged except that the substitutivity principle would concern names that denote the same property rather than predicates that express the same property. This argument would yield the same absurd consequence, thus challenging the direct reference theory of names.)

A fourth way of trying to block the paradox is to hold that your logically valid reasoning to the your conclusion that it is G that A does not yield knowledge that it is G that A. Such reasoning would yield knowledge only if you had *understood* the predicate 'G'. But you would not understand 'G' until you knew which property it expressed, and you would not know this until you knew whether there were extraterrestrials. The premise upon which this objection is based (i.e., that valid reasoning leads to knowledge only if the relevant expressions and properties are understood) does not seem to hold generally. For instance, the man in Burge's arthritis example knows that unpleasant arthritis is an disease and from this knowledge could come to know that, if he has arthritis, he has an unpleasant disease. How is your derived knowledge in our example relevantly different from the arthritis man's derived knowledge? Without a convincing answer, we may not use this strategy to block the paradox.

Fifth, one might try to stop the argument at its final step by pointing out that knowledge is not closed under logical consequence. But the step does not require anything this strong. All that is required is one simple principle of epistemic logic, namely, that (for nonpathological 'A') one knows that it is true that A only if one knows that A. (Of course, this need not be occurrent knowledge, nor does the paradox require that it be.) Surely this is right for our question about extraterrestrials: you cannot know that it is true that there are extraterrestrials without knowing that there are extraterrestrials. Denying this would be a huge price. In any case, our penultimate conclusion (that you just that easily came to know that whether *it is true* that there extraterrestrials) is extremely hard to swallow in its own right.

The sixth way to try to block the paradox is to abandon the substitutivity principle for predicates. But this is tantamount to abandoning the standard semantical picture itself and so is not available to those interested in preserving that picture. A related, but weaker response would be to reject just the particular instance of the substitutivity principle used in the argument. But, absent further motivation, this move would be ad hoc, for it is difficult to see any relevant difference between this instance and those that are sound. Indeed, if the principle fails in this elementary case, it is hard to see why anyone would be drawn to the principle in the first place.

The final way that advocates of the standard semantical picture might try to block the paradox is to hold that predicates express concepts, not properties, and then exploit this difference somehow. But it is not immediately evident how this would go. For, *prima facie*, each step in the argument seems to go through in this setting just as well as it does in the setting of properties.

In sum, no step in the derivation of the paradox stands out as mistaken: we seem forced to the unacceptable conclusion that, for any question you can think of, you can come to know its answer a priori in a few easy steps performed in the comfort of your own armchair.