

# Three indeterminacy arguments refuted

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## 1 Introduction

Quine, Putnam, and Kripke each famously raised (putative) problems for naive realism about what words like “rabbit” and “plus” mean. But, I am going to argue, all three of them failed. The naive realist - even if we make him the strictest of behaviorists - has no problem answering Quine, Putnam or Kripke’s worries. All the naive realist about meaning has to do, is take people-asserting-that-it’s raining to be like lamps or (according to some) pornography. We can’t (yet) specify in other terms which physical arrangements of stuff count, but we are able to recognize such arrangements when we see them.

In this paper, I’ll start by saying what the version of naive realism I have in mind looks like, and then I will go through why none of the famous indeterminacy arguments would give someone who held this view any reason to doubt that there are determinate facts about reference.

## 2 Naive reference realism

I take it that (thanks to Wittgenstein) no contemporary philosopher of language finds it puzzling that we are able to recognize instances of lamps, without being

able to provide attractive necessary and sufficient conditions which say what it would take for something to be a lamp. Certain physical configurations of stuff count as lamps, and we can (mostly) recognize these when we see them (under good lighting etc). But, we don't know how to give any more of an informative description of which physical configurations of stuff count as lamps than that e.g. no one currently knows how to type up a program which takes in a description of the location of a collection of particles at a given time and spits out a 1 if these particles would constitute a lamp and a 0 otherwise. When we want to teach people what "lamp" means, the best we can do is show them a bunch of examples.

Furthermore, this inability to produce a nice paraphrase of lamp expressions doesn't mean that there's anything metaphysically spooky about lamps. Being a lamp just is being a certain kind of configuration of particles. Admittedly, we can't (and might never be able to) do anything better by way of specifying which configurations of particles count, than to say that they need to be arranged 'in such a way as to constitute a lamp' or to start listing off a (potentially infinite) disjunction of which microphysical states would count (and the latter description, being perfectly precise, would only approximate the truth up to issues of vagueness). But (I take it) no one thinks that our actual inability to produce a paraphrase shows that there's anything problematic about how lamp facts fit into a naturalistic picture of the world.

Now, my naive realist looks at physical descriptions of creatures' dispositions to behavior, like Wittgenstein's description of his builders. Regularly, one of them says "Slab!" and the other hands him a slab, or the first one says "Pillar!" and the other one hands him a pillar. That's an example of the kind of thing, my realist thinks, that amounts to a creature-asking-for-a-slab. Just like with lamps, he's inclined to make a whole bunch of judgments about which noises,

made by creatures with which dispositions to behavior, count as requests for a slab. And, being a naive realist, he thinks ‘hey certain kinds of physical-dispositional states count as asking for a slab, and I can recognize which ones they are!’. More generally, he notices, that he has inclinations to translate people, by saying what (if anything) their utterances of particular words mean. And, just as he takes his inclinations to say ‘that’s a lamp!’ to track the facts about what physical stuff amounts to a lamp, he takes his dispositions to say ‘that’s a person saying that x’ to track the facts about physical stuff amounts to a person saying that x. Finally, since the situations where he’s inclined to judge ‘that’s a person saying there’s a rabbit’ are different from those where he would judge ‘that’s a person saying there’s an undetached rabbit part’, he takes there to be pretty determinate facts about reference. A native’s dispositions to verbal behavior either place them in the former category or the latter (or neither), so it’s determinate which thing they are saying at any given time.

So here’s our naive realist. At least, they are naive about meaning and reference, though perhaps not so naive about how fiendishly hard it turns out to be to come up with necessary and sufficient conditions for things. We can also suppose they take facts about what a person means to completely supervene on their dispositions to behavior, just as they take facts about what’s a lamp to completely supervene on microphysical facts - so that they share Quine’s infamous linguistic behaviorism, in case that makes a difference. Now, can our illustrious list of philosophers say anything to shake the naive realists’ belief in determinate facts about meaning?

### **3 Quine**

Quine takes the naive realist to an island, where he points out that the native speakers assent to the query “gavagai” under a certain set of conditions,

(roughly) conditions where there's a rabbit nearby. But alas, these are exactly the same conditions under which there's an *undetached rabbit part* nearby. They assent under conditions where an english speaker would assent to "rabbit?", but these are just the same conditions under which an english speaker would assent to "undetached rabbit part"? So which thing does "gavagai" mean, rabbit or undetached rabbit part?

At this point, our naive realist would say that meaning does not supervene merely on assent conditions, but on the whole of the natives' dispositions to behavior. So, while politely following Quine's experiments, he will also be noticing other things about what the natives do: which sounds spring to their lips frequently, which seem to be composites of multiple words/meaningful chunks vs. single words, and many other things. All of these combined will help him reach his ultimate judgment, where he might say, for example, "gavagai" means rabbit "utangonegavagai" means undetached rabbit part.

Why is this the right translation? As mentioned above, the naive realist won't expect to be able to give necessary and sufficient conditions for meaning saying that there's a rabbit - he just takes himself to know such assertions when he sees them (provided he gets access to enough dispositional data). But in this case there are lots of things he can point to: the fact that gavagai is a shorter word, that it's used much more frequently etc. Consider the ways that english speakers use the sounds "rabbit" and "undetached rabbit parts" there are innumerable differences, with typical frequency of use being only the most obvious.

And Quine himself points out that actual linguists will all agree in translating "gavagai" as rabbit rather than undetached rabbit part. It's a feature of the way that we do translation that we take people to use short words with persisting clumps of stuff, rather than philosophers' undetached parts, or time slices. So

what's the problem?

The case is interesting, because our naive realist is forced to say that it's an a priori truth that whichever word is shorter, used more etc. means rabbit rather than undetached rabbit part, rather than some kind of interesting facts about human psychology/how we tend to conceptualize the world. Since he thinks that facts about meaning supervene on behavior, he must admit that nothing would count as people who talked about undetached rabbit parts in all the situations where we talk about rabbits, and vice versa. It turns out that the commoner (etc.) word in your language always has to be the one that means rabbit. If people started to say "there goes an undetached rabbit part" all the time where we now say "there's a rabbit", the meaning of these phrases would swap.

This is an interesting consequence, but hardly a reductio. In fact, it's exactly like consequences which Quine explicitly accepts, about it being impossible to get logic wrong beyond a certain extent, or necessary that a person is largely right in their assent to queries about stimulus conditions. Facts about the right way to do translation, match up with constraints on what it's possible for a person to believe, so that e.g. nothing would count as rejecting basic laws of logic, and the appearance that someone is saying P and P is really evidence that you are doing translation wrong.

Thus, I claim, Quine has not exposed any genuine reason for the naive realist to doubt. In fact, thinking about this case brings up a kind of tension - or at least an interesting interpretative question - with regard to Quine. Namely, why was Quine willing to take some aspects of our translation practice on board (translate so that people say largely true things, at least about logic and what they are currently seeing) but not others (translate so that common words refer to persisting clumps, where possible).

## 4 Putnam

Putnam's version of the indeterminacy argument is substantially more austere than Quine's - and even less convincing. He starts out by using the Lowenheim-Skolem Theorem to argue for something that's obvious, together with something that's intuitive, but not obvious. The obvious fact is that distinct true propositions can have the same logical form. Thus, for example, 'There are at least three cats' and 'There are at least three dogs' express different true propositions, but these propositions have the same logical form. The less obvious, but intuitive, claim is that for *any* true proposition, there's a distinct true proposition with the same logical form.

Putnam points out, that Skolem's theorem shows that for any consistent first order theory T, there's an "interpretation" of this theory (i.e. a way of assigning a domain to the quantifiers, objects in this domain to all the names, and collections of objects in the domain to all the predicates of the theory) which makes all the sentences of T come out to be true - where the domain for this interpretation is just the natural numbers. That is: take your total theory of the world, with all its talk of sandwiches, and atoms, and planets. Skolem's theorem guarantees that there's a corresponding true theory, which just talks about the natural numbers, and has exactly the same logical form as yours.

This is supposed to pose a problem for realism. The only realism it immediately poses a problem for, would be the view that you believe "the" set of true propositions which has the same logical form as the set of sentences you accept. But this theory is already a non-starter. For one thing, as the example of cats and dogs above shows, there's not going to be a unique proposition with that logical form, and there's no reason to expect that there would be a unique *true* proposition with that logical form. For another thing, it's possible to have false beliefs.

So now Putnam asks, “in virtue of what” you count as holding a theory about sandwiches and planets, rather than a completely true theory, with the same logical form, about the natural numbers? The realist, Putnam wants to suggest, must posit some kind of spooky non-naturalistic glue which connects your words to sandwiches rather than numbers. But this isn’t right at all.

Our naive realist will say that you count as meaning sandwich by “sandwich” rather than some some property of the natural numbers, in virtue of your total dispositions to behavior. Anyone who had those dispositions to behavior (especially with regard to making the sound “sandwich”), would count as meaning sandwich by their word “sandwich”. And, presumably, there’s nothing a naturalist would find spooky about the fact that you have those dispositions to behavior.

Of course, Putnam wouldn’t be satisfied with such an answer. But why, he would ask, do these patterns of behavior count as asserting something about sandwiches, rather than something about the numbers? Aren’t we positing some spooky reference magnetism whereby it’s easier to say things about sandwiches, rather than to say things of the same logical form about the numbers?

Now, this question isn’t obviously legitimate. I mean, consider the analogous question about lamps. Suppose someone asked you why the facts about what’s a lamp supervened on the physical facts in the particular way that they do. Why does this [pointing to a lamp] count as a lamp, where as this [pointing to their hand] counts as a hand and not a lamp? I take it, there is no informative answer to give. Colloquially, we might say “that’s just what we mean by ‘lamp’”, but of course, our dispositions to use the sounds “lamp” one way or another have nothing to do with the fact that your hand is not a lamp.

And our naive realist will have the same reaction to Putnam, if he follows up in this way. Certain dispositional states (which we can recognize when we see

them, but can't give necessary and sufficient criteria for) just count as saying that there's a sandwich, and others count as saying that there's a prime greater than 42. And, at the moment, you happen to be in one of the former rather than one of the latter.

Now, admittedly, there is an interesting philosophical issue in the neighborhood. Putnam's article would hardly be so famous if there weren't. But I think we can see this issue more clearly if we turn to Kripke's puzzle about indeterminacy.

## 5 Kripke

Unlike the others, Kripke's indeterminacy argument leads to something which he takes to be an intolerable conclusion. He then advocates a radical solution. But, I will argue that our naive realist has no need for a radical solution, because the problem doesn't arise in the first place.

Kripke starts by arguing that there's a point at which our dispositions to behavior with respect to "+" give out. When large enough numbers are involved, it won't be the case that we are disposed to add them correctly, or even to build machines that would add them correctly. Let  $n$  be such a number. Then let  $quus$  be the function which behaves like plus, on all numbers smaller than  $n$ , but such that  $n quus m = 5$ , for every  $m$ . Now, he asks, in virtue of what do we mean plus rather than  $quus$ ?

You can easily guess what the naive realist's first response will be. We mean plus in virtue of having a certain kind of total dispositional state. Anyone with this combination of dispositions we have would count as meaning plus by "+", not  $quus$ . But how can this be, you might ask? Our dispositions don't "distinguish" between plus and  $quus$ ? But, note, that this is just to say (something like) the following. We have dispositions to say that " $a+b=c$ " in

situations where both  $a \text{ plus } b = c$  and where  $a \text{ quus } b = c$ , and to deny such statements in cases where neither  $a \text{ plus } b = c$  nor  $a \text{ quus } c = b$ , and to refuse to answer in cases where  $a \text{ plus } b$  and  $a \text{ quus } b$  are different.

Now, the realist wants to say all that people with these dispositions mean plus rather than quus. He looks up some people with these dispositions (any normal english speakers will do) and applies his putative ability to spot assertions that P when he sees them. Then, bamn, he immediately judges that these people are making assertions about plus, and not quus. So he concludes that people with these dispositions count as meaning plus, just the way that he might look at an object with a certain microphysical structure, judge that its a lamp, and conclude that objects with that microphysical structure all counted as lamps.

There is no contradiction here, or appeal to metaphysically additional meaning facts, which happen to link us up to plus, while they would link someone else, with the same dispositions, up to quus. Rather, the upshot is, that it turns out to be easier to mean plus than to mean quus. There are, indeed, dispositions a creature could have that would count as quus, but these are (roughly) only cases where the creature is actually disposed to make statements which are true of quus but not of plus. Behavior that's evenhanded with regard to these two distinct functions, counts as meaning plus. This interesting conclusion is the result that just going with our intuitive judgments about whether such-and-such a person would count as meaning so-and-so, (as the naive realist does) leads us.

And (I think) this leads us to the fundamental wellspring of worries about indeterminacy of reference. Simply: it can seem intuitively very strange that more physical states count as thinking about plus than as thinking about quus. The naive realist wants to say that meaning facts just happen to supervene on the dispositional state facts in such a way that it's easier to mean plus than

quus. But, a sympathetic reader of Kripke will wonder *why* the meaning facts supervene on the dispositional facts that way? Wouldn't it be just as natural to take meaning facts to go the other way, so that the relevant dispositions counted as meaning plus? Or are we positing that there's some kind of mystical halo ("reference magnetism") which attaches to plus but not to quus and hence makes the particular way that we are claiming that meaning facts supervene on dispositions to behavior the only natural one to draw?

The key thing to note here, is that we don't feel this way with claims about how lamp-facts supervene on underlying physical structure. We don't expect to be able to give any interesting answer to questions like 'why do so few of the physical configurations of stuff which count as flashlights, also count as lamps?' If someone asked 'wouldn't it be just as natural to say that things like this [holding up a flashlight] did count as lamps?' we don't take them to have raised a philosophical problem, or motivated the conclusion that it's somehow indeterminate whether flashlights are lamps. We can admit that there are other, equally natural and interesting properties, say the property of being a lamp\*, which do divide up the space of possible physical configurations in the way our interlocutor suggests. It's just a perfectly objective, unproblematic fact, that flashlights aren't lamps. They are lamp\*s.

Now, I want to suggest that (in contrast) we *do* get spooked by not being able to answer the corresponding questions about meaning, because we expect that attributions of meaning must not only be literally objectively correct (like attributions of lamphood) but they must cut nature at it's joints. That is, we think that meaning has to track some very philosophically special, natural property. In particular, (to parallel the lamp case) if we think about meaning as a function which takes total behavioral dispositions to propositions in a way that makes it easier to mean plus than to mean quus, and meaning\* as a function

which takes disposition states to propositions in a way that makes it easier to mean quus than to mean plus - then it must be that meaning facts are somehow more deep and illuminating than meaning\* facts.

And, notice, that if you assume this, then the only way to get the intuitive conclusion that we mean plus, rather than quus, is to say that there's some kind of extra metaphysical halo around the plus function. Thus, you get the intuition that some kind of spooky non-naturalistic facts about reference magnetism are needed to back up the claim that "+" means plus, rather than quus.

If this is right, then the only thing the naive realist needs to do, to escape from Kripke's worries, is to give up the assumption that meaning facts must track a distinction of deeper philosophical/scientific/metaphysical interest than the distinction between lamps and non-lamps. It is only this assumption which could motivate the demand that one must be able to point to some special fact about plus (or about us) in virtue of which meaning facts supervene on dispositions to behavior in particular way that they do, rather than in some other way.

(Note, here, that the naive realist is not committed to thinking that there \*couldn't\* be some very principled philosophical/scientific distinction which our intuitive meaning attributions largely track. If there turns out to be one, than one might use this to give necessary and sufficient conditions for meaning that P, and there would be a more substantive explanation for why we don't satisfy this principled scientific criterion with respect to quus. But it is only the appearance that there is no such principled distinction, together with the a priori conviction that meaning facts must track such a distinction which leads to the conclusion that our meanings must be indeterminate between plus and quus)

## 6 Tying up some loose ends

So much for our three indeterminacy arguments. None of them seemed to pose a challenge for naive realism about determinacy of reference, provide the realist wasn't overly optimistic about how easy it is to give necessary and sufficient conditions for things, or committed to the assumption that meaning facts must correspond to a uniquely natural and metaphysically illuminating way of pairing dispositions with propositions, one which beats out any similar meaning\* facts. Now I want to tie up some loose ends.

Firstly, we can make naive realism more attractive by getting rid of the old-fashioned behaviorism. Philosophical research in the days since Quine has shown many ways in which facts that do not supervene on an individual's dispositions to behavior (facts about how experts use that word, or about the chemical composition of the watery stuff around them, or about whether these behavioral dispositions are realized economically in meat or via a Blockheaded look-up table) also effect our intuitive judgments about what certain creatures would count as believing, or asserting. So, we can update the naive realist's mantra that S means that P in virtue of their *total dispositional state*, to the claim that S means that P in virtue of the \*the total physical and dispositional state of their world - together with facts about which part of the world S/S's body makes up. If you're a believer in qualia, you might throw facts about dispositions to experience certain qualia in too. None of this changes anything about the arguments above.

Secondly, let me stress that my aim in this paper is to defeat three major arguments for indeterminacy of reference, not convince those who now think that reference is radically indeterminate, that in fact it's determinate. The fact that a naive realist, who starts out \*assuming\* that reference is pretty definite, won't be moved by the above indeterminacy arguments, doesn't in itself show

that reference is determinate.

Thirdly, we should consider whether there are any positive reasons for thinking that the meaning function must track a more deeply natural distinction than the distinction between lamps and non-lamps? If so, it would substantially strengthen the indeterminacy arguments above, as follows. You could say: a) meaning facts track a uniquely deep, principled distinction - not one that's arbitrary in any way b) if, a given behavioral state counts as talking about plus rather than about quus (or rabbits rather than rabbit parts), then there would be something arbitrary about the way that behavioral states determine meaning therefore c) that behavioral state does not count as meaning plus rather than quus so d) reference is radically indeterminate.

However, the best arguments I have been able to discover, arise from: vagueness, normativity, and scientific explanatory power, and none of them seem to work.

The argument from vagueness, is that it can be vague whether a given physical state amounts to a lamp, but not whether a given physical state constitutes a person with a certain belief, therefore meaning tracks must track some more natural kind which allows them to be perfectly sharp in this way. However, it's simply not the case that facts about whether S means that P are distinctively sharp - it seems just a vague e.g. who the first person to believe the proposition a modern scientist asserts when he says 'there are atoms' as it does when gradually reducing something's power to illuminate stops it from being a lamp.

The argument from normativity, starts from the claim that one ought to believe what's true. But, this is equivalent to the claim that you ought to get into situations which amount to meaning a true proposition. Now suppose (as the naive realist wants to) that there's nothing more specially natural about meaning facts than about meaning\* facts (where it's 'easier' to mean\* quus than

plus). And let's ask the normative question ought this person say "n+n=5"? In fact they won't say any such thing (given the way we defined n). But we can still ask what they ought to say. If they say "n+n=5" they will mean something that's false (namely, that n plus n=5), but they will mean\* something that's true (namely, that n quus n=5). So how come they ought not to make this claim? If there's nothing specially deep about meaning facts, why should they strive to mean what's true at the cost of shmeaning\* what's true?

If we knew that there were, say, a moral fact that you ought to believe all and only what's true, this would be a convincing argument. For, presumably, moral facts (if there are any) can't depend on anything that's as arbitrary as the fact that flashlights aren't lamps, or that it's easier to mean plus than to mean quus. If epistemic normativity is supposed to preserve this force, then I claim (and the naive realist can claim) that the distinction between which claims are justified vs. not justified \*is\* arbitrary in certain respects. (See 'A priority and the doctoriods' for a separate argument for this claim. )

Do we really want to say anything more about what the person faced with "n+n=?" should do, than that \*if they say 5 they will be expressing a false belief\* and that what people want (e.g. what their claim "I want to form true beliefs" expresses the desire for) is to get into a state which counts as \*meaning\* a true proposition. In contrast, they don't count as expressing, or having, the desire to mean\* a true proposition (though, of course they might say things which mean\* that they'd like to accept sentences which mean\* true propositions).

Finally, the argument from scientific explanatory power claims that belief-desire psychology (which involves, say attributing people specific beliefs about rabbits rather than rabbit parts), has substantial explanatory power. So - one might think - it would be surprising if the concepts of people's beliefs, and

sentences' meanings, which belief desire psychology employs, were arbitrary. Isn't being used in a successful scientific theory the best possible evidence of tracking some genuinely natural kind? Here there are two lines of defense. Firstly, concepts which are (in some ways) not very natural can still be used to give satisfactory scientific explanations ('that window broke because a canon ball hit it') and its not clear that the concepts of belief and desire would figure in the ultimate, best possible explanation of human behavior. Perhaps we are just using these concepts because they are familiar, and pragmatically useful because they are specially well suited to making predictions based on the kind of information which human beings typically have access to about one another. Secondly, though, even if there were a psychologically natural kind 'belief' which made reference radically indeterminate, this wouldn't show that the intuitive notion of belief (where reference is determinate) was incoherent or untenable.

## 7 Conclusion

In this essay, I have tried to block three famous arguments to indeterminacy of reference. The common flaw in each of them, I think, is the assumption that if there are facts about meaning, these must (in every way) track scientifically or philosophically 'deep' distinctions. We allow that ordinary concepts like 'lamp' can cut up the space of possibilities in a way that isn't deeply principled - and hence that there may be no more substantive response to the challenge 'why doesnt this physical configuration of stuff (a flashlight) count as a lamp?' than 'I know lamps when I see them, and that isn't a lamp'. Why can't the same thing apply to the concepts of meaning and belief?