

Realism and Anti-Realism III

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1. External Realism. Recall, following Button (*The Limits of Realism*), we can see Putnam as characterising external realism with three principles: *Independence*: The world or some specific domain is made up of objects that are mind-, language-, and theory-independent; *Correspondence*: Truth involves some sort of correspondence relation between words or ideas and external things and structures of things; *Cartesianism*: Even an ideal theory might be radically false.

2. Formalising external realism. Let our theory of the world be expressed in language \mathcal{L} with a vocabulary of names ($\langle c_1, c_2, \dots \rangle$) and predicates ($\langle R_1, R_2, \dots \rangle$). (We can treat the function symbols in the same way, but I will ignore those for simplicity.) Let the external world be a model \mathcal{W} , with a domain W that consists of the objects which make up the world (the ‘fundamental ontology’). Each name, $\langle c \rangle$, maps to the object $c^{\mathcal{W}}$ in W , and each predicate ‘ R ’ is mapped to a set $R^{\mathcal{W}}$ of objects in W . We assume here that whatever the external realist claims about the world, it should be something that can be represented formally in this way. So when we claim that the moon is round, we can represent its truth conditions as follows: ‘ Rc_1 ’ is true iff $c_1^{\mathcal{W}} \in R^{\mathcal{W}}$.

3. Adequacy. Should the externalist accept this interpretation of their theory? The model-theoretic interpretation of external realism is relatively innocent. It merely assumes that the correspondence between language and world can be successfully represented or modelled in model-theoretic terms; it doesn’t assume that the model is real or the actual truth maker. Moreover, the interpretation seems an excellent way to confirm Independence, Correspondence, and Cartesianism: the language and the domain are entirely separate, yet each term in the language corresponds to something in the domain if a statement is true, which nonetheless leaves room falsehoods and better and worse models.

4. Putnam’s model-theoretic argument. However, now it is easy to see that for each situation that makes a theory true there are others situations that do so. A simple ‘permutation argument’ shows this. A permutation is a bijection from a set onto itself: each object in the set gets mapped to an object in the set (possibly itself), and no two objects get mapped to the same object. As long as we respect the structure of \mathcal{W} , we can arrive at a distinct but isomorphic model \mathcal{P} that renders our theory true. So if we now ask the external realist about what ‘the moon’, $\langle c_1 \rangle$, refers to, she will have to admit that it is either $c_1^{\mathcal{W}}$ or $c_1^{\mathcal{P}}$.

5. Indeterminacy. What exactly is the upshot? The external realist claims that the world is largely independent of us and our sentences are true just if they correspond to the external things and structures of things external world. What the model-theoretic argument shows is that, if there is any way to make the theory true, then there are many ways of making the theory true. Putnam writes that “nature does not single out any one correspondence between our terms and external things” (1981: 41). Therefore, there seems to be an indeterminacy in the relation between our theory and the world. Not even a true theory satisfies Correspondence, because a true theory doesn’t determine a single way for the world to be.

6. Unintended models. What goes wrong here, clearly, is that our theory of the world should be understood as a theory only about one *intended* model, i.e. the model \mathcal{W} in which ‘the moon’ refers to the moon and not to something else. Yes, there are strange models that are isomorphic to the intended one but these should be dismissed. But how?

6i. Causal constraint? Isn’t reference fixed by a causal relation between external elements and our terms or concepts? Recall Saul Kripke’s theory of rigid designators. This is a causal theory of reference: a necessary condition for a term to refer to an object is that there is a chain of causation from an initial baptism to current usage. An intended interpretation, we may think, should respect such causal connections. However, even if causation is necessary for reference, it is not sufficient. Furthermore, we can have true theories about domains that include objects with which we cannot interact causally.

6ii. Eliteness constraint? Perhaps we can instead find the desired constraint on reference in the specialness of \mathcal{W} ? Notice, the model-theoretic argument delivers many pseudo-properties. David Lewis suggests that we should focus only on the ‘sparse’ ones. “Sharing of them makes for qualitative similarity, they carve at the joints, they are intrinsic, they are highly specific, ... there are only just enough of them to characterise things completely and without redundancy” (1986:60) So the genuine properties (e.g. *being a cat* ^{\mathcal{W}}) are, in a sense, special. Well, wouldn’t that be nice! The problem is, how do we know this? And what determines that our predicates pick out ‘elite’ or ‘sparse’ properties?

7. Just more theory. Any specific constraint is likely to be controversial on its own terms. However, the best way to fortify the model-theoretic argument is by showing that *any* constraint offered is problematic. How would you do that? Well, just consider what any such constraint would have to be. It will have to take the following form: “X fixes reference”, where ‘X’ refers to some relevant phenomenon (causation, sparseness) that is supposed to fix the reference of our terms. But the sentence ‘X fixes reference’ is itself just more theory! What does *it* mean? If it is part of our theory of the world, it is itself subject to the model theoretic argument. And if it isn’t part of our theory of the world, then what kind of claim is it? (Putnam and Button suggest it would be a magical theory.)

8. Question begging? Doesn’t this fortification beg the question? The point that causation, say, fixes reference is not a *semantic* one. The realist doesn’t say that reference is fixed because ‘causation’ means what it does! They say that reference is fixed by causation. That fact doesn’t depend on our theory, our thoughts, or our experience. To assume that it does begs the question. Hartry Field (1972) suggests that it is simply up to empirical science to tell philosophy what the reference-fixing relation is and how it works. Perhaps. But note, this leaves the door open for a situation in which we have no clue what our terms refer to, yet still accept a theory that promises us that they do in fact refer.

9. Semantic scepticism. The external realist is driven to accept a form of semantic scepticism. This is really one of the interesting points Putnam’s arguments bring out. To be sure, the Cartesian principle already acknowledged the worry that appearances may deceive. But scepticism about semantics seems rather different. If we embrace scepticism about the semantics of our language, then we acknowledge the possibility that we are hopelessly wrong about what our words refer to. But how could we even represent or express this worry? It must be expressible using the simple disquotational strategy: “I can doubt that ‘The moon’ might not refer to the moon.” But if we are in doubt about what ‘the moon’ refers to, we are in doubt about what the disquotational sentence itself is about. Semantic scepticism is incoherent and thereby self-refuting.