

Putnam: Meaning and Reference

The Traditional Conception of Meaning

... combines two assumptions:

Meaning and psychology

Knowing the meaning (of a word, sentence) is **being in a psychological state**.

Even Frege, who thought that meanings (“senses”) were public entities not private ideas, allowed that the **grasping** of a meaning is an individual psychological act.

Intension determines extension

If two terms have the **same intension** (meaning), they have the **same extension** (are true of the same set of things); if two terms have different extension (apply to different sets of things), they have different intensions (meanings).

Putnam argues that these two assumptions cannot be jointly satisfied, and that therefore “the traditional concept of meaning is a concept which rests on a false theory” (p. 307).

Two Senses of ‘Psychological State’

Putnam distinguishes two different ways of thinking about psychological states.

Narrow sense

All there is to know about an individual’s psychological state in the **narrow sense** can be learned from studying the contents of that individual’s mind; what other people think, believe, etc., is entirely irrelevant to finding out what’s going on in this individual’s mind.

The general idea: ψ is a psychological state in the narrow sense of a subject, S , iff you don’t need to consider anything that’s going on “outside of the head” of S in order to figure out whether S is in ψ .

Wide sense

A psychological state in the **wide sense** is one whose attribution to a subject has entailments that go beyond what’s going on “in the head” of the subject. Many “garden variety” mental states are, according to Putnam, psychological states in the

wide sense. E.g., when we say that x is jealous of y , we are attributing a state to x that entails, at least, that y exists. So *being jealous* is a wide (but not a narrow) psychological state.

Methodological Solipsism

A traditional philosophical view which holds that **all psychological states are narrow**.

When methodological solipsism is combined with the thesis that knowing the meaning of something is a psychological state, it yields the result that **meanings are in the head**. That is, whether a given individual knows the meaning of a given term can be completely determined by examining the contents of his mind — it is not necessary to bring any extra-mental considerations to bear.

This is the idea that Putnam attacks. His claim is that “it is possible for two speakers to be in exactly the same psychological state (in the narrow sense), even though the extension of the term A in the idiolect of the one is different from the extension of the term A in the idiolect of the other” (“The Meaning of ‘Meaning’”, p. 228.)

Meanings aren’t in the head: Twin Earth

Putnam’s famous “Twin Earth” example is designed to refute the idea that ‘meanings are in the head’.

Twin Earth is a planet (elsewhere in the galaxy) that is exactly like Earth except for one thing: on Twin Earth, the stuff they call ‘water’ is not H_2O , but a different liquid with a different chemical formula — call it ‘XYZ’.

Putnam’s intuition is that XYZ is **not** water; this intuition is crucial to his entire argument. There is, of course, an **alternative intuition** (one I don’t share, but possible) that **XYZ is another form of water**. On this view, if we were to visit Twin Earth, we would discover that there is another kind of water that we had no idea existed (much as we said when we discovered deuterium oxide, D_2O — “heavy water”).

Against the alternative intuition: XYZ is **not** like an isotope of water. When we discovered D_2O , we discovered something about **actual water** — that the actual pools of water on Earth had a certain proportion of D_2O in them (about 1 part in 6,500). XYZ is just another liquid that has many of the same superficial characteristics of water — e.g., you can swim in it, wood floats on it, it nourishes plants and animals, etc.

So Putnam draws his **first conclusion**: that the **extension** of ‘water’ in Earthian English is **different** from the extension of ‘water’ in Twin Earthian English.

The second part of his argument is to show that there may be **no psychological difference** between the speakers of Earthian English and the speakers of Twin Earthian English, if our criterion of psychological difference is what is **in their heads**.

If this is so, we must give up **one or the other** of the two key claims that make up the traditional conception of meaning:

1. Knowing the meaning of a term is being in a certain (narrow) psychological state. I.e., **(narrow) psychological state determines intension**. (Putnam sometimes characterizes this view as holding that “meanings are in the head.” But this is not quite right, since the intension (like a Fregean sense) is not strictly speaking a mental entity, something “in the head.” The view is, rather, that the intension is entirely determined by the narrow psychological states of the speaker. So one might more accurately say that the thesis is: **meanings are entirely determined by something in the head**.

2. **Intension determines extension**.

Putnam argues that we should give up (1).

The Twin Earth Argument

To show that what’s “in the heads” of Earthians and Twin Earthians is the same, Putnam adds a new wrinkle to the Twin Earth story. Imagine that the time is 1750, before we Earthians had any idea about the chemical structure of water. Still, the stuff our term ‘water’ referred to was H₂O. It didn’t refer to XYZ, even though no one on Earth could have told the difference between H₂O and XYZ.

Oscar₁ is an Earthian, and Oscar₂ is his Twin Earthian counterpart — his exact duplicate. Let us suppose that their psychological states are exactly alike, as well. Any belief that Oscar₁ has about what he calls ‘water’, Oscar₂ has about what **he** calls ‘water’.

Still, when Oscar₁ talks of ‘water’, he refers to H₂O; and when Oscar₂ talks of ‘water’, he refers to XYZ. So although Oscar₁ and Oscar₂ are in the same psychological state (with respect to their mental tokens of ‘water’), the extension of Oscar₁’s term ‘water’ is different from the extension of Oscar₂’s term ‘water’.

Therefore, **sameness of psychological state does not determine sameness of extension**. So, either:

1. You can continue to hold thesis (1), that (narrow) psychological state determines intension, but must give up thesis (2), the claim that intension determines extension, or
2. You can continue to hold onto thesis (2), that intension determines extension, but must give up thesis (1), the idea that meanings are in the head.

Putnam's position is we should **give up the claim that meanings are in the head**; the idea that meaning (intension) determines extension gets preserved but only in a very attenuated way (as we'll see).

Two theories of 'water'

One theory is based on (1), the other on (2). Putnam opts for theory (2). In the formulas below, the demonstrative 'this' picks out a sample of the liquid referred to as 'water' in a given possible world.

1. 'Water' is constant in meaning, but world-relative in denotation

'Water' in Twin Earthian English means the same as 'water' in English; but the word 'water' (whether in English or in Twin Earthian English) denotes H₂O on Earth and denotes XYZ on Twin Earth.

(1') (For every world W)(for every x in W)(x is water $\equiv x$ is the same liquid as the entity referred to as "this" in W)

In (1'), the description 'the entity referred to as "this" in W ' is given **narrow scope**.

2. 'Water' is constant in denotation, but world-relative in meaning

'Water' in Twin Earthian English does **not** mean the same as 'water' in English. 'Water' in English denotes H₂O in all possible worlds. (Similarly, 'water' in Twin Earthian English denotes XYZ in all possible worlds.) On this theory, there is no water on Twin Earth.

(2') (For every world W)(for every x in W)(x is water $\equiv x$ is the same liquid as the entity referred to as "this" in *the actual world*)

In (2'), the description 'the entity referred to as "this" in W ' is given **wide scope**.

The intuition behind (2) is that kind terms are intrinsically **indexical** and therefore **rigid**. This will take some explaining, since 'water' does not seem to be an indexical—it does not seem to be context-dependent for its denotation in the manner of 'I', 'this', 'today', 'now', etc.

Indexicality and Rigidity

Kind Terms are Rigid Designators

Following Kripke, Putnam holds that terms like ‘water’, ‘tiger’, ‘lemon’, etc. are **rigid designators**. The point is not that such terms have the same **extension** in every possible world (which would be very implausible: it is possible that there might have been fewer tigers than there actually are — i.e., some (actual) tigers might not have existed). Rather, it’s that such terms designate the same **kind** in every possible world.

The English word ‘water’ designates H₂O in the actual world, and therefore (since it’s rigid) designates H₂O in every possible world. So the Twin Earthian English word ‘water’, which designates XYZ, not H₂O, does not have the same meaning that the Earthian English word has.

Putnam summarizes his theory (p. 311, right): “... an entity *x*, in an arbitrary possible world, is *water* if and only if it bears the relation *same_L* to [is the same liquid as] ... the stuff we call ‘water’ in the *actual* world.”

Kind Terms are Indexical

The reason for the rigidity of the word ‘water’ is its “unnoticed indexical component” (p. 312, right, top) — “‘water’ is stuff that bears a certain similarity relation to the water [i.e., the stuff called ‘water’] around here” (312, right, middle):

“Kripke’s doctrine that natural-kind words are rigid designators and our doctrine that they are indexical are but two ways of making the same point.”

Evidently, the **rigidity** of ‘water’ is supposed to be a consequence of its **indexicality** [on p. 311, left]:

“The rigidity of the term ‘water’ follows from the fact that when I give the ostensive definition ‘*this* (liquid) is water’ I intend (2’) rather than (1’).”

How to give an ostensive definition of ‘water’:

Point at (a sample of) some liquid and declare ‘this is (what) water (is)’.

How the act of ostension gives the meaning of ‘water’:

By pointing at something and declaring it to be in the extension of the word, one says, in effect, that ‘water’ means ‘the stuff that has the nature of **this stuff here**’.

So it is the **actual** nature of the sample, regardless of what I may **believe** its nature to be, that enters into the meaning of the word.

Putnam's view is completed by an appeal to the same distinction between metaphysical and epistemological possibility that Kripke advocates.

Conceivability vs. Logical Possibility

What is *conceivable* (to me) is what is possible *for all I know*. What is logically possible is what obtains in some possible world. These do not always coincide. It may be conceivable (to you) that there is a greatest prime number, but it is not logically possible that there is.

As Putnam argues, “conceivability is no proof of possibility” (p. 312, left). It is conceivable that water is not H₂O, but it is not logically possible. There is no possible world in which water is not H₂O; the stuff on Twin Earth that people there call ‘water’ is not water — it is a **different liquid** (albeit one that cannot superficially be distinguished from water).

‘Water is H₂O’, Putnam says, is “metaphysically necessary and epistemically contingent” (p. 312, left). Recall that this also turned up on Kripke's list of necessary *a posteriori* propositions. We had to discover scientifically that water is H₂O — we couldn't just reflect on our own operational definition for picking out water and realize, *a priori*, that water is H₂O — but what we came to learn in this way is something that couldn't be otherwise, a necessity.

Subsequent revisions

Note: Putnam has subsequently backed away somewhat from his earlier endorsement of Kripke. (See “Is Water Necessarily H₂O?” Ch. 4 of *Realism with a Human Face*.) He still insists that it is conceivable that water is not H₂O—but **only** in the sense that *it is conceivable that stuff that resembles water should turn out not to be H₂O*. He no longer is willing to say that it is logically or metaphysically necessary that water is H₂O.

The reason is that he now rejects the metaphysical realism that underlies this position. He is unwilling to talk about what is “true in all possible worlds.” Twin Earth, after all, was not supposed to be *another possible world*, but a discovery we might make about a distant planet in another part of our universe. What Putnam is backing away from is the metaphysical aspect of Kripke's theory. As he puts it (*Realism ...*, p. 62):

“If we decide that what is not substance-identical with the water in the actual world is not part of the denotation of the term ‘water’, then that will require redescription of some possible situations when our knowledge of the fundamental characteristics of water ... changes. When terms are used rigidly, logical possibility becomes dependent upon empirical facts. But I repeat, no ‘metaphysics’ is presupposed by this beyond what is involved in speaking of ‘physical necessity’.”

And again (*Realism ...*, p. 64):

“What I was trying to do with my ‘minimalist’ (re)interpretation of Kripke was to assimilate his *metaphysical* intuitions to the *linguistic* intuitions that other analytic philosophers talk about. This is what I now think cannot be done.”

Other themes from “The Meaning of ‘Meaning’”

In the larger paper of which “Meaning and Reference” is an extract, Putnam goes on to develop the following related themes.

Realism

Putnam’s semantic theory has a metaphysical corollary (or, perhaps, a requirement), viz., a **realistic** conception of truth. For whether or not something counts as water, or gold, is not relative to what some **theory** of water, or gold, holds those things to be. To be gold is just to be the same kind of metal as **this** stuff — to have the same (theory-independent) nature or essence that the stuff **we** call gold has.

The Thesis Extended: General Terms

Putnam goes on to argue that the thesis of the rigidity of kind terms can be extended to cover the names of **artifacts** as well as natural kinds. ‘Pencil’, ‘chair’, ‘bottle’, etc., are all rigid designators. Presumably, such terms rigidly designate **kinds of artifacts**.

One might object as follows: couldn’t we discover that pencils are not artifacts after all? That they are, instead, organisms? This is certainly **epistemically** possible. That is, we could discover that *the things we have been calling pencils* are organisms. But that would not be the same thing.

Argument: Suppose that whereas pencils on Earth are just what we take them to be (artifacts), ‘pencils’ on Twin Earth are really organisms. We now have to choose between these two descriptions:

1. There are pencils on Twin Earth, but they are organisms.
2. There are no pencils on Twin Earth; instead, they use organisms (not pencils) to write with, but organisms which bear a strong superficial resemblance to pencils.

Putnam holds that **(2) is the correct description**. And this shows that it is the nature of the **local** pencils (the things that are called ‘pencils’ *here*) that determines whether some newly discovered pencil-like entities are really pencils.

Stereotypes

This is Putnam’s answer to the question “what **is** in the head, if meanings are not?” Putnam allows for what he calls **stereotypes**.

A stereotype is “a standardized description of **features** of the kind that are **typical** or normal” for a thing of a given kind. These features “in normal situations constitute ways of recognizing if a thing belongs to the kind.” A stereotype is “a conventional idea of what an *X* looks like or acts like or is.”

A stereotype, for Putnam, is **not analytically tied** to its associated term. It is a stereotype that gold is yellow, but it is not analytic that gold is yellow; tigers are stereotypically striped, but it is not analytic that tigers are striped.

Putnam’s stereotypes function semantically the way a proper name’s associated descriptions function according to Kripke: they provide a way of picking out an object, a way of **fixing the extension** of a term. They don’t provide logically necessary and sufficient conditions for falling under the extension of the term.

Summary

Putnam’s theory combines three crucial ingredients: *indexicality*, the *world*, and *social practice*, all of which are ignored or downplayed by traditional theorizing about meaning.

- More words are indexical than we had thought.
- The actual nature of the things we talk about (as opposed to our ideas about those things) enters into the meaning of the terms we use.
- Many (most?) of the words we use have no “necessary and sufficient conditions” of application.
- Meaning depends in part on “the division of linguistic labor” — the meaning of a term that one person uses may depend on what another person (an “expert” with respect to that term) has to say about it.
- Meanings are social, not (individual) psychological, entities.

Questions and Comments

Does Putnam's theory of meaning, and especially its distinction between epistemic and metaphysical necessity (possibility), lead to skepticism? Here's a reason to think that it does.

Take the 'pencil' example. It is metaphysically necessary that pencils are artifacts, but epistemically possible that they are not ("*For all we know*, what we call 'pencils' are organisms").

From this it follows that for all we know, what we call 'pencils' are not pencils. That is, for all we know, there are no pencils! By extending this argument to other artifactual kind terms and to natural kind terms, we can conclude that we cannot know for certain of the existence of any object of any kind *K*.

This is not just the "cautious" scientific skepticism that holds that we can't ever be sure that our current theory of the nature of a given kind of entity is correct. It is a more robust skepticism: we can't know whether there are pencils, or computers, or cats, or water, etc. Worries of this sort can drive philosophers away from metaphysical realism!