Phil 435: Philosophy of Language

[Handout 6]

Putnam & Burge
Twin-Earth and Arthritis

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Hilary Putnam
Meaning and Reference
(1973)

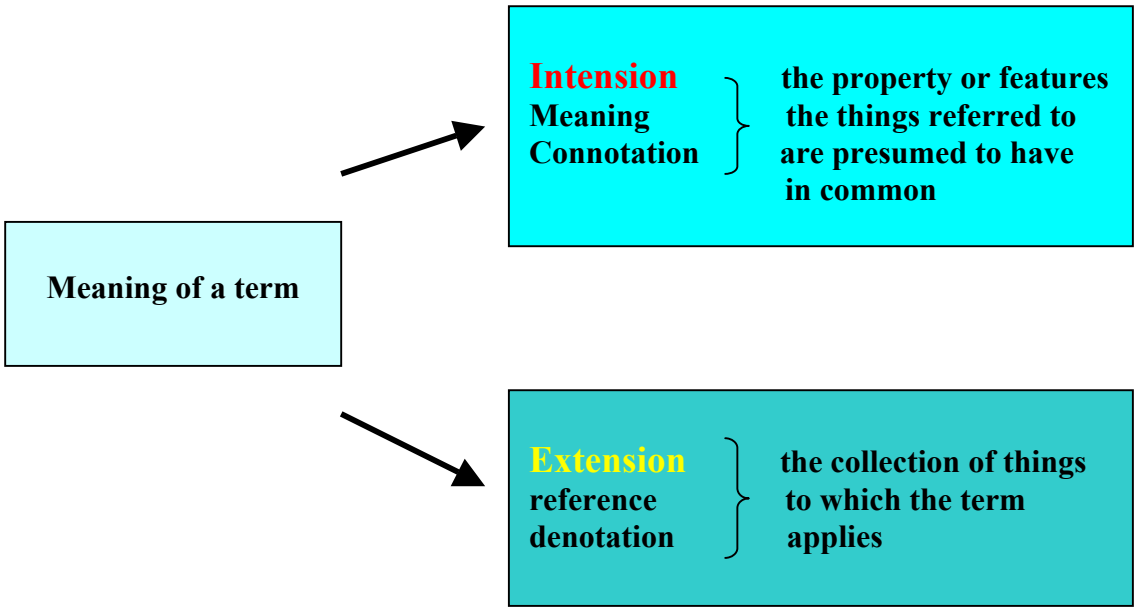
[Preliminary]

Putnam's theory is meant to refute the traditional theory of meaning. He says, "meaning ain't in the head." In other words, the meaning of a word is not determined by what the person thinks it means – there is no first person authority of meaning.

***Q*: What is the traditional theory? What is the motivation behind it?**

Possible answer: If we think that there is a sense of meaning that is called a "speaker's meaning", and meanings of words a speaker uses are determined by what that speaker has in mind (the speaker's understanding), then we are saying that what the speaker has in mind determines the extension (the group of things the term refers to).

Therefore, Putnam's theory can be seen as a refutation of the possibility of private language too.



§ The Traditional Doctrine concerning General Terms

- **(i) The notion 'meaning' is ambiguous in that it could be either intention or extension.**
- **(ii) Meaning is a concept → Meanings are mental entities. [Psychologism]**
- **(iii) Two terms can differ in intension and yet have the same extension; two terms cannot differ in extension and yet have the same intension.**

Two assumptions of the Traditional Doctrine:

- **(1) that knowing the meaning of a term is just a matter of being in a certain psychological state → intension**
- **(2) that the meaning of a term determines its extension (in the sense that sameness of intension entails sameness of extension)**

§ Are Meanings in the Head?

[The Twin Earth Thought Experiments]

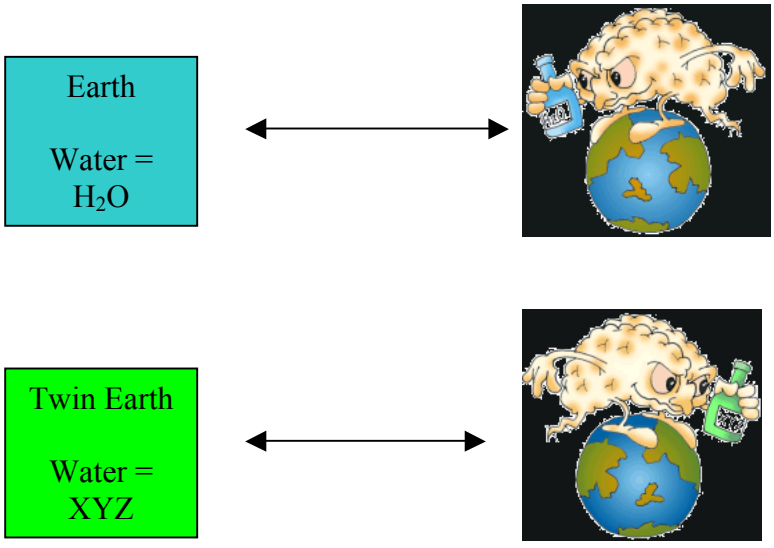
Case 1: Water

The Earthian space ship will report something as follows:

"On Twin Earth the word 'water' means XYZ"

The Twin Earthian space ship will report:

"On Earth the word 'water' means H_2O."



___ 1. The extension of 'water' in the sense of $water_E$ is the set of all wholes consisting of H_2O molecules.

___ 2. The extension of 'water' in the sense of $water_{TE}$ is the set of all wholes consisting of XYZ molecules.
___ 3. Therefore , the word 'water' has two extensions; it should be separated as $water_{E}$ (the way it is used on Earth) and $water_{TE}$ (the way it is used on Twin Earth).

Assumptions for the Argument:

1. Now let us roll the time back to about 1750. The typical Earthian speaker of English did not know that water consisted of hydrogen and oxygen, and the typical Twin-Earthian speaker of English did not know that "water" consisted of XYZ.
2. Let $Oscar_1$ be such a typical Earthian English speaker, and let $Oscar_2$ be this counterpart on Twin Earth.
3. Suppose that $Oscar_1$ and $Oscar_2$ were exact duplicates in appearance, feelings, thoughts, interior monologue, etc. There is no belief that $Oscar_1$ had about water that $Oscar_2$ did not have about "water."
4. $Oscar_1$ and $Oscar_2$ understood the term 'water' differently in 1750 *although they were in the same psychological state*, and although, given the state of science at the time, it would have taken their scientific communities about fifty years to discover that they understood the term 'water' differently.

[Putnam's Argument]:

1. **According to the traditional doctrine, (i) knowing the meaning of a term is just a matter of being in a certain psychological state, and (ii) the meaning of a term determines its extension.**
2. **But two people can have exactly the same concept; they can be in exactly the same psychological state, while the terms they use have different extensions.**
3. **Therefore, the extension of the term 'water' is not determined totally by the psychological state of the speaker.**
4. **Therefore, the traditional doctrine of meaning is false.**

Q: Do you agree with Putnam that $Oscar_1$ and $Oscar_2$ have the same psychological states when they both think about their water?

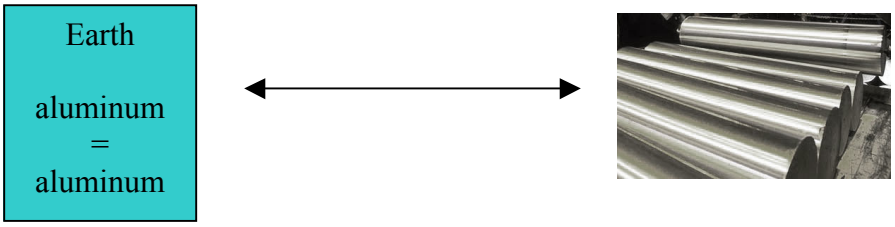
Q: Do you agree with Putnam that the term 'water' has different *meanings* in the two worlds even at 1750 (before the scientific discovery of the chemical makeup of water was made)?

Case 2: Molybdenum and Aluminum

Scenario:

1. Suppose that molybdenum pots and pans can't be distinguished from aluminum pots and pans save by an expert.
2. We shall assume that the words 'aluminum' and 'molybdenum' are switched on Twin Earth: 'aluminum' is the same as *molybdenum*, and 'molybdenum' is the same as *aluminum*.

3. The confusion of aluminum with "aluminum" involves only a part of the linguistic communities.
4. If $Oscar_1$ and $Oscar_2$ are standard speakers of Earthian English and Twin Earthian English, and neither is chemically or metallurgically sophisticated, then **there may be no difference at all in their psychological states when they use the word 'aluminum'**.
5. Nevertheless, we have to say that 'aluminum' has the extension aluminum in the idiolect of $Oscar_1$ and the extension molybdenum in the idiolect of $Oscar_2$.
6. Also, $Oscar_1$ and $Oscar_2$ ***mean different things*** by 'aluminum'; that 'aluminum' has a different meaning on Earth than it does on Twin Earth.

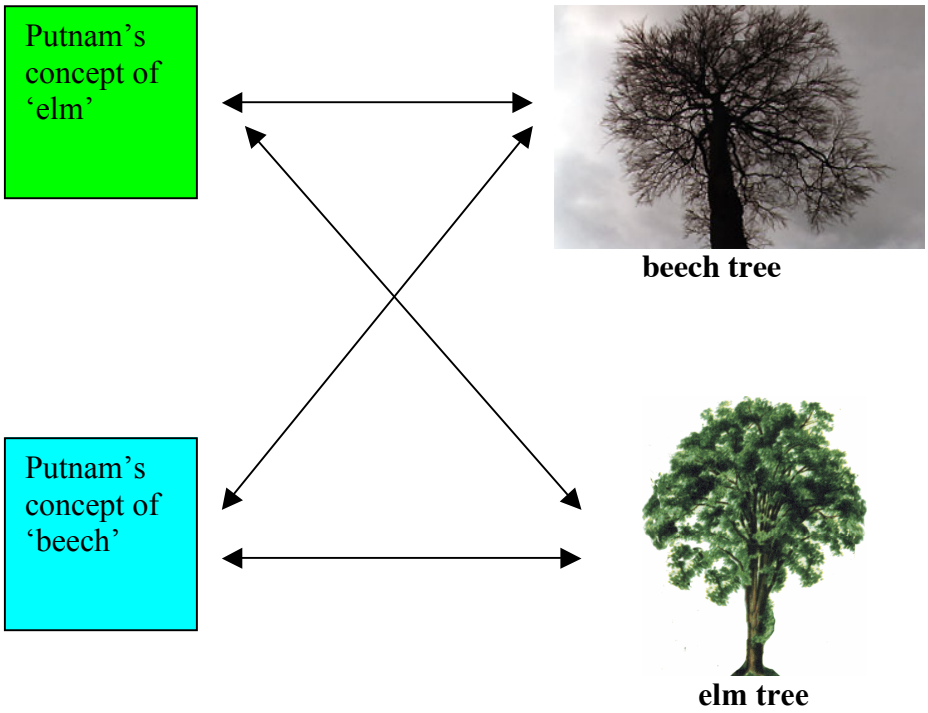


Conclusion:
___ The psychological states of the speaker does not determine the extension (or the meaning, speaking pre-analytically) of the word.

Case 3: Elm and Beech

Scenario:

1. I cannot tell an elm from a beech tree.
2. However, the extension of 'elm' in my idiolect is the same as the extension of 'elm' in anyone else's, viz., the set of all elm trees, and that the set of all beech trees is the extension of 'beech' in both of our idiolects.
3. My concept of 'elm' and my concept of 'beech' are no different from each other.
4. Hence, the difference in the extension of my concept of 'elm' and my concept of 'beech' is not brought about my the difference in my psychological state.

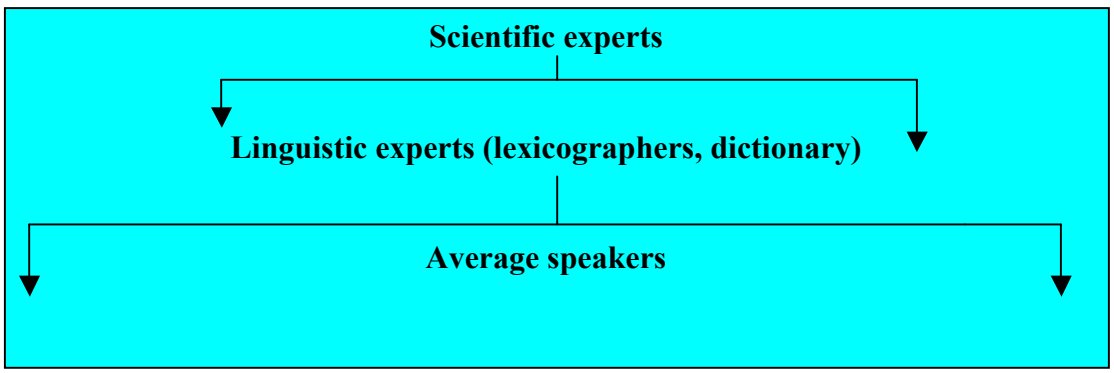


Conclusion:

Cut the pie any way you like, "meanings" just ain't in the head!

§ The Division of Linguistic labor

1. **The division of linguistic labor rests upon and presupposes the division of nonlinguistic labor.**
2. **The features that are generally thought to be present in connection with a general name – necessary and sufficient conditions for membership in the extension, ways of recognizing whether something is in the extension, etc. – are all present in the linguistic community considered as a collective body.**
3. **But that collective body divides the "labor" of knowing and employing these various parts of the "meaning" of 'gold.'**
4. **Every linguistic community possesses at least some terms whose associated "criteria" are known only to a subset of the speakers who acquire the terms, and whose use by the other speakers depends upon a structured cooperation between them and the speakers in the relevant subsets.**



5. **When a term is subject to the division of linguistic labor, the "average" speaker who acquires it does not acquire anything that fixes its extension.**
6. **In particular, his individual psychological state certainly does not fix its extension; it is only the sociolinguistic state of the collective linguistic body to which the speaker belongs that fixes the extension.**

§ Natural-kind Terms and Indexicality

***Q*: What is the *meaning* of a natural-kind term such as 'water'?**

Putnam:
___ 'Water' is indexical: it designates the liquid referred to in the initial context of naming (our Earth).

Putnam's theory of the indexicality of 'water':

> Water is H_2O in all worlds (the stuff called "water" in W_2 just isn't water), but 'water' does not have the same meaning in W_1 and W_2.

⇒ (For every world *W*)(For every x in *W*)(x is water = x bears same$_L$ to the entity referred to as "this" in the actual world W_1)

***ostensive* definition (pointing):**

***This* is water.**

Same-liquid (same$_L$)

*** Meaning of natural-kind term such as 'water' is indexical – the meaning of which is determined by the nature (the microstructure) of the things (the normal samples of the local things) being referred to.**

1. "Water" on Twin Earth is not water, because it doesn't bear $same_L$ to the local stuff that satisfies the operational definition.
2. Local stuff that satisfies the operational definition but has a microstructure different from the rest of the local stuff that satisfies the operation definition isn't water either, because it doesn't bear $same_L$ to the normal examples of the local "water."

Our theory can be summarized as saying that words like 'water' have an unnoticed indexical component: "water" is stuff that bears a certain similarity relation to the water around *here*. Water at another time or in another place or even in another possible world has to bear the relation $same_L$ to our water in order to be water.

§ Conclusion

1. **Difference in extension is *ipso facto* a difference in meaning for natural-kind words.**
2. **We thereby give up the doctrine that meanings are concepts, or, mental entities of any kind.**
3. **Kripke's doctrine that natural-kind words are rigid designators and our doctrine that they are indexicals are but two ways of making the same point.** (Note: We'll get to Kripke later in the semester.)
4. **The extension of a term is not fixed by a concept that the individual speaker has in his head.**
5. **The extension of our terms depends upon the actual nature of the particular things that serve as paradigms, and this actual nature is not, in general, fully known to the speaker.**

Traditional semantic theory leaves out two contributions to the determination of reference
– (i) the contribution of society and
_ (ii) the contribution of the real world;

A better semantic theory must encompass both.

Tyler Burge: Individualism and the Mental
(1979)

Main Issue:
___ What is the role of social cooperation in determining what an individual thinks?

Two Traditions:

Individualistic (Cartesian, behaviorist)		**Social (Anti-individualistic)** (Hegelian)
In the elderly Cartesian tradition, the spotlight is on what exists or transpires "in" the individual – his secret cogitation, his innate cognitive structures, his private conceptions and introspections, his grasping of ideas, concepts, or forms.	There is the more evidentially oriented movements, such as behaviorism, which have highlighted the individual's publicly observable behavior -- his input-output relations and the dispositions, states, or events that mediate them.	There is the Hegelian preoccupation with the role of social institutions in shaping the individual and the concept of his thought.

Burge's Main Goal:
___ I shall offer some considerations that stress social factors in descriptions of an individual's mental phenomena.

§ The Thought Experiment

[Note]:
___ A **thought experiment** (from the German term ***Gedankenexperiment***, coined by Hans Christian Ørsted) in the broadest sense is the use of a hypothetical scenario to help us understand the way things actually are. These thought experiments do not proceed by observation or physical experiment. The understanding comes through reflection upon this imaginary situation. [Wikipedia]

Step 1: Factual

(1) Conceive an arthritis patient, S, who has had arthritis in his ankles and wrists for years. S was informed of the diagnosis years ago, and has since formed the belief that "I have had arthritis in my ankles and wrists for years". Based on this information it is legitimate for us to report that:

(P) S believes that he has had arthritis for years.

"That he has had arthritis for years" provides the content of S' belief in this case.

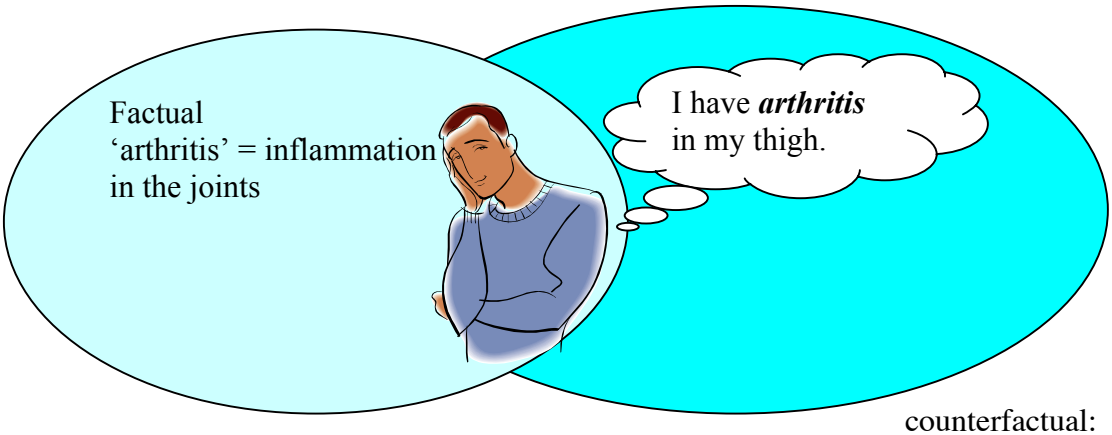
(2) S has many beliefs about his arthritis. In addition to these unsurprising attitudes, he thinks falsely that he has developed arthritis in the thigh. Feeling some discomfort in his thigh, S thought that his arthritis has spread to his thigh. We further report this:

(Q) S believes that his arthritis has spread to his thigh.

(3) In our social convention the word 'arthritis' only refers to a chronic disease that is marked by inflammation and stiffening of the joints. So S' arthritis could not have spread to his thigh. (Q) reports a false belief on S' part. However, S is not aware of the mistake in his understanding of 'arthritis'.

Step 2: *counterfactual situation*

[Note]
___ A counterfactual situation is to suppose "If *P* hadn't happened, what would have happened then?" In this care, Burge is fixing the person's past history while changing the social environment in which he is situated.



counterfactual:
'arthritis' = inflammation in both joints and muscles

(1) Now under the supposition that S' physiological history, behavioral history, physical build-up and epistemic perspectives all remain unchanged, let us imagine a **counterfactual** situation where the social convention (by our physicians, lexicographers, and informed laymen) does allow the word 'arthritis' to apply to various rheumatoid ailments, making the belief reported in (Q) a true belief.
(2) In both actual and counterfactual situations, he acquires the word "arthritis" from casual conversation or reading, and never anything to prejudice him for or against

applying it in the way he does. The counterfactuality touches only the patient's social environment.

Step 3: Interpretation

(1) Examine the that-clause in (P) in the counterfactual situation, we'll see that since the word 'arthritis' now has a different meaning, (P) is saying something different. (That is to say, in this counterfactual situation our attribution, using 'arthritis' in its new meaning, *provides* a different content from what we originally attributed.) This difference is brought about by the variation in the individual's social environment alone, since the individual aspect is presumably fixed in both situations.

(2) In the counterfactual situation, the patient lacks some – probably *all* – of the attitudes commonly attributed with content-clauses containing "arthritis" in oblique occurrences, because the word "arthritis" in the counterfactual community simply does not mean *arthritis*. Their word differs both in dictionary definition and in extension as *we* use it.

(3) So the patient's counterfactual attitudes contents differ from his actual ones.

[Burge's Argument]

(1) In both actual and counterfactual situations, the patient's internal qualitative experiences, his physiological states and events, his behaviorally described stimuli and responses, his dispositions to behave, and whatever sequences of states (non-intentionally described) mediated his input and output – all these remain constant.

(2) But his attitude contents involving the notion *arthritis* differ in the two scenarios.

(3) If attitude contents differ, then mental states differ.

(4) Therefore, the difference in his mental contents is attributable to differences in his social environment.

§ Conclusion

1. **Our argument undermines the suggestion that the distinctively mental aspects can be understood fundamentally in terms of the individual's abilities, dispositions, states, and so forth, considered in isolation from his social surroundings.**
2. **Social content infects even the distinctively mental features of mentalistic attributions.**
3. **No man's intentional mental phenomena are insular. Every man is a piece of the social continent, a part of the social main.**

Focus Questions for Essay #5: [This time you'll need to write on Kripke only. Read Quine to prepare yourself for my lecture.

___ Explain how Kripke derives his two puzzles (one on Pierre and one on Peter) of belief from the principle of disquotation and the principle of translation.