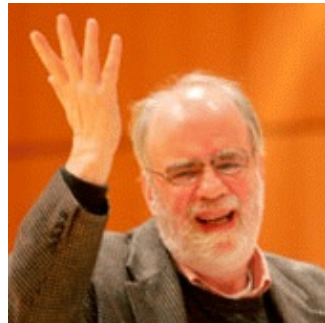# Philosophy 308
The Language Revolution
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Hamilton College, Fall 2015

A Summary of Kripke's Work
Putnam on Natural Kinds

Business

- Midterm on Thursday
  - ‣ Review tomorrow, here, at 8pm

- Papers are due next Tuesday.
  - ‣ Email pdf by class time
  - ‣ Questions about the assignment?
  - ‣ Read the assignment sheet.
  - ‣ Readings section of the website

- No more text mark-ups until Thursday after break

- Next Tuesday: Start the meaning section by looking at logical empiricism
  - ‣ Wittgenstein's *Tractatus Logico-Philosophicus*
  - ‣ Verification theory of meaning, which we'll resume after break.

- Today: Finish Kripke and Putnam and the return of direct reference semantics

Two Theories of Reference

- The central question of this portion of the course is whether we refer directly or through a description.

- On the descriptions side, we have Frege; Russell, for most sentences; Wittgenstein (on Moses); Searle (as quoted in Kripke); and the attributive half of Donnellan.

- On the direct reference side, we have Mill; Russell, for logically proper names; the referential half of Donnellan; Kripke; Putnam

- The arguments for descriptions
  - ▸ Frege's solutions to his three puzzles
  - ▸ Russell's analysis of denoting phrases
  - ▸ Kripke: 'Jack the Ripper'

- Kripke's arguments provide evidence of deficiencies in description theory.
  - ▸ Aristotle (from Frege)
  - ▸ Jonah, Feynman, Gödel-Schmidt

Kripke's View on Reference

Direct Reference

- Descriptivism is false (for many or most cases).

- The semantic value of a name is an object.

- Ordinary names are rigid designators.
  - Names pick out objects, regardless of how we think about those objects.
  - They even pick out objects in other possible worlds.
    - stipulation, rather than discovery

- Terms other than names may act as rigid designators as well.
  - indexicals like pronouns, 'now'
  - the successor of 3
  - natural kinds? - Putnam

Problems for Direct Reference

Problems #1: Frege's Puzzles

- Frege's sense descriptivism was motivated by three problems with the 'Fido'-Fido, direct reference theory.

- These problems re-emerge for direct reference theorists.
  - ‣ Cognitive Content
  - ‣ Vacuous reference
  - ‣ Opaque contexts

SQUARE
ONE

Kripke on Frege's Puzzle

- The problem of cognitive content is solved by recognizing the different epistemic status of 'a=a' and 'a=b'.
    - ‣ 'Hesperus is Phosphorus' is a necessary truth, but is knowable only *a posteriori*.
    - ‣ 'Hesperus is Hesperus' is knowable *a priori*.
- The claim that they are both necessary does not entail that they should have the same cognitive content as the second.
    - ‣ Necessity - about the objects
    - ‣ Cognitive content - epistemic
    - ‣ Compare to Frege and the grasping of senses
- Frege's puzzle arises if all necessary truths are knowable *a priori*.
- But the category of necessary truths is distinct from that of statements knowable *a priori* or analytic.
- We can tell that 'Hesperus is Phosphorus' is not knowable *a priori*, even if it is necessary, since we could be in the same epistemic situation as we are with Hesperus not being identical to Phosphorus.
- I'll leave the other two problems for research projects.

Problems #2: The Magic Criticism

The Strawson Claim

- We seem to need some description in order to refer.
  - "It is no good using a name for a particular unless one knows who or what is referred to by the use of the name. A name is worthless without a backing of descriptions which can be produced on demand to explain that application" (Strawson, *Individuals* 20).
- How else could people pick up a name in the first place?
- Kripke denies Strawson's claim.
  - "In general this picture fails. In general our reference depends on not just what we think ourselves, but on other people in the community, the history of how the name reached one, and things like that. It is by following such a history that one gets to the reference" (NN 95).
- Kripke and some followers, like Gareth Evans, developed a causal theory of reference to respond to the Strawson claim.

The Causal Theory of Reference (CTR)

- "An initial 'baptism' takes place. Here the object may be named by ostension, or the reference of the name may be fixed by a description. When the name is 'passed from link to link', the receiver of the name must, I think, intend when he learns it to use it with the same reference as the man from whom he heard it..." (NN 96).

- An object is named through an initial baptism.
  - ▸ We can baptize through ostension, by pointing at an object.
  - ▸ Or, we can baptize by describing an object.
  - ▸ For instance, I can say that the next apple I see I will call Henry.

- After baptism, a causal chain connects referrers to the initial object.
  - ▸ I dub the apple Henry, then you hear me, and tell others, and eventually everyone calls the apple Henry.

- Thus, we might say that a use of a name refers to an object iff there has been an appropriate causal chain from the initial baptism, through all users of the name, which ends in the particular use in question.

CTR and Direct Reference Theory

- CTR supports Kripke's work on rigidity by providing an account of how we can learn names without ascribing senses to names.

- CTR, though, is an independent account of an independent question.

- Descriptivism and rigidity are claims about the meanings (or semantic values) of names.
  - Semantic claims

- CTR is a theory about how we learn names.
  - Epistemological claims

Difficulties with CTR

kinks in the causal chain

- 'Madagascar' used to refer to part of the mainland of Africa.
  - ‣ Through mis-communication, it has come to denote an island off of the mainland.
  - ‣ There was a baptism (presumably) and then a causal chain.
  - ‣ But current uses now refer to something other than the original place.
- The notion of a causal chain is also contentious.
- We will not pursue these worries.
  - ‣ What is important to take from the discussion of CTR is the role of the community in naming.
  - ‣ Putnam's division-of-linguistic-labor hypothesis
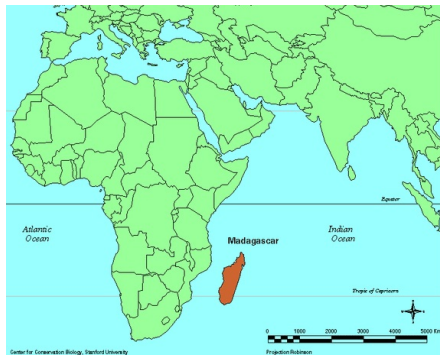
Putnam's Two Theses

1. Natural-kind terms are rigid designators, like names.

2. What we mean is not exclusively determined by what we think.

- ‣ Bridges Kripke's insights about rigid designation with semantic externalism.
- ‣ Externalism: the meanings of our terms are partially independent of our thoughts, depending on community conventions.

Intensions and Extensions

- We know that terms with the same extension can have different intensions.
  - ‣ 'Creature with a heart' and 'creature with a kidney'
- Putnam's claim that terms with the same intension can have different extensions is surprising.

Putnam's Twin Earth

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- Imagine two worlds.
- The first world is our Earth.
- The second world is Twin Earth, and it is almost exactly like Earth.
- The only difference between Earth and Twin Earth is that where we have H_2O, Twin Earth has XYZ.
- XYZ is a completely alien compound which looks and tastes and acts just like water.
- Everywhere that we have H_2O, they have XYZ, and vice-versa.
- The Twin Earthlings call XYZ water, just as we call H_2O water.

Water Here and There

- When an Earthling uses the term 'water', s/he is referring to H_2O.

- If Earthlings manufactured or discovered XYZ, we would be wrong to call it water.

- Twin Earthlings use the term 'water' to refer to XYZ.

- 'Water' refers-in-English to water (i.e. H_2O).

- 'Water' refers-in-Twinglish to twater (i.e. XYZ).

- The terms have the same meaning in both languages.

- Earthlings and their Twin Earth counterparts (or, dopplegangers) think of themselves as drinking water, swimming in the water, and washing themselves with water.

- When they think about 'water' they think the same thoughts.

- But, 'water$_E$' and 'water$_{TE}$' have different referents.

- The two terms have the same intension but different extensions.

Reference is Beyond Our Grasp

- In one of Putnam's Twin Earth cases, it is 1750 and no one knows anything about chemical analysis.

- No one has any way of knowing that the reference of the term 'water' on Earth and on Twin Earth is different.

- Me and my Twin Earth doppleganger have the same thoughts.

- So, whatever way we think about 'water' is the same.

- Yet, our references are to different substances.

- I can not know that the reference of my term 'water' is water or twater.

- Our thoughts do not determine the references of our terms.

- But sense (which we grasp) is supposed to determine reference.
  - By definition

Rigidity of Natural Kinds Jigsaw

1. Describe the case.
  ‣ What are the natural kind terms?

2. How does Kripke or Putnam show that the terms are rigid?
  ‣ Consider Twin Earth cases (Putnam) or fool's gold (Kripke)

3. Is there an alternative view?

The Rigidity of Natural Kinds

- Names are rigid because they refer to the same individual in all possible worlds.
- Natural kind terms, like water, refer to the same thing in all possible worlds.
- We pick out an object, say, by pointing at it.
- We classify it: an elm tree, some water, gold.
- We want to know which other objects are of the same sort.
- So, we need a way of judging whether an object is of that type.
- "When I say "*this* (liquid) is water," the "this" is, so to speak, a *de re* "this" - i.e., the force of my explanation is that "water" is whatever bears a certain equivalence relation...to the piece of liquid referred to as "this" *in the actual world* "

Natural Kinds and Hidden Indexicals

- We pick out water by pointing to it, or describing it.

- But, when we want to know what water really is, we ask the scientists.

- Whatever the experts say determines the reference of our terms, even in other possible worlds.

- There is an essence to a natural kind, which is only discoverable within a scientific theory.

- Our natural-kind terms refer rigidly, across worlds.
  - "Indexicality extends beyond the *obviously* indexical words and morphemes (e.g., the tenses of verbs). 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*. Thus the theory that (1) words have "intensions," which are something like concepts associated with the words by speakers; and (2) intension determines extension - cannot be true of natural-kind words like 'water' for the same reason it cannot be true of obviously indexical words like 'I'."

Artifacts

- Terms for artifacts, unlike terms for natural kinds, presumably lack essences, and so lack the rigidity of natural kinds.

- There is no essence to a chair or a shirt that scientists could discover.

- Artifacts may be made of varying materials.

- They might have some functional essence.

- But, the rules governing the uses of artifact terms are likely to be mainly pragmatic.

The Necessary *A Posteriori*

- The rigidity of natural kind terms entails that theoretical identification claims are necessary
  - ‣ Heat is molecular motion
  - ‣ Water is H_2O .
  - ‣ Lightning is electrical discharge.
- There are contingent facts about how we experience heat, or lightning, or water.
  - ‣ We pick them out according to contingent facts about how they effect us.
- But, theoretical identity statements are necessary identities, not contingent identities.
  - ‣ The necessity follows from the rigid designation of their terms.
  - ‣ Hesperus is Phosphorus

The Contingent *A Priori*

Not as important, here, but interesting

- That the standard meter bar is one meter is a contingent fact.
  - ‣ It could be longer or shorter.
- It is known *a priori* that the standard meter is one meter.
- So, 'the standard meter is one meter long' is contingent, but known *a priori*.
  - ‣ "Someone who thinks that everything one knows *a priori* is necessary might think: 'This is the *definition* of a meter. By definition, stick S is one meter long at t_0. That's a necessary truth.' But there seems to me to be no reason so to conclude, even for a man who uses the stated definition of 'one meter'. For he's using this definition not to *give the meaning* of what he called the 'meter', but to *fix the reference*... There is a certain length which he wants to mark out. He marks it out by an accidental property, namely that there is a stick of that length. Someone else might mark out the same reference by another accidental property. But in any case, even though he uses this to fix the reference of his standard of length, a meter, he can still say, 'if heat had been applied to this stick S at t_0, then at t_0 stick S would not have been one meter long'."

The Division of Linguistic Labor

- Locke claimed that communication was only possible because the referents of my words were my thoughts.

- Frege divided our grasp of a sense (internal) from the reference it determines (external).

- Kripke argued that reference is direct.

- For Putnam, the reference of 'water' is determined not by the individual, but by a small group of experts, the scientists, who determine what the essence of the natural kind is.

- The class of people who need to acquire a given natural kind term is larger than the class who need to know how to recognize it.

- It is too time-consuming and inefficient for members of a community to all know how to identify surely each term.
    - "It is obviously necessary for every speaker to be able to recognize water (reliably under normal conditions), and probably most adult speakers even know the necessary and sufficient condition "water is H_2O," but only a few adult speakers could distinguish water from liquids that superficially resembled water. In case of doubt, other speakers would rely on the judgment of these "expert" speakers. Thus the way of recognizing possessed by these "expert" speakers is also, through them, possessed by the collective linguistic body, even though it is not possessed by each individual member of the body, and in this way the most *recherché* fact about water may become part of the *social* meaning of the word although unknown to almost all speakers who acquire the word."

Reference and the Experts

- Reference is determined only by the experts in a division of linguistic labor.
- The average speaker does not acquire anything which fixes the extension of the term.
- Ordinary people have facility with stereotypes, which they can indicate through ostensive definition or by description.
  - In describing, one might refer to a stereotype, an exemplar with typical features.
  - Speakers are required to know about the stereotype in order to count as having acquired a word.
  - These requirements vary with the community and its needs.
- When we call something 'water', we imply that the microstructure must be the same for anything else to be water.
- The references of our natural-kind terms depend not on our individual thoughts or intentions but on the community as a whole.

Tools

"There are two sorts of tools in the world: there are tools like a hammer or a screwdriver which can be used by one person; and there are tools like a steamship which require the cooperative activity of a number of persons to use. Words have been thought of too much on the model of the first sort of tool."