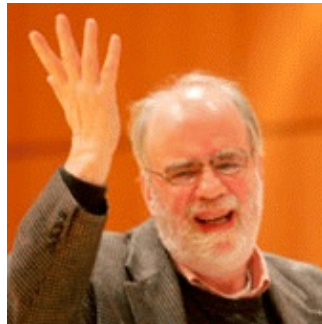


The Language Revolution

Russell Marcus

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Class #11: Kripke and the Revenge of 'Fido'-Fido



Cluster Descriptivism

CD1. Every name 'n' is associated with a cluster of properties: the properties that x believes are true of n.

CD2. x believes that these properties pick out a unique individual. (Feynman)

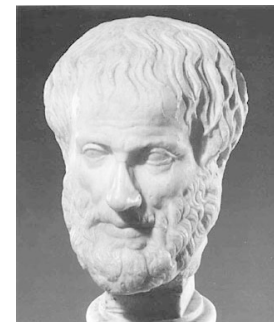
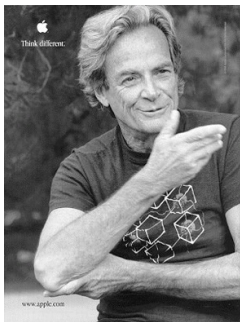
CD3. If y has most of these properties, then y is the referent of 'n'. (Gödel)

CD4. If nothing has most of these properties, 'n' doesn't refer. (Jonah)

CD5. The sentence 'n has most of these properties' is known *a priori* by x. (Aristotle)

CD6. The sentence 'n has most of these properties' as uttered by x expresses a necessary truth. (Aristotle)

Non-Circularity Condition CDC. These properties must be chosen in such a way that there is no circularity. (The properties must not use the notion of reference.)



Rigid Designation

A rigid designator names the same object in all possible worlds, in all counterfactual circumstances.

- Ben Franklin is the inventor of bifocals.
 - ▶ ‘the inventor of bifocals’ refers non-rigidly
 - ▶ Ben Franklin’ refers rigidly
- ‘Feynman’, ‘Gödel’, ‘Jonah’, and ‘Aristotle’ all refer rigidly, too.

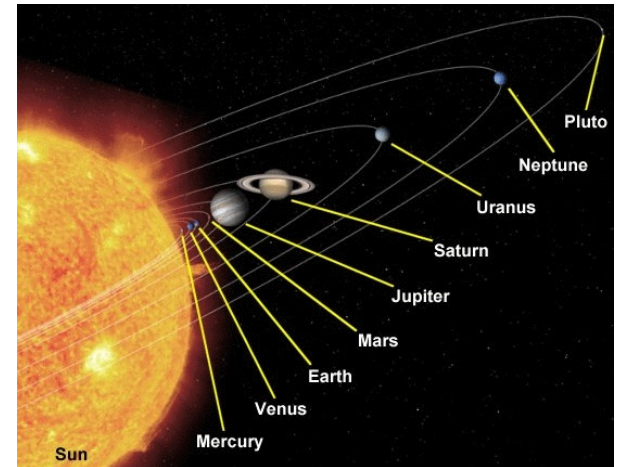


Rigid Designation and Counterfactuals

- The notion of rigid designation is no more contentious than the notion that we can say something coherently counterfactual about objects.
- ‘I would have been happier had you brought me a cheesecake.’
- There is another possible world, in which I exist, and in which you brought me a cheesecake.
- We stipulate other possible worlds under the assumption that we can refer rigidly.
 - ▶ “Generally, things aren’t ‘found out’ about a counterfactual situation, they are stipulated.”



Identity Statements



- Nine is greater than seven.
 - ▶ 'nine' and 'seven' rigidly designate particular numbers.
 - ▶ So, it's true in all possible worlds
- The number of planets is greater than seven.
 - ▶ It might be false.
 - ▶ 'the number of planets' is not a rigid designator
 - ▶ In some possible worlds, there are fewer planets.
 - ▶ In other possible worlds, there are more planets.
 - ▶ 'The number of planets' thus non-rigidly designates a different number in different possible worlds.

Rigid Designation and Opaque Contexts

- Substitutivity works in some contexts
 - ▶ Nine is greater than seven.
 - ▶ Four plus five is nine
 - ▶ So, four plus five is greater than seven
- Even some that have modal operators
 - ▶ Necessarily, nine is greater than seven.
 - ▶ Four plus five is nine
 - ▶ So, necessarily four plus five is greater than seven
- But
 - ▶ Necessarily, nine is greater than seven.
 - ▶ The number of planets is nine.
 - ▶ So, necessarily, the number of planets is greater than seven.
 - Uh-oh!
- Modal operators form opaque contexts, just like the propositional attitudes.

Names and Worlds



- Identity statements between rigid designators must be necessary.
- If a is identical with b, where 'a' and 'b' are names (rigid designators), then, 'a' refers to a in any possible world, and 'b' refers to b in any possible world.
- There could be worlds in which 'a' does not refer to a.
 - ▶ Consider a world in which Katy Perry is named 'Priscilla G. Snodgrass'.
 - ▶ She would still be Katy Perry.
 - ▶ The term, 'Katy Perry', used in our world refers to Priscilla G. Snodgrass in her world.
- If a is identical to b, where 'a' and b' rigidly designate, then there are no possible worlds in which a is not identical to b, nor where 'a=b' is false, if those terms refer as they do in our world.
- There are possible worlds in which 'Ben Franklin is the inventor of bifocals' is false, because 'the inventor of bifocals' refers, in any possible world, to the actual inventor of bifocals.
 - ▶ In some possible worlds, Franklin was not the inventor of bifocals.
 - ▶ But, in all possible worlds Franklin was Franklin.
- 'Russell is Professor Marcus' is true in all possible worlds, even though there are some possible worlds in which I did not become a professor.
 - ▶ We use 'Professor Marcus' in this world to refer to me in all possible worlds.

Frege's Puzzle Revisited

Kripke on Hesperus and Phosphorus

The evidence I have before I know that Hesperus is Phosphorus is that I see a certain star [or] a certain heavenly body in the evening and call it 'Hesperus', and in the morning and call it 'Phosphorus'... There certainly is a possible world in which a man should have seen a certain star at a certain position in the evening and called it 'Hesperus' and a certain star in the morning and called it 'Phosphorus'; and should have concluded - should have found out by empirical investigation - that he names two different stars, or two different heavenly bodies... And so it's true that given the evidence that someone has antecedent to his empirical investigation, he can be placed in a sense in exactly the same situation, that is a qualitatively identical epistemic situation, and call two heavenly bodies 'Hesperus' and 'Phosphorus', without their being identical. So in that sense we can say that it might have turned out either way. Not that it might have turned out either way as to Hesperus's being Phosphorus, that couldn't have turned out any other way, in a sense. But being put in a situation where we have exactly the same evidence, qualitatively speaking, it could have turned out that Hesperus was not Phosphorus; that is, in a counterfactual world in which 'Hesperus' and 'Phosphorus' were not used in the way that we use them, as names of this planet, but as names of some other objects, one could have had qualitatively identical evidence and concluded that 'Hesperus' and 'Phosphorus' named two different objects. But we, using the names as we do right now, can say in advance, that if Hesperus and Phosphorus are one and the same, then in no other possible world can they be different (214-5).

Kripke on Frege's Puzzle



- 'Hesperus is Phosphorus' is a necessary truth, but is knowable only *a posteriori*.
- 'Hesperus is Hesperus' is knowable *a priori*.
- The claim that the first is necessary does not entail that it should have the same cognitive content as the second.
- A version of Frege's puzzle arises if we think that 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.

The Necessary *A Posteriori* 1

- 'Heat' and 'molecular motion' are rigid designators.
- 'Heat' is a rigid designator, since in counterfactual situations in which people, or Martians, did not feel warmth when putting their hands near fires, we would not say that they did not feel heat.
 - ▶ We would say that they get a different sensation from heat than the one that we get.
 - ▶ Even if there are no people to feel it, fire heats up the air around it.
 - ▶ Heat thus rigidly designates molecular motion.
- 'Molecular motion' is also a rigid designator, referring to the same thing, the motion of molecules, in all possible worlds.
- Thus, the identification of heat with molecular motion is necessary.

The Necessary *A Posteriori* 2

- Our discovery that heat is molecular motion is *a posteriori*
 - We discovered it empirically.
- That there are people who feel heat in a certain way is contingent.
- Our skin could be constructed differently, say made of asbestos.
- But we should not confuse the contingent property of heat (that people feel it in a particular way) with a necessary property of heat (that it is molecular motion.)
- That we discovered that heat is molecular motion is also a contingent fact.
- Contingent (epistemic) facts about our knowledge are irrelevant to the (metaphysical) fact about the nature of heat.
- Thus, the identification of heat and molecular motion is necessary, but known only *a posteriori*, in contrast to what everyone in the history of philosophy ever thought.

The Contingent *A Priori*

- 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'."



More Necessary *A Posteriori* Claims

- Water is H₂O .
- Lightning is electrical discharge.
- There is a contingent fact about how we experience heat, or lightning, or water.
- We pick out heat, or light, according to contingent facts about how they effect us.
- But, all theoretical identity statements are, in fact, necessary identities, not contingent identities.
- The necessity of these theoretic identification statements follows from the rigid designation of their terms.

Rigidity and the Philosophy of Mind

- The identity theory says that mental states are actually physical states: the mind is the brain.
- Kripke claims that pain is a rigid designator.
- Nothing could be a pain if it did not hurt in the way that pains do.
- Similarly, if 's' designates a brain state, it does so rigidly.
- Since theoretical identity statements are necessary, according to Kripke, the identification of pain states with brain states must also be necessary.
- But, it seems clearly possible that pain could be something other than a particular state of the brain.
- If so, then the identity of the two must be contingent.
- So, the necessary identification must be false.
- That is, the identity can be neither necessary nor contingent.
- So, pain states must not be identical to mental states.

Kripke's Argument Against Identity Theory

I1. The identification of mental states and brain states must be either contingent or necessary.

I2. Since mental states and brain states refer rigidly, the identification can not be contingent.

I3. Since it is possible that mental states are not states of the brain, the identification can not be necessary.

IC. Thus, mental states and brain states must not be identical.

Two Theories of Reference

- The problem before us was whether we refer directly, or through a description.
- On the direct reference side, we have Mill; the referential half of Donnellan; Kripke; and Russell, for logically proper names.
- On the descriptions side, we have Frege; Russell, for most sentences; Searle; and the attributive half of Donnellan.
- 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.

Kripke's View

Direct Reference

- Descriptivism is false.
- 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?

Motivation for Descriptivism

- We need it in order to make sense of reference.
 - ▶ “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 developed a causal theory of reference.
 - ▶ and some followers of Kripke, like Gareth Evans

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...”
- 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.

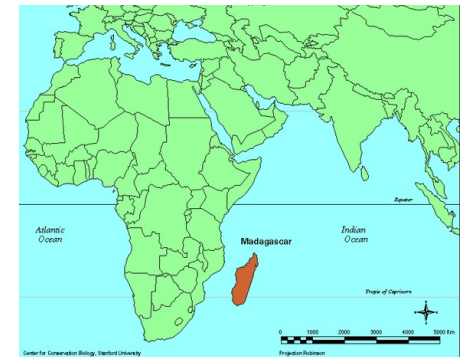
CTR and Direct Reference Theory

- 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.
- CTR is a theory about how we learn names.
- The first are semantic claims, and the second is epistemological.

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.
 - ▶ We will return to this role in Putnam’s division-of-linguistic-labor hypothesis.



Problems with Direct Reference

- 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

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