

Katz

The New Intensionalism

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Chomsky-Katz

- Chomsky promoted what has come to be called nativism in linguistics.
 - We are born with an innate capacity, or propensity, to learn languages.
 - A universal grammar (UG) is built into our brains or genes.
- Katz took Chomsky's conclusions one step further.
 - Language are abstract objects.
 - Our abilities to learn them are based in our ability to reason about languages.
- Chomsky's project requires physical structures in the brain to account for the nativism, but no special faculty of intuition.
- Katz's project requires a special faculty of intuition, but makes no commitments to the physical basis of that faculty.

The New Intensionalism versus Old School Intensionalism

- Consider Putnam's robot cats from Mars and Twin Earth water cases.
- Putnam presented the problem as the incompatibility of the following three propositions:
 - A. Our thoughts determine the meanings (senses) of our sentences.
 - B. Sense determines reference.
 - C. Reference can vary without variation in thought.
- The example supports C: whether Fluffy is a cat or a robot, and whether we are drinking water or twater, depends on facts that are unavailable to us.
- B defines the Fregean view.
- Putnam rejected A, and concluded that meanings were, in part, external to our thoughts.
- In contrast, Katz argues that we can hold on to A, and give up B.

The autonomous theory of sense

- Katz argues that the theory of sense is completely autonomous from the theory of reference.
- Sense continues to mediate, even if not determine, reference.
- Consider Putnam's aluminum/ molybdenum examples.
 - The sense properties of each are not sufficient to distinguish the two extensions.
 - They constrain, to some degree, our abilities to pick out the two metals.
 - But, we can not from the senses themselves, determine the references of those terms.
- The theory of reference will have to accommodate factors other than sense properties in determining how we refer.
- Among those factors will be the role of the community and the division of linguistic labor, and pragmatic considerations of communication.
- Such factors are independent of the meanings of the terms, but relevant to our references.

The thin notion of sense

Sense is that which determines intensional properties.

- D: Sense is that aspect of the grammatical structure of sentences that is responsible for their sense properties and relations (e.g. meaningfulness, meaninglessness, ambiguity, synonymy, redundancy, and antonymy).
- D violates the anti-circularity condition on definitions of meaning, on semantic theory.
- Recall Quine's argument in "Two Dogmas" about the closed circle.

Two Dogmas, revisited

- Quine noticed that we could define the analyticity of 1 in terms of 2.
 - 1. All bachelors are unmarried.
 - 2. Necessarily, bachelors are unmarried men.
- But, he argued that such a definition was unacceptable because it explained one intensional idiom (synonymy/analyticity) in terms of another (modality).
- Such circular definitions do not reduce the intensional to the extensional.
- “Our argument is not flatly circular, but something like it. It has the form, figuratively speaking, of a closed curve in space” (Quine, “Two Dogmas of Empiricism”, 68).

Virtuous and vicious circles

- If we have a set of inter-theoretically linked intensional terms, we could justify the whole group by appealing to their systematic virtues for the intensional idioms themselves.
- We accept theoretical definitions on the basis of the whole theory they yield, rather than on the basis of a reductive explication.
- Consider the definition of logical consequence, as following (from axioms, or other premises) according to prescribed rules of inference.
- We define the rules of inference in terms of the consequences they yield, and we define logical consequence in terms of the rules of inference.
- Then, we look at the entire logical theory to see whether it is all acceptable.
- “In grammars conceived of as hypothetico-deductive systems, there is nothing circular about axiomatically defining the members of a family of linguistic concepts with respect to one another, since the axiomatically expressed relations among the members reveal their interconnections. There is nothing arbitrary either, since the axioms can be judged in terms of whether their consequences are confirmed by the linguistic facts...D is a theoretical definition. In using concepts belonging to the same family as the definiendum, D specifies the part of grammatical structure which is sense structure. This general specification of sense is fleshed out in the process of mutually adjusting definitions of sense properties and relations to representations of sense structure in the process of accounting for instances of such properties and relations of expressions and sentences in the language” (“The New Intensionalism”, 698-9).
- Quine’s arguments against the autonomy of sense would boomerang on his defense of logical truth, pp 18-20.

Decompositionality and Mereology

- Start with the senses of morphemes, which, along with idioms, are the atomic particles of the language.
- Sense structure tracks both upward and downward.
- The senses of larger expressions (upward) are composed of the senses of their component parts.
- We posit decompositional sense structure (downward) as an inference to the best explanation of the sense properties of larger expressions.
- E.g. Consider the ambiguity of the principle clause in:
 - ▶ I never repeat gossip, so ask someone else.
 - ▶ I never repeat gossip, so listen carefully.
- The evidence to which we appeal in ascribing senses is purely linguistic, rather than referential.

Analyticity

A sentence is analytic, according to Katz, just in case it has a referring term with a sense that contains the sense of the entire sentence.

- Katz saves analyticity only at the expense of the Fregean view of analyticity.
- On Frege's theory, most mathematical propositions turn out to be analytic, since they are derived from axioms (seeds) using rules of inference which are obviously truth-preserving, and analyticity-preserving.
- Katz argues that the fruitfulness of Frege's characterization of analyticity, eliminating the class of synthetic a priori statements, does not make it useful.
- Frege based analyticity on his system of logical inference.
- A sentence will be Frege-analytic if it follows from the rules of logic.

Fregean logic can not explain all instances of what we might intuitively think of as analytic.

Nothing is simultaneously red and green.

- It has the air of a necessary truth, because of its analyticity.
- But, Frege's notion of analyticity can not capture that fact.
- We could, with Carnap, introduce a meaning postulate from which its analyticity follows.
- But, as Quine rightly argued, we need to explain why it is analytic, not merely label it as such.

Frege's notion of analyticity also ascribes analyticity to too many statements.

$$P \vdash P \vee Q$$

- According to Frege, this sentence is analytic.
- But, can you really analyze 'P' and find 'P \vee Q'?
- That plant isn't really in the seed!
- Frege's notion is both too strong and too weak; it is just the wrong notion of analyticity.
- Frege writes as if fruitfulness were an absolute, a criterion that allows us to evaluate concepts once and for all on a single the-more-fruitful-the-better basis. But concepts are cognitive tools, and, as such, must be judged in relation to the demands of the tasks for which we intend to use them. a Swiss Army knife may be more "fruitful" than a scalpel, but the latter is better for performing surgery. Since the evaluation of concepts is task-relative, Frege has no business taking fruitfulness as a standard for making absolute judgments about the adequacy of semantic concepts (SRP 15).

The thin notion of analyticity

Katz explains analyticity in terms of the mereological structure of senses. pp 17-8.

- Since analyticity is a concept from the theory of meaning, rather than reference, we can not conclude anything about truth (which is a term of the theory of reference) from a claim about the analyticity of a sentence.
- ‘Cats are animals’ can thus be analytic, and turn out to be false!
- Like Donnellan’s examples, it may be a case of reference under a false description.
- Elsewhere, Katz calls this sentence “weakly necessary,” which he takes to be a term in the theory of sense.

Are there definitions?

Necessary and sufficient conditions

- Fodor's claim is that conditions for being a dog, for example, if they are not circular, are impossible to find.
- Putnam's robot cat example buttresses Fodor's argument.
- There are always possibilities that we could discover conditions we had not anticipated.
- Putnam's aluminum/molybdenum case similarly supports Fodor's claim.
 - ▶ Our apprehension of the characteristics of aluminum does not allow us to discern it from molybdenum.
- Everything I can perceive in aluminum is also a property of molybdenum.
- The sense that I grasp of aluminum is insufficient to determine its referent.

Yes, there are definitions

- On the new intensionalism, sense need not determine reference.
- “If the sense of ‘aluminum’ does not have to determine its referent, Putnam can not go from the fact that a cluster of properties gets the referent of ‘aluminum’ wrong to the conclusion that it gets its sense wrong... Fodor’s argument is nothing but Putnam’s with a different example. Just as Putnam argued that no definition of the term ‘aluminum’ gets its extension right because the best we can do in the case of ‘aluminum’ is to cite a cluster of properties that does not provide necessary and sufficient conditions for being aluminum, so Fodor argues that no definition of the term ‘dog’ gets its extension right because the best we can do to fill in the blank is to cite a cluster of properties like being an animal, being a mammal and being a carnivore, but such a cluster does not provide necessary and sufficient conditions for the application of ‘dog’. Hence, Fodor begs the same question as Putnam” (23).

Frege's puzzles

identity, presupposition, and opaque contexts

- The first two can be handled by D.
- 'Hesperus is Hesperus' has different cognitive content from 'Hesperus is Phosphorus' because 'Hesperus' and 'Phosphorus' have different senses, despite their different references.
 - ▶ Katz will reject Mill/Kripke direct reference semantics for proper names.
- The problem of empty reference, and the failure of presupposition, is similarly solved by D.
 - ▶ 'Santa Claus' and 'Pegasus' have sense, even if they lack reference.
 - ▶ So, when people use those names in sentences, they can express propositions which contain the senses of those names, independently of their empty references.
- Katz claims that the last of Frege's puzzles is really a problem for the theory of reference.
 - ▶ D can serve just as well as Frege's definition of sense; see Katz 198-9.
 - ▶ But, it is not a problem that the theory of sense must solve.

Quinean indeterminacy

- The sense properties of a term can ground proper translations.
- Fully bilingual speakers can ameliorate problems of indeterminacy.
- Katz just denies the problems of inscrutability, including Quine's claim that inscrutability begins at home.
- If Quine is right, then the presence of bilinguals will not solve the problems of inscrutability.
- The referents of the bilingual's terms are themselves inscrutable.
- So, even if the bilingual translates 'gavagai' as 'rabbit', if there is no fact of the matter among 'rabbit', 'undetached rabbit part', and 'temporal slice of a four-dimensional rabbit', the translation will remain indeterminate.
- Is it, as Quine believes, that there is no "objective matter to be right or wrong about" in translation, or is it, as intensionalists believe, that there is? That is the question... If we want to know whether there is evidence that can decide among co-extensional properties that figure in an alleged symmetry, we have no choice but to query bilingual informants about the ambiguity, antonymy, synonymy, redundancy, and other sense properties and relations of relevant examples. If Quine is right, then sufficient consistent evidence will not be forthcoming no matter how much investigating we do. If I am right, such evidence will be forthcoming (29)

Problems with the New Intensionalism

- Absurdly, Katz's work is not taken seriously enough among philosophers to invite too many considered replies.
- One criticism is that a thin notion of sense is uninteresting, since we are mainly concerned with reference.
- Another is that the linguistic intuitions that form the data on which we base our claims about sense structure are oogy.