

# Theories of Meaning, Part II: Philosophical Logic.

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## 1. Introduction

1.1. Broadly speaking, a theory of meaning for a language is an account of what the semantically significant parts of that language mean. At the outset, we should be careful to distinguish:

**Semantic Theory:** A theory which assigns content to semantically significant parts of some language.

**Foundational Theory:** A theory detailing the facts which ground the content or meaning of the semantically significant parts of some language—the facts in virtue of which expressions mean what they mean.

1.2. Note this distinction is not a sharp one. Both semantic and foundational theories offer explanations in some sense. They differ over the extent and nature of that explanation. Semantic theories partially explain why—specify the facts in virtue of which—*complex* expressions mean what they mean. This kind of explanation is given in terms of the content of simpler expressions and how they jointly contribute to the content of a complex expression. Importantly, however, foundational theories attempt to explain *fundamentally* why all expressions—even atomic ones—mean what they mean.

1.3. Here, we focus on theories of meaning as semantic, rather than foundational, theories. But what makes a good semantic theory? At the very least, it ought to be systematic. That is, a semantic theory for some language must specify both the meanings of words of that language and also, plausibly, how the meanings of such words (subsential expressions) contribute to the semantic content of sentences. Systematicity is a minimal requirement, however, and leaves much about the structure of theories of meaning open.

## 2. Classical Semantic Theories

2.1. A *classical* semantic theory for some language is one which systematically pairs up expressions of that language with some *object*—the meaning of that expression. For any given meaningful expression  $e$ , a classical semantic theory assigns  $e$  to an object and that object is the meaning of  $e$ . N.B. 'object' is not synonymous here with 'ordinary object', but an inclusive sense of object—a thing/entity, broadly construed.

2.2. This is all quite abstract. Here's an illustrative example of a simple classical semantic theory. Consider the fragment of English containing only singular terms and one-place predicates, and sentences which result from concatenating such a predicate and singular term, e.g., "John is tall", "London is big", etc.

**Referential Semantics (RS):** The content of an expression  $e$  is the contribution  $e$  makes to the determination of the truth value of any sentence in which  $e$  occurs. If  $e$  is a singular term, the content of  $e$  is its referent. If  $e$  is a predicate, the content of  $e$  is a function from an object to a truth-value. There's nothing more to the content of a sentence than the contribution made by the relevant singular term and predicate.

It's classical: each expression is assigned an object, i.e., a singular term  $\rightarrow$  a *referent*, and a predicate  $\rightarrow$  a *function*, and the content of a sentence is determined by the contribution of its constituents. (RS) is not unmotivated and it is not trivial, e.g., "John is tall" and "London is big" are not synonymous.

2.3. But (RS) won't generalise to more complicated languages, and is not plausibly even adequate for this atomic fragment of English. Any two extensionally equivalent predicates,  $F$  and  $G$ , are assigned the same content (function) and so any two sentences which only differ in the occurrence of  $F$  and  $G$  are problematically synonymous. Think of the example from Quine: "John is a cordate" and "John is a renate".

2.4. This problem could be solved by assigning *intensions* as the content of an expression. In the case of predicates, functions taking worlds as arguments and returning functions which take objects as argument and return truth-values. Non-rigid singular terms could be handled analogously, if needed. The content of a sentence  $s$ , then, could be construed as the set of worlds at which  $s$  is true. But such a proposal is not wholly adequate: any two *necessarily* extensionally equivalent predicates generate a parallel problem.

### 3. Classical Semantics and Propositions

3.1. Indeed, a related problem for the intensional approach (and the referential approach) is that sameness of meaning at the sentential level seems to, in part, depend on the sentences being *about* different things. For instance, “John is triangular” and “John is trilateral” are both necessarily false, are synonymous according to the intensional and referential approach, but differ in meaning, since one is partially about triangularity (having three angles) and the other about trilaterality (having three sides), see (Yablo, 2014).

3.2. A popular way to preserve a classical semantic approach in light of these problems is to introduce structured propositions as the contents of sentences, see (King, 2007). (Introducing non-structured propositions, or coarse-grained propositions, into the mix would be not an advance, since  $p$  and  $q$  are identical iff  $p$  and  $q$  necessarily have the same truth-value.) A structured proposition  $p$ , expressed by some sentence  $s$ , has *as constituents* the contents of the sub-sentential parts of  $s$  bound together in some structured manner. Often, structured propositions are modelled using ordered pairs, where  $c(x)$  is the semantic content of  $x$ .

(1) John loves James –expresses the proposition→  $\langle\langle c(\text{John}), c(\text{James}) \rangle, c(\text{loves}) \rangle$

(2) James loves John –expresses the proposition→  $\langle\langle c(\text{James}), c(\text{John}) \rangle, c(\text{loves}) \rangle$

3.3. On the so-called Russellian view of structured propositions, the constituents of the structured proposition, are the very referents of the relevant names and predicates. So:

(1\*) John loves James –expresses the proposition→  $\langle\langle j_1, j_2 \rangle, L \rangle$

where  $j_1$  is the *very man* John himself,  $j_2$  the *very man* James himself, and  $L$  is the *property* of love. On this approach, we can distinguish sentences as non-synonymous even if they necessarily have the same truth value, e.g.,  $2 + 2 = 4$  and  $5 + 5 = 10$  express propositions with distinct constituents. (N.B. The Russellian approach can distinguish non-synonymous sentences which differ only in the occurrence of necessarily co-extensional predicate  $F$  and  $G$  only if property identification is hyperintensional, see (Nolan, 2014).)

3.4. Naturally, one may have qualms about the very idea of Russellian structured propositions. Frege expressed such a qualm in a letter to Russell:

...Mont Blanc with its snowfields is not itself a component part of the thought that Mont Blanc is more than 4,000 metres high... [Frege, 1904](Gabriel et al., 1980)

But it's far from clear that (1\*) is anymore problematic than the idea that an abstract entity like the set {John} contains the very man himself John. What is less clear is whether an ontology of Russellian propositions is big enough to provide an adequate theory of meaning, e.g., negative existentials, fictional discourse, non-trivial identity claims. Moreover, it is notoriously difficult to coherently formulate theories of propositions which are as fine-grained as Russellian propositions, i.e. Russell-Myhill Paradox, see (Goodman, 2017).

## 4. Davidson Against Classical Semantic Theories

4.1. At the heart of classical semantic theories is the idea that a theory of meaning involves assigning expressions a special sort of object, identified as its meaning, e.g., referents, intensions, sets of worlds, propositions, etc.. So far, we have discussed a variety of classical semantic theories and several issues with them. These objections have been *internal*—questioning whether classical semantic theories can succeed on their own terms. Another sort of objection to classical semantic theories is much more radical and challenges the central presupposition of such approaches—the idea of “meanings as entities”.

4.2. Davidson argues that we should abandon the idea that meanings are a special kind of entity. At first glance, two initial worries seem to motivate this. Both stem from Davidson’s naturalism. The first worry is that taking meanings to be a kind of entity, as we have seen, typically involves positing *abstract entities*—functions, sets, propositions, and so on—to perform the role of meanings and such entities are difficult to place in a naturalist metaphysics. The second worry concerns how we can adequately explain our own competence and knowledge of language alongside a classical semantic theory. A classical semantic theory is out of step with the everyday epistemology of linguistic understanding.

4.3. However, we should be careful not to think that Davidson’s claim that meanings should not be considered a special kind of entity is a mere corollary of his naturalism. Crucially, Davidson argues that framing a theory of meaning in terms of *meanings* is useless and leads only to triviality.

Ask, for example, for the meaning of ‘Theaetetus flies’. A Fregean answer might go something like this: given the meaning of ‘Theaetetus’ as argument, the meaning of ‘flies’ yields the meaning of ‘Theaetetus flies’ as value. The vacuity of this answer is obvious. (Davidson, 1967: 306)

Importantly, this argument is independent of any commitment to naturalism and independent of *what sort of entity a meaning is*. Regardless, argues Davidson, to make theoretical progress in accounting for linguistic meaning, we must not formulate our theories of meaning in terms of meanings:

Paradoxically, the one thing meanings do not seem to do is oil the wheels of a theory of meaning—at least as long as we require of such a theory that it non-trivially give the meaning of every sentence in the language. My objection to meanings in the theory of meaning is not that they are abstract or that their identity conditions are obscure, but that they have no demonstrated use. (Davidson, 1967: 307)

## References

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