

INTRO TO SEMANTICS

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Course overview

We'll be looking at three main areas:

- semantics (what words and sentences mean)
- pragmatics (what we *do* with words and sentences)
- “foundations” (big-picture issues like: where meaning comes from)

Won't be talking about:

- Syntax (grammar)
- Phonology (production of word-sounds)
- Languages as “embedded” parts of the flesh and blood world (e.g., etymology, change of language over time, language's effects on culture, psychology, history...)
- The “continental” tradition (semiotics, hermeneutics, deconstruction, critical theory...)

1. Word-meanings and compositional rules

We understand indefinitely many novel sentences; so we don't memorize the meanings of individual sentences. Rather, we work them out from the meanings of words and the words' arrangement.

Example compositional rule:

A sentence of the form “Name₁ / Transitive-verb / Name₂” means that the object referred to by Name₁ performed the action referred to by Transitive-verb to the object referred to by Name₂.

Two main questions in semantics:

What are the meanings of words?

What are the compositional rules that determine how word-meanings plus arrangement generate sentence-meanings?

2. Semantic concepts

2.1 Subject-predicate sentences

Subject/predicate sentences:

Mr. Morton walks. (Subject: 'Mr. Morton'. Predicate: 'walks')

The president is a Democrat. (Subject: 'The president'. Predicate: 'is a Democrat')

Michael J. Fox bit Shaquille O'Neal. (Subjects: 'Michael J. Fox', 'Shaquille O'Neal'. Predicate: 'bit')

A *subject* is a word or phrase that introduces one of the objects that the sentence is about; a *predicate* is a word or phrase that combines with subjects to say something about the objects introduced by the subjects.

2.2 Reference

A subject term refers to the object it stands for. 'Ted' refers to Ted, 'The president of the United States' refers to Barack Obama, 'The tallest mountain on Earth' refers to Mt. Everest.

A name [is a] mark which may raise in our mind a thought like to some thought we had before, and which, being pronounced to others, may be to them a sign of what thought the speaker had before in his mind. (Hobbes, quoted by Mill in Martinich, p. 284)

... there seems good reason for... calling the word *sun* the name of the sun, and not the name of our idea of the sun. For names are not intended only to make the hearer conceive what we conceive, but also to inform him what we believe... When I say, "the sun is the cause of the day," I do not mean that my idea of the sun causes or excites in me the idea of day; but that the physical object, the sun itself, is the cause... (Continuation of same passage in Mill)

2.3 An aside: the use-mention distinction

Conventions for referring to (mentioning) words: quotation marks (usually single-quotes), italics, indented display. Use-mention test: which of these sentences are true?

- Chicago has 7 letters
- Chicago has over 1 million people
- 'Chicago' is a word
- Chicago refers to Chicago
- ' 'Chicago' ' refers to 'Chicago'

2.4 Application

The predicate 'is happy' *applies* to each happy person. Only subjects refer; predicates apply. (Compare Mill on general vs. singular names.) The two-place predicate 'taller' applies to Shaq and Michael J. Fox in that order.

2.5 Sets and tuples

A set is an entity that in some sense is "made up of" its members, in no particular order. So $\{0, 1, 2\} = \{2, 1, 0\}$, and $\{0, 0\} = \{0\}$. An ordered set is also made up of members, but in a particular order. So $\langle 1, 2 \rangle \neq \langle 2, 1 \rangle$, and $\langle 1, 1 \rangle \neq \langle 1 \rangle$. Ordered sets with n members are called " n -tuples".

2.6 Extension

The *extension* of a one-place predicate is the set of objects to it applies. Thus, the set of happy things is the extension of 'is happy'.

The extension of an n -place predicate (for $n > 1$) is the set of n -tuples such that the predicate applies, in order, to the members. So the extension of 'taller' is the set of ordered pairs $\langle x, y \rangle$ where x is taller than y .

2.7 Propositions

Philosophers call sentence meanings “propositions”. Sentences “express” their propositions.

Philosophers tend to make additional assumptions about propositions, such as:

1. Propositions are the meanings of (declarative) sentences
2. Propositions are what are shared by synonymous sentences in different languages (such as ‘La neige est blanche’ and ‘Snow is white’)
3. To understanding a sentence is to know which proposition it expresses
4. True sentences are true in virtue of expressing true propositions
5. Propositions are the objects of psychological attitudes (belief, knowledge, wondering, hope, fear...)

3. Naïve Theory

3.1 Part 1: word meaning

The meaning of a subject is its referent
The meaning of a predicate is its extension

3.2 Part 2: compositional rules

The proposition expressed by a subject/predicate sentence of the form “Predicate subject₁... subject_n” is the ordered $n + 1$ -tuple $\langle E, r_1, \dots, r_n \rangle$, where E is the extension of Predicate and $r_1 \dots r_n$ are the referents of subject₁... subject_n