Issues in Pragmatics

PLIN3001 – PLING204

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Lecture 8: Contextualism and Compositionality

Overview

Last week, we looked at an important difference between Recanati's contextualism and Relevance Theory. The orthodox Gricean view distinguishes implicatures from what is said, holding (a) that recovery of what is said by a hearer is unaffected by top-down processing and (b) that only recovery of implicatures is a matter of *inference*. We saw that, while Recanati and Relevance Theorists both reject the first claim, only Relevance Theorists reject the second. For them, a single inferential process, governed by the Communicative Principle of Relevance, underlies recovery of what is said (or explicatures) and implicatures alike. For Recanati, by contrast, the processes involved are quite different. While he agrees that recovery of implicatures is a matter of (broadly Gricean) inference, he thinks that recovery of what is said is *non*-inferential and associative.

This week: problems arising in connection with principles of **compositionality**:

> **Compositionality**
>
> First pass: the meaning of a complex expression is determined by the meanings of its parts and the way those parts are put together (i.e. composed).

1 Recanati and Relevance Theory: Another Difference

Before we consider the problems arising in connection with compositionality, it will be useful to spell out a further a difference between Recanati and Relevance Theory. In week 1, I said that Grice's distinction between implicatures and what is said can be understood as an attempt to solve a certain problem for truth conditional semantics.

The old problem: the task of a truth-conditional semantic theory is to specify each sentence's truth conditions. But each sentence, given only an appropriate context, can be used to *communicate* any of indefinitely many different propositions, each with its own

truth conditions. Which of these truth conditions, if any, should the theory specify?

The problem can be put in the form of a dilemma: either (i) the theory account for the truth conditions of the propositions sentences can be used to communicate, in which case we might worry that there will be nothing systematic to be said, or (ii) the theory does not account for the truth conditions of the propositions sentences can be used to communicate, in which case we're still owed an account of what it *does* account for.

Grice grasps the second horn of the dilemma, and tells us that a truth conditional semantic theory aims to account for the truth conditions of what sentences can be used to say. It's this that marks the further difference between Recanati and Relevance Theorists. For while Recanati accepts Grice's proposal, Relevance Theorists are more circumspect; reflecting a certain scepticism about truth conditional semantics, they remain *neutral* on the question which truth conditions a semantic theory aims to specify.

This is important, as it means that Recanati is vulnerable to the fact that, given all that we have seen over the past few weeks, the old problem returns in a new guise...

The new problem: the task of a truth conditional semantic theory is to specify the truth conditions of what each sentence can be used to *say*. But contextualism tells us, among other things, that, most sentences, given only an appropriate context, can be used to say any of indefinitely many different propositions, each with its own truth conditions!

So if Recanati wants to follow Grice's lead, but also accept contextualism, he has to say something about the worry that there is nothing systematic to be said about the connection between sentences and their truth conditions. We need to say more about that worry to make it precise though, which is where compositionality comes in.

2 Arguments for Compositionality

a. Productivity/Creativity:

> It is astonishing what language accomplishes. With a few syllables it can express an incalculable number of thoughts, and even a thought grasped by a human being for the very first time can be put into a form of words which will be understood by someone to whom the thought is entirely new.
>
> (Frege 1984, p. 390)

Humans are able to grasp the meanings (encoded meanings, truth conditions) of a vast amount of sentences, far more than we could possibly memorize, and many of which we have never encountered before. This can be explained if sentences have constituent structure, and the meaning of a sentence is determined by the meanings of its constituent parts and the way those parts are put together, i.e. if meaning is compositional.

b. Systematicity:

> Roughly, systematicity is the fact that any language (/mind) that can express (/entertain) the proposition P will also be able to express (/entertain) many propositions that are semantically close to P: Anyone who can think the thoughts that *John snores* and that *flounders swim* can likewise think the thoughts that *flounders snore* and that *John swims*. (Likewise, mutatis mutandis, for understanding sentences of a language that can express these thoughts.)
>
> (Fodor and Lepore 2001, pp. 364–5; reprinted in Fodor and Lepore 2002)

The capacity to grasp the meanings (encoded meanings, truth conditions) of certain sentences is systematically correlated with the capacity to grasp the meanings (encoded meanings, truth conditions) of certain other sentences. Again, this can be explained if sentences have constituent structure, and the meaning of a sentence is determined by the meanings of its constituent parts and the way those parts are put together.

Questions to consider:

- Is the capacity to grasp encoded meaning productive? Is it systematic?
- Is the capacity to grasp truth conditions productive? Is it systematic?
- Can productivity or systematicity be explained *without* compositionality?

3 Contextualist Counterexamples

Compositionality comes at a cost, however. If it holds, the meaning of an expression depends on the meanings of its parts, not on the meaning of any more complex expression to which it belongs, nor on the meanings of any other parts of that larger complex.

But examples of top-down influence on meaning seem to be ubiquitous:

a. Compound Nominals (Weiskopf 2007 and *Seinfeld*):

(1) axe murderer = *with an axe*

(2) child murderer = *of a child*

(3) man hands = *hands like a man's*

(4) bubble boy = *boy who lives in a bubble*

(5) soup Nazi = *person who behaves like a Nazi about soup*

(6) jewel heist

(7) apple pie plate tray accident

b. 'Drop' (Cohen 1986, discussed in Recanati 2012)

(1) Most students here drop geography in their final year.

(2) Most students here drop geography lectures in their final year.

(3) … geography lectures reading assignments in their final year.

(4) … geography lectures reading assignments library-fees in their final year.

'Drop' = stop studying/attending/doing/paying. Cf. Searle's 'open', 'cut', 'stop', etc.

c. 'Like' (Recanati 2012, p. 177)

(1) He likes my sister

(2) He likes roast chicken

These examples seem to motivate **semantic flexibility**, the thesis that the meaning (= truth conditional content?) of part of a complex expression sometimes depends on the meaning of the complex expression to which it belongs, violating compositionality.

> The compositionality thesis says that complex representations inherit their content from simple ones, not vice versa. But the [flexibility] thesis says that the content of a simple [representation] depends (inter alia?) on which complex [representation] it's embedded in. Clearly, it can't be that both are true. Something's gotta give.
>
> (Fodor 2003, cited by Recanati 2012)

In previous weeks, we saw some reasons for being sceptical about arguments based on these sorts of examples. Do these reasons apply here? Cf. Recanati (2012, esp. §§8.3–4).

4 Fodor on Compositionality and Language

Fodor's view is that, "as a matter of empirical fact, language is pretty clearly not compositional" (2001, p. 11):

> If language is compositional (and if what a sentence means is the thought [i.e. proposition – JM] that it expresses) then how a sentence is put together must be very explicit about the corresponding thought is put together. But, as a simple matter of fact, in the general case, sentences are remarkably *in*explicit with respect to how the thoughts they express are put together. So either the content of the thought is different from the content of the sentence that expresses it, or the sentence isn't compositional. I take it that the first disjunct is preposterous; so I take it that the second disjunct must be true.
>
> (*ibid.* p. 12)

As well as (or instead of) the sorts of cases discussed above, Fodor's "simple matter of fact" can be motivated by examples like the following:

a. Unarticulated Constituents

(1) 'It's raining' [*in London / here*]

(2) 'John hit Mary and she cried' [*as a result*]

b. Context Shifting Arguments / Travis Cases

(3) 'This leaf is green'

These — by now very familiar! — sorts of example seem to show that the truth conditional content of a sentence, even taken relative to a context, is not determined by the contents of the sentence's constituent parts and the way they are put together. For example, all that the contents of the parts of (1) seem to provide are the property of raining and a time, while the truth value of what it can be used to say (typically? always?) depends on a further *location*. Similarly, all that the contents of the parts of (3) seem to provide are a demonstrated leaf, a time, and the property of being green, but the truth value of what is said depends further on what counts in context as being green.

5 What's the Problem?

So it seems that language, at least at the level of truth conditions, is not compositional: the truth conditions of what a sentence is used to say are not, it seems, determined by the contents of its parts and the way those parts are put together. Recanati wants to resist this, but even if it's true, why exactly should it be a problem for him? After all, as we saw last week when we looked at his two-systems approach to utterance interpretation, it is not as if he has *no* theoretical account of the relationship between sentences and the truth conditions of what they can be used to say. Why is compositionality so important?

The answer, I think, is that, while Recanati (and, in a different way, Relevance Theorists) give *some* kind of theoretical account of the relationship between sentences and the truth conditions of what is said (explicatures) — either in terms of associative system 1 processes, or in terms of the Communicative Principle of Relevance — the theory he provides cannot be a *semantics* unless it is compositional. Why? Semantics is the study of the tacit knowledge employed in pairing words with meanings. But the capacity to pair words with meanings is productive and systematic. The capacity to pair the sentence *John loves Mary* with a meaning is systematically correlated with the capacity to pair the sentence *Mary loves John* with a meaning, for example. Semantics had thus better be compositional — if it is to explain the phenomena it sets out to explain.

This is less of a problem for Relevance Theorists, essentially because they are quite happy to settle for a *non*-compositional account of the relationship between sentences and truth conditions — namely the account that we saw last week, in terms of optimal relevance. Of course, if the line of thought we've just sketched is right, that means that

they cannot be regarded as offering a *semantics*. But I think they don't mind that. As we will see next week, however, some theorists think there is a problem here even for RT.

6 Fodor on Compositionality and Thought

Fodor doesn't think *language* is compositional, but he does think *thought* is. Moreover:

> No such objections as I've been urging against the compositionality of language can hold against the compositionality of thought. For, whereas the content of a sentence may be inexplicit with respect to the content of the thought it expresses, a thought can't be inexplicit with respect to its own content; there can't be more — or less — to a thought than there is to its content because a thought just *is* its content. If you put this in the language of a representational theory of mind, it comes out something like: A mental representation is ipso facto compositional with respect to the content that a correct semantics would assign to it.
>
> (Fodor 2001, p. 14)

Question to consider:

- Fodor's argument against the compositionality of language assumes that "what a sentence means is thought or proposition that it expresses". Can we reject that assumption? If so, can we maintain that language *is* compositional in some sense?
- His argument for the compositionality of thought turns on the productivity and, especially, systematicity of thought. (See the quote in §2.b.) But is thought productive and systematic? If so, is compositionality the only (or best) explanation?

7 Recanati's Solution

Recanati argues that the truth conditions of what is said with a sentence *are* determined by the contents of its parts and the way they are put together. The key, he thinks, is to abandon the requirement that the contents of the parts be either their encoded meanings or the values required by their encoded meanings in context — i.e. the requirement that composed contents are either encoded meanings or the values of indexicals or demonstratives. Instead, take the composed contents to be the *modulated* meanings.

(1) '[The city] [is] [asleep]'
[CITY*] [$\text{BE}_{\text{present}}$] [ASLEEP]

(2) '[This leaf] [is] [green]'
[LEAF_{x}] [$\text{BE}_{\text{present}}$] [$\text{GREEN}_{\text{painted}}$]

The suggestion is to propose a parallel with the processing of indexicals. We don't compose the *encoded* meanings of the parts of, say, 'I am hungry' to get the result, THE SPEAKER IS HUNGRY. Rather, what goes into composition is the context-specific content of 'I', e.g. JONNY$_x$, which gives as a result, JONNY$_x$ IS HUNGRY. Similarly, what goes into composition, in Recanati's view, is not the *unmodulated* meanings of the parts of sentences, but rather the context-specific modulated meanings, like GREEN$_{\text{painted}}$.

Questions to consider:

- Can Recanati extend this solution to cover all the alleged counterexamples to compositionality? In particular, how might it be extended to cover cases of unarticulated constituents?
- What constraints, if any, are there on what can be "the meaning of the parts"? Can we say anything principled about this? Or can anything serve as the meaning of a part, given only an appropriate context?

Back Up Reading and Questions

Reading

Read Recanati (2012).

Questions

1. Consider the meaning of the following compound nominals:
   a) i. headache pills
      ii. fertility pills
      iii. vitamin pills
   b) i. fire door
      ii. office door
   c) i. gas cooker
      ii. rice cooker
   d) i. musical clock
      ii. musical comedy

   The meanings of these have been conventionalised, but they could have other meanings in other cultural contexts. Is this a problem for compositionality?

2. Consider the view that word meanings are prototypes, e.g. that the meaning of 'bird' is an image of a stereotypical bird, or a list of features typically possessed by

birds (lays eggs, has feathers, flies, etc.). Consider the prototypes of these phrases:

'pet fish'
'working mother'
'carnivorous plant'

Do these pose a problem for linguistic compositionality? Why or why not?

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