

Implicit Content and the Argument from Binding

Sometimes in interpreting sentences we seem to understand (as part of the literal meaning of a sentence on a particular occasion of utterance) material that cannot plausibly be the semantic value of any overt lexical items:

- (1) (*To a small child who has a cut...*) You won't die.
- (2) (*As a response to a suggestion to go to a restaurant.*) I've eaten.
- (3) The table is covered with books.

I call this the problem of implicit content. Many theorists (e.g. Sperber and Wilson 1986/1995, Bach 1994, Carston 1988, 2002) claim that the output of the semantics is an object in the conceptual system or language of thought (LOT; Fodor 1975) that is not necessarily propositional itself. Supplementation of this object occurs at any point in the language of thought to obtain the mental object that corresponds to (or *is*) the literal meaning (content) of the utterance. Call this the free enrichment approach, following Recanati 1993. But other theorists (e.g. von Stechow 1994, Stanley 2000, Stanley and Szabó 2000, Martí 2003, 2006, Pelletier 2003) have claimed that there are phonologically null variables at LF (a syntactic level) and that implicit parts of content are always values of these variables. Call this the LF variables approach.

Stanley (2000) and Stanley and Szabó (2000) allege that the LF variables approach is superior to the free enrichment approach because the LF variables approach and not the free enrichment approach can deal with cases where there seems to be a bound variable in the implicit material:

- (4) Only one class was so bad that no student passed the exam.
"Only one class x ... no student in x ..."
- (5) In every room in John's house, every bottle is in the corner.

The idea seems to be that the bound reading in each case can only be obtained by something in the syntax being bound.

It was objected, however, that a bound variable could perfectly well be added in the Language of Thought (Carston 2002, Neale 2004):

- (6) ONLY ONE STUDENT x ... NO STUDENT PASSED
 \Rightarrow ONLY ONE STUDENT x ... NO STUDENT IN x PASSED

Stanley (2002) objected in turn that if one could add bound variables in LOT, all kinds of sentences that are ungrammatical would be grammatical. (7a) would be equivalent to (7b) and (8a) would be equivalent to (8b):

- (7) a. *Everyone who John ran he liked.
b. Everyone _{j} who John ran by x_j he liked.
- (8) a. *Everyone has had the privilege of having John greet.
b. Everyone _{j} has had the privilege of having John greet her _{j} .

Stanley's examples do not pass muster, however. Stanley seems to be assuming that these sentences have to be ungrammatical because of vacuous quantification. But there could be other semantic or syntactic reasons why these sentences are ungrammatical, faults that could not be repaired by free enrichment in LOT. For example, *greet* arguably subcategorizes for a DP complement, but does not get one in (8a). In (7a) as it stands, intransitive *ran* would have to take an object (a *wh*-trace) but arguably cannot take one because of its lexical entry and/or subcategorization properties.

If Stanley's examples here do not make his point, are there others that do? I argue that there are. Why can speakers who can interpret *the cat of Mary's* as bound in (9a) not interpret *Mary's cat* as bound in (9b), if it is possible to add bound variables freely in LOT?

- (9) a. John fed no cat of Mary's before the cat of Mary's was bathed.
 (For many speakers) "There is no cat of Mary's *x* such that John fed *x* before the cat of Mary's *x* was bathed."
 b. John fed no cat of Mary's before Mary's cat was bathed.
 (For no speakers) "There is no cat of Mary's *x* such that John fed *x* before the cat of Mary's *x* was bathed."

If it were possible to add bound variables and other material freely in the language of thought, we would surely be able to convert the representation of *cat* in *Mary's cat* from CAT to CAT IDENTICAL TO *x*. Meanwhile, a defender of the LF variables view could claim (with von Stechow 1994 and contra Stanley and Szabó 2000) that determiners are the locus of these variables in DP, and that (as a matter of idiosyncratic subcategorization properties) *the* can host one and *Mary's* cannot. (I challenge Stanley and Szabó's grounds for thinking that their variables must attach to NP in the structure [D NP].)

Is this a straightforward vindication of the LF variables approach? Not quite. We have not ruled out the following theory: there are no covert variables in the syntax to do the job of providing implicit content, contra Stanley and Szabó; lexical items in the syntax are translated into objects in the language of thought and some of these LOT objects are complexes that include variables that demand values to be assigned (or other objects to be substituted for them), thereby providing implicit content. That is, a simplex lexical item *the*, for example, might be translated into a LOT complex THE R PRO, where R PRO consists of a relation variable and an individual variable jointly capable of being interpreted "identical to *x*." But *Mary's* is translated into THE R MARY, where R is free (cf. Barker 1995 and other work on the semantics of genitives) and there is no bindable individual variable.

We have also not ruled out the theory of Neale (2004), who says that examples of the kind we have been looking at are short for longer English sentences that *could have been uttered*. In the case of English NPs, the sentences that could have been uttered would contain relative clauses or other postnominal modifiers. (So *table* could be short for *table in this room* in (3).) Neale would point out that *Mary's cat* cannot be extended with postnominal modifiers in English (**Mary's cat that I like*), whereas *the cat of Mary's* can. Neale (2004) claims that *the* itself can contribute a slot for a bindable individual variable, thus explaining (9a).

In short, we have ruled out theories of implicit content that do not place syntactic restrictions (in syntactic trees or in LOT representations) on where the implicit content can be added.