

Towards an Intensional Semantics: the Semantics of “Believes”

(1) Boring Comprehension Question

Compute, showing all the steps, the truth-conditions of the following sentence:
John believes that every boy smokes.

(2) Exercises from von Fintel (2007)

- a. Please do Exercise 2.1 on page 19
- b. Please do Exercise 2.2 on page 19

(3) Follow-Up Question to Exercise 2.1 and 2.2

- a. Following-up on Exercises 2.1 and 2.2, is there any lexical item of English that has a meaning akin to that in (32)? That is, can you think of a lexical item “X” and a concomitant function f such that:

$$[[X]]^w = \lambda p [\lambda x . f(x,w) = p]$$

If there is such a lexical item “X”, can you characterize, informally, what the crucial semantic difference is between “X” and “believes”?

(4) On the Putative Semantic Type s

In both our lecture notes and von Fintel (2007), it was said that ‘ s ’ (the type of ‘possible worlds’) needn’t be considered a type of natural language. The reason that was offered for this is that we’ve not yet seen any expressions of natural language that *are* of this type. That is, so far, we’ve not had any reason to suppose that there are expressions of natural language that refer to *particular* possible worlds.

But, consider the everyday expression “in reality”, used in sentences such as the following:

- a. We call him ‘the Great Emancipator’, but **in reality**, Lincoln was pretty racist.

Please write up a lexical entry for “in” and “reality” that predicts the following truth-conditional statement:

- b. $[[\text{In reality, Obama smokes}]]^w = T \text{ iff Obama smokes in } w$

Does your semantics challenge the claim that natural language *doesn’t* contain expressions of type s ? That is, if someone wanted to maintain the view that expressions of type s really don’t appear in natural language, what would they say regarding your analysis?

(5) **On a Purely Intensional Semantics**

Assume that we are employing a purely intensional semantics, of the kind sketched under (15) on the handout ‘Towards an Intensional Semantics, Part 2’.

Please provide lexical entries for the words in (a) – (e), and show that they can correctly derive the truth conditions of the sentence in (f).

- a. Obama
- b. Joe
- c. smokes
- d. dances
- e. and
- f. Obama smokes and Joe dances.

Given your experience in creating and employing such a system (as well as any other relevant facts you might wish to add), please evaluate the following claim:

It is always more elegant to simply assume that the semantic valuation function “[[]]” yields intensions, rather than employ a ‘mixed’ system of the kind developed in our lecture notes.