Assignment 3

Chris Potts, Ling 230b: Advanced semantics and pragmatics, Fall 2022

Distributed Oct 18; due Oct 25

1 Copular constructions [2 points]

For each of the following analyses of *be*, provide a semantic parsetree for the sentence *Superman is Clark Kent* using any combination of Partee's type-shifters, assuming that *Superman* and *Clark Kent* both translate as expressions of type e.

  i. $(\lambda x \ \lambda y \ (x = y)) : \langle e, \langle e, t \rangle \rangle$

  ii. $(\lambda f \ \lambda y \ (f \ y)) : \langle \langle e, t \rangle, \langle e, t \rangle \rangle$

  iii. $(\lambda y \ \lambda f \ (f \ y)) : \langle e, \langle \langle e, t \rangle, t \rangle \rangle$

  iv. the type-shifter $\textbf{BE} : \langle \langle \langle e, t \rangle, t \rangle, \langle e, t \rangle \rangle$

2 Determiners and type-shifters [2 points]

The following Japanese sentence is ambiguous between definite and indefinite interpretations of its subject. (The subject is also ambiguous between singular and plural, but let's set that aside.)

> Hime   wa   kirei.
> princess TOPIC pretty
>
> 'The/A princess is pretty.'

Partee suggests that we might relate such ambiguities to type-shifting and the absence of an overt determiner. We've seen that it can be challenging to keep track of the predictions such analyses make. Your tasks:

  i. Show that Partee's type-shifters can derive both of the above readings.

  ii. Assess the extent to which it also follows, from your account and assumptions like those of fragment 1, that *a princess* in English cannot be interpreted as definite.

Hat-tip to Judy Kroo for the initial version of this question.

3 Scope islands and Cooper Storage [2 points]

Barker (2015:§1.6) reports that "tensed clauses are generally thought to be scope islands for universal quantifiers". Provide a way of capturing this constraint in the context of Cooper Storage. You should assume that you have free access to features in the syntax (this seems clearly to be a syntax–semantics interface constraint). It's fine to state this as a constraint on derivations, but it's even better to redefine the Cooper Storage system so that it follows as a theorem.

4   Scope and negation   [3 points]

Provide a compositional account of the ambiguity summarized in (1):

(1)   Every student didn't pass.

    a.   *Surface*: for all students x, x did not pass

    b.   *Inverse*: it is not the case that, for all students x, x passed

5   Continuization intuitions   [1 points]

This question is based in an interactive worksheet:

  `http://web.stanford.edu/class/linguist230b/assignments/ling230b-assign03.html`

The steps are basic. The goal is to give you a feel for what continuized grammars are like. Your answer can be just a sequence of expressions pasted out of the interactive tutorial.

References

Barker, Chris. 2015. Scope. In Shalom Lappin & Chris Fox (eds.), *Handbook of contemporary semantic theory*, 40–76. Wiley-Blackwell 2nd edn.