Exam 1
Chris Potts, Ling 130a/230a: Introduction to semantics and pragmatics, Winter 2015
Distributed Feb 10; due Feb 12

Notes and reminders

• This is due on Feb 12, by 10:00 am. No late work will be accepted.
• You must submit your work electronically to the usual course address: linguist130a-win1415-staff@lists.stanford.edu
• No collaboration of any kind is permitted. You are, though, free to use your notes and any other reference materials you like.

1 Scalar adjectives [2 points]

On the theory developed by Syrett et al. 2009, what is the expected pattern of behavior (for children and adults) for the prompt ‘Hand me the full one’ in an experimental condition in which the subject is presented with two cups, one noticeably fuller than the other but neither full in any absolute sense? Are the results of their experiment 1 consistent with this expectation? (2–3 sentence response.)

2 Modifier diagnosis [2 points]

Classify the modifier boring, as in boring novel, as intersective, subsective, nonsubsective, or privative, according to the typology developed by Partee (1995), and provide justification for your classification. (2–3 sentences.)

3 Functional application [3 points]

Reduce the following expressions by applying the necessary application and substitution steps. You should reduce the expressions as far as is possible, including subexpressions.

i. \( \lambda x (x = x) \) (5)

ii. \( \lambda x (\lambda y (x = (x + y)) ) \) (4)

iii. \( \lambda f (\lambda x (f (x) > 0) ) (\lambda y (y - 1) ) \)
4 Functional quantifier

Give a functional denotation for the quantificational determiner *at most seven*. (For examples of such denotations, see section 5.7 of the ‘Semantic composition’ handout.)

5 Intersective?

Consider our old hypothetical quantificational determiner *somenon*:

\[
[somenon] = \{(A,B) \mid \{x \mid x \notin A\} \cap B \neq \emptyset\}
\]

By this definition, *somenon hippos charged* would be true just in case there were some things that were not in the set of hippos and were in set of things that charged. (Note: the negation is part of the determiner, not its restriction.) Is this hypothetical determiner intersective (in the sense of Keenan 1996)? Required ingredients:

i. Provide a pair of sentences or a pair of statements of set theory that supports the classification as intersective or not intersective, along with arrows indicating which entailment relations do and do not hold.

ii. If an entailment relation doesn’t hold, describe a situation that shows why.

6 Compositional analysis

For each of the top (root) nodes in the following trees, provide (i) the name of the rule you used to derive that meaning from its constituent parts, according to the handout ‘Semantic composition’, and (ii) the meaning itself after all the allowable substitutions from functional applications. Thus, for example, given the tree on the left, the answer at right would be complete and accurate:

\[\text{Rule (TV) derives } \lambda x \left( T \text{ if } \langle x, \text{loves Maggie} \rangle \in \{\langle a, b \rangle : a \text{ loves } b\}, \text{ else } F \right)\]

6.1
6.2

VP
  └── not ─── VP
        └── V ─── introspects

6.3

PN
  └── Homer

6.4

S
  └── QP ─── VP
        └── D ─── NP ─── not ─── VP
               └── N ─── V ─── introspects
                     └── child

6.5

NP
  └── AP ─── NP
        └── A ─── N ─── alleged ─── student
7 PNs as quantifiers [2 points]

In our current semantic grammar, the VP meaning applies to the subject meaning when the subject is a PN, whereas the VP meaning is the argument of the subject meaning when the subject is a QP. Some people find this mixed directionality unsatisfying. The simplest way to address it is to raise the type of PNs so that they take VP meanings as arguments, which makes them QPs (and allows us to use rule Q2 with them). Your task: describe such a quantificational meaning for the proper name Lisa. Your meaning should deliver truth conditions that are identical to the ones we obtain in the current grammar, and it should immediately generalize to other PNs.

8 Pragmatics [2 points]

Suppose two sentences $S_1$ and $S_2$ each have precisely the same meaning ($[[S_1]] = [[S_2]]$, in our notation), but $S_1$ is significantly longer than $S_2$. A speaker who uses $S_1$ is therefore guaranteed to violate one of the maxims. Which maxim, and why? (1–2 sentence response.)

References