Scope Islands and How to Escape

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Seventh International Tbilisi Symposium on Language, Logic and Computation
Tbilisi, October 1-5, 2007

Abstract

- I want to present a possibly 'geometrical', analysis for a formal problem in the interpretation of natural language
- it is a rather abstract problem, but I hope to introduce it by means of some quite simple and informal examples
- I would like to delve more deeply into the issue by means of two specific examples, worked out fully formally elsewhere
- the dynamics of presupposition along the lines suggested by Stalnaker
- the treatment of information structure along the lines of Karttunen and Peters, and van der Sandt and Geurts
- it will be seen that by distributing aspects of interpretation over various dimensions we receive a brand-new perspective on apparent scope island violations.

Some Recent Players and Old Questions

- some from the 'dark side' and some 'naive' ones
 - Robyn Carston, Francois Recanati, Daniel Sperber, Deirdre Wilson
 - ▶ Kent Bach, Graham Katz, Jason Stanley, Zoltan Szabo
- some old questions
 - ▶ is a general distinction between semantics and pragmatics tenable
 - ▶ can we say enough about meaning in terms of truth-conditions
 - how pervasive is the context of use in interpretation
 - (when) are we multiplying meanings beyond necessity

Some Challenges Alluded Too

- (1) Smith's murderer is insane.
- (2) Jones is raking the leaves.
- (3) A: Her husband is nice to her.
- (4) B: He is nice to her, but he is not her husband.
- (5) Anke, Laura, and Petra went to the bank.
- (6) Every professor introduced every student to his class.
- (7) The next 20 years the president will be a democrate.
- (8) The next 20 years he will be a republican.

The Use of Indexing

- (14) He whistles. $\stackrel{?}{\leadsto}$ He_i whistles.
 - underspecification leaves us with no interpretation
 - disjunction yields the bank/bank/bank problem
- (15) Bill outran Will. Everyone saw him. \neq
- (16) Everyone saw at least Bill or Will.
 - so we accommodate an infinite number of interpretations
 - each one of which is pragmatically determined

One- or More Dimensional Interpretation

- distinguish assertoric, presuppositional and other aspects of interpretation (Karttunen and Peters)
- (19) Pedro hired a donkey.
 - presupposes a guy p named 'Pedro'
 - introduces a donkey d
 - \bullet asserts that p hired d
 - a 'binding problem'?
- (20) Someone managed to succeed George V on the throne of England.
 - a case of coreference (like in DRT, DPL, etc.)

A Flexible Treatment of Presupposition Resolution

- (21) Everyone moved to Stuttgart because a woman lived there.
 - ... because Stuttgart is not 100% male?
 - ... because Dorit Abusch lived there?
 - \gg ... because everyone's beloved one lived there.

S
ALL VP
CAME AC
BECAUSE S
SOME WOMAN CAME

Island Constraints

- no violations; it is the pragmatic contribution of an indefinite, not its assertoric force, which is insensitive to the constraint // "presuppositions can swim"
- the assertoric contribution is a witness f(d) figuring right there at the logical level where the indefinite occurs
- that there are pragmatic effects associated with the use of indefinites is orthogonal to their semantics
- thus, indefinites behave like other noun phrases:
 - proper names, pronouns, definites, ..., and
 - generalized quantifiers as well
- (22) If a boy goes to a party because he thinks most girls in his class come too, he is disappointed, of course, when they don't show up.

So Far so Good? Not Yet!

- (23) Everyone visited a student in Stuttgart because a professor told him to do so.
 - two of at least four interpretations
 - 1. everyone visited an arbitrary student because a specific professor told him to do so
 - 2. everyone visited a specific student because an arbitrary professor told him to visit that student
 - no likely interpretation is one according to which some subjects satisfy one of these conditions and all the others the other
 - we can exclude this by indicating the pragmatic mode of composition on the level of logical form

Conclusion

- bottom-line
 - semantics is clean, elegant and perspicuous, or so we hope
 - pragmatics is dirty and intriguing
- but semantics has become pragmatically infected in the meantime
- with underspecification or in DRT resolution takes place in a global fashion, postponing interpretation/evalution to a later stage
- alternative: let logical form locally determine how pragmatic aspects of interpretation (pragmatic bits of information) are dealt with
- but indeed this invites those from the dark side right to our sacred place