

Homework 4
LING 553
Due: October 29, 2008

1. ONE MORE THOUGHT ON ADJECTIVE TYPES

We've seen (roughly) two possible meanings for an adjective like **[[tall]]**:

$$\mathbf{[[tall]]} = \lambda P_{\langle e, t \rangle} . \lambda x_e . x \text{ is taller than the average } y \in S_P, \text{ and } P(x)$$

$$\mathbf{[[tall]]} = \lambda x_e . x \text{ is taller than the average } y \in S_P$$

We said that P might be provided by context, though in the case of **tall N**, the denotation of **N** stood a really good chance of being the most relevant or noteworthy $\langle e, t \rangle$.

Consider, then, the following sentences from Kamp and Partee (1995):

- (1) a. My 2-year-old son built a really tall snowman yesterday.
b. The D.U. fraternity brothers built a really tall snowman last weekend.

Comment on what these sentences tell us about the denotation of adjectives like *tall*. (You don't need to write out a derivation.)

For the sake of non-native speakers and/or speakers who think that “most” always means “more than 50%”: for a snowman that's four feet tall, (1a) is true but (1b) is false.

2. BINDING A PRONOUN

Give a derivation for the following DP:

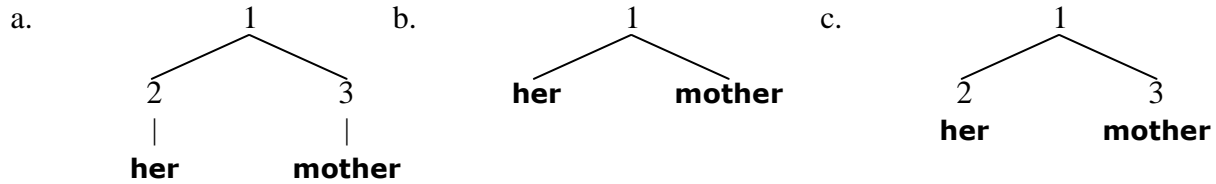
- (2) the woman who_i loves her_j mother¹

Things to keep in mind:

- There's another reading here, i.e. for “the woman who_i loves her_j mother”. You'd get this in a context like “That's Kate Hudson. My sister is probably the woman who loves her mother the most—she's a huge Goldie Hawn fan.” You might consider where this reading comes from.

¹ This is a syntactician's representation of “coindexing”. Worse, it's sometimes *the woman_i who loves her_i mother*, where it's not at all clear why “woman” has an index. The intent is something like “coreference”: *Sue_i loves her_i mother* indicates that “Sue” and “her” refer to the same individual. Whether *who* and *her* refer to the same individual in (2) is...well, work through it.

- You'll need a tree, not just a string, to interpret. Feel free to leave out the non-branching nodes: the tree can look like the one in (b), or even (c) if you like having numbers everywhere, as opposed to the one in (a).



- You can treat *who* as vacuous. But don't forget that it has an index. You may want traces.

Note, too, that $[[\mathbf{her}_i \mathbf{mother}]]$ depends on the meaning of **mother** and of the possessive. There are at least three good options for the former (see homework 2):

Meaning of $[[\mathbf{mother}]]$	Type
$\lambda x_e . x$ is a mother	$\langle e, t \rangle$
$\lambda x_e . \lambda y_e . y$ is the mother of x	$\langle e, \langle e, t \rangle \rangle$
$\lambda x_e .$ the mother of x	$\langle e, e \rangle$

and a number of options for the latter:

Meaning of $[[\mathbf{'s}]]$	Type
vacuous	—
$\lambda x_e . \lambda P_{\langle e, t \rangle} .$ the y_e such that $P(y) = 1$ and y “belongs to” x	$\langle e, \langle \langle e, t \rangle, e \rangle \rangle$
$\lambda x_e . \lambda P_{\langle e, \langle e, t \rangle \rangle} .$ the y_e such that $P(x)(y) = 1$	$\langle e, \langle \langle e, \langle e, t \rangle \rangle, e \rangle \rangle$

...where $[[\mathbf{her}_i]]^g = [[\mathbf{she}_i + \mathbf{'s}]]^g$.

For simplicity, I recommend using the $\langle e, e \rangle$ meaning of **mother** and the vacuous meaning of the possessive, so that $[[\mathbf{her}_i]]^g = [[\mathbf{she}_i]]^g$, and both have type e ; it might not work in the long run, but it'll be fine here. (The relevant technical terms from academia are “simplifying assumption” and “outside the scope of this paper”.) If you insist, you can use different meanings, as long as $[[\mathbf{her mother}]]^g$ ends up denoting an individual.

3. A PUZZLE

Given that “the woman who married Bill” and “the wife of Bill” are synonymous, how might we account for the following contrast?

- (3) a. At the party, I talked to the woman who married her childhood sweetheart.
 b. * At the party, I talked to the wife of her childhood sweetheart.

(Note: there may be purely syntactic explanations of this contrast. Since this is a semantics course, I don't recommend using one of those.)