

Assignment 10 (due Monday, November 30 in class)

Of wives and women (and pronouns)

Consider the following examples:

- (1) Rita met every wife of her childhood sweetheart.
- (2) Rita met every woman who married her childhood sweetheart.

For both (1) and (2), it is possible to understand the pronoun **her** as referring to some particular individual, such as Rita. (This interpretation implies that the individual denoted by **her childhood sweetheart** has several wives, which is perhaps implausible, but it is a possible interpretation nonetheless.)

Sentence (2) also has the following interpretation:

- (3) For any x such that x is a woman and x married x 's childhood sweetheart, Rita met x .

Interestingly, (1) does not allow for such an interpretation, even though the meaning of **wife (of) _** is presumably something very close (if not equivalent) to the meaning of **woman who married _**.

In fact, our compositional theory—in particular, our treatment of pronouns and traces—already accounts for this asymmetry between (1) and (2). Your task is to show how. Specifically, show that our theory can assign the truth conditions in (3) to (2), but that it cannot assign comparable truth conditions to (1). Be sure to provide the relevant LF structures for (1) and (2), and to indicate any necessary assumptions regarding the representation of pronouns and traces. Show also how the truth conditions for the LF structures that you identify are calculated. (You may omit the more trivial steps in your calculations.)

Assume our previous analysis of possessive DPs, summarized below:

$$\begin{aligned} \llbracket 's \rrbracket &= \lambda f \in D_{\langle e, \langle e, t \rangle \rangle}. [\lambda x : x \in D_e \text{ and there is exactly one } y \text{ such that } f(x)(y) = 1. \\ &\quad \text{the unique } y \text{ such that } f(x)(y) = 1] \\ \llbracket \text{wife} \rrbracket &= \lambda y \in D_e. [\lambda x \in D_e. x \text{ is a wife of } y] \\ \llbracket \text{childhood-sweetheart} \rrbracket &= \lambda y \in D_e. [\lambda x \in D_e. x \text{ is a childhood sweetheart of } y] \end{aligned}$$

$$\begin{aligned} \llbracket \text{John's wife} \rrbracket &= \llbracket 's \rrbracket (\llbracket \text{wife} \rrbracket) (\llbracket \text{John} \rrbracket) \\ &= \begin{cases} \text{the unique } y \text{ such that } \llbracket \text{wife} \rrbracket (\llbracket \text{John} \rrbracket) (y) = 1, \text{ if there is such a } y; \\ \text{undefined, otherwise} \end{cases} \\ &= \begin{cases} \text{the unique } y \text{ such that } y \text{ is a wife of John, if there is such a } y; \\ \text{undefined, otherwise} \end{cases} \end{aligned}$$

Assume also that the pronoun **her** is represented syntactically as **she's**.