Semantic Theory 2019: Exercise sheet 6

Exercise 1

Explain why the famous "donkey sentences", illustrated in (1), pose a problem for traditional type-theoretic semantics. Explain in terms of the general properties of dynamic semantics how this problem is resolved.

(1) If a farmer owns a donkey, he feeds it.

Exercise 2

Consider the following discourses:

(2) Robin is either in love with Ted, or with Barney.

(2) Barney does not seduce every girl.

(2) Ted meets a girl. If she forgets her umbrella, he doesn't return it.

a. Give DRS representations for each of these discourses.

b. Determine for each DRS which discourse referents are available for anaphoric reference (i.e., from a subsequent sentence).

c. Give the truth-conditions for the DRS you derived for sentence (3). Use the verifying embeddings to arrive at the model-theoretic interpretation.

Exercise 3

Note: This exercise can be done on paper, or using PDRT-SANDBOX, in which case you'll submit a Haskell file through email.

3.1 Formulate the lambda-DRSs for the following lexical items:

(i) to like :: $\langle e, \langle e, t \rangle \rangle$

(ii) no :: $\langle \langle e, t \rangle, \langle \langle e, t \rangle, t \rangle \rangle$

(iii) because :: $\langle t, \langle t, t \rangle \rangle$

3.2 Derive the representation of the following sentence using the lambda-DRSs defined above—see the slides for the lambda-DRSs of names, one-place predicates, and pronouns. Show the relevant beta-reduction steps.

(5) Ted is sad because no girl likes him.