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Problem Set 9: Generalized Quantifiers

Reading: Heim and Kratzer (1998), ch. 6

Exercises

1. List three DPs that fail the inference schema in (3), p. 133 (α came yesterday morning; therefore α came yesterday)

2. Give an informal proof like the one that Heim and Kratzer give at the top of p. 133 showing that (4) (*Mount Rainier is on this side of the border, and Mount Rainier is on the other side of the border*) is contradictory, using only the assumptions at the top of p. 134, namely:

   - $[\![\text{Mount Rainier}]\!] \in D_e$
   - $[\![\text{is on this side of the border}]\!] \cap [\![\text{is on the other side of the border}]\!] = \emptyset$ (Nothing is both on this side of the border and on the other side of the border)
   - When the subject is type e, the sentence means that it is in the set denoted by the VP
   - standard analysis of *and*

3. Give an informal proof (like the previous one, relying on the assumption that *I* is type e among other very general and well-grounded assumptions) showing that (6), *I am over 30 or I am under 40*, is a tautology.

4. In §6.1.2, Heim and Kratzer give two more arguments against treating all DPs as type e. What are they?

5. Exercises (a) and (b), pp. 138-139.

6. Give appropriate tree structures for *Everything vanished* and *Mary vanished* and calculate the truth conditions for them using the generalized quantifier treatment of *everything*.

7. How does the generalized quantifier treatment of quantificational expressions account for the fact that *More than two cats are indoors and more than two cats are outdoors* is not a contradiction? (p. 143)

8. How does the generalized quantifier treatment of quantificational expressions account for the fact that *Everybody here is over 30 or everybody here is under 40* is not a tautology? (p. 143)

9. Calculate the truth conditions for *Every painting vanished* (example 1, p. 146) step-by-step. You can ignore assignments.