

Problem Set 2

Due January 25 before class. Submit on IVLE > Files > Student Submission > PS2.

1. Heim & Kratzer exercise on pages 9–10
2. **Conservativity:** A quantifier Q is called *conservative* if $Q(A)(B)$ is true if and only if $Q(A)(A \cap B)$ is true. For example, the sentence “Every cat is hungry” is true if and only if “Every cat is hungry and is a cat.”
 - (a) Using the definitions for these quantifiers from class, prove that *every*, *a*, *no*, and *more than two* are conservative.
 - (b) Imagine the quantifier *allnon*, defined as follows: $allnon(A)(B)$ is true iff $D_e \setminus A \subseteq B$. (This is called *allnon* because it requires that “All non- A individuals are B .”) Prove that *allnon* is not conservative.
 - (c) Consider *only* as in sentences like “Only dogs bark.” Define the truth conditions of $only(A)(B)$ in terms of the sets A and B . Prove that this *only* is not conservative.
3. **Reflexivity:** A quantifier Q is called *reflexive* if for any set A , $Q(A)(A)$ is true. Similarly, a quantifier Q is called *irreflexive* if for any set A , $Q(A)(A)$ is false.
 - (a) Using the definitions for these quantifiers from class, classify each of the following quantifiers as reflexive, irreflexive, or neither: *every*, *a*, *no*, *two*, *not all*.
 - (b) The existential *there* construction is grammatical with some quantifiers but not others. Here is some data in (1) below. What is the generalization?
 - (1) a. * There is *every* cat in the yard.
 - b. There is *a* cat in the yard.
 - c. There is *no* cat in the yard.
 - d. There are *two* cats in the yard.
 - e. * There are *not all* cats in the yard.