

PROBLEM SET 4

due Thu, Feb. 23 by 4pm

in my mailbox (10th floor of the Cathedral)

PHILOSOPHY OF  
LANGUAGE

**Exercise 1** (16 pts.) Using Venn diagrams in “logical space”, show how the propositions expressed by the following sentences would be represented and related by a truth-conditional theorist. [Draw them all together, in the same logical space (same box).]

- (a) Jones broke the window and ran.
- (b) Jones broke the window but didn't run.
- (c) Jones baked a cake earlier today.
- (d) Jones baked a cake earlier today and  $2+2=4$ .

**Exercise 2** (12 pts.) Say how many propositions you think a truth-conditional theorist, a Russellian, and a Fregean (all on the ‘naive’ versions I presented in class) would say are expressed by the sentences below. (“Mark Twain” was the pen name of Samuel Clemens and “being an eye-doctor” for our purposes expresses the same property as “being an ophthalmologist”). Explain each of your three answers.

- (a) Mark Twain was an ophthalmologist.
- (b) Mark Twain was an eye-doctor.
- (c) Samuel Clemens was an ophthalmologist.
- (c) Samuel Clemens was an eye-doctor.

**Exercise 3** (12 pts.) In class we saw how one could informally state the conditions on truth conditional propositions diagrammed in logical space to represent their logical relations. For example we saw that for  $p$  and  $q$  to be *compatible*  $p$  and  $q$  needed to have overlapping truth-conditions. In the same manner, state what conditions on the representation of propositions would be required for the following relations to hold. (Don't actually diagram anything in your answer—just state the conditions in the way I did for compatibility just now). Be clear and precise, and make sure you're stating both necessary and sufficient conditions.

- (a)  $p$  entails ( $q$  and  $r$ ).
- (b)  $p$  is inconsistent with (not  $q$ ).
- (c) A group of propositions are pairwise compatible with each other, but no three of them can jointly be true.

**Exercise 4** (10 pts.) Suppose we adopt a Fregean view of propositional content. Consider the following sentence.

Most Americans believe that Stephen King wrote the novel *Misery* in the 20th century and presently lives in New England.

Then we might take the “that”-clause to pick out a *single* Fregean proposition and the sentence to report that most Americans believe *that* proposition. Consequently it should only be a true statement if that condition actually holds. Try to think of a straightforward reason this might be problematic (and explain it). Would the particular problem you discuss be avoided on a naive Russellian view?