### 24.903/933 Problem Set \#2

## Expected length: No more than 2 pages

## The Assignments

I. Beyond Truth-Conditions

Go back to your answers on the first problem set. For each of the four utterances you described, discuss whether a truth-conditional analysis is sufficient (presumably that would be because the purpose of the utterance was simply to inform the addressee that the truth-conditions of the sentence are satisfied) and if not, describe what else might be going on.

For help with this assignment, re-read some relevant passages in the textbook: (i) the first paragraph in the box on p. 22, (ii) Section I.3.2 on pp. 22-23 about non-declarative sentence types, and (iii) Section I.3.3 on pp. 23-24 about speaker meaning.

A Puzzle About Exclusive Disjunction
It is often said that English disjunction is ambiguous between an "inclusive" reading and an "exclusive" reading, which differ in whether $p$ or $q$ is true when both $p$ and $q$ are true.
Exclusive disjunction (let's use the symbol $\oplus$ ) has or would have the following truth-table:

| p | q | $\mathrm{p} \oplus \mathrm{q}$ |
| :---: | :---: | :---: |
| T | T | F |
| T | F | T |
| F | T | T |
| F | F | F |

In other words, $p \oplus q$ is true just in case one but not the other of $p$ and $q$ is true.

In this exercise, you will find out what a sequence of two exclusive disjunction operators would mean. We might be dealing with sentences like We will invite Peter or we will invite Paul or we will invite John.

Your assignment is to fill out the last column of the truth-table below:

| p | q | r | $\mathrm{p} \oplus \mathrm{q}$ | $(\mathrm{p} \oplus \mathrm{q}) \oplus \mathrm{r}$ |
| :--- | :---: | :---: | :---: | :---: |
| T | T | T | F |  |
| T | T | F | F |  |
| T | F | T | T |  |
| T | F | F | T |  |
| F | T | T | T |  |
| F | T | F | T |  |
| F | F | T | F |  |
| F | F | F | F |  |

Now, describe what meaning this predicts for sentences with two disjunctions (like the one we just gave). Do you think that English sentences with two disjunctions ever have the meaning predicted here? If not, what does this say about the claim that English or has an exclusive reading?

