Homework for Tuesday September 16, 2014

1 Composing negation

- Give a meaning for negation using the tabular notation for functions.
- Use your meaning for negation to derive ⟦it isn't the case that [Uni meows]⟧.
  - Give node-by-node denotations (what you label the nodes isn't important).
  - Treat it isn't the case that as an unanalyzed unit whose meaning is negation.
  - Don't worry about specifying a model. Truth conditions are sufficient.

2 Conjunction, disjunction, ambiguity

- Give meanings for and and or in terms of 2-place relations (using whichever notation you like). Then give meanings for and and or in terms of 2-place Curry'd functions.
- Use these Curry'd functions to give node-by-node denotations of the two parses of A and B or C, assuming ⟦A⟧ = 0, ⟦B⟧ = 0, and ⟦C⟧ = 1. Do the two structures mean different things?
- Does your analysis extend to VP coordination (e.g. meowed and purred)? DP coordination (e.g. Uni or Porky)? Verb coordination (e.g. licked and groomed)? Why or why not?

3 Set theory

- Evaluate the following claims:
  - $\emptyset \in \{\emptyset\}$
  - $\emptyset \subset \{\emptyset\}$
- Give a general characterization of the sets Z such that $A \cup Z = A$.
- Give a general characterization of the sets Z such that $A \cap Z = A$.
- Using Venn diagrams, evaluate the following claims:
  - $(A \cap B) \cap C = A \cap (B \cap C)$
  - $(A \cup B) \cup C = A \cup (B \cup C)$
  - $(A \cap B) \cup C = A \cap (B \cup C)$
  - $(A - B) \cap C = A - (B \cap C)$

4 Reverse implicatures

- The following sentence seems to give rise to an inference that if just John or just Bill comes, the party will not be a success:
  i. If John and Bill come, the party will be a success.
- Is this inference an implicature? Why or why not?
- If you answered yes to the previous question, give a detailed calculation along the lines of our handout from September 5 (i.e. the speaker said X, she might have said Y, ...).