LING 130   Foundations of Semantics
 Quiz #1   October 18, 2005
 Due   1:40 pm, October 21, 2005

1. Semantics in Linguistics

Explain briefly what role logical formalisms can play in modeling of semantics of natural language. (1-2 paragraphs)

2. Propositional Logic

Let ϕ be a tautology, ψ be a contradiction, and χ be a contingency. Which of the following sentences are (i) tautological, (ii) contradictory , or (iii) contingent.

1. $\phi \wedge \chi$

2. $\phi \vee \chi$

3. $\psi \wedge \chi$

4. $\psi \vee \chi$

5. $\phi \vee \psi$

6. $\chi \rightarrow \psi$

3. Translation into Predicate Logic

Translate the following sentences into predicate logic. Give the key for the variables and predicate letters that you choose. If you think that more than one translation is suitable, give the alternatives and discuss their differences. Represent as much as possible of the structure relevant to quantificational arguments.

(a) Every doctor is a surgeon or a pediatrician.

(b) Either everything is expensive or it is cheap.

(c) A senior is an undergraduate.

(d) Every fan admires a quarterback.

(e) There is some quarterback that every fan admires.

(f) If everyone loves someone, John loves himself.

(g) No one loves himself, unless it is George.

(h) Anyone either loves himself or some dog.

(i) If you love a book, read it or return it.

(j) If no one kisses Mary, Bill will.

(k) If John does not love New York, he does not live there (i.e., in it).

(l) If someone does not love New York, he does not know it.

(m) Only drunk drivers under 18 cause bad accidents.

(n) Driving is risky, if you are drunk.

4. Word Meaning

Saeed, Chapter 3, exercise 3.10.

5. Predication and Quantification

De Swaart Chapter 4, exercise 7, (i), (ii).

6. Presupposition and Entailment

Give both *entailments* and/or *presuppositions* for each of these sentences, as we did in class. Use the Temporal Logic Operators: F: sometime in the future; G: always in the future; P: once in the past; and H: always in the past.

(1) a. John failed to get a birthday present for his mother-in-law.
   b. Mary and John managed to repair their VW themselves.
   c. The President acknowledged that Iran poses no imminent threat.
   c. The girl remembered that she had a test.
   d. The girl forgot that she took her medication yesterday.
   e. The girl forgot to take her medication yesterday.

7. Tense and Aspect

Use the Reichenbach system introduced in class to analyze the sentences below. For each sentence, provide a graphic representation using the three temporal indices, S (speech time), R (reference time), and E (event time).

(2) a. Nora Jones has already won a lot of awards.
    b. By Friday night, the students will have finished their tests.
    c. I love pizza!!!
    c. The phone was ringing when Mary was in the shower.
    d. The girl had taken her medicine before her reminded her.

8. Event Classifications: Aktionsarten

Using the four classes of event types (lexical aspects) we covered in class, you are to:

(3) a. Give the event class of the verb
    b. Give the event class of the entire sentence
    c. State whether the sentence event is bounded (telic)
    d. List any grammatical features or contributing factors that possibly changed the verb's type to something else.

(4) a. John swam in the pond for the whole afternoon.
    b. Mary arrived late for the party.
    c. Bill coughed suddenly.
    d. Bill has been coughing for a long time.
    d. Sophie wrote her thank-you notes in 20 minutes.
    e. Bill reached the top of the hill at noon.
    f. Zac enjoyed the gym yesterday.
    g. Uri found a gold coin in the sand.
    h. Claudette painted flowers for hours.
    i. Claude painted the house blue.

9. Argument Structure

Saeed, Chapter 6, exercise 6.8.