

Homework Assignment 4 (due before the lecture on 30 Jan, 2007)

1. **Gricean Maxims, Speech acts** (10) Fred and John are sitting in John's room. Fred says to John: "Is there any more beer?" John says nothing but gets a bottle of beer from the fridge and puts it on the table in front of Fred.

Explain how John understood what he took Fred to mean. Describe the process of understanding step by step in terms of speech acts and Gricean Maxims, making explicit reference to the types of speech acts involved and to each of the Maxims involved.

2. **Entailment, presupposition, implicature** (15) For each of the following pairs of sentences, determine whether the relation between them is one of entailment, presupposition, or implicature, or if none of these relations hold. Give your reasons for making your choice.

- A            i. Steven knows that the Red Sox won the World Series.  
              ii. The Red Sox won the World Series.
- B            i. Maude believes that IBM built telephones.  
              ii. IBM built telephones.
- C            i. Parker proved that the defendant was related to the victim.  
              ii. The defendant was related to the victim.
- D            i. Maren didn't tell many of her friends that she was pregnant.  
              ii. Some of Maren's friends were told about her pregnancy.
- E            i. We forgot to inform the fire inspector in our town about the party.  
              ii. Our town has a fire inspector.

3. **Two views of presupposition** (10) Suppose the lecturer had announced today: "The Introduction to Linguistics lecture this Thursday is not taking place". Since the expression "The Introduction to Linguistics lecture this Thursday" refers to nothing, Russell would claim that what the lecturer said is strictly speaking false. Strawson would claim that what the lecturer uttered simply does not denote a proposition and hence one cannot even sensibly ask whether it's true or false. – Explain both positions in detail for this example.

4. **Centering Theory** (15) Consider the following discourse:

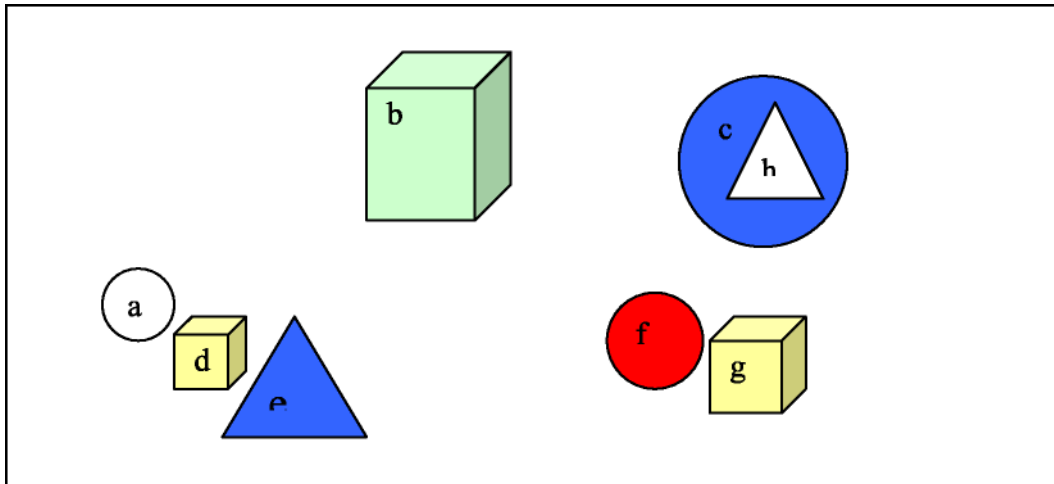
"Nick stepped on the balcony. He stood next to Lou for a while. She lit one of Nick's cigarettes with a match. Slowly the streets of Milan disposed of the crowds as night fell."

Let it be segmented as follows where all the forward-looking centres are already determined:

- (1) Nick stepped on the balcony.  
Cf1 = {Nick, balcony}
- (2) He stood next to Lou for a while.  
Cf2 = {Nick, Lou}
- (3) She lit one of Nick's cigarettes with a match.  
Cf3 = {Lou, cigarettes, Nick, match}
- (4) Slowly the streets of Milan beneath disposed of the crowds as night fell.  
Cf4 = {streets of Milan, crowds}

Now determine for each segment the Cb of that segment (if for some reason you can't, write: Cb=?) and determine for each transition between two successive segments the transition type.

5. **Semantic Interpretation** Refer to the following situation (the letters given are so you can name the objects easily)



A. (10) Simple lexical items: In the given situation, specify the denotations for the following lexical items in set-theoretic terms. For relational terms you will have to use sets of pairs.

- a. **red**
- b. **triangle**
- c. **above**
- d. **white**
- e. **ball**

B. (10) Make a guess as to an English word that has that as its denotation the following sets

- a. {d, b, g}
- b. {<b, c>, <b, h>, <a, d>, <d, e>, <f, g>}

C. (15) Give the node-by-node formal, set-theoretic interpretation for the following sentence, as parsed, given the lexical items you gave above. This means list, for every node of the tree, what its interpretation is. (Since you can always assume that a node with only one daughter has as its interpretation the interpretation of the daughter node, you need only list the interpretations of the **branching nodes** in the tree). You will need to make use of the following interpretation rules.

$$[[_{VP} \text{ is AdjP}]] = [[_{AdjP}]]$$

(the interpretation of a VP node whose daughters are the verb is and an AdjP is just the interpretation of the AdjP)

$$[[_{NP} \text{ the } N']] = \text{the individual } a \text{ such that } \{a\} = [[_{N'}]]$$

(the interpretation of a definite noun phrase is the object that is the sole element of the set denoted by the N')

$$[[_{AdjP} \text{ Adj NP}]] = \{x \mid \langle x, [[_{NP}]] \rangle \in [[_{Adj}]]\}$$

(the interpretation of complex AdjP is the set of individuals x such that the pair consisting of x and the individual denoted by the NP is in the set of pairs denoted by the Adj)

$[[N' \text{ Adj } N]] = [[\text{Adj}]] \cap [[N]]$

(the interpretation of a complex N' is the intersection of the interpretation of the Adj and the interpretation of the N)

$[[S \text{ NP } VP]] = \text{true iff } [[\text{NP}]] \in [[\text{VP}]]$

(the interpretation of a sentence is "true" if the individual denoted by the NP is a member of the set denoted by the VP)

