

Department of Computer Science
CSC 247/447
Spring 2003

Assignment 4

Apr. 17, 2003

Due: 5pm, Thursday, Apr. 24

Problem 1: Denotational Semantics

Ex. 7, ch. 8 (p. 260) of text; in (b) assume that the logical forms of (a) are still required to be true in the model.

Problem 2: Linguistic entailment

Ex. 8, ch. 8 (p. 260) of NLU text

Problem 3: Computing logical forms

Hand-compute logical forms for the following sentences, in rule-by-rule compositional fashion. In each case (i) show a rough phrase structure tree (leaving out agreement features and other features that aren't crucial to showing you understand the structure, or to semantic interpretation); (ii) list the phrase structure rules and interpretive rules you are using (again, with minimum fuss about features; no need to repeat rules that you already showed for another sentence); (iii) show what the LFs at the various nodes are (culminating in the LF of the root node); and (iv) give some reasonable scoped version of the overall LF.

- (a) Should someone volunteer?
- (b) Some man who sneezed spoiled the concert
- (c) Mary, you can always rely on.
- (d) What do you want to buy?
- (e) The guy for whom Pat works is rich.

Problem 4 Exercise 5, p. 292, ch.9 of NLU