

Homework 10

CS 5233 – Fall 2007
Tom Bylander, Instructor

assigned November 19, 2007
due November 28, 2007

- (100 pts.) Do Exercise 22.9 in the book with the following modifications.
 - Use the NLTK to demonstrate that one of the grammars generates the “someone walked slowly to the supermarket” and show the parse tree (not just NLTK’s output). You need not show whether the other two grammars generate the sentence.
 - Substitute

For each of the three preceding grammars, write down three sentences of English and three sentences of non-English generated by the grammar.

with

For one of the three preceding grammars, write down two sentences of English and two sentences of non-English generated by the grammar. Use the NLTK to show that your two sentences and two non-sentences are generated by the grammar.
- (100 pts., shared extra credit) Modify the `sem2.cfg` grammar so that sentences like “Suzie gives John a dog” are correctly parsed and have a reasonable semantic interpretation. If possible, your grammar should also be able to handle the sentence “every girl in Noosa gives a boy a dog”. Use the NLTK to demonstrate your modification.

For your information, verbs like “give” that have an indirect object are called ditransitive verbs.