ACS Advanced Syntax and Semantics of Natural Language: Assignment 1

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Lent Term 2015

Hand-in of assignment: Hand in to the Graduate Education Office by 12 noon on Friday February 6. Mark for the attention of Stephen Clark.

Include *brief* notes on any difficulties or issues you had with specific derivations. It is more important to understand and be able to explain your reasoning than to get every derivation right.

1. Provide CCG derivations for the 5 sentences below. Assign lexical categories to each word, and then use the appropriate combinatory rules — from forward and backward application, type-raising and composition — to combine the categories together. Follow the notation and conventions used in the lectures.
NOTE: at least one of these sentences is incorrectly parsed by the C&C tools demo.

(1) The man gave Raymond the book.

(2) Raymond generously gave the expensive book to Mary.

(3) Raymond pitied the man who John brutually kicked.

(4) John gave Mary and provided Raymond with some books.

(5) Which book did Mary provide Raymond with ?

2. Try the following sentence in the C&C parser online demo. To which words does the parser assign the incorrect category? *Briefly* give some possible reasons for the parser's mistakes.

John Raymond , former chairman of Consolidated Gold Fields PLC , was named a Chief of this British industrial conglomerate .

3. The verb *swing* is seen a number of times in the Penn Treebank, but never as a transitive verb. Hence the C&C parser analysis of *He swings the golf club* is incorrect (try it on the online demo). Give some *brief* suggestions for how you might try and improve this aspect of the parser's performance.