

CCG Compositional Semantic Derivations

Syntax and Semantics of Natural Language, ACS 2015
Assignment 2 © Ted Briscoe (ejb@c1.cam.ac.uk) GS18

1 Deadline

Please hand in your assignment to the graduate student office by the deadline published on the course assessment webpage.

2 Task

Provide FOL formulae which capture the meaning of the 4 sentences below. Add a rule-to-rule type-driven compositional semantics to CCG using the lambda calculus which constructs these formulae for each sentence from CCG derivations, and show the semantic derivations. To do this you will need to associate a semantics with each lexical item and a corresponding compositional rule with each syntactic combination rule (schema) you use in the derivation. Briefly discuss any issues which arise with respect to each example. Optionally run the sentences through the on-line demo of C&C+Boxer at <http://svn.ask.it.usyd.edu.au/trac/candc/wiki/Demo> and assess to what extent the right semantic representation is associated with them.

3 Sentences

- (1) The man gave Raymond the book.
- (2) John gave Mary and provided Raymond with some books.
- (3) Raymond pitied the man who John brutally kicked.
- (4) Some student in every college snores or grunts.