24.903
Language & Structure III: Semantics and Pragmatics
Spring 2003, 2-151, MW 1-2.30
March 19, 2003
Midterm Exam, 80 mins.

1a. In addition to regular relative clauses which are 'headed', English also has free relative clauses, which lack an equivalent head.

(1) a. Regular 'headed' relative clause, with 'head' boldfaced:
I ate [$_{DP}$the [$_{NP}$ **thing** [$_{CP}$ which$_i$ [you cooked t$_i$]]]].

b. Free relative clause:
I ate [$_{DP}$ [$_{CP}$ what$_i$ [you cooked t$_i$]]].

The semantics of (1a) and (1b) are substantially identical. Extend the semantics of (headed) relative clauses developed in class to handle free relatives. (15 pts.)

1b. The free relative construction in English is syntactically rather restricted. Thus the following are ungrammatical.

(2) a. *[who is standing] is tall. (vs. The person [who is standing] is tall.)

b. *I ate [what dish you cooked]. (vs. I ate the dish [which you cooked].)

This restriction is a fact about the syntax of English. Thus in many languages, the counterparts of (2) are grammatical.

(3) Hindi

[$_S$[$_{DP}$[$_{CP}$ [jo laṛkii]$_i$ [$_S$ t$_i$ khaṛii hai]]] [$_{VP}$ lambii hai]]
which girl standing is tall is

'The girl who is standing is tall.'

Abstractly we can look at (3) as (4).

(4) [$_{DP}$ [$_{CP}$ [which girl]$_i$ [$_S$ t$_i$ is standing]]] is tall.

Extend the semantics you have developed to handle English free relatives in (1a) to handle free relative like those in (4). (15 pts.)

2. Show that the adjective *first* cannot be of type (et)et. (15pts.)

3. The question pertains to the structure in (5), with the possible coindexings shown in (5a-d).

(5) the book **[$_{CP}$ which [the girl [who Buffy likes t]] wrote t]**

a. the book **[$_{CP}$ which$_1$ [[the girl [who$_2$ [Buffy likes t$_1$]]] wrote t$_1$]]**

b. the book **[$_{CP}$ which$_1$ [[the girl [who$_2$ [Buffy likes t$_1$]]] wrote t$_2$]]**

c. the book **[$_{CP}$ which$_1$ [[the girl [who$_2$ [Buffy likes t$_2$]]] wrote t$_1$]]**

d. the book **[$_{CP}$ which$_1$ [[the girl [who$_2$ [Buffy likes t$_2$]]] wrote t$_2$]]**

(a) Compute the denotation of the boldfaced CP in (5) (the example without any indices) using the first version of Predicate Abstraction introduced in class (the one where the assignment was an individual, and not a partial function from indices to individuals). (10pts.)

(b) Which of (5a-d) are not in the domain of $[\![\ ]\!]$? Why? (5pts.)

(c) Compute the denotations of the boldfaced CP's of those of (5a-d), which are in the domain of $[\![\ ]\!]$. To do this you will need to use the final version of Predicate Abstraction introduced in class (the one with assignment functions). (20pts.)[1]

(d) Which of (5a-d) is the coindexing actually made available by the syntax of English? (5pts.) Why are the other coindexings ruled out? (5pts.)

(e) The more complex version of Predicate Abstraction is not essential for the interpretation of (5). Why is this so? (5pts.)

(f) Provide an example where the simple version of Predicate Abstraction without assignment functions does not suffice and it becomes necessary to use the more complex version of Predicate Abstraction with assignment functions. (5pts.)

[1] In doing this problem, you are encouraged to reuse some of the computations you have done for Problem (3a). If you compute more than one denotation in this problem, you should feel free to not redo the computations for the shared parts.