## (O) CCG (I/I)

O1. CCG assigns a category to each word and constructs a parse by combining pairs of categories to form an S. Not all pairs of categories can combine. A pair is allowed to combine if one category (e.g. A) is contained within the category next to it (e.g. B / A) and lies on the side indicated by the slash (\ for left, / for right). When two categories combine, the result is a new category, taken from the left of the slash (B in this example).

O2. There are four categories that 'long' could have that would create a successful parse of 'I enjoy long books':

```
NP / NP
((S\NP)\((S\NP)/NP)) / NP
((S\NP)/NP)\((S\NP)/NP)
((S\NP)/NP)\((S\NP)/NP)
```

The first of these is probably the most appropriate. Some possible reasons:

- It is by far the simplest. (After all, all our other categories are relatively simple.)
- It keeps the existing structure of the sentence (where "enjoy" combines with what follows it and then with what precedes it).
- "Long" describes "books" and not "enjoy", so it might make sense to keep them together.
- The first would be the only one to work if "long books" were in any other position.

O3. Possible answers: "I enjoy sleep", topicalized object sentences like "Books I enjoy" and "Sleep I enjoy".

