Start from the grammar
`/space/projects/esslli99/grammars/english-small/english-start.lfg`

Exercise 1 — Missing Entries

If the problem is that a word is not listed in the lexicon, a message to this effect will appear in the XLE window, in addition to the morphology window appearing:

```
% parse "a monkey in the garden devours a banana"
parsing {a monkey in the garden devours a banana}

 Chart unconnected because of unknown words
 Word possibly causing problem: garden
0 solutions, 0.01 CPU seconds, 0 subtrees
0
%
```

Exercise 2 – Extending c-structure rules to cover more adjuncts

Extend the lexicon and the VP-rule to cover temporal adverbs:

- the girl saw the monkey yesterday
- the girl saw the monkey yesterday in the park

In terms of f-structure, their contribution should end up in the same set as those of local PPs.

(... continued on next page ...)

Exercise 3 – New verbs with different subcategorization

- Add a treatment of ditransitive verbs to the grammar and the lexicon. Classically in LFG the second object is analyzed as OBJ2.

  - the girl gave the monkey a banana
  - the girl gives the monkey a banana
  - the girls give the monkey a banana

  Make sure that the grammatical functions you are using are defined in the CONFIG section.

  Your analysis should avoid adding a spurious ambiguity to ordinary transitive sentences:

  - the monkey devoured the banana

- Add verbs taking a prepositional object. The standard LFG analysis assumes a function OBL for these.

  - the monkey thought of a banana

  How do you have to modify the f-annotation of the PPs in the verb rule?

  Again, don't forget to add the new grammatical function in the CONFIG section.

Exercise 4 – Constraining equations and underspecification

- In the current version of the grammar, subject-verb number agreement is checked by a constraining equation. Can you explain the difference in the grammar's behaviour for the following two sentences?

  - the monkey sleeps
  - the sheep sleeps

  What are the options for fixing the problem?