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M. Butt, A. Frank, J. Kuhn:
Development of large scale LFG grammars:
Linguistics, Engineering and Resources

French LFG: Exercises 1
– Templates –

Start from a little French grammar you find in
`/space/projects/esslli99/grammars/french/french-templates/mini-french2.lfg`.
Copy this grammar to one of your own directories.

To see what the grammar covers, look at the grammar file and browse through a small testsuite you find in the file `mini-french-tests`. Please extend this testfile when you extend the grammar, and execute testruns for regression testing when you make changes to the grammar.

You parse the testsuite with the xle command:
`parse-testfile mini-french-tests (1)`

If you specify the optional parameter `1`, the analyses are displayed for each phrase in the testsuite. You can click through the analyses in the upper right window by selecting "Next sentence".

The grammar contains simple analyses for finite and infinite sentence embedding, cliticization, relative clauses, prepositional phrases, noun phrases, and very simple adnominal adjective phrases.

Please note that the grammar does not (yet) account for capitalization of the first word of a sentence. You can only type *le chat vient*. However, proper names are always capitalized. We also cannot (yet) handle contraction phenomena (e.g. *il l'aime*, *il parle aux enfants*).

Exercise 1

The grammar comes with a number of predefined template definitions. Introduce templates for the following phenomena. Try to use the following template names:

```
num, gend, case,
common_noun, proper_noun, n_agr, n_xx_agr,
pron_pers, spec, prep
v_s, v_s_o, v_s_o_o2, v_s_obl, v_s_xcomp_rais, v_s_compfin
s_v_agr
```

- Distinction between common nouns and proper nouns:
  Common nouns should be specified ($\uparrow$NTYPE) = common;
  proper names should be specified ($\uparrow$NTYPE) = proper.

- Pronouns will now be distinguished and specified by the following features: ($\uparrow$PRON-TYPE)= pers/rel and ($\uparrow$PRON-FORM)= %stem.
  Templates for relative pronouns are already defined. Complete this for personal pronouns.

- Specification of gender and number for nouns, pronouns and determiner.
  Again, you find some predefined templates which are used in noun and adjective entries.
  How do you proceed for pronouns like *les* and *lui, leur*? Try different possibilities and observe the number of analyses in sentences like: *Jean les voit.*

- In the current grammar, specifier features unify with noun features through the trivial equation $\uparrow=\downarrow$. Introduce a SPEC attribute for determiners, which embeds SPEC-TYPE and SPEC-FORM features introduced by the determiners. How do you preserve number and gender agreement with the noun in this new analysis?

- Define subcat templates for the different types of subcategorization. If you make use of the %stem variable (which is instantiated by the lexicon entry's headword), you avoid cut-and-paste errors like the one you observed with *monkey* and *park*.

- In your testsuite you noticed that subject-verb agreement is not yet captured. Define subject-verb agreement using templates.

- Use your testfile `mini-french-tests` for regression testing.