

# DGfS-CL Fall School 2011: Introduction to Tree Adjoining Grammar

## Exercises for the second week

1. Sentence (1) has two readings:

(1) Peter saw a man with a telescope.

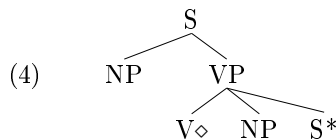
*with a telescope* can modify either the NP *a man*, or the transitive verb *saw*.

- (a) Provide an LTAG  $G$  (without feature structures), that derives both readings of (1), and that only includes elementary trees in accordance with the design principles from the lecture.
  - (b) Give the derivation trees of both readings according to  $G$ .
2. The following sentence contains a raising construction with a small clause:
- (2) They seem angry.
- (a) Provide a FTAG  $G$ , that derives (2). Try to use only tree templates from XTAG. Case marking and agreement are to be modelled like in the lecture.
  - (b) Give the derived tree (before the final top-bottom unification) of (2) according to  $G$ .
3. Sentence (3) includes the control verb *promise* and wh-extraction:

(3) Who did she promise to leave the party.

Lets assume that *who* is the nominal Object of *promise*.

- (a) Provide an LTAG  $G$  with feature structures, that is able to derive (3). Try to use only tree templates from XTAG and the XTAG features AGR, CASE, WH, INV, MODE.
  - (b) Give the derivation tree for (3) according to  $G$ .
4. The tree template in (4) is used for control verbs (with base configuration).



- (a) Give the XMG-classes that describe this tree template! Try to reuse as much as possible from the given source code.
- (b) Include all the features from the lecture! Remember that features must be properly declared!