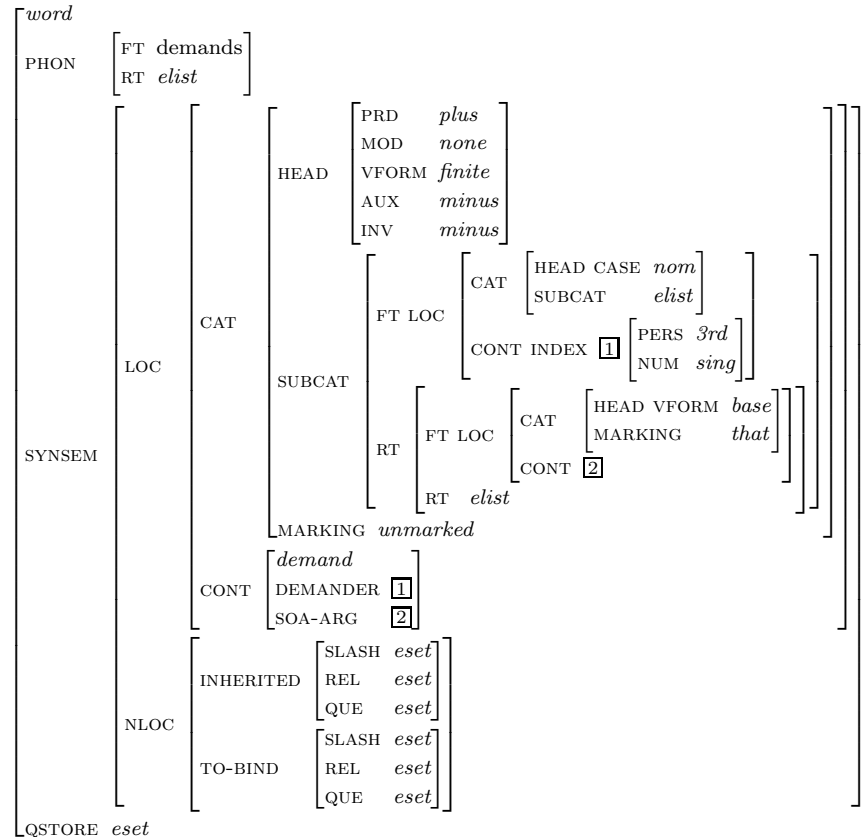


Frank Richter:  
**Grammatikformalismen für die Computerlinguistik**

**Aufgabenblatt 7**

**Exercise 1. [1 + 3 + 2 points]** The lexical entry for the verb *demands* might look like this:



1. Write a MoMo description of all possible complement clauses of *demand*s. The description should be as small as possible, but it should not be satisfied by anything which is not permitted as a complement clause of *demand*s by the lexical entry above.

An example of an admissible complement clause can be found in (34) on page 44 of the HPSG book.

2. Consider the sentence *I demand that he leave*. Draw an AVM description using the abbreviatory tree notation to show the constituent structure. Annotate each phrase with the number of the licensing ID schema (1–6).

Indicate the structural identities caused by the SPEC PRINCIPLE, the MARKING PRINCIPLE and the HEAD FEATURE PRINCIPLE with appropriate tags, and explain which tag you use for which principle.

3. Consider the following data which illustrate which complement clauses are permitted by the verb *thinks*.
  - (1) a. Mary thinks that Peter is totally silly.
  - b. Mary thinks Peter will come.
  - c. \* Mary thinks that Peter give her the book.
  - d. \* Mary thinks Peter give her the book.

Write an appropriate lexical entry of *thinks*. Give a very short reasoning for why your lexical entry fits the given data.

**Exercise 2. [2 + 1 + 2 +2 points]** In this exercise we think about the sentence *Could you give Sandy the book?*

1. Write a description of the sentence *Could you give Sandy the book?* which is consistent with the grammar of Pollard and Sag and which indicates the constituent structure. In particular, pay attention to which words first have to project to phrases before they can be combined syntactically with other signs.
2. Indicate at each phrasal node in your description which schema (1–6) of the IMMEDIATE DOMINANCE PRINCIPLE describes the phrase.
3. Make clear which identities there are between the HEAD values and between the MARKING values of the signs in the sentence by adding the necessary tags to your description.
4. Add a short description of the SUBCAT list to each sign. Make sure to indicate all identities of elements between different SUBCAT lists.

**Exercise 3. [4 points]**

Sketch the relevant parts of the lexical entries of *tend* and *try*, and use the data in (1) and (2) to justify your decisions.

1. (a) Peter tends to annoy Mary.  
(b) = Mary tends to be annoyed by Peter.  
(c) \* Peter tends it.  
(d) It tends to rain.  
(e) There tends to be trouble in Berlin.
2. (a) Peter tries to annoy Mary.  
(b) ≠ Mary tries to be annoyed by Peter.  
(c) Peter tries it.  
(d) \* It tries to rain.  
(e) \* There tries to be trouble in Berlin.