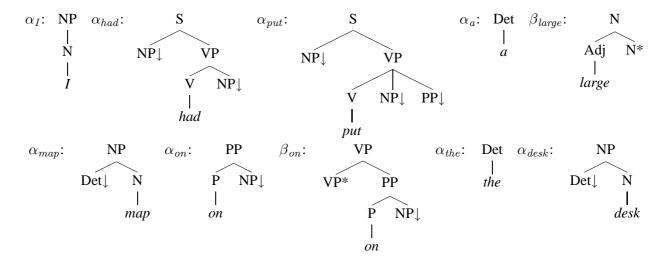
Syntactic Theory WS09-10 Test Exam

Exam Length: 120 minutes (No reference material shall be used during the exam)

- 1. List three types of adjoining constraints in tree-adjoining grammar.
- 2. Consider the f-structures below. For those f-structures that are not well-formed, state which principle is violated:

- 3. What is an existential constraint? Give and briefly explain an example.
- 4. Explain why, according to some syntacticians, phrase structures should not be part of a syntactic representation.
- 5. What corresponds to HPSG's head feature principle in LFG? How is this formalized?
- 6. From a formal point of view, what does an HPSG signature consist of? Name the two key formal components of a signature.
- 7. What are the two ways of introducing slashed elements when treating the unbounded dependency constructions in HPSG?
- 8. With the given TAG, try to analyze the following sentences (draw the derived tree and derivation tree)

- (1) I had a large map on the desk.
- (2) I put a large map on the desk.



9. Consider the following PS-rules and c-structure:

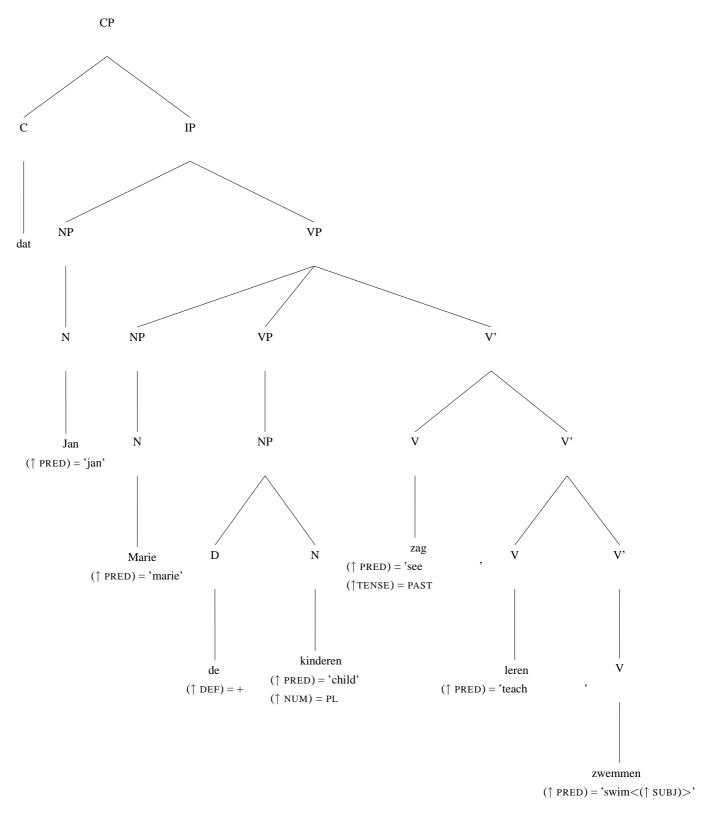
$$\begin{array}{ccc} CP & \rightarrow & C & & IP \end{array}$$

$$IP \quad \ \to \quad \ NP \qquad \quad VP$$

$$VP \quad \rightarrow \qquad (NP) \qquad \ (VP) \qquad \ (V')$$

$$V' \quad \to \quad V \qquad \qquad (V')$$

$$NP \rightarrow (D) N$$



This c-structure represents the following (subordinate) sentence:

- ...dat Jan Marie de kinderen zag leren zwemmen.
- ...that Jan Marie the children saw teach swim.
- '...that Jan saw Marie teach the children to swim'
 - (a) Complete the lexical entries (including predicate values!) for *zag* (saw) and *leren* (teach), so that they correctly capture functional or anaphoric control (use English to test whether the verbs are raising or equi)

- (b) Provide the syntactic correspondences in the c-structure. Make sure all nodes are annotated appropriately
- (c) Provide the f-structure of the sentence
- (d) Annotate the PS-rules, making sure they could also capture the following sentences:
 - ...dat Jan Marie de kinderen leerde zien zwemmen.
 - ...that Jan Marie the children taught see swim.
 - '...that Jan taught Marie to see the children swim'
 - ...dat Jan Marie Paul de kinderen zag helpen leren zwemmen.
 - ...that Jan Marie Paul the children saw help teach swim.
 - '...that Jan saw Marie help Paul teach the children to swim'

Tip: start with the first given sentence, and then see whether additions or changes are required to capture the other two sentences

- 10. For the following sentence, determine whether the verb "keep" is an equi- or raising verb. Briefly explain why. And draw an HPSG analysis for the entire sentence.
 - (3) Mary keeps working hard.