

Head-Driven Phrase Structure Grammar

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1. Head-Subject-Complement Schema

This ID schema allows head to combine with all of its complements and its subject at the same time. The basic structure of the resulting phrase is as follows:

$$\left[\begin{array}{l} \text{SYNSEM} \mid \text{LOC} \mid \text{CAT} \mid \text{VAL} \\ \\ \text{DTRS} \\ \textit{head-subj-comp-struct} \end{array} \left[\begin{array}{l} \text{SUBJ} \quad \langle \rangle \\ \text{COMPS} \quad \langle \rangle \\ \text{SPR} \quad \langle \rangle \\ \\ \text{HEAD-DTR} \quad \text{word} \\ \text{SUBJ-DTR} \quad \text{list}(\text{sign}) \\ \text{COMP-DTR} \quad \text{list}(\text{sign}) \end{array} \right] \right]$$

Use this schema to give an HPSG analysis of the following German sentence:

- (1) Trinkt Mary Whisky?
drink-3sg Mary-nom whisky-acc
'Does Mary drink whisky?'

Give lexical entries for the verb and both nouns, incorporate them into the schema above, and show how the HFP, ValP and SemP interact to give us a more fully specified AVM for the phrase.

Briefly comment on the following points:

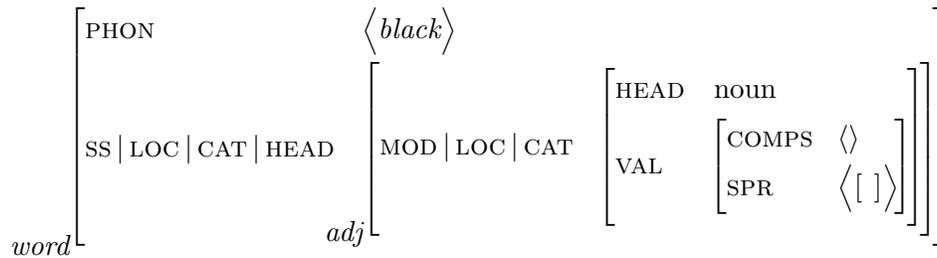
- (a) Could we assign a structure to this sentence using the Head-Complement and Head-Subject rules instead?
(b) How can we block the corresponding sentence in English?

(2) *Drinks Mary whisky?

(Hint: In which cases shall we need this ID schema in English? What extra constraints should be applied? Try to use the head features which we haven't discussed in details so far.)

2. Attributive adjectives

We assumed that the lexical entries for attributed adjectives (e.g. "black" in "the black coffee") have the following (simplified) structure



Briefly discuss the following:

- (a) The $\left[\text{SPR} \quad \langle [] \rangle \right]$ requirement on the modified \bar{N} is too restrictive (i.e. the grammar undergenerates). Give examples of grammatical phrases that would not be licensed by assuming this lexical entry.
- (b) Suggest some possible solutions to this problem