

Grammatikformalismen

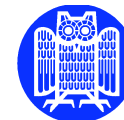
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Head-Driven Phrase Structure Grammar (HPSG)

Introduction – Part VIII –



Unbounded Dependency Constructions

Examples of UDCs:

- (1) *Wh*-questions
 - a. Who_{*i*} did the aliens abduct _____{*i*}?
 - b. Kim asked [how many eggs]_{*i*} Sandy wanted _____{*i*}.
- (2) Topicalization
[Someone like Sandy]_{*i*}, I wouldn't trust _____{*i*} with my money.
- (3) *It*-clefts
It was Kim who_{*i*} the aliens abducted _____{*i*}.
- (4) Relative clauses
 - a. The people who_{*i*} I'm waiting for _____{*i*} are late.
 - b. Kim found what_{*i*} Sandy was hiding _____{*i*}.

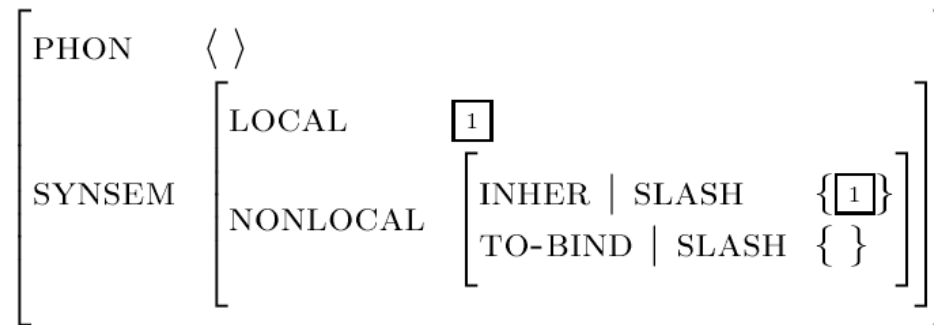
In Transformational Grammar, analyzed as instances of *wh*-movement (\bar{A} -movement to [Spec,CP]). Gazdar (1981) showed that UDCs can be handled non-transformationally, using complex categories.

Filler-gap structures

(5) John, Mary adores _____{*i*}.

The analysis of (strong) UDCs in P&S 94 (Ch. 4) assumes the presence of a **trace** at the “bottom” of the dependency:

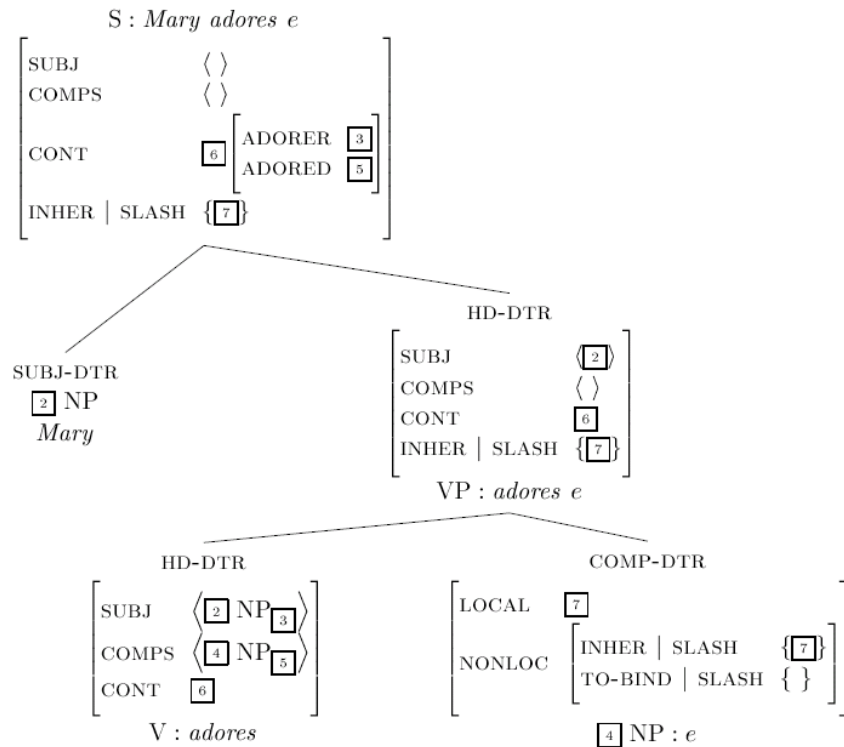
(6)



Filler-gap structures (cont.)

Trace can have any kind of LOCAL value, and this is copied into the INHER | SLASH set. The contents of the INHER | SLASH set are passed up the tree via the NONLOCAL Feature Principle (to be formalized below). As shown below, trace appears as the NP complement of *adores* in (5).

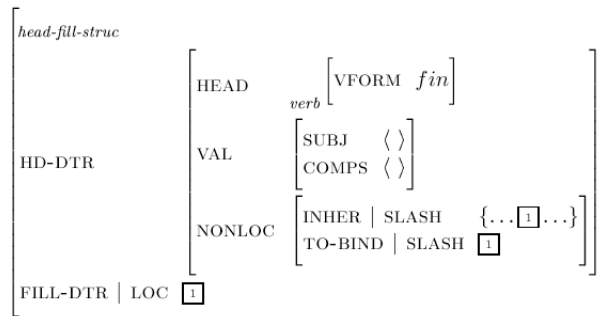
(7) Structure of the VP in sentence (5)



Filler-gap structures (cont.)

At the top of the tree, the dependency is discharged via the Head-Filler Schema. This is stated as a constraint on the type *head-filler-structure*, a subtype of *construc*:

(8)

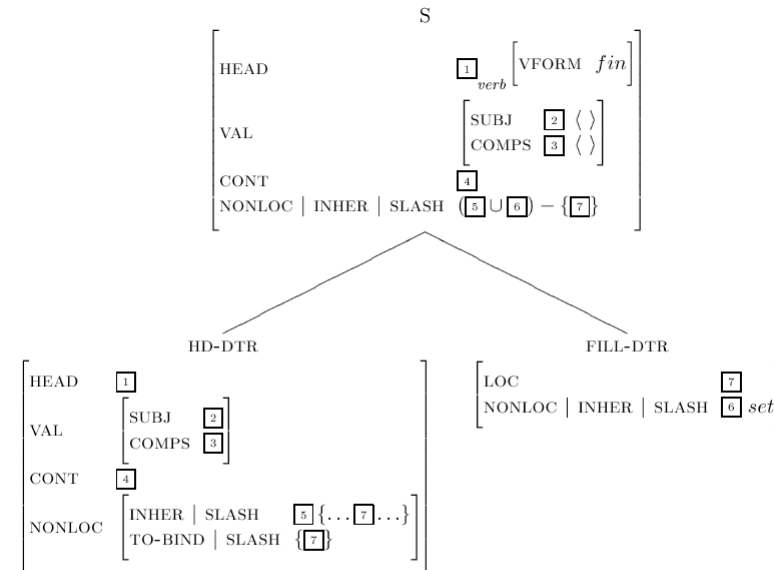


The head daughter is a finite VP with empty valence lists. Its INHER | SLASH set contains a *local* object that is token identical to the single member of its TO-BIND | SLASH set. This *local* object is furthermore token identical to the LOCAL value of the filler daughter.

A head-filler phrase must satisfy all the constraints we have seen so far, in particular the HFP, ValP, and SemP. In addition, it satisfies the NONLOCAL Feature Principle:

- (9) For each NONLOCAL feature F^1 , the INHERITED | F value of the mother phrase is the union of the INHER | F values of all the daughters, minus the TO-BIND | F value of the head daughter.

- (10) Head-filler phrase, tree notation

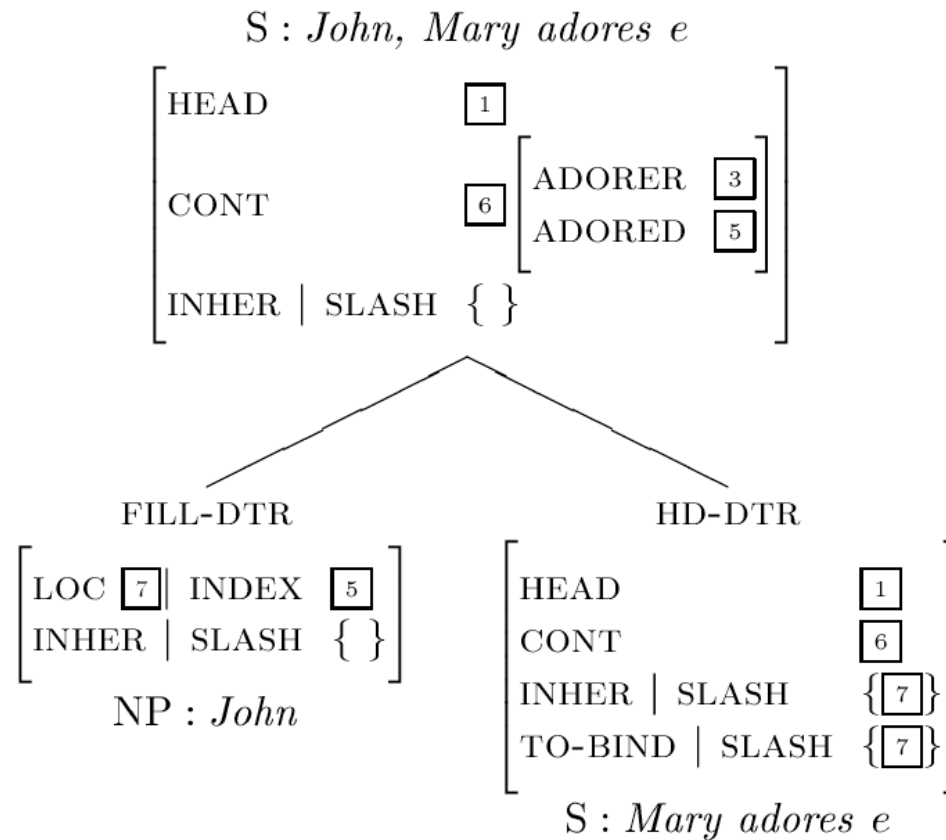


Note: The head daughter's nonempty TO-BIND | SLASH set is freely instantiated. I.e., there is no constraint other than the Head-Filler rule requiring it to be there. Also, it may be desirable to add the requirement [FILL-DTR | INHER | SLASH : { }] to the rule as stated in (8).

¹We have seen only one: SLASH. The other two are QUE, used for interrogative *wh*-constructions, and REL, used for relative clauses.

Filler-gap structures (cont.)

(11) Structure for sentence (5)



References

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