

# On adverbial or autonomous PP complements in German

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## Governed PPs

- Prototypical PP complements are headed by *governed prepositions* (which cannot be replaced by other prepositions with the same meaning, and have a weak meaning if they have a meaning at all).
  - Governed PP complements are obligatory.
  - Governed prepositions cannot be replaced by near-synonymous prepositions.
  - Governed prepositions have a weak meaning if at all.

(1) Er freute sich **auf** das Spiel.  
he looked-forward REFL on the game  
'He looked forward to the game.'

## Autonomous PP complements

- Autonomous PP complements combine properties of governed prepositions with properties of adverbial modifiers.
  - They cannot be omitted.
  - They are headed by autosemantic prepositions.
  - They are related to certain verb classes (**stative locatives**, as e.g. *liegen* (to be located), *sich befinden* (to reside), *hängen* (to hang) to tower (Engl.), as well as **process predicates with path component**).
- (2) Ein Schimmer lag **über** dem gesamten Bild.  
a gleam lay above the whole picture  
'The whole picture was gleaming.'
- (3) Sie ziehen maschinell eine Sprengschnur **durch** den Abschnitt.  
they distend mechanically a detonating cord through the section  
'They distend a detonating cord through the section by use of a machine.'

## Properties of autonomous PP complements

- Omission of the PP complement leads to ungrammaticality.
  - (4) a. \*Ein Schimmer lag.
  - b. \*Sie ziehen maschinell eine Sprengschnur.
- The prepositions can be modified (and hence are autosemantic).
  - (5) a. **Nahezu über dem gesamten Bild** lag ein Schimmer.  
almost above the whole picture lay a gleam  
'The picture was glistening almost completely.'
  - b. **Quer durch den Abschnitt** wird eine Sprengschnur gezogen.  
across through the section PASS-AUX a detonating cord pulled  
'They pulled a detonating cord right across the section.'
- Please note the topicalizations in (5)!

## Properties of autonomous PP complements

- Autonomous PP complements are subject to the one-per-sent constraint.
  - Governed PPs are exempt from the one-per-sent constraint (which presumably follows from the fact that the semantic relation of a governed PP is not determined by P but by the governor of P).
- (6) a. **Auf der Party** freute er sich **auf die Verabredung**.  
on the party looked-forward he REFL on the date  
'At the party, he looked forward to the date.'
- b. \***Über dem gesamten Bild** lag ein Schimmer **über dem Rahmen**.  
above the whole picture lay a gleam above the frame

## Scope and scrambling

- Understanding a further property of autonomous PP complements requires some consideration of scope and dislocation (scrambling, topicalization) in German.
    - Object quantifiers in German require either **topicalization** or **scrambling** to allow **wide scope readings** (cf. Frey 1993, Kiss 2001, Sauerland and Elbourne 2002).
    - Governed PPs behave like NP objects of transitive verbs in this respect, (7) is unambiguous, while (8) is ambiguous.
- (7) Jeder Mann freut sich auf eine Verabredung.  
every man looks-forward REFL on a date  
'Every man looks forward to a date.' ✓**EA**, \***AE**
- (8) Auf eine Verabredung freut sich jeder Mann.  
on a date looks-forward REFL every man  
'Every man looks forward to a date.' ✓**EA**, ✓**AE**

## Scopal variance and prominence scales

- Kiss (2001): Scopal ambiguity arises if a quantifier  $Q_1$  can be more prominent than a quantifier  $Q_2$  on one scale, while  $Q_2$  is more prominent than  $Q_1$  on another scale.
- This may happen if  $Q_1$  is more prominent than  $Q_2$  in terms of syntactic configuration but less prominent in terms of positions on ARGUMENT STRUCTURE (ARG-ST).

(7) Jeder Mann freut sich auf eine Verabredung.  
every man looks-forward REFL on a date  
'Every man looks forward to a date.'  $\sqrt{AE}, *E\sqrt{A}$

(8) Auf eine Verabredung freut sich jeder Mann.  
on a date looks-forward REFL every man  
'Every man looks forward to a date.'  $\sqrt{EA}, \sqrt{EA}$

- The subject has been topicalized in (7). It occupies a more prominent position than the object both in terms of configuration and of ARG-ST, where the subject is located to the left of the object.
- The object has been topicalized in (8). It is **less prominent** on ARG-ST, but occupies a **more prominent** position than the subject in the syntactic configuration.

## The scope of autonomous PP complements

- With autonomous PP complements wide scope object quantification becomes possible without ostensible scrambling (or topicalization) of the complement!

(9) Sie zogen eine Schnur **durch jeden Abschnitt**.  
they pulled a cord through every section  
'They pulled a cord through every section.'  $\sqrt{EA}, \sqrt{EA}$

(10) Ein Schimmer lag **über jedem Bild**.  
a gleam lay above every picture  
'Every picture was listening with a gleam.'  $\sqrt{EA}, \sqrt{EA}$

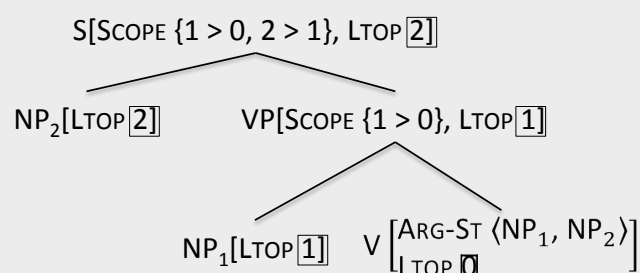
## Scope in Minimal Recursion Semantics

- We assume that ambiguous scope emerges, if a quantifier can either select its *scope argument* from its syntactic sister or from a less prominent element of the argument structure on which the quantifier occurs.
- In Minimal Recursion Semantics (Copestake et al. 2005, Kiss 2001), mismatches between syntactic structure and ARGUMENT STRUCTURES are treated by a disjunctive HANDLE constraint
  - The SCOPE argument of the quantifier is either identified with the *label* of the syntactic sister of the quantifier, or
  - with the *label* of a quantifier that appears in less prominent position on the same ARG-ST.
- **A mismatch can only occur if dislocation has taken place** (without dislocation, the least prominent quantifier on ARGUMENT STRUCTURE is also the syntactically least prominent element).

## Scope in Minimal Recursion Semantics

- Wide scope analysis of a scrambled quantifier
  - The quantifier  $NP_1$  takes the LTOP of its sister as its SCOPE.
  - The scrambled quantifier  $NP_2$  takes the LTOP of its sister as its SCOPE (the LTOP being the LTOP of  $NP_1$ ).

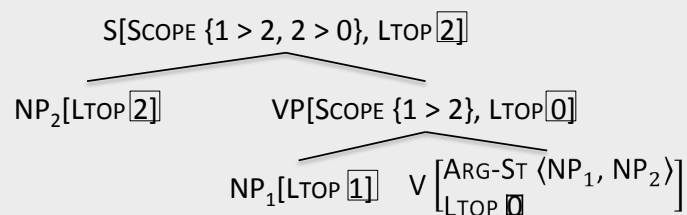
(11) Wide scope of scrambled object quantifier,  $1 > 0$  &  $2 > 1$ , i.e.  $2 > 1 > 0$



## Scope in Minimal Recursion Semantics

- The LTOP of the resulting phrase will be the LTOP of the semantic head, if the quantifier, however, selects a less prominent co-argument as its SCOPE.
  - In these cases, the LTOP of the semantic head will be the LTOP of the non-quantificational daughter of the phrase.

(12) Narrow scope of scrambled object quantifier,  $1 > 2$  &  $2 > 0$ , i.e.  $1 > 2 > 0$



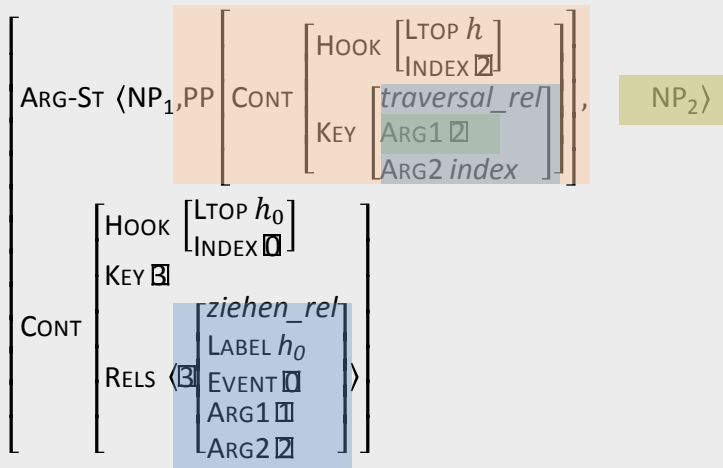
- (The LTOP of S in (13) is indeed 2, which may sound counterintuitive. The *Tree Condition* of Copestake et al. (2005) rules out MRS structures that may take up 2 subsequently.)

## The grammar of autonomous PP complements

- Autonomous PPs do only occur with certain predicates.
  - We assume that autonomous PPs are true syntactic arguments of certain (verbal) predicates, and hence are specified on their ARGUMENT-STRUCTURE.
- Autonomous PP complements are headed by full-fledged autosemantic prepositions with intersective semantics.
  - We assume that autonomous PP complements **are not subordinated semantically to the head**, but are combined semantically by intersective modification.
- The respective predicates do not allow arbitrary autonomous PP complements.
  - We assume that the governing predicate selects the KEY (i.e. core semantic contribution) of the complement.
- Autonomous PPs allow wide scope interpretations without ostensible scrambling.
  - We assume that autonomous PPs involve scrambling of the NP object, and consequently, that **the PP occupies a more prominent position on ARG-ST than the object in (9) or even the subject in (10).**

## A lexical representation

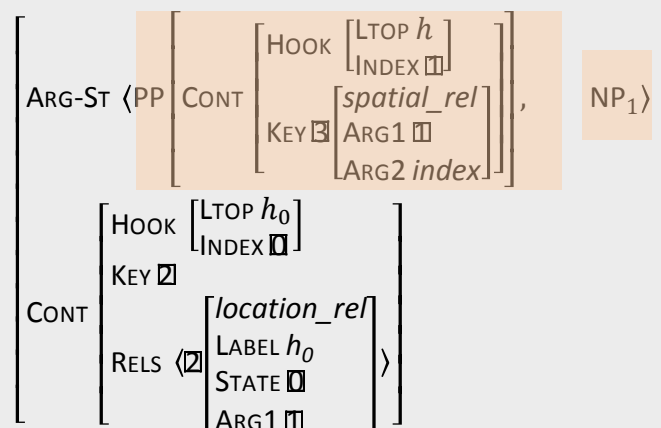
(13) ziehen



(9) Fritz zieht eine Stein (gegen/jeden/den Ast/Wand).  
Fritz throws stones (against/to/at the wall)

## A lexical representation

(14) liegen



## Empirical corroboration of a controversial conclusion

- A PP preceding an NP is often classified as marked, but both orders are equally judged with autonomous PP complements (cf. (15a) below to (9), (15b) to (10)).
  - NPs generally appear to the left of PPs.
  - More prominent XPs appear to the left of less prominent XPs.
- There is a lack of scope ambiguity if the PP is realized to the left (and hence above) the NP-object (for transitives) or subject (for intransitives).

(15) a. Sie zogen durch jeden Abschnitt eine Schnur.  $\sqrt{A\bar{E}}, *E\bar{A}$   
b. Es lag über jedem Bild ein Schimmer.  $\sqrt{E\bar{A}}, *A\bar{E}$
- There is scope interaction between the autonomous PP complement and the NP complement in (9), but no such interaction can be observed between an autonomous PP complement of a transitive verb and the *subject*.

(16) Ich sah, dass jeder Mann die Schnur durch einen Abschnitt zog.  $\sqrt{E\bar{A}}, *A\bar{E}$   
I saw that every man the cord through a section pulled

## Empirical corroboration of a controversial conclusion

- Intransitive verbs with autonomous PP complements do not passivize.
    - The *Passive Lexical Rule* (Pollard and Sag 1994:121f.) affects only transitive predicates – but this analysis applies to English only and cannot be maintained for German, where impersonal passivization is ubiquitous.
    - Yet passivization in German requires that the input structure provides a subject in first position of ARG-ST; thus raising verbs, subjectless predicates, and object-experiencer psych-verbs do not passivize.
- (17)a. Eine Schnur wurde durch jeden Abschnitt gezogen.  
a cord PASS-AUX through every section pulled  
b. \*Über jedem Bild wurde gelegen.  
above every picture PASS-AUX laid



## Summary

- We assume that autonomous PP complements are more prominent than at least one other element on the same argument structure.
  - If there is only one other element, the autonomous PP is the most prominent element on the argument structure.
- Autonomous PP complements do only occur with certain verb classes, and hence are syntactically selected by these classes.
- While the semantics of the PP complement is constrained by the verb, the PP's semantics is not a proper part of the verb's semantics.
  - Autonomous PPs retain their status as intersective modifiers.
  - They do not intersect with the event variable provided by the verb, but with an individual variable provided by another argument of the verb.