The Processing Domain of Aspectual Coercion

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How “Lexical” is Lexical Aspect?

- We talk about “achievement verbs”, “activity verbs” etc. but consider (1) - (3)
  3. Den ganzen Tag erreichte der Bergsteiger keinen Gipfel.

- Semanticists define lexical aspect in terms of VPs or even whole sentences (e.g. Dowty 1979)
- Challenge for incremental aspectual interpretation: do (2) and (3) involve temporary semantic mismatch?

A theoretical account of incremental aspectual interpretation: insert a coercion operator whenever a type mismatch occurs, for instance in (2):

\[
\text{The whole day reach (achieve)} \quad \text{whole day reach (achieve), x,y)}
\]

- Introducing a coercion operator should cause processing difficulty at the verb
- A theoretical alternative is to assume a rather big processing domain
- Is lexical aspect computed before the verb has received its arguments?

Design of the Study

Exp. 1a) The adverbial modifies a complete verb argument structure

(4) "Der Rentner fand den Schlüssel zwei Stunden lang unter dem Tisch. (for 2h)
(5) Der Rentner fand den Schlüssel in zwei Stunden unter dem Tisch. (in 2h)
(6) Der Rentner fand den Schlüssel vor zwei Stunden unter dem Tisch. (2h ago)

- (4) expresses an aspectual mismatch, (5) involves aspectual coercion (achievement→accomplishment), (6) is an aspectual control
- German has relatively free word order making it possible to test adverbial modification of incomplete verb argument structures

Exp. 1b) The direct object the keys has been extraposed

- "Der Rentner fand zwei Stunden lang unter dem Tisch den Schlüssel. (for 2h)
- (8) Der Rentner fand in zwei Stunden unter dem Tisch den Schlüssel. (in 2h)
- (9) Der Rentner fand vor zwei Stunden unter dem Tisch den Schlüssel. (2h ago)

Exp. 1b) The heavy subject NP appears in extraposed position

- "Der Schlüssel fand zwei Stunden lang ein überaus rüstiger Rentner. (for 2h)
- (10) Den Schlüssel fand in zwei Stunden ein überaus rüstiger Rentner. (in 2h)
- (11) Den Schlüssel fand vor zwei Stunden ein überaus rüstiger Rentner. (2h ago)

Pretesting Grammaticality and Testing Possible Continuations

- Are readers able to predict a sensible continuation, e.g. a bare plural?
- If that’s the case, incremental interpretation might look like late interpretation!
- 60 subjects were asked to continue:
  - (SV-Adv) Der Rentner fand den Schlüssel zwei Stunden lang unter dem Tisch.
  - (Adv-V) zwei Stunden lang fand den Schlüssel.

- If they couldn’t find a continuation they had to judge the sentence as nonsense
even offline, readers weren’t able to provide a sensible continuation

A potential problem: the processing of a marked word order might delay the computation of lexical aspect
- Judgments for controls with ago-adverbials
- 20 participants rated the 30 items used in the online experiments
- We included 40 standardized fillers of five categories (see Featherston, in press)
- Cat. A and B are fully grammatical
  - Extrapoosed objects were rated best!

Conclusion

- Effects of aspect only show up when the verb has received its arguments
- Lexical aspect is a sentential phenomenon - the bare verb/VP has no aspect
- Where does aspect come from? Features might be projected (Verkuyl 1986)