

## A one-event analysis for German eventive *mit*-modifiers

Abstract verbs like German *beenden* ‘to end’, *eröffnen* ‘to open’ or *unterbrechen* ‘to interrupt’ can be modified by a *mit* ‘with’-phrase containing an event noun in the internal argument position, cf. (1a).

- (1) a. Der Anwalt beendete die Verhandlung mit einem Plädoyer.  
 The lawyer ended the trial with a summation.  
 b. Das Plädoyer beendete die Verhandlung.  
 The summation ended the trial.

Although these eventive *mit*-modifiers (EMMs) participate in the instrument alternation pattern as described by Levin (1993), cf. (1b), they cannot be analyzed as instrumentals for sortal reasons, cf. Maienborn & Schäfer (2011). The puzzle EMMs pose is the relation between the events described by the matrix verb (*end the trial*) and the modifier (*summation*): Are EMM-constructions to be analysed as referring to one or to two events?

A two-event analysis has been proposed by Rapp (1997). She assumes that the two events are linked causally and that EMMs can be replaced by sentential *indem*-modifiers. However, a causal analysis is incompatible with the so-called Anscombe-Thesis according to which in the construction “ $\phi$  by  $\pi$ ing” both  $\phi$  and  $\pi$  are made true by one and the same act, cf. Bennett (1994).

In my talk, I will present a formal one-event analysis of EMM-constructions which adopts insights from Bücking’s (2013) work on *indem* ‘by’. Albeit the understanding of EMMs can benefit from Bücking (2013), there exist some essential differences between the EMMs and the *indem*-modifiers apart from the mere categorial contrast (phrasal vs. sentential modifier). Crucially, EMMs have two syntactic base positions, a VP-adjunct (2a) and a V-adjunct position (2b), cf. Maienborn (2001) on event-external and event-internal modification.

- (2) a. Der Artist hat mit dem Balancieren über das Hochseil die  
 The performer aux<sub>perf</sub> with the balancing on the tightrope the  
 Vorstellung eröffnet.  
 show opened.  
 b. Der Artist hat die Vorstellung mit dem Balancieren über das  
 The performer aux<sub>perf</sub> the show with the balancing on the  
 Hochseil eröffnet.  
 tightrope opened.  
 (3) a. Das geschah zentimeterweise.  
 This happened by the centimetre.  
 b. Das geschah feierlich.  
 This happened ceremonially.

These two base positions can be detected by syntactic diagnostics (e.g. the focus projection test or the modifier’s position relative to indefinite w-pronouns, cf. Frey & Pittner (1998)), but also by data from anaphoric accessibility. (3a) – a predication over the event description contributed by the EMM in (2) – is felicitous only as a continuation of (2b), but not of (2a). (3b), by contrast, is a predication over the matrix verb’s event description and an appropriate continuation of both (2a) and (2b).

I will argue that the interpretational contrast in (2)-(3) emerges from a difference in the typing-information of the resulting compositionally active event variable. To represent this

difference, I will use Asher’s (2011) Type Composition Logic, as it allows to encode fine-grained type information via an additional variable  $\pi$  inserted into each lexico-semantic representation. Specifically, the one-event analysis is based on the assumption of one event viewed as having two aspects. In Asher’s approach, this can be modelled via a dual aspect entity of  $\bullet$ type. A  $\bullet$ type expresses two conceptualizations of one and the same entity and yields a morphism that grants the accessibility of each constituent aspect for further predication. In our case, the meaning contribution of EMMs in both readings is to introduce a  $\bullet$ type variable with two aspect types and the relation *o-elab* that holds between the  $\bullet$ type variable and a variable typed as one of the constituent aspects. The two aspects are the fine-grained types of the two involved event descriptions. Depending on the syntactic position, the  $\bullet$ type-variable is subject to different binding options: The external reading, cf. the representation in (4a), patterns with *indem*-modifiers. It passes on the simply typed event variable  $e'$  contributed by the matrix predicate, and the complexly typed variable  $e$  is bound existentially. In the internal reading, cf. (4b), the EMM immediately affects the typing of the variable  $e$  introduced by the matrix predicate. This results in a re-typing of the compositionally active variable as a  $\bullet$ type. (The relevant differences are underlined in (4)). Note that for reasons of simplification the subject is assumed to be base-generated outside the VP.

- (4) a.  $\llbracket \text{mit dem Balancieren über das Hochseil die Vorstellung eröffnen} \rrbracket =$   
 $\underline{\lambda e' \lambda \pi \exists! b \exists! s \exists e. \text{show}'(s, \pi) \wedge \text{open}'(e', s, \pi * \text{ARG}_1^{\text{open}} : \underline{\text{EVTY}}) \wedge}$   
 $\text{open}'(e, s, \pi * \text{ARG}_1^{\text{open}} : \underline{\text{BALANCING-O-T} \bullet \text{OPEN-SHOW}}) \wedge \text{o-elab}'(e', e, \pi)$   
 $\wedge \text{balancing-o-t}'(b, \pi) \wedge \text{o-elab}'(b, e, \pi)$
- b.  $\llbracket \text{die Vorstellung mit dem Balancieren über das Hochseil eröffnen} \rrbracket =$   
 $\underline{\lambda e \lambda \pi \exists! s \exists! b. \text{show}'(s, \pi) \wedge \text{open}'(e, s, \pi * \text{ARG}_1^{\text{open}} : \underline{\text{BALANCING-O-T} \bullet \text{OPEN}})}$   
 $\wedge \text{balancing-o-t}'(b, \pi) \wedge \text{o-elab}'(b, e, \pi)$

The analysis explains the peculiar accessibility data in (2)-(3): (3a) predicates over the modifier aspect. As long as this aspect is a constituent type of the compositionally active variable, it is accessible for the following predicate via a morphism from the  $\bullet$ type to the relevant aspect. This is the case only in the internal reading (2b), whereas the predicate fails to find an appropriate anchor in the external reading (2a) because the  $\bullet$ type variable and, correspondingly, the relevant aspect is existentially bound. In contrast to (3a), (3b) predicates over the matrix event aspect, which is active both in the internal reading – as a constituent type – and the external one – as simple event type.

To sum up, my one-event analysis of EMMs combines the ontological insights condensed in the Anscombe-Thesis with a detailed inquiry into the syntactic peculiarities of EMMs to implement a compositional account for the two ways of specification of abstract verbs by *mit*-phrases.

## References

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