

Coercion and underspecification integrated: The state-event-ambiguity of aspectual verbs

Piñango & Deo (2016) propose a mereological modeling for the combinatorics of aspectual verbs (AVs) such as *begin* or *end* that is founded on a radically underspecified lexical semantics and opposes the prominent coercion account of AVs (e.g. Pustejovsky 1995, Asher 2011). More precisely, AVs establish a mereological relation between their subject and complement such that the subject is a small initial, final or medial part of the complement in some mereologically structured domain, cf. (1). Both arguments are integrated via a buffer function, f' and f_c , respectively, that maps the arguments to an axis on which the mereological relation holds.

$$(1) \quad \llbracket \text{end} \rrbracket = \lambda x_\tau \lambda y_\sigma : \mathbf{struct-ind}_{f_c}(x). \exists f'[f'(y) <_{\text{small-init}} f_c(x)]$$

The approach covers the wide range of combinatorial configurations AVs appear in, cf. the German data in (2). They combine with arguments not only from the eventive domain (2a), as claimed by Pustejovsky (1995), Egg (2003) and Asher (2011), but also with times (2b), informational objects (2c), as well as paths (2d). Moreover, it explains why AVs come with a state-event-ambiguity by connecting event readings to an eventive axis and stative readings to all other sortal domains.

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| <p>(2) a. Ida eröffnet die Party.
Ida opens the party.</p> | <p>c. Das Fazit schließt das Paper ab.
The conclusion finishes the paper.</p> |
| <p>b. Ein Bier beendet die Woche.
A beer ends the week.</p> | <p>d. Eine Schranke unterbricht den Weg.
A barrier interrupts the path.</p> |

However, the account comes with several theoretical and empirical shortcomings. First, it hinges on a generalization to the worst case, as configurations that do not necessitate a meaning enrichment feature buffer functions for the integration of arguments. Second, genuinely compositional meanings cannot be distinguished from enriched ones. Third, the thematic relation between the subject and the aspectual verb in cases like (2a) is lost. Forth, meaning enrichment is not restricted, although e.g. Asher (2011) argues that the kind of meaning enrichment available varies within the class of AVs, cf. the English pair *stop an apple* and *finish an apple* with the meanings ‘stop the motion of an apple’ and ‘stop eating / peeling / ... an apple’, respectively.

In my talk, I will propose an account of the combinatorics of AVs with their arguments that features both an underspecification and a coercion mechanism and is based on Asher’s Type Composition Logic (TCL). I follow Jackendoff (1991) in claiming that AVs refer to boundaries. They are underspecified w.r.t. the sortal domain to which a boundary belongs. The sortal domain of the boundary is determined by the sortal properties of the complement to the extent that both have to agree in sortal type. In a stative variant as (2b), the subject referent is the boundary of the complement. In an eventive variant as (2a), the aspectual verb event itself is a boundary of the complement.

My account builds on two crucial observations. First, the stative and eventive interpretations come with bigger combinatorial differences than anticipated by Piñango & Deo (2016). Eventivity tests (cf. Maienborn 2015) show that the state-event-ambiguity is accompanied by a sortal difference in the referential argument of the aspectual verb. Eventive readings are Davidsonian events, stative readings Kimian States. Consequently, the arguments are integrated differently depending on the type of referential argument. Subjects of eventive readings are genuine agents (2a), whereas subjects of stative readings are bearers of a property, namely of being a boundary in some sortal domain (2b-d). The selectional restrictions as well as the range of meaning adjustments that the readings allow for vary.

The eventive reading is restricted to eventive complements and licenses event coercion in case the complement does not meet this restriction. The stative reading integrates its complement exclusively via regular composition (selecting for vectors, i.e. one-dimensional, directional and bounded entities) and allows for meaning adjustments in the subject position only. The \pm compositional integration of the subject depends on the semantic type of the complement. Whereas the subjects in (2c) and (2d) can be composed with the verb directly by virtue of pertaining to the same sortal domain as the complement, the subject in (2b) requires the interpolation of some timespan that is associated with the beer, e.g. the time that was occupied by drinking the beer. It goes without saying that these discrepancies in the combinatorial behavior are a huge challenge for a unified lexical semantics of AVs.

Second, there are combinatorial divergences within the group of AVs. Most prominently, this concerns the above mentioned fine-grained, lexically dependent adaptive properties of the complement coercion in the eventive case. This is a challenge when it comes to pinning down the division of labour between meaning components coming from particular lexical items and meaning components that are characteristic for the whole verb group.

The means of choice in order to face these two challenges is a combination of two lexical components. On the one hand, underspecified lexical entries for AVs store all combinatorial information that is specific for a particular AV, like *beenden/end*'s restriction that only telic events ($\tau\epsilon$) can be interpolated, cf. (3). On the other hand, lexical templates are applied to the lexical entries in order to generate stative (4) and eventive readings (5). They store all information that is characteristic for the whole verb group, like the type of referential argument that comes with the reading, the introduction of an agent in the eventive case and the restriction that the complement and the subject of the stative reading have to pertain to one sortal domain and a suitable argument will be interpolated if necessary. This division of labour is independently motivated by the fact that the state-event-ambiguity is a frequently occurring phenomenon in the lexicon that requires a systematic account, cf. Rothmayr (2009) for other state-event-ambiguous verb groups.

- (3) $\llbracket \text{beenden/end} \rrbracket = \lambda\Psi\lambda b\lambda\pi. \Psi(\pi * \text{ARG}_2^{\text{boundary}} : \text{VECTOR} \sqcup \text{EV} - \tau\epsilon(\text{TY}^+(\Psi)))$
 $(\lambda y\lambda\pi'. \text{boundary}_{fin}'(b, y, \pi' * \text{ARG}_1^{\text{boundary}} : \text{BND}(\text{TYPE-OF}(\Psi))))$
- (4) **Stative Template:** $\lambda\mathcal{P}:\text{BND-VECTOR-REL}\lambda\Omega\lambda\Phi\lambda s:\text{STATE}\lambda\pi_1. s \approx \Phi(\pi_1 * \text{ARG}_2^{\mathcal{P}}:\text{TYPE-OF}(\Omega) - \delta(\text{TY}^+(\Phi)) \sqsubseteq \text{TYPE-OF}(\Omega))(\lambda x\lambda\pi_2. \mathcal{P}(\pi_2)(x)(\Omega))$
- (5) **Eventive Template:** $\lambda\mathcal{P}:\text{BND-EV-REL}\lambda\Omega\lambda\Phi\lambda e:\text{EV}\lambda\pi_1. \Phi(\pi_1 * \text{ARG}_1^{\text{agent}}:\text{AG})$
 $(\lambda x\lambda\pi_2. \mathcal{P}(\pi_2)(e)(\Omega) \wedge \text{agent}'(x, e, \pi_2))$

My account handles the shortcomings identified in the mereological account. First, it treats meaning enrichment as an emergency mechanism if regular composition fails, cf. the TCL-style polymorphic types. Second, it therefore distinguishes compositional from conflict-based, enriched meaning constitution. Third, the thematic relation between the subject of eventive cases and the AV is represented thanks to the agent-predicate in the eventive template. Forth, the account allows for lexical restrictions on the interpolated material, cf. the specific polymorphic type for *beenden/end*.

Asher, N. (2011) *Lexical Meaning in Context*. Cambridge University Press. **Egg, M. (2003)** Beginning novels and finishing hamburgers: Remarks on the semantics of *to begin*. *JoS* 20, p. 163–191. **Jackendoff, R. (1991)** Parts and boundaries. *Cognition* 41, p. 9–45. **Maienborn, C. (2015)** Events and states. To appear in: Truswell, R. (ed.) *Handbook of Event Structure*. Oxford University Press. **Piñango, M. & Deo, A. (2016)** Reanalyzing the complement coercion effect through a generalized lexical semantics for aspectual verbs. *JoS* 33, p. 359–408. **Pustejovsky, J. (1995)** *The Generative Lexicon*. MIT Press. **Rothmayr, A. (2009)** *The Structure of Stative Verbs*. Benjamins.