

## Towards a new typology of meaning alternations at the lexicon-discourse interface

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Natural language makes use of numerous types of meaning alternations such as coercion, metonymy and metaphor. A comprehensive typology of these phenomena and the underlying (post)-compositional operations is still needed. To account for different readings, semantic theories have proposed rich lexical representations and/or different mechanisms of composition (cf. Bierwisch, 1983; Copestake & Briscoe, 1995; Jackendoff, 1996; Pustejovsky, 1995). Interestingly, recent language comprehension studies (in which event-related potentials were recorded) point towards a new classification of meaning alternation that departs from traditional semantic accounts in certain respects. We will present these data and discuss their implications for the language architecture.

In a nutshell, at least three different mechanisms involved in meaning alternation should be distinguished when compared to the ‚basic‘ uses of the respective expressions. The pattern that emerges groups container-for-content metonymy (*Sue drank the glass*), salient-object-for-person metonymy (*The waitress realizes that the ham sandwich wants to pay*) and nominal metaphor (*Paul is a hyena*) together as one class that must be distinguished from content-for-container metonymy (*Tom put down the beer*) and producer-for-product metonymy (*Louisa read Mankell*) on the one hand and complement coercion (*Fred began the book*) on the other hand.

Type A (no cost):	content-for-container producer-for-product
Type B (early effect; N400):	complement coercion
Type C (late effect; Late Positivity):	container-for-content salient-object-for-person

Starting from Schumacher (2013), it has been claimed that the difference between content-for-container and container-for-content/salient-object-for-person metonymy can be attributed to lexical and discourse operations respectively. Crucially, Type C alternations require modification of the discourse representation structure, as a result of which the original ontological type is no longer available. In contrast, in Type A alternations the two ontological types can be accessed freely in lexical representation. Further support for this differentiation between type selection and reference shifting comes from coordination and copredication tests, in which the former but not the latter allows copredication (cf. Copestake & Briscoe, 1995; Nunberg, 1995). These tests are not unproblematic but in combination with the electrophysiological data, they complement the picture. For content-for-container metonymy, the coordination test reveals that both meanings remain accessible (1), which we attribute to a computationally less costly meaning selection operation (cf. also (2) for producer-for-product metonymy). In contrast, the container meaning of „glass“ in (3) is no longer available (cf. also (3)), suggesting that the referent’s discourse representation was adjusted.

- (1) Tom put down the beer and accidentally knocked it over shortly afterwards.
- (2) Shortly after Louisa had read Mankell, she met him at a party.
- (3) #Sue drank another glass and dropped it.
- (4) #The ham sandwich was in a hurry and got burned.

Additional evidence for the notion of a discourse-based operation targeting referents comes from research on metaphor. Nominal metaphors - but critically not verbal metaphors (Lai et al., 2009) - evoke a late effect like Type C alternations. We propose that in these cases, the respective referent is not shifted but rather deleted, which is illustrated by the unavailability of „hyena“ as antecedent in (5).

- (5) Paul is a hyena, he / #it is aggressive.

Complement coercion shows a different pattern and engenders (earlier) processing demands (Kuperberg et al., 2010), which we consider an operation on lexical representation that makes available an event type but does not require referent reconceptualization.

- (6) Shortly after Louisa had read Mankell, she met him at a party.

The different processing patterns indicate that meaning is constructed dynamically involving at least two stages. Initially, rich lexical representations may facilitate meaning selection (with distinct processing demands; cf. Type A/B). In cases where alternate types are not retrievable via simple meaning selection, extra demands are exerted when e.g. a functional quale provides a variable that has to be promoted to independent discourse status, resulting in referential accommodation and reconceptualization, or when a referent has to be transferred into a property and deleted from discourse representation (Type C). The observed time-course profiles highlight the dynamics of concept retrieval and reconceptualization at the lexicon and discourse.

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