

Sneezing the napkin off the table: **Mechanisms of valency coercion in eye-tracking**

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A central tenet of cognitive-linguistic approaches to grammar is that grammatical constructions have meanings that go beyond the lexical items that occur in them (Goldberg 1995). Evidence for this view comes particularly from examples such as (1), in which a non-motion verb (*sneeze*) combines with the caused-motion construction and is consequently “coerced” into a motion reading.

(1) Sally sneezed the napkin off the table. (Goldberg 1995: 6)

Such cases of “constructional coercion” or “valency coercion”, in which speakers resolve a conflict between the semantics of the verb and the construction, have been widely discussed from a theoretical perspective (e.g., Audring & Booij 2016; Boas 2011; Lauwers & Willems 2011). On the other hand, psycholinguistic studies of the processing mechanisms and the time course that underlie valency coercion are so far lacking (Busso, Perek & Lenci 2021: 293). To address this research gap, we present what may be the first experimental study of how speakers comprehend instances of valency coercion in real time.

In our experiment, 50 English native speakers read naturalistic context passages such as (2) and answer comprehension questions about them. The critical section (see the highlighted part) consists of a caused-motion sentence that either contains (i) a prototypical caused-motion verb (*pushed*); (ii) a coerced verb (*sneezed*); or (iii) an anomalous control verb (*arrived*). To assess processing, we measure participants’ eye movements at the regions after the verb: the noun phrase, the prepositional phrase, and the following words as a potential spillover region.

(2) Frank swallowed a red chili pepper at the dinner table. Tears streamed from his eyes, and he reached blindly for his napkin. Unable to control himself, **Frank pushed/sneezed/arrived his napkin off the table** and knocked over a few of the wine glasses.

In terms of our results, we predict that participants will read the noun phrase (*his napkin*) more slowly in the coerced condition than in the prototypical condition, given that they encounter a combinatorial conflict at this point. At the prepositional phrase (*off the table*) and the spill-over region, however, participants’ processing in the coerced condition should be faster than in the anomalous condition, assuming that speakers integrate the verb and the construction semantics into a plausible sentence meaning. To further examine when and how speakers resolve the initial semantic conflict, we will analyze regressive eye movements, i.e., cases in which speakers look back to an earlier sentence region. We expect more regressions in the coerced condition than in the prototypical condition, suggesting that speakers incur an additional processing cost as they reanalyze the sentence.

Our results will complement the previous theoretical literature with an empirical, processing-based account of valency coercion. Moreover, given that coercion can be regarded as an instance of linguistic creativity (Bergs 2018), our findings can shed light on some mechanisms of creative language use, while also illustrating the use of eye-tracking techniques in investigating coercion and related phenomena.

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