The status of alternations in construction grammar: evidence from a sorting task experiment

Languages are replete with pairs of constructions that fulfill similar functions; such pairs have received much attention in the domain of argument structure under the name of alternations; e.g., the dative alternation: *Mary gave John a book* vs. *Mary gave a book to John*. In construction grammar, much research aims to contrast variants of an alternation and characterize them as largely independent constructions. However, the alternation itself is rarely discussed and often given little theoretical status, if any. In this paper, we present evidence from language comprehension suggesting that alternations should be given more theoretical importance.

Seeking empirical evidence for constructions, Bencini & Goldberg (2000) presented subjects with sixteen sentences obtained by crossing four verbs (*throw*, *get*, *slice*, *take*) with four constructions (transitive, ditransitive, caused-motion and resultative), and asked them to sort the sentences into four groups. They found that many subjects do sort by constructions, suggesting that verbs are not the sole determinant of sentence meaning and that "constructions are psychologically real linguistic categories that speakers use in comprehension" (*ibid*: 649-650).

In our study, we used the same experimental paradigm with a different set of sentences. Specifically, instead of contrasting verbal vs. constructional sorting, we investigated whether the presence of possible alternation relations has an influence on the way speakers categorize sentences. We used two pairs of constructions: (i) the ditransitive and *to*-dative constructions, related by the aforementioned dative alternation, and (ii) the caused-motion and *with*-applicative constructions, related by the locative alternation (e.g., *Shannon sprayed perfume on Helen* and *Shannon sprayed Helen with perfume*). Importantly, these four sentence types instantiate only three constructions from the perspective of construction grammar, since *to*-datives are arguably metaphorical uses of the more general caused-motion construction, relying on the construal of transfer of ownership as physical transfer (cf. Goldberg 1995: section 3.4.2). Moreover, the verbs we used with the *to*-dative allow a pure change of location interpretation (e.g., *throw*), which makes these sentences more clearly similar to the other caused-motion sentences.

We asked twenty-three native speakers of English to sort the sentences into three groups according to their overall meaning. In a purely constructional account, we would expect speakers to sort *to*-dative and caused-motion sentences together; strikingly, no single subject produced such a group. About two-third of them (15 of 23) merged either the ditransitives with the *to*-datives (6) or the caused-motion sentences with the *with*-applicatives (9). Post-experiment interviews confirmed that they indeed relied on some aspect of event-level semantics shared by the alternating constructions (caused change of possession and caused change of location).

Our results show that the semantic extensions of formally different constructions can largely overlap, which suggests that constructional generalizations are not always stronger than generalizations involving alternations, as Goldberg's (2002) *surface generalization hypothesis* seems to imply. We conclude that viewing alternations as a higher level of generalization in the grammar is a thought-worthy (and yet under-studied) avenue of research, which certainly calls for more empirical evidence.

Bencini, G. & Goldberg, A. (2000). The contribution of argument structure constructions to sentence meaning. *Journal of Memory and Language*, 43(4), 640–51.

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