Frequency and register-specificity as determinants of constructional choice

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Speakers' choice of a particular argument structure construction is influenced by many different factors: among others, these include basic construal parameters such as participant inclusion and perspective, semantic and pragmatic specializations of different candidate constructions, their relative degree of entrenchment, effects of genre and register as well as 'mechanistic' factors such as syntactic priming and alignment.

The present study investigates the relevance of two of these factors – register-specificity and frequency (as a proxy of entrenchment) – in an experiment on the grammatical encoding of caused motion events. The investigation capitalizes on the peculiar properties of child-directed speech (CDS) as a specialized register where speakers seek to keep their coding choices particularly simple and easy to process (Snow 1972, Pine 1994). The question is: what guides speakers' tacit assessments of processing difficulty in such interactions (with respect to the two factors investigated)? Do they prefer formulations that are maximally explicit and semantically transparent? Or rather those that are particularly frequent and hence cognitively routinized? How are conflicts between the two factors resolved?

In the experiment, participants were asked to retell the contents of short cartoon video clips that showed events of caused motion. Regarding the first factor, it was assumed that an expanded coding of the depicted scenes in terms of separate clauses for each sub-event was more explicit, more redundant and more transparent in terms of overall form-function alignment than a possible alternative involving the caused motion construction (Goldberg 1995) which compacts the two sub-events into a single clause:

(1)   a.   Spike punches Sylvester in the face, sending Sylvester flying through the paper wall.
        b.   Spike punches Sylvester in the face, and Sylvester flies through the paper wall.
                (causation lexically implicit)
        c.   Spike punches Sylvester through the paper wall.
                (causation and motion lexically implicit)

Regarding the second factor, target verbs' proportionate frequency of caused motion-complementation in the British National Corpus was taken as a rough indication of the construction's degree of entrenchment in connection with a given verb. Verbs (or, more exactly, stimulus clips that had been found to reliably cue these verbs in the description task in a series of pretests) were chosen such that they were either (i) highly unlikely, (ii) neither particularly unlikely/likely, or (iii) highly likely to occur with the construction. Participants then narrated the contents of video clips containing events denoted by these verbs to (i) adults, (ii) children, and (iii) the humanoid robot iCub (Sandini, Metta & Vernon 2007; this condition was added to investigate whether the hypothesized simplification effect carries over to other types of linguistically asymmetrical interactions).

The results point to an interaction between frequency and the predicted register-specific preference for explicitness: although there is a significant tendency to avoid compacted coding (using the caused motion construction) in CDS, the effect is neutralized if caused motion complementation is highly common for the verb. This suggests that a construction's degree of entrenchment in connection with a given verb influences speakers' grammatical selection process even in contexts where the construction is otherwise disfavoured.

References
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