

Emergent Constructions

A case study in modelling the composite structure in a non-modular non-discrete grammar of the STEAL event frame.

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This study takes the usage-based model (Hopper 1987, Langacker 1987) and its descriptive implications and asks how we can quantifiably and predictively account for language structure given this model. Following the arguments of Boas (2003), Glynn (2004) and Schmid (2020), the approach here adopts the premise that grammatical constructions should be identified in an entirely bottom-up manner. Moreover, instead of form-meaning pairs, constructions must be understood as combinatory clusters of formal and semantic characteristics of use. In order to test the feasibility of approaching grammatical constructions in these terms, the study examines a set of forms used to express stealing in contemporary English.

Since it is not possible to search corpora for concepts, such as STEAL, the first step is to establish a list of all the possible lexemes / expressions used to express this concept. This is achieved by consulting reference dictionaries and thesauruses, establishing a quasi-exhaustive list of potential expressions for the concept. The ensuing 'keywords' are in turn used to retrieve all STEAL occurrences from the LiveJournal Corpus of English (Speelman & Glynn 2005). The data are manually examined to check for issues of polysemy / random false positives. Only occurrences where the *actus reus* is unquestionably 'taking' without consent and the *mens rea* is one of intention are retained. The relative frequency of each lexically derived STEAL expression is in turn used to calculate and extract proportionally representative sub-samples of each expression. In total, approximately 2000 occurrences are retrieved.

This usage-based and lexical approach reveals several lexico-syntactic patterns, including the already established alternation between rob-steal described by Goldberg (1995). The ROB-STEAL constructions are instantiated by a wide range of predicates, but only a few are frequent (cheat, nick, take, steal, rob). However, preliminary investigation largely corroborates the findings of Glynn (2004) identifying several constructional variants on the above forms as well a 'family' of other constructions that profile the path of the event [GO + *off with*] and [GO + *away with*]. The lexically determined subsamples of instances of STEAL are then submitted to a behavioural profile analysis (Dirven *et al.* 1982, Geeraerts *et al.* 1994, Divjak & Gries 2006). Care is taken to annotate both formal variation and semantic variation independently. The annotation schema is derived from the attribute matrix of the FrameNet entry for STEAL and is supplemented with more fine grained semantic variables such as valence (degree of positivity / negativity motivating the theft), arousal (degree of impact upon the injured party), both operationalised with 9-point Likert scales and subjected to multiple coding.

The quantitative analysis of the resulting behavioural metadata is expected to reveal complex patterns where various semantic features cluster with sets of formal features. Exploratory complexity reduction techniques, such as correspondence analysis, will first be used to identify clusters of form-meaning combinations, interpretable as non-discrete 'constructions'. The significance of these feature combinations will then be determined using loglinear analysis. Any significant sets of combinations of formal-semantic pairings will be interpreted as emergent, entirely bottom-up, evidence for functionally motivated language structure / grammatical constructions.

References

- Boas, Hans C. 2003. *A Constructional Approach to Resultatives*. Stanford: CSLI.
- Dirven, René, Louis Goossens, Yves Putseys & Emma Vorlat. 1982. *The Scene of Linguistic Action and its Perspectivization by speak, talk, say, and tell*. Amsterdam: John Benjamins.
- Divjak, Dagmar & Gries, Stefan Th. 2006. Ways of trying in Russian: Clustering behavioral profiles. *Corpus Linguistics and Linguistic Theory* 2. 23–60.
- Glynn, Dylan. 2004. Constructions at the crossroads The place of construction grammar between field and frame. *Review of Cognitive Linguistics* 2. 197–233.
- Geeraerts, Dirk, Stefan Grondelaers & Peter Bakema, 1994. *The Structure of Lexical Variation. Meaning, naming and context*. Berlin: Mouton de Gruyter.

- Goldberg, Adele. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: UCP.
- Hopper, Paul. 1987. Emergent grammar. *Berkeley Linguistics Society*, 13. 139–157.
- Langacker, Ronald 1987. *Foundations of Cognitive Grammar*. Vol. 1. *Theoretical prerequisites*. Stanford: Stanford University Press.
- Schmid, Hans-Jörg. 2020. *The Dynamics of the Linguistic System. Usage, conventionalization, and entrenchment*. Oxford: OUP.
- Speelman, Dirk & Dylan Glynn, LiveJournal Corpus of British and American English. University of Leuven.