

Martin Hilpert. *Constructional change in English. Developments in allomorphy, word formation, and syntax.* Cambridge: Cambridge University Press. 2013. 233 pp. ISBN 978-1-107-01348-3. Reviewed by **Matthias Eitelmann**, Johannes Gutenberg University Mainz.

Diachronic linguistics has recently experienced a new impetus from Construction Grammar approaches to language change (for an overview of diachronic research in this field see Traugott and Trousdale 2013: 39–40). In this context, Martin Hilpert's research monograph on constructional change in English provides a theoretically-informed as well as empirically-grounded account of language change in allomorphy, derivational morphology and syntax. The case studies contained in this book thus also consider levels of language structure below the level of syntax (so far the main focus of attention in diachronic Construction Grammar) and thereby contribute to the theoretical discussion of constructions and their abstract representation in the language users' minds. What is more, the book expertly highlights the insights gained by corpus linguistic methodologies for theory-building and the statistical evaluation of diachronic corpus data.

In the introductory chapter, the author concisely sketches the theoretical preliminaries of his Construction Grammar approach to language change, defining constructional change as follows:

Constructional change selectively seizes a conventionalized form-meaning pair of a language, altering it in terms of its form, its function, any aspect of its frequency, its distribution in the linguistic community, or any combination of these. (p. 16)

Based on the notion of constructions as postulated by Goldberg (2006: 5), who defines constructions as not fully predictable form/function-mappings or as sufficiently entrenched structures due to their high frequency, Hilpert's definition of constructional change addresses the multi-faceted pathways that change can take, not only along the lines of form or function, but also with respect to frequency and social variables. As this conceptualization of constructional change

is quite close to treatments of grammaticalization, Hilpert points out that constructional change is in his view not coextensive with grammaticalization (pp. 9–14). Thus, constructional change involves aspects such as lexicalization, word order changes, or developments in derivational morphology that a narrow conceptualization of grammaticalization would not be able to take into account. Grammaticalization, on the other hand, may ultimately lead to paradigm formation. This implies more abstract generalizations on a macro-level that go beyond the scope of constructional change as conceptualized in the present book. Another aspect in which constructional change and grammaticalization differ concerns the role of frequency: while frequency changes can be argued to inevitably trigger constructional change and result in the evolution of constructional sub-schemas, grammaticalization processes may but need not be accompanied by changes in frequency. Finally, constructional change is differentiated from language change in general: language change of a non-constructional nature comprises, for instance, systemic phonological change or the wholesale loss of inflectional morphemes.

Chapter 2 contains, besides a brief description of the various diachronic corpora used, an introduction to four corpus linguistic methodologies that are applied in the three case studies presented. These prove to be especially valuable in an analysis of constructional change. The first of these techniques is Variability-based Neighbour Clustering (VNC), which serves to segment a large diachronic dataset into smaller temporal sequences by grouping linguistic tokens together that share similar characteristics. Consequently, crucial stages within a long-term development can be identified that set them apart from the preceding or succeeding ones. The second technique outlined is binary logistic regression together with its more refined version of mixed-effects modelling, both of which help to uncover determinants of linguistic variation and reveal to what extent these factors work synergetically or antagonistically in the language user's choice of functionally equivalent variants. Not only do these methods assess the respective strengths of the individual determinants that may either promote or constrain a linguistic choice, they also single out factors that turn out to have no significant impact. Third, Hierarchical Configurational Frequency Analysis (HCFA) explores a dataset by similarly taking a wide array of influential factors into consideration and identifying configurations that occur more often than would be expected if the language user's choice of variants were up to chance. In this way, the technique classifies subtypes of a given construction with their respective characteristic features. When performed on a diachronic dataset, this method makes apparent the different subtypes of a construction, and shows which one of them is newly evolving at a given point in time and which ones are losing

ground or disappearing altogether. Lastly, the fourth method presented is Multi-dimensional Scaling (MDS), which maps the entities under analysis in a grid and thus visualizes, through the spatial differences between them, how similar or different they are from each other. Again, this technique helps to detect patterns in a multivariate data set and, if conducted with data sets at different points in time, provides an insight as to how subtypes assimilate or diversify in the long run. Each of the aforementioned methodologies is exemplified by a linguistic phenomenon, which makes the account very accessible.

The first case study in Chapter 3 deals with constructional change on the level of allomorphy. It discusses the development of the first and second person possessive determiners in which the original variants *mine* and *thine* come to compete with the n-less variants *my* and *thy* from early Middle English times onwards, until the latter successfully oust the former by ca. 1700. Although short-lived, the allomorphic variation between *my/mine* and *thy/thine* is of particular interest from a Construction Grammar point of view because it raises the question at which level of abstraction a construction such as possessive determiners is mentally represented. More precisely, the issue at hand is whether the ultimate adoption of the n-less variant is to be perceived as two separate developments in the first and second person pronouns, thus pointing to two distinctly represented constructions, or whether the change of first and second person possessive determiners constitutes a unified development, thus rather hinting at a single, more schematic construction.

Hilpert investigates this question by extracting possessive determiner phrases from the Penn Parsed Corpus of Middle English and Early Modern English and fitting a generalized linear mixed-effects model to the data. Interestingly, while certain factors such as the phonological shape of the following word (i.e. beginning with a vowel, consonant or /h/), stress patterns or the frequency of the collocation into which a possessive determiner enters, are found to have significant effects, albeit of different strengths and varying greatly across time periods, the factor first person vs. second person turns out to be insignificant, both in isolation and in interaction with other variables. In other words, the results actually point to one single constructional change, with speakers clearly forming a generalization over first and second person possessive determiners. In this respect, Langacker's cognitive linguistic view of language as "compris[ing] conventionally sanctioned regularities (*at all levels of generality*)" (1991: 535, my emphasis) receives solid support from the empirical approach adopted in this study; in the case of possessive determiners, the findings point towards a schematization comprising both first and second person, which, as Hilpert emphasizes (p. 88), do not form a natural class after all.

Chapter 4 focusses on the rise and fall of what Hilpert calls the *V-ment* construction (p. 112) as an example of constructional change in word-formation, a phenomenon that occupies a grey area between grammaticalization and lexicalization. Entering the English language as a dependent element through a considerable number of French loanwords from the 13th century onwards, the suffix *-ment* soon also came to be attached to native words of Germanic origin, thus establishing itself as a novel means of deriving complex words. However, this initially promising development of a new productive word formation schema is already in sharp decline as early as the beginning of the 17th century, leading to its almost complete non-productivity in present-day English.

In order to obtain a more comprehensive understanding of the *V-ment*-construction that goes beyond an undifferentiated perception of a rise-and-fall development, Hilpert's study draws on data from the OED, which is segmented into five crucial periods through a VNC analysis based on the respective productivity of the *V-ment* construction. The measure of productivity adopted is expanding productivity, which correlates the number of *-ment*-hapaxes with the overall number of hapaxes, thus giving an impression of the extent to which the *-ment*-hapaxes contribute to the enlargement of the lexicon at a given point in time. The *V-ment* formations extracted from the OED are then analyzed via a diachronic HCFA, with the data being classified according to the following five variables:

- i. etymological source of the *V-ment* instantiation: borrowed in its entirety from French (*advancement*) or derived (*renewment*),
- ii. stem type: verbal (*entertainment*), nominal (*scholarment*) or adjectival (*funniment*),
- iii. branching structure: binary (*[puzzle – ment]*), left-branching (*[[be – devil] – ment]*) or right-branching (*[non – [attach – ment]]*),
- iv. transitivity: transitive (*punishment*) or intransitive (*unfoldment*) and
- v. semantic type: action (*conspirement*), result (*indebtment*), means (*instrument*) or place (*apartment*).

The picture that emerges from the HCFA reveals several subtypes of the *V-ment* construction that constitute “productivity islands” (p. 148) at various periods. While the borrowed types with verbal and nominal stems are the only significant ones up until the end of the 14th century, from 1400 onwards prototypical *V-ment*-formations derived from a native verbal source take the largest share, a type that continues to play a role until the end of the 19th century. Also, in the

third VNC-period from 1400–1649, an innovative formation pattern arises in the form of adjectival derivations, which, unlike verbal derivations, have no counterpart in borrowings and are therefore genuinely English. Another innovation materializes in the fourth VNC period from 1650–1899, as right-branching formations enter the picture, a type that is different from the other *-ment*-formations in that it is based on a pre-existing derivation. This type is still relatively productive in the fifth period from 1900–2000, i.e. even after the other *V-ment*-formations have decreased in usage as a productive schema. As Hilpert's study shows, the empirical method allows for the detection of subschemas within the development and thus for a more elaborate reconstruction of the decline than previous research of the suffix (e.g., Anshen and Aronoff 1999; Bauer 2001) has been able to provide.

Constructional change on the level of syntax is the topic of Chapter 5 which investigates the concessive linkers *although*, *though*, *while* and *if* in parenthetical constructions. Concerning the emergence of concessive parentheticals, two hypotheses are generally proposed, for which the present study seeks to find quantitative evidence. The first hypothesis posits that concessive parentheticals with *if* and *while* are basically analogy formations modelled on parenthetical structures with *if* and *while* used in their original conditional and temporal senses respectively:

- (1) a. While young, I was taught that anger was bad. (temporal)
- b. While young, Reed is rated as a top lawyer. (concessive) (p. 181)

If the analogy hypothesis were correct, concessive parentheticals and temporal/conditional parentheticals would be expected to behave similarly with respect to criteria such as their positioning (initial, medial or final) or syntactic structure. A sample analysis of 5,000 random hits for each conjunction extracted from the TIME corpus reveals that no such similarities can be detected, a finding that casts serious doubt on the hypothesis that temporal or conditional parentheticals constitute the source for concessive parentheticals.

The other hypothesis that seeks to explain the origin of concessive parentheticals holds that full clauses with *although* and *though* have undergone a syntactic reduction process resulting in parenthetical structures:

- (2) a. Although it was rare, family violence did occur. (full concessive clause)
- b. Although rare, family violence did occur. (concessive parenthetical) (p. 23)

The data analysis for *although* and *though*, again based on a random set of 5,000 hits for each, is in favour of the reduction hypothesis. The positioning of concessives and the choice of syntactic structure display similar proportions for full clauses and parenthetical clauses, which renders it highly plausible that the latter originate from reduction processes. Additionally, the empirical evidence points to the fact that reduced clauses have undergone the process of subjectification to a large extent, displaying epistemic and speech act concessivity. Thus, by paying meticulous attention to constructional subschemas and their distinctive characteristics, the quantitative method provides a reliable means of verifying or rejecting qualitative assessments of how parenthetical structures emerged.

Another question pertaining to concessive parentheticals from a Construction Grammar perspective concerns their mental representation, an issue that is explored in a second corpus study. The crucial point here is whether concessive parentheticals involving the four conjunctions under investigation are individual members of a construction family, each of them with their own characteristic features, or whether they share striking similarities, thus allowing for “the generalization of a macro-constructional schema with one open slot for the different conjunctions and another for different syntactic structures that may follow” (p. 198). Furthermore, from a diachronic point of view, it is interesting to see to what extent constellations changed in the course of time. An MDS analysis sheds light on these questions by evaluating data covering a period between 1860 and 2000 extracted from the Corpus of Historical American English. As becomes apparent when comparing the plots of the four conjunctions mapping their syntactic profiles, *although* and *though* are closer to one another than *while* and *if*. While this basic configuration remains fairly stable in the 150 years surveyed, *though* and *although* become even more similar over time, in contrast to *while* and *if* that develop more marked differences. In this regard, then, empirical support is provided for the construction family hypothesis, with concessive parentheticals *although* and *though* comprising what Traugott (2008: 236) would refer to as essentially one ‘meso-construction’ internalized in the speakers’ minds, besides *while* and *if* that seem to have a cognitive representation of their own.

Chapter 6 briefly summarizes the main aspects of the book, closing with the remark that ‘constructional change’ as a technical term is indeed called for as it “may encourage researchers to move beyond well-known phenomena of change and to consider developments that do not quite fit into established lines of inquiry” (p. 211f.). As the phenomena investigated do not readily lend themselves to a discussion in terms of grammaticalization or even fall outside the scope of the grammaticalization framework, Hilpert’s study amply illustrates

that the discussion of these cases in constructional terms as pattern-forming schemas offers a way of taking note of the many idiosyncrasies accompanying the observed developments without having to bend pre-existing conceptions or definitions.

All in all, Hilpert's well-argued research monograph marks an extremely valuable addition to diachronic Construction Grammar approaches and is highly stimulating for researchers and advanced students of linguistics interested in the investigation of language change from a perspective that combines qualitative and quantitative approaches. Hilpert lucidly highlights the merits of the empirical method for the detection of subschemas in constructions and the level of abstraction at which speakers make constructional generalizations. In this respect, the author demonstrates how diachronic Construction Grammar can profit from making use of statistical methodologies and thus sets the benchmark for future empirically-driven studies.

References

- Anshen, Frank and Mark Aronoff. 1999. Using dictionaries to study the mental lexicon. *Brain and Language* 68: 16–26.
- Bauer, Laurie. 2001. *Morphological productivity*. Cambridge: Cambridge University Press.
- Goldberg, Adele E. 2006. *Constructions at work: The nature of generalization in language*. Oxford: Oxford University Press.
- Langacker, Ronald W. 1991. *Foundations of cognitive grammar*. Vol. 2: *Descriptive applications*. Stanford: Stanford University Press.
- Traugott, Elizabeth C. 2008. Grammaticalization, constructions and the incremental development of language. Suggestions from the development of degree modifiers in English. In R. Eckhardt, G. Jäger and T. Veenstra (eds.). *Variation, selection, development: Probing the evolutionary model of language change*, 219–250. Berlin and New York: Mouton de Gruyter.
- Traugott, Elizabeth C. and Graeme Trousdale. 2013. *Constructionalization and constructional change*. Oxford: Oxford University Press.