

Publication status: This preprint has not been published elsewhere.

Diachronic Construction Grammar: challenges and new directions

Elizabeth Closs Traugott, Graeme Trousdale

<https://doi.org/10.1590/SciELOPreprints.16647>

Submitted on: 2026-06-26

Posted on: 2026-07-03 (version 1)

(YYYY-MM-DD)

Diachronic Construction Grammar: Challenges and new directions

Elizabeth Closs Traugott and Graeme Trousdale

Author affiliations

Elizabeth Closs Traugott: Stanford University, USA

Graeme Trousdale: University of Edinburgh, UK

Orcid IDs

Elizabeth Closs Traugott: <https://orcid.org/0000-0002-1016-7803>

Graeme Trousdale: <https://orcid.org/0000-0002-4148-166X>

Abstract

This literature review provides a summary of some key issues in current research on Diachronic Construction Grammar (DCxG). We focus on four areas of concern: grammaticalization, innovation and its relation to change, network structure, and the use of quantitative methods. In the discussion of grammaticalization, we outline some of the ways in which DCxG and grammaticalization overlap, and ways in which they differ. We address new directions in research in grammaticalization, and how this connects to different conceptualizations of grammar. In terms of innovation and change, we look at the role of individual speakers as agents in change, and the distinction between individual behaviour and community grammars. The section on networks looks at the architecture of the constructional network, particularly in relation to vertical and horizontal links, and network structure in Diachronic Construction Morphology. Finally, the section on quantification explores the importance of frequency effects for both the entrenchment of patterns in the individual and the conventionalization of patterns in communities.

Keywords: Diachronic Construction Grammar, grammaticalization, innovation, change, networks, quantification.

§1 Introduction

Construction Grammar has been approached from a historical perspective since Israel (1996). It began to be theorized as Diachronic Construction Grammar in Noël (2007), Bergs and Diewald (2008, 2009), Hilpert (2013), Traugott and Trousdale (2013), Barðdal, et al. (2015), among others. In the last decade, a variety of challenges have emerged, and new directions have been explored. Space allows us to focus on only four of these: the relationship between diachronic construction grammar and grammaticalization; the role of innovation in change; networks; and quantitative studies based on diachronic corpora.

§2 Grammaticalization

The majority of researchers who developed Diachronic Construction Grammar (DCxG) in the early years were working on the approach to language change known as “grammaticalization” (Gzn) and explored the potential connections between work on Gzn and on versions of cognitive CxG such as were developed by Langacker (1987,

1991) and Goldberg (1995, 2006). In the years that followed, both approaches to language change have evolved significantly, often mutually influencing each other.

To simplify, work on Gzn seeks to answer the question how grammatical items such as markers of tense, aspect, modality and case arise (often referred to as “grams”, see Bybee et al. 1994). This contrasts with work on DCxG work that seeks to answer the question how conventionalized form-meaning pairings (constructions) arise and change; such pairings may be of any size, even highly general schemas like the Ditransitive Construction (e.g. *Mary gave Bill a book*).

Research on Gzn until the 2010s was of two main kinds, both of which had their foundations in Meillet’s (1958[1912]) concept of Gzn as lexical to grammatical change (p. 131) or as fixing of word order (p. 147). The dominant domain of study was lexical > grammatical changes. One approach to Gzn prioritized formal properties of erosion and unidirectionality of linguistic units (often lexical) toward shorter, smaller units (see e.g. Lehmann 2015[1995]), and of more concrete to more abstract units (Heine et al. 1991). The other approach prioritized the development of grams in context, e.g. Bybee et al. (1994). Such change is typically seen as gradual and usage-based (e.g. Bybee 2010). It involves pragmatics (e.g. Hopper and Traugott 2003) and expansion of context (Himmelmann 2004).

Both types of Gzn studies address change in meaning as well as form. For example, Lehmann (2015[1995]) identifies three parameters of form change and three of meaning change, which “are theoretically interconnected and must therefore be expected to correlate” (p. 174). Heine et al. (1991) identify conceptual structures that typologically tend to give rise to grammatical forms (see further Kuteva et al. 2019). The question remains to what extent the theories overlap or diverge.

The principal ways in which studies on Gzn and DCxG overlap are that both:

- Are functional approaches,¹
- Address issues of gradual change,
- Tend to be usage-based.

Coussé et al. (2018) highlights areas of intersection between Gzn and DCxG, but the aim of the volume is to “advance our understanding of grammaticalization” (p. 1). By contrast, citing research on work on Gzn that has expanded the domain from the concept of lexical to grammatical change, Gildea and Barðdal (2023) argue that DCxG is a natural outcome of expanded concepts of Gzn and that it provides a formalism that can encompass them. Heine et al. (2025) provide a counter-argument in favour of keeping DCxG and Gzn apart.

Despite the notable areas of intersection, and the increasing convergence of the two approaches to change, there are still some differences between them. Chiefly:

¹ Somewhat surprisingly, Heine et al. (2025) tend to see DCxG as more formal than functional. But as a kind of cognitive linguistics, CxG is avowedly usage-based in outlook, and most usage-based frameworks are functional in orientation. There are always exceptions, e.g. formal approaches to Gzn like Roberts and Roussou (2003), and formal but usage-based, cognitive linguistic models of language like Word Grammar (Hudson 2007).

- Work on DCxG seeks to answer the question how constructions arise and change; such pairings may be of any size. By contrast, Gzn tends to focus on the development of grams.
- The hypothesis of unidirectionality is not privileged in DCxG but is in Gzn.
- With the exception of some work on prosody (e.g. Ward 2025), there is little research on the phonology of constructions within CxG; by contrast, morphophonological change was the main focus of early work on Gzn.
- While typology has been central to studies of Gzn, it is of more marginal importance in work on DCxG (with some notable exceptions such as Croft 2001).

A major challenge in recent years has been the question how to conceptualize “grammar.” This is a question that philosophers and linguists have asked since Greek and Roman times. But it has recently come to be a matter of new debate. Construction grammarians understand grammar as a single level of constructions with conventional, linked form and meaning properties (see e.g. Goldberg 2006, 2019). From this perspective, “discourse markers” such as *after all*, *moreover*, *by the way* are considered to be part of grammar. Their histories often exemplify lexical > functional units, but their development violates unidirectionality in traditional views of Gzn. In many cases a clause-internal element such as an adverbial comes to be used extra-clausally with a primarily discursive, pragmatic function. This has led to suggestions that the concept of Gzn be expanded to include them or, alternatively, that they are cases of “pragmaticalization” (for an assessment, see e.g. Degand and Evers-Vermeul 2015).

A radically different approach is developed by Heine and colleagues (e.g. Heine et al. (2021), Heine et al. (2025)). A dual-level linguistic structure is proposed consisting of “Sentence Grammar” (roughly, traditional syntax) and “Discourse/Thetical Grammar” (roughly, markers of discursive properties of language such as text organization, source of information, speaker attitude, and interlocutor interaction). The proposal is that units of sentence grammar can be coopted instantaneously into thetical grammar, to function as discourse markers, and may subsequently be gradually grammaticalized (fused or eroded). Traugott (2022) argues that including more pragmatic factors in DCxG allows for a mono-level account of the development of discourse markers, which can be shown by detailed textual analysis of historical texts to arise gradually on two gradients, primarily contentful > primarily pragmatic and monofunctional > multifunctional. Gzn in the traditional sense of fusion and erosion is the end-stage of the development.

Hypotheses about gradualness or instantaneity of change depend on whether the analysis is conducted with the individual or the community in mind. We turn to this question next.

§3 Innovation and its relation to change

Most usage-based theories of language change hypothesize that it starts with innovations by individual speakers in interaction with interlocutors. These speakers may be of all ages (Milroy 1992). Shifts in usage that occur in these interactions may or may not be propagated in a community and therefore may or may not lead to change understood as conventionalization (Croft 2001: 366-367, Schmid 2020: Chapter 19, Traugott 2022: 36, Trousdale and Traugott 2026: 7).

Innovation by an individual speaker is instantaneous. It occurs on the fly, in specific contexts and in specific interchanges between speakers. Replication across a community of speakers resulting in conventionalization may be gradual. So may replication across the linguistic system. At what point an innovation comes to be adopted by a community is typically not knowable, as we do not have access to all speakers in all contexts. This is particularly true when data are written, as is usual in historical work.

For the most part, work on cognitive CxG including DCxG has paid little attention to innovation because constructions are conceptualized as **conventionalized** form-meaning pairings (excepting, for example, Croft 2005). Distinctions have been made between small-scale micro-changes, usually at the level of the construct, and macro-scale changes, at the level of the construction or schema, see Hilpert 2013, 2021, Traugott and Trousdale 2013, Trousdale and Traugott 2026. In the latter, a distinction is made between constructional shifts (earlier known as “constructional changes”) and “constructionalization,” the development of conventionalized form-meaning pairings. From this perspective, individual constructions may shift in context or be assembled in new ways (e.g. Petré 2019).

Innovation by the individual speaker presents a significant challenge to DCxG thinking. This challenge has been taken up in some recent work on cognitive approaches to the role of the individual. It is the topic of a special issue of *Cognitive Linguistics* edited by Petré and Anthonissen (2020a). In their Introduction, the editors address the role of the individual in change in the context of a theory of complex adaptive systems (e.g. Beckner et al. 2009). For Petré and Anthonissen, crucial elements of complex adaptive systems are that multiple agents interact, speakers’ behavior is based on past and present interaction, which feed forward into the future, and “the structures of language emerge from the interrelated patterns of experience, social interaction and cognitive processes” (Petré and Anthonissen 2020b: 186, citing Beckner et al. 2009: 2). There is dynamicity not only in interaction between agents, “but also in the agents themselves, as their grammars and are continuously shaped by experience” (Petré and Anthonissen 2020b: 186). Key concepts in CxG that “hold great promise to help integrate the oft-neglected individual” are considered to be usage-based storage and linguistic knowledge as a network (Petré and Anthonissen 2020b: 201).

Petré and Anthonissen (2020b) exemplify “the synergy between individual and community grammars” (p. 185) with studies of the diffusion of motionless *be going to INF*, as in *I am going to explain what I mean* across the period 1650-1685, as the *be going to* future arose, and across 49 writers of the period. They also briefly exemplify correlations between changes by the correlation between “nominative and infinitive” as in *He is said to be a thief* and the prepositional passive as in *He was highly thought of*. A more detailed study of the prepositional passive is the topic of Anthonissen (2020). She shows how in some cases there is significant individual change over the life-span, that adoption of a novel pattern may occur at different ages, and that “pre-existing language habits increasingly impact the way adoption occurs” (p. 198).

The study of the role of the individual in language change has been enabled by studies of constructional networks (see §4) and advances in quantitative, especially corpus research (see §5). As represented in Petré and Anthonissen (2020a), constructional change assumes the concept of “emergent grammar” which posits that

“a grammatical structure is always temporary and ephemeral” (Hopper 2011: 26; see also Auer and Pfänder 2011; Goldberg 2019). To date, data for DCxG research on innovation by the individual has been written. Further challenges can be foreseen in extension of the research to spoken data. Since recordings of speech go back to 1877, when Thomas Eddison invented the precursor of the tape recorder, spoken data exist for over a hundred years.

§4 Networks in DCxG

As noted in §2, traditional work on Gzn has recognised that Gzn is a “cross-componential change” (McMahon 1994: 161) – the development of a gram often involves changes at the discourse, pragmatic and semantic level in terms of meaning and function, and at the syntactic, morphological and phonological level in terms of form. It is also recognised that form and meaning/function are linked in Gzn – increase in morphological dependency often goes hand in hand with loss of semantic meaning, for example. As a result, it is unsurprising that there has been some overlap between Gzn and DCxG, and that much work in the latter emerged from work in the former. Partly this is because of the internal organization of the construction: the idea that a construction is itself a network (made up of connected levels, as well as a symbolic link between form and meaning) is implicit in characterizations of constructions such as those by Croft (2001).

In recent work in DCxG, there has been extensive interest in the nature of constructional networks more generally, and in particular, how they develop, and how they change (Sommerer and Smirnova 2020). Some of this work has been connected to theoretical work in CxG that has attempted to establish a typology of links in the network of constructions, sometimes referred to as the “construct-i-con”, see e.g. Diessel (2020), Sommerer and Van de Velde (2025). Diessel’s work has proposed that links can be classified in terms of what they “connect” in the constructional network, whether internal to the construction, such as the symbolic link between a construction’s form and function, or external to the construction, such as the relation between functionally similar constructions like the English benefactive alternation, e.g. *Mary baked Bill a cake/Mary baked a caked for Bill* (Zehentner and Traugott 2020). Such associations between constructions at the same level of generality are known as “horizontal links” (Ungerer 2024; see also Lorenz 2020 for a discussion of the development of associative links in English *to*-contraction). “Horizontal” links are contrasted with “vertical” links in the network. Vertical links are connected to the notion of inheritance from more general patterns. Budts and Petré (2020) analyze how links of various kinds are subject to variation and change in the development of a subset of English auxiliaries. The relation between nodes and links is also of importance (see Flach 2020). While much of the work on network change looks at the creation of new nodes and links, there has also been some insightful work on constructional reorganization and loss, and connections between obsolescence, frequency and entrenchment (e.g. Gyselinck 2020).

An important issue in discussion of horizontal and vertical links concerns the extent to which, as a construction develops, speakers make generalizations across types to form schemas. This process of schematization was important in the constructionalization model of Traugott and Trousdale (2013) but has been called into question (e.g. Börjars et al. 2015). In part, schematization has to do with the more

general theoretical issue of exemplars and the extent to which any generalizations are made (Ambridge 2020), but it is also concerned with specific issues in relation to language change, as discussed by Hilpert (2015). Hilpert suggests that, while an analyst may make a case for significant abstraction across types, there is evidence from speaker behaviour over time that language users appear to keep generalizations quite close to instances of use. This is a view shared with other usage-based models, such as Word Grammar (Hudson 2010).

Much of the discussion in the literature on network change focuses on syntactic patterns, but the diachronic development of word-formation and inflectional morphological structures is also relevant for our understanding of the language network. An interesting question here relates to the development of morphological schemas, and the extent to which they accurately represent an individual's knowledge of words (Hilpert 2015). Discussing morphological schemas and their development, Norde and Trousdale (2023: 151) observe that links exist not just in terms of different degrees of generality in a morphological network, but also between the parts of a schema. They see this as relevant diachronically in terms of:

- Lexicalization,² which can involve the loss of links, as compounds come to be reanalysed as monomorphemic, e.g. *scir* 'shire' + *refa* 'reeve' > *sheriff*,
- partial semantic overlap between different elements in morphological schemas (such as the relation between *-th* and *-ness* in the creation of English nouns from adjectives), which differ in their productivity in different periods of English,
- changes in productivity in subschemas, e.g. changes in the frequency, function and class membership of English *(-)ish*.

Diachronic Construction Morphology (DCxM) has also demonstrated the importance of network links in understanding paradigmatic variation. The status of the paradigm in DCxM is debated, however. Norde and Morris (2018) focus primarily on links that exist between and across paradigms, for example in Dutch expressions involving diminutive prefixoids with a wide range of functions (DIM), such as *bloedje* in *bloedjeserious* 'very serious, lit. blood-DIM.serious' and *kletsje* in *kletsjenat* 'very wet, lit. splash-DIM.wet'. By contrast, Diwald (2020) focuses on paradigms as "hyper-constructions" (see further the discussion in Norde and Trousdale 2023: 152). It is also the case that some of the issues raised in work on syntactic change in the network surface in research at the morphological level (as would be expected if knowledge of language is knowledge of constructions). For example, we noted above that some research in the syntactic domain looked at constructional reorganization in the network. This issue is also addressed by Inglese and Wolfsgruber (2023) in their discussion of French morphological constructions such as *entre-V* (lit. 'between-V'). Similarly, growth and reduction in the constructional network is explored in the morphological domain by Hölzl (2023) in his study of the nominal morphology of the Tungusic languages.

Our discussion of networks in this section has looked at research that has been primarily diachronic. But exploring the shape of the constructional network has become increasingly common in research on CxG as a whole, where connections with psycholinguistics, including its experimental methods, have become paramount.

² For various readings of the term, see Brinton and Traugott (2005).

Studies of acquisition and its relation to creativity in CxG (Goldberg 2019) also have connections to historical work, especially with regard to the distinction between innovation and change (see §3). Psycholinguistic concepts such as priming and spreading activation have come to be foregrounded in work in historical linguistics as well, as they may be implicated in the spread and entrenchment of innovations in an individual mind. Spreading activation in particular is facilitated in a network model of language. But since change involves the spread of innovations across a group of speakers, we must also consider the social dimension of constructional change, as highlighted by Hilpert (2013). In variationist sociolinguistics, the spread of change – in terms of its degree of conventionalization – has been connected to the varying shapes of social networks in a given community. Again here we see the importance of nodes (individuals), links (different kinds of social bonds between speakers, such as friendships, family relations) and frequency (strong bonds develop through frequent interaction). We return to this issue briefly in discussing the Entrenchment and Conventionalization model of Schmid (2020) in the following section.

§5 Quantification in DCxG

Frequency effects are well known in usage based approaches to language including work on language change (Hilpert 2021). Frequency has also been linked to notions of productivity (Barðdal 2008). For example a morphological schema or indeed an argument structure construction may be seen to be more productive if it frequently sanctions new tokens, whereas an obsolescing construction will create few new tokens. (The correlation is not entirely precise, since some patterns with high token frequency, such as English *-ment*, are no longer productive (Hilpert 2013), but the general point holds.)

Frequency effects also have a role to play in a model of linguistic knowledge that is adjacent to DCxG, namely Schmid's Entrenchment and Conventionalization model (Schmid 2020). Particularly important here is the way in which frequency has a role to play in both entrenchment (as a reflection of individual knowledge) **and** conventionalization (as a reflection of community knowledge). Entrenchment is understood as frequency of successful use and that successful use has to be something that is individual (albeit an individual in interaction with others). Conventionalization is understood as the frequency of use in a community, so if an innovation spreads to a small number of people in the social network then it will be only weakly conventionalized. By corollary, if an innovation is not used very frequently by an individual then it is only weakly entrenched. So we can think about weak and strong entrenchment as being variable in an individual cognitive network whereas weak and strong conventionalization relates to frequency in a social network.

This distinction is important, because most work in DCxG uses corpus data to track community-level, not individual, changes. Corpora are proxies for community knowledge, and diachronic corpora provide evidence for community change over time (Petré and Anthonissen 2020a, Hilpert 2021). Notable exceptions are Anthonissen (2020) and Petré and Anthonissen (2020a), whose research tracks individual and group changes in parallel, as discussed in §3. The EMMA corpus (<https://www.uantwerpen.be/en/projects/mind-bending-grammars/emma-corpus/>) provides researchers with the opportunity to consider quantitative variation and frequency effects in both the individual and the community. As a result, we can track

changes across a group of authors in a given corpus and look at the ways in which different individuals are behaving. This insight into the patterns in individual grammars and the kinds of constraints that exist on individuals allows a comparison with how change is replicated across individuals in a community in a fixed period of time. By constructing a corpus in a particular way, it is possible to make hypotheses about individual developments and the ways in which they might spread in a community.

Quantitative research in DCxG addresses both methodological and empirical issues. Indeed, the methodology impinges on the theory. Such research makes claims about what we mean by a “construction” (as a statistical, emergent set of patterns in data). Part of the reasoning behind the methodology is the idea that understanding frequency variation in collocations will in some way give rise to understanding what a construction looks like. This is because constructions, as emergent generalizations via interaction, vary in the strength of their representation as a result of different degrees of entrenchment (as a product of frequent, successful use).

§6 Conclusion

We think the four areas of research that we have discussed reflect significant recent challenges and new directions in DCxG. While we have presented them as discrete issues, they intersect. There are other issues currently being worked on, such as intersections of DCxG with creativity (Hoffmann 2024), and contact (Boas and Höder 2025). The growing diversity of directions shows the vitality of work on DCxG.

Authors' contributions

Elizabeth Closs Traugott was responsible for the original conceptualization of the text. Both authors were responsible for the investigation, the original writing, and the reviewing and editing of the text.

Conflict of interest

The authors are not aware of any conflict of interest arising from the writing or publishing of this article.

Data availability statement

The research data is contained in the manuscript.

References

- Ambridge, Ben. 2020. Abstractions made of exemplars or ‘You’re all right, and I’ve changed my mind’: Response to commentators. *First Language* 40(5-6): 640-59.
- Anthonissen, Lynn. 2020. Cognition in construction grammar: Connecting individual and community grammars. In Peter Petré and Lynn Anthonissen (eds.), 31(2): 309-337.
- Auer, Peter and Stefan Pfänder (eds.), *Constructions: Emerging and Emergent*. Berlin: De Gruyter Mouton, 22-24.
- Barðdal, Jóhanna. 2008. *Productivity: Evidence from Case and Argument Structure in Icelandic*. Amsterdam: John Benjamins.
- Barðdal, Jóhanna, Elena Smirnova, Lotte Sommerer and Spike Gildea (eds.). 2015. *Diachronic Construction Grammar*. Amsterdam: John Benjamins
- Beckner, Clay, Richard Blythe, Joan Bybee, Morten Christiansen, William Croft, Nick Ellis, John Holland, Jinyun Ke, Diane Larsen-Freeman and Tom Schoenemann. 2009. *Language*

- is a complex adaptive system: Position paper. In Nick C. Ellis and Diane Larsen-Freeman (eds.), *Language as a Complex Adaptive System*. Chichester: Wiley-Blackwell, 1-26.
- Bergs, Alexander and Gabriele Diewald (eds.). 2008. *Constructions and Language Change*. Berlin: de Gruyter Mouton.
- Bergs, Alexander and Gabriele Diewald (eds.). 2009. *Contexts and Constructions*. Amsterdam: John Benjamins.
- Boas, Hans C. and Steffen Höder. 2025. What makes Construction Grammar relevant for contact linguistics – and vice versa? In Hans C. Boas and Steffen Höder (eds.), *Constructions in Contact 3. Constructional Schemas and Patterns in Contact*. Amsterdam: John Benjamins, 1-21.
- Börjars, Kersti, Nigel Vincent and George Walkden. 2015. On constructing a theory of grammatical change. *Transactions of the Philological Society* 113: 363-382.
- Brinton, Laurel and Elizabeth Closs Traugott. 2005. *Lexicalization and Language Change*. Cambridge: Cambridge University Press
- Budts, Sara and Peter Petre. 2020. Putting connections centre stage in diachronic Construction Grammar. In Sommerer and Smirnova (eds.), 317-352.
- Bybee, Joan L. 2010. *Language, Usage and Cognition*. Cambridge: Cambridge University Press.
- Bybee, Joan, Revere Perkins and William Pagliuca. 1994. *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*. Chicago: University of Chicago Press.
- Coussé, Evie, Peter Andersson and Joel Olofsson (eds.). 2018. *Grammaticalization Meets Construction Grammar*. Amsterdam: John Benjamins.
- Croft, William. 2001. *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press.
- Croft, William. 2005. Logical and typological arguments for Radical Construction Grammar. In Jan-Ola Östman and Mirjam Fried (eds.), *Construction Grammars: Cognitive Grounding and Theoretical Extensions*. Amsterdam: John Benjamins, 273-314.
- Degand, Liesbeth and Jacqueline Evers-Vermeul. 2015. Grammaticalization or pragmaticalization of discourse markers? *Journal of Historical Pragmatics* 16(1): 59-85.
- Diessel, Holger. 2020. *The Grammar Network*. Cambridge: Cambridge University Press
- Diewald, Gabriele. 2020. Paradigms lost – paradigms regained: paradigms as ‘hyper-constructions’. In Sommerer and Smirnova (eds.), 277-315.
- Flach, Susanne. 2020. Constructionalization and the Sorites Paradox: The emergence of the *into-causative*. In Sommerer and Smirnova (eds.), 45-68.
- Gildea, Spike and Jóhanna Barðdal. 2023. From grammaticalization to Diachronic Construction Grammar: A natural evolution of the paradigm. *Studies in Language* 47(4): 743-788.
- Goldberg, Adele E. 1995. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.
- Goldberg, Adele E. 2006. *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.
- Goldberg, Adele E. 2019. *Explain Me This: Creativity, Competition, and the Partial Productivity of Constructions*. Princeton: Princeton University Press.
- Gyselinck, Emmeline. 2020. (Re)shaping the constructional network: Modeling shifts and reorganizations in the network hierarchy. In Sommerer and Smirnova (eds.), 107-140.
- Heine, Bernd, Ulrike Claudi, and Friederike Hünemeyer. 1991. *Grammaticalization: A Conceptual Framework*. Chicago: University of Chicago Press.

- Heine, Bernd, Gunther Kaltenböck, Tania Kuteva and Haiping Long. 2021. *The Rise of Discourse Markers*. Cambridge: Cambridge University Press.
- Heine, Bernd, Debra Ziegeler, Carmelo Alessandro Basile and Eric Mélaç. 2025. Grammaticalization and Diachronic Construction Grammar: A reappraisal. *Studies in Language*. [Available online at: <https://www.jbe-platform.com/content/journals/10.1075/sl.25024.hei>]
- Hilpert, Martin. 2013. *Constructional Change in English: Developments in Allomorphy, Word Formation and Syntax*. Cambridge: Cambridge University Press.
- Hilpert, Martin. 2015. From hand-carved to computer-based: Noun-participle compounding and the upward-strengthening hypothesis. *Cognitive Linguistics* 26(1): 1-36.
- Hilpert, Martin. 2021. *Ten Lectures on Diachronic Construction Grammar*. Leiden: Brill.
- Himmelmann, Nikolaus P. 2004. Lexicalization and grammaticization: Opposite or orthogonal? In Walter Bisang, Nikolaus P. Himmelmann and Björn Wiemer (eds.), *What Makes Grammaticalization - A Look from its Fringes and its Components..* Berlin: Mouton de Gruyter, 21-42
- Hoffmann, Thomas. 2024. The 5C Model of linguistic creativity: Construction Grammar as a cognitive theory of verbal creativity. *Journal of Foreign Languages and Cultures* 8(1): 139-154.
- Hölzl, Andreas. 2023. Diachronic changes in constructional networks. *Constructions and Frames* 15(2): 160-186.
- Hopper, Paul J. 2011. Emergent grammar and temporality in interactional linguistics. In Auer and Pfänder (eds.), 22-44.
- Hopper, Paul J. and Elizabeth Closs Traugott. 2003. *Grammaticalization*. Cambridge: Cambridge University Press, 2nd rev. edn.
- Hudson, Richard. 2007. *Language Networks: The New Word Grammar*. Oxford: Oxford University Press.
- Hudson, Richard. 2010. *An Introduction to Word Grammar*. Cambridge: Cambridge University Press.
- Inglese, Guglielmo and Anne C. Wolfsgruber. 2023. The rise and fall of morphological schemas. *Constructions and Frames* 15(2): 187-210.
- Israel, Michael. 1996. The way constructions grow. In Adele Goldberg (ed.), *Conceptual Structure, Discourse and Language*. Stanford: CSLI, 217-230.
- Kuteva, Tania, Bernd Heine, Bo Hong, Haiping Long, Heiko Narrog and Seongha Rhee. 2019. *World Lexicon of Grammaticalization*. Cambridge: Cambridge University Press, 2nd edn.
- Langacker, Ronald W. 1987. *Foundations of Cognitive Grammar, Vol. I: Theoretical Prerequisites*. Stanford: Stanford University Press.
- Langacker, Ronald W. 1991. *Foundations of Cognitive Grammar, Vol. II: Descriptive Application*. Stanford: Stanford University Press.
- Lehmann, Christian. 2015[1995]. *Thoughts on Grammaticalization*. Berlin: Language Science Press, 3rd rev. edn. (Originally published in 1982 as a working paper of the UNITYP project, University of Cologne, entitled *Thoughts on Grammaticalization: A Programmatic Sketch*, Vol. 1).
- Lorenz, David. 2020. Converging variations and the emergence of horizontal links: To-contraction in American English. In Sommerer and Smirnova (eds.), 243-274.
- McMahon, April. 1994. *Understanding Language Change*. Cambridge: Cambridge University Press.
- Meillet, Antoine. 1958[1912]. L'évolution des formes grammaticales. In Antoine Meillet, *Linguistique historique et linguistique générale*. Paris: Champion, 130-148. (Originally published in *Scientia (Rivista di scienza)* XXII, 1912.)

- Milroy, James. 1992. *Linguistic Variation and Change: On the Historical Sociolinguistics of English*. Oxford: Blackwell.
- Noël, Dirk. 2007. Diachronic construction grammar and grammaticalization theory. *Functions of Language* 14: 177-202.
- Norde, Muriel and Caroline Morris. 2018. Derivation without category change: A network-based analysis of diminutive prefixoids in Dutch. In Kristel Van Goethem, Muriel Norde, Evie Coussé and Gudrun Vanderbauwhede (eds.), *Category Change from a Constructional Perspective*. Amsterdam: John Benjamins, 47-90.
- Norde, Muriel and Graeme Trousdale. 2023. Issues in Diachronic Construction Morphology. *Constructions and Frames* 15(2): 145-159.
- Petré, Peter. 2019. How constructions are born. The role of patterns in the constructionalization of be going to INF. In Beatrix Busse and Ruth Möhlig-Falke (eds.), *Patterns in Language and Linguistics: New Perspectives on a Ubiquitous Concept*. Berlin: De Gruyter Mouton, 157-92.
- Petré, Peter and Lynn Anthonissen (eds.). 2020a. Special Issue; Constructionist Approaches to Individuality in Language. *Cognitive Linguistics* 31(2).
- Petré, Peter and Lynn Anthonissen. 2020b. Individuality in complex systems: A constructionalist approach. In Petré and Anthonissen (eds.), 31(2): 185-212.
- Roberts, Ian and Anna Roussou. 2003. *Syntactic Change: A Minimalist Approach to Grammaticalization*. Cambridge: Cambridge University Press.
- Schmid, Hans-Jörg. 2020. *Dynamics of a Linguistic System: Usage, Conventionalization, and Entrenchment*. Oxford: Oxford University Press.
- Sommerer, Lotte and Elena Smirnova (eds.). 2020. *Nodes and Networks in Diachronic Construction Grammar*. Amsterdam: John Benjamins.
- Sommerer, Lotte and Freek Van de Velde. 2025. Constructional networks. In Mirjam Fried and Kiki Nikiforidou (eds.), *The Cambridge Handbook of Construction Grammar*. Cambridge: Cambridge University Press, 220-245.
- Traugott, Elizabeth Closs. 2022. *Discourse Structuring Markers in English: A Historical Constructionalist Perspective on Pragmatics*. Amsterdam: John Benjamins.
- Traugott, Elizabeth Closs and Graeme Trousdale. 2013. *Constructionalization and Constructional Changes*. Oxford: Oxford University Press.
- Trousdale, Graeme and Elizabeth Closs Traugott. 2026. *Constructions, Networks and Linguistic Change*. Cambridge: Cambridge University Press.
- Ungerer, Tobias. 2024. Vertical and horizontal links in constructional networks: Two sides of the same coin? *Constructions and Frames* 16(1): 30-63.
- Ward, Nigel G. 2025. Prosodic constructions. In Mirjam Fried and Kiki Nikiforidou (eds.), *The Cambridge Handbook of Construction Grammar*. Cambridge: Cambridge University Press, 337-353.
- Zehentner, Eva and Elizabeth Closs Traugott. 2020. Constructional networks and the development of benefactive ditransitives in English. In Sommerer and Smirnova (eds.), 167-211.

This preprint was submitted under the following conditions:

- The authors declare that the necessary Terms of Free and Informed Consent of participants or patients in the research were obtained and are described in the manuscript, when applicable.
- The authors declare that the preparation of the manuscript followed the ethical norms of scientific communication.
- The authors declare that they are aware that they are solely responsible for the content of the preprint and that the deposit in SciELO Preprints does not mean any commitment on the part of SciELO, except its preservation and dissemination.
- The authors declare that the data, applications, and other content underlying the manuscript are referenced.
- The deposited manuscript is in PDF format.
- The authors declare that the research that originated the manuscript followed good ethical practices and that the necessary approvals from research ethics committees, when applicable, are described in the manuscript.
- The authors declare that once a manuscript is posted on the SciELO Preprints server, it can only be taken down on request to the SciELO Preprints server Editorial Secretariat, who will post a retraction notice in its place.
- The authors agree that the approved manuscript will be made available under a [Creative Commons CC-BY](#) license.
- The submitting author declares that the contributions of all authors and conflict of interest statement are included explicitly and in specific sections of the manuscript.
- The authors declare that the manuscript was not deposited and/or previously made available on another preprint server or published by a journal.
- If the manuscript is being reviewed or being prepared for publishing but not yet published by a journal, the authors declare that they have received authorization from the journal to make this deposit.
- The submitting author declares that all authors of the manuscript agree with the submission to SciELO Preprints.