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Diachronic Construction Grammar
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Diachronic Construction Grammar

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To the memory of our friend

Anna Siewierska

Who understood both Diachrony and Construction Grammar
and whose ideas continue to live among us
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In memory of Anna Siewierska

Willem B. Hollmann
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On 6 August 2011 the world of linguistics lost one of its most productive, influential, kind and generous members. Being only 55 years old and publishing widely on topics ranging from linguistic typology to grammatical theory as well as, more recently, dialect grammar, there was still so much that Anna Siewierska had to offer to the rest of us. She was as inspiring then as she had always been, engaging with linguists from all over Europe and the rest of the world, stimulating us to join forces and work together in our journeys of linguistic discovery. Anna greatly admired and followed the work of other well-known, pioneering linguists, some of whom have contributed to the present volume. At the same time, she was also extremely pleased to see new linguists entering the field, and several slightly less established contributors to this volume have benefitted greatly from her encouragement.

A substantial amount of Anna’s work had a diachronic dimension (e.g. Siewierska 2010), so it is certainly fitting that this volume be dedicated to her memory. Fewer colleagues, perhaps, would associate her with construction grammar. I will, in the following, attempt to provide some background to explain why in this respect, too, the dedication is apt.

Anna was best known for her work in and on language typology. The starting point here were her (1983, 1984) publications on the passive, continuing through her work on word order, much of it carried out in the context of the EUROTYPO project (see especially Siewierska 1998). Her research branched out into a range of other topics, such as grammatical relations and person, some of which she wrote together with her husband, Dik Bakker (e.g. Bakker & Siewierska 2007; Siewierska & Bakker 2007). Anna’s (1991) book on Simon Dik’s Functional Grammar illustrates one prominent formative influence on her thinking, yet in most of her work her theoretical perspective is more broadly functional-typological. Nonetheless, Anna was always open to new ideas, especially new ideas that held a promise of shedding light on linguistic phenomena that had previously remained more obscure.

This willingness to keep a theoretically open mind underlined Anna’s status as a true scientist. Sometimes the ideas came from the more formalist end of the
spectrum, although as a typologist, Anna generally felt more affinity with functional and also cognitive linguistic work.

One or two years after I had joined the Department of Linguistics and English Language at Lancaster University, where she had held a chair since 1994, Anna drew my attention to the interface, back then largely unexplored, between linguistic typology and dialect grammar. At the time, research on this interface was driven mainly by Bernd Kortmann and his colleagues (see e.g. Kortmann 2003; Kortmann et al. 2005), whose work Anna had come across at a conference. Being surrounded by a variety of British English whose speakers have a relatively strong sense of local identity, we felt inspired to start investigating the grammar of Lancashire dialect in this novel manner. In our joint research Anna mainly contributed the typological angle. Having just completed a thesis under the co-supervision of Bill Croft in Manchester, my background in cognitive linguistics and construction grammar brought a few additional ideas to the table. Anna had always been an avid reader and admirer of Croft’s work (as well as being a close friend of his), and our frequent discussions about the explanatory potential of notions such as schemas and frequency effects led to a prominent constructionist angle in our publications on variation and change in Lancashire dialect (e.g. Hollmann & Siewierska 2007, 2011).

Ever interested in the interplay between data and theory, Anna became increasingly drawn to the tools offered by the construction-based perspective in relation to linguistic variation and change. She took them on board in her own thinking with characteristic ease and speed, and displayed great enthusiasm about the related ‘constructionist turn’ in grammaticalisation studies (e.g. Himmelmann 2004; Traugott 2003, 2010). In her perpetual curiosity, she would undoubtedly have devoured the present volume, and so it not easy to think of a more appropriate way for us to honour her memory than to do the very same.

References

Bakker, D., & Siewierska, A. (2007). Another take on the notion subject. In M. Hannay, & G. Steen (Eds.), *Structural-functional studies in English grammar* (pp. 141–158). Amsterdam: John Benjamins. DOI: 10.1075/slcs.83.08bak


Diachronic Construction Grammar

Epistemological context, basic assumptions and historical implications

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The main goal of this chapter is to discuss the value of the Construction Grammar framework to solving perceived problems with diachronic syntax. As such, one part of this chapter provides a condensed review of previous research in diachronic syntax, including a brief discussion of why many linguists have doubted the value of such work. While most of this early work did not emphasize the importance of constructions to our understanding of either synchronic or diachronic syntax, we do identify earlier examples of work for which the notion of construction was crucial, although not richly developed. The bulk of the chapter then proposes ways in which a constructional perspective/theory allows us to address some of these perceived problems with the study of diachronic syntax, hence providing a research context for the individual studies published in this volume.

1. Introduction

Multiple influential scholars in linguistics have argued that diachronic syntax is a vexed enterprise, one in which even attested syntactic changes cannot be well understood and, consequently, in which unattested syntactic changes cannot be reconstructed using the Comparative Method.¹ In most theoretical conceptions

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of syntax, there is no arbitrary form–meaning correspondence that can provide cognates with internal correspondences, and in addition the claim has often been repeated that consistent directionality cannot be determined for syntactic change (§2.1). The latter claim has been addressed somewhat within the evolving Grammaticalization literature, with multiple case-studies of attested change, strong statements about directionality of change, and some theory-building efforts. However, from our perspective too often this body of literature has relied on less than rigorous reconstructions, more or less confined to only internal reconstruction, has focused too narrowly on the change from lexis > grammatical morphology, and has spent excessive energy on the question of unidirectionality. Outside of the grammaticalization framework, a few scholars have broadened the scope of diachronic syntax to larger units like clause types, in which entire constructions are reanalyzed, sometimes with component pieces extending by analogy to other constructions. Studies of the latter type demonstrated the viability of reconstructing syntax within the context of the construction, but they lacked an elaborated notion of construction.

Independently, the framework of Construction Grammar (CxG) was developed to deal with cases that generative grammar did not deal particularly well with: idioms, set phrases and fixed expressions. Within CxG, the construction is a symbolically linked form–meaning pairing, which can model not only idioms, but also regular expressions like argument structures. Most versions of CxG are usage-based, and so take frequency to be an important ingredient in the system. The inventory of constructions is conceived of as a constructicon, which changes over time as new constructions come into being and old constructions fall out of use. Within CxG, an independent strand of work began on historical syntax, originally based on historically attested change and focused on questions about how constructions change over time, especially in their form–meaning overlap and the ways they get extended both semantically and pragmatically. Historical change in constructions has cast interesting light on the interaction of frequency and constructionalization, as well as how constructions may become more lexicalized, more schematic, or both. More recently, this strand of research has arrived independently at the value of the construction in reconstructing morphosyntax.

This remainder of this chapter is structured as follows: §2 gives a limited history of some pre-CxG approaches to historical syntax, §3 introduces the main theoretical postulates of CxG, as well as some of the findings that follow from these postulates, and §4 offers some concluding remarks. The bulk of the chapter is contained in §3, in which each subsection first expositions specific principles of CxG, then discusses and illustrates some of the diachronic implications of these principles. Each of the individual papers in this volume is introduced in the relevant section.
2. Pre-constructional approaches to historical linguistics

The starting point for discussions of historical syntax must be the same as the starting point for discussions of historical linguistics in general: the work of the Neogrammarians. As discussed in some detail in Harris & Campbell (1995:16–35), multiple neogrammarians were doing historical syntax alongside their historical phonology and lexicology. However, there was a major difference in the results of their work, in that for phonology they proceeded to develop and rigorously test a methodology for reconstruction that has remained largely unchanged as the modern Comparative Method. In contrast, for morphosyntax, they did not consolidate their individual works into a coherent, consistent methodology, and so they did not produce similarly large-scale reconstructions of PIE syntax.

Since then, over a century has passed, and while various individual scholars have engaged at one time or another in the pleasures of historical syntax, is it nonetheless the case that most historical linguists have expressed doubts about the feasibility of actually reconstructing syntactic patterns. The doubts coalesce around certain themes, all drawing a clear contrast between the (plausible) reconstruction of historical phonology and the (implausible) reconstruction of historical morphosyntax. The first distinction that many point to is the crucial role of cognates: words too similar in both form and meaning for the similarity to have arisen by chance. In the systematic methodology of the Comparative Method, we can confirm a body of cognates via their consistent phonological correspondences, which we then take to be modern reflexes of phonological correspondences in the source word that gave rise to each set of modern cognates.

In contrast, syntax was held to consist of productive rules rather than stored sequences (cf. Watkins 1964; Jeffers 1976; Lightfoot 1979, 2006; Harrison 2003). As abstract entities that are autonomous from meaning, syntactic rules cannot meet more than the formal half of the operational definition of a cognate, and even this formal half cannot be confirmed via multiple correspondences, as each modern syntactic utterance is merely another (identical) application of the same productive rule.

Further, the identification of lexical cognates is considered valid because the connection between form (sound sequences) and meaning is essentially arbitrary, and therefore similarity in both domains is unlikely to be due to chance. Given a theory of syntax that is predicated on either a Universal Grammar of abstract principles or even merely on rules from which we generate surface syntactic form, the notion of a truly arbitrary syntactic cognate is seriously compromised. If syntax is held to be regular and productive, it lacks the essential arbitrariness of the lexicon, and so finding similarity between rules in related languages does not automatically suggest a common origin.
However, despite the general pessimism, a growing body of historical linguists agrees that these arguments are not conclusive. The relatively recent surge of studies in the area of grammaticalization has been key to rehabilitating the idea of reconstructing syntax. The notion of grammaticalization is not recent at all, with multiple examples from 19th century work by neogrammarians like Bopp (1816); Humboldt (1825); Whitney (1875); Paul (1880); and von der Gabelentz (1891). The term **grammaticalization** itself was first introduced last century by Meillet (1912:133):

> While analogy can renew the details of forms, but it usually leaves intact the structure of the existing system, the “grammaticalization” of certain words creates new forms, introduces new categories that once had no linguistic expression, transforms the entirety of the system. [Translation JB & SG]

Although Meillet does mention concomitant changes to the syntactic system, e.g. in his discussion of the kinds of change he wants to categorize as grammaticalization, he mentions “the progressive attribution of a grammatical role to autonomous words or that of the manners of grouping the words [translation and emphasis JB & SG]” (p. 132). He also makes clear multiple times that the fundamental point of interest is “the passage of an autonomous word to the role of a grammatical element [Translation JB & SG]” (p. 131). In subsequent studies, the focus has remained on the movement from lexical item to grammatical morpheme, as famously formulated by Kuryłowicz (1965:69): “Grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status, e.g. from a derivative formant to an inflectional one.” This definition does not give us historical syntax per se, but it certainly shows that one possible outcome of syntactic change is the conversion of a lexical item to a grammatical operator, which, as noted by Meillet, has great implications for the syntactic system in which such a change takes place.

The explosion of Grammaticalization Studies within functionalist approaches to linguistics gave us overviews of different facets of the phenomenon, as well as many case-studies, e.g. Givón (1971, 1976, 1979); Heine (1993) Heine & Reh (1984); Traugott & Heine (eds, 1991) *inter-alia*, Bybee, Perkins

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2. “Tandis que l’analogie peut renouveler le détail des formes, mais laisse le plus souvent intact le plan d’ensemble du système existant, la « grammaticalisation » de certains mots crée des formes neuves, introduit des catégories qui n’avaient pas d’expression linguistique, transforme l’ensemble du système.”

3. “l’attribution progressive d’un rôle grammatical à des mots autonomes ou à des manières de grouper les mots”.

4. “le passage d’un mot autonome au rôle d’élément grammatical.”
& Pagliuca (1994); and Heine & Kuteva (2005, 2006, 2007). In the 1990s came volumes that systematized approaches to grammaticalization, such as Heine, Claudi & Hündemeyer (1991) and Hopper & Traugott (1993/2003). Volumes on grammaticalization continue to appear, both problematizing and refining grammaticalization as a theoretical notion (many collections, published in Typological Studies in Language and other venues). This body of work has become sufficiently rich to justify published catalogs of attested grammaticalization changes, such as Heine & Kuteva (2002), as well as a recent treatment in one of the ubiquitous topical Handbooks (Narrog & Heine 2011).

From the perspective of historical syntax, the grammaticalization studies constituted a huge step forward, both in terms of what we understood about the nature of at least this aspect of syntactic change and in terms of creating a community of researchers who came to the discussion of historical change in grammar without the pre-emptive negativism of those trained in the traditional comparativist and structural paradigms. Among the strengths of grammaticalization research has been a wealth of empirical results: the exposition of a number of detailed case-studies of attested historical change in morphosyntax, as well as strong claims about empirical issues like directionality. In addition, some have invoked the idea of “grammaticalization theory”, in which the general mechanisms of grammatical change help to explain both why specific grammar in specific languages takes the form it does, and why, in general, the same sorts of source lexical domains keep evolving into the same sorts of resultant morphological categories, creating widespread, or even universal, “grammaticalization pathways” (cf. Heine 1994; Bybee et al. 1994; Givón 2008).

However, maintaining the perspective of historical syntax, there have also been problems with the grammaticalization enterprise. First, of course, is the narrowness of the focus: in zooming in on identifying which source lexemes become which resultant grammatical morphemes, the importance of the constructional context is frequently lost. Although Givón (1979:208) defined “syntacticization” as the condensation of discourse structure into syntactic structure (i.e. the creation of constructions), to be followed in turn by “morphologization” (i.e. grammaticalization), and he went on (p. 220) to argue that both were “two mutually dependent parts of the same process,” the term “grammaticalization” was rarely used in this broader sense. Others who used the term in this broader sense include Heine et al. (1991:13), who include the “fossilization” of discourse into syntax, and Hopper’s (1987, 1991) “emergent grammar”. More recently, grammaticalization researchers (e.g. Traugott 2003; Heine 2003; Bybee 2003; Givón 2008) clearly acknowledge the importance of the entire construction in individual cases of grammaticalization, but even so, the paradigm focuses attention on the emergent morpheme rather than seeking to make generalizations based on the details of the
larger construction (cf. also Noël 2007). This has the unfortunate effect of leaving much of historical syntax out of the picture (e.g. the evolution of new alignment patterns in Kartvelian, as described in Harris 1985, or the creation of entirely new clause types in Cariban, as described in Gildea 1998).

Additionally, a sometimes acrimonious debate has ensued over the distinction between grammaticalization as a label for an observable outcome of language change versus grammaticalization as an independent phenomenon that cannot be derived from more general principles of syntactic change. To the extent that grammaticalization is an independent process of language change, it motivates an independent grammaticalization theory to “make sense of” synchronic patterns in grammar and guide reconstructions. Campbell & Janda (2001) cite many such claims, then introduce an entire issue of Language Sciences (Campbell ed. 2001) dedicated to expositing the problems with such a theory. One crucial question is whether one can identify anything unique to grammaticalization as a process, or whether one could simply describe it as an outcome of otherwise well-understood principles of historical change. Another is whether grammaticalization is, in fact, unidirectional. Multiple publications have listed apparent counter-examples (see Janda 2001 and Norde 2001 for several), but defenders of unidirectionality (e.g. Haspelmath 1999; Heine 2003) have countered that most putative counter-examples are actually not the “reversal” of grammaticalization, but rather independent processes operating to create examples that give the appearance of reversing grammaticalization. The preoccupation with these debates about grammaticalization per se had the effect of drawing attention away from larger questions of historical syntax, such as the evolution of new constructions in the absence of a lexical word becoming a grammatical morpheme. At its most extreme, this debate has led some to equate the term grammaticalization with ‘language change’ (Joseph 2011).

While grammaticalization studies got most of the attention in the 1980s and 1990s, there were also examples of studies that went beyond the questions of grammaticalization, widening the focus to larger units like clauses. The body of work by Alice Harris stands out as an early example, in which she reconstructed historical change in entire clause types – including especially their alignment patterns – in the Kartvelian family (Harris 1985, 1990, 2008). While not invoking the label “construction”, Harris (1985: 13–4) argues that “we can trace the evolution of a clause type within a given language and compare types across languages. The structure of a clause may be reflected directly in case-marking, agreement, word order, and, less overtly, in other phenomena amenable to study.” The parallel to construction grammar is strengthened by an additional claim: “A further consequence of the lexicalization of syntax around a governing verb is that we can establish clausal equations as a basis of comparison, within a single language and
among sister languages.” In other words, independently of phenomena that might be considered cases of grammaticalization, constructions themselves can be seen as cognate.

This strand of work was further systematized in Harris & Campbell (1995), which offers a framework with only three mechanisms of syntactic change, none of which depend on or follow directly from the grammaticalization paradigm: Reanalysis, Extension, and Contact. We focus here only on the first two of their mechanisms. The definition of reanalysis (originally formulated by Langacker 1977) is a hidden change in grammatical form, such that the surface form does not change, but the speaker’s analysis of that form does change. This change is always motivated: in a functionalist interpretation by the change in function (meaning, information structure), in the generativist interpretation (cf. Lightfoot 1979, 1991) by the accretion of small formal changes.5 While reanalysis can certainly take place at lower levels as well (cf. Langacker’s 1977 seminal coverage of both phonological and morphological reanalysis), it is clear that Harris & Campbell’s treatment of reanalysis is generally at the level of entire constructions (evidenced by the fact that the materials from Harris’ 1991 Linguistic Institute course on Diachronic Syntax use the term “Construction Reanalysis”) and the phenomena that Harris & Campbell analyze are thus of exactly the type found in papers in this volume that address Constructionalization (we return to this discussion in §4 below).

In contrast, extensions change surface form without changing analysis, for example spreading rules and/or forms to new environments (constructions) without changing the invisible component of analysis. These two mechanisms are complementary not only in that one is characterized as invisible change and the other as visible change, but also in that the visible changes of extension are often motivated by the invisible changes of reanalysis, and as such they constitute the evidence that reanalysis has taken place (i.e. the “actualization” of a reanalysis, cf. Timberlake 1977; Harris & Campbell 1995:77). Although these terms are not common currency in constructional accounts of change, these concepts are central to the notions of constructionalization (either reanalysis alone or reanalysis plus actualization, depending on one’s definition) and on changes within an existing construction (generally extension alone).

5. Note that de Smet (2009) argues that reanalysis is itself epiphenomenal, perhaps only an artifact of an analytical tradition that puts a high value on syntactic representation. We agree that there must be a careful reconsideration (and perhaps redefinition) of the theoretical notion of reanalysis within usage-based approaches. Individual authors in this volume do address this question to some extent, but this is not a focus of our work here.
In this same vein, Gildea’s (1992, 1997, 1998, 2000) reconstructions of alignment and constituency patterns in the Cariban family followed from the same principles: identify cognate clause types, within these cognates seek patterns of evidence characteristic of the different mechanisms of change, and then argue for reconstruction based on principles of directionality that can be derived from these specific mechanisms of change. Although inspired by work in grammaticalization, Gildea was unable to fit his Cariban data into that box: of the six innovative modern clause types whose origins he was able to reconstruct, none resulted from grammaticalization as traditionally defined, because the new tenses and aspects came not from lexical sources, but rather from reanalysis of nominalizations and participial forms in predicate nominal and predicate adverb clauses. Some of these source constructions contained a matrix clause copula, but just as many had no finite verb form in the clause to participate in the expected pathway of verb > auxiliary > inflection. As such, Gildea was forced to think at the level of the entire clause, which he analyzed as distinct “verbal systems”, a label that translates felicitously to “main clause constructions.” Harris & Campbell’s mechanisms of syntactic change provided exactly the tools he needed to understand the comparative Cariban picture.

What these studies from the 1990s shared was an understanding that syntactic changes, even those that were well-studied in the grammaticalization literature, were taking place in a larger context. In order to fully appreciate these changes, it was necessary to keep track not just of the lexical item on its way to grammatical morpheme, but also of the other grammatical elements and schematic slots in the clause where this evolution took place. Because these studies were focused on the tools necessary to reconstruct variation in main clause grammar amongst related languages, they identified the cognate status of units larger than the morpheme or even the fully inflected word — they worked with constructions. These constructions contained both form and meaning, which were transparently inherited (even though usually in somewhat altered form) from a common source; they showed internal complexity that allowed an analogical appeal to the notion of correspondence; and the primary mechanism of change that allowed reconstruction was construction reanalysis (the primary mechanism of change in most of Harris’ and nearly all of Gildea’s examples).

In this body of work, the broad strokes of diachronic construction grammar are already visible. However, while the mechanisms of the diachronic changes in syntax were well-elaborated, the notion of construction was almost entirely intuitive, which led to a lack of focus on the interactions between these mechanisms and the various kinds of units that combine to make up constructions.

At roughly the same time, Israel (1996) applied the developing principles of Construction Grammar to the attested history by which the modern English
way-construction developed. The synchronic way-construction may be roughly characterized as one in which a subject moves along a path, often with difficulty, or overcoming some resistance. The construction is formally unusual in that (i) verbs of motion, which are generally intransitive, here take a direct object, the possessed path noun way, and (ii) these verbs include general motion verbs, manner of motion verbs, path of motion verbs, and even verbs that indicate noises or activities that do not code motion except when they appear in this construction. Israel demonstrates that this specific construction develops out of a more general ME construction, “go one's PATH”, in which the verb of motion takes a possessed path noun as direct object, e.g. wente he his ride, or wente he his streeete (Israel 1996: 221).

Beginning in roughly 1350, other path nouns gradually decreased in frequency in the construction, leaving possessed way as the unique object noun; in the same time period, other high-frequency motion verbs began to occur in the construction, i.e. to take possessed way as a direct object. By 1700, 16 different motion verbs occurred in the construction, specifying path shape (e.g. wind), and manner (e.g. wing) or rate (e.g. speed) of motion. By 1875, 38 verbs were attested, encoding difficult or laborious motion (e.g. plod), more complex paths (e.g. corkscrew), and noises that accompany motion (e.g. crash). The modern day construction is quite productive, taking many more verbs of various semantic types. For more detail, we refer the interested reader to Israel’s article. See also Traugott & Trousdale (2013: Ch. 2) for an analysis of the development of the way-construction emphasizing the role of constructional networks.

Israel’s (1996) account of the creation of the way-construction demonstrated that a construction can evolve solely on the basis of lexical restriction, from a range of path nouns to only way, and lexical expansion, from a few of the most general motion verbs to a wide range of verbs, some of which are not even inherently about motion. Israel observes that this example should be problematic for any theory of grammar that generates syntax by rule, in that speakers must both store a list of verbs that they have heard in this specific construction (so they can use it appropriately) and they must also have some more abstract schema to guide them in expanding the set of verbs, as they make the construction more productive. However, Israel does not attempt to connect the observed changes in the way-construction to other literature on historical syntax, whether by trying to squeeze them into the pigeonhole of grammaticalization (e.g. considering whether way becomes a grammatical morpheme) or by identifying a role for one or more of Harris & Campbell’s mechanisms of syntactic change.

This volume is intended to make such connections explicit. In the next section of this chapter, we outline what we see as the excellent fit between the mechanisms of syntactic change and the basic principles of Construction Grammar.
3. The basics of construction grammar and its diachronic implications

The theoretical framework of Construction Grammar developed as an integral part of West-Coast linguistics in the United States, initiated by Charles J. Fillmore and his associates in the 1980s. Construction grammar is a natural continuation of Fillmore’s Case Grammar (1968), and its spin-off Frame Semantics (Fillmore 1982, 1984), on the one hand, and Lakoff’s experimental Gestalt Grammar (1977), on the other. This early Berkeley Construction Grammar was usage-based and focused on speaker’s knowledge of language. It dealt first and foremost with language data that fell out of the scope of the research carried out within the framework of generative grammar, such as idioms, set phrases and other types of fixed expressions (cf. Nunberg, Sag & Wasow 1994). Later on, the formal dimension was brought into Berkeley Construction Grammar through Fillmore’s joint work with Paul Key, work which concentrated on developing a formalism for the implementation of the concept of constructions into formal and computation linguistics. At the same time, Frame Semantics continued to develop alongside semantics and cognitive linguistics, emphasizing the importance of semantic and cognitive process for constructions and their representations (cf. Östman & Fried 2004; Fried & Östman 2004).


Today several different versions of Construction Grammar exist, such as Cognitive Construction Grammar (Lakoff 1987; Goldberg 1995, 2006), Berkeley Construction Grammar which later merged with HPSG into Sign-Based Construction Grammar (Boas & Sag 2012), Radical Construction Grammar (Croft 2001; Barðdal 2006), Embodied Construction Grammar (Bergen & Chang 2013), and Fluid Construction Grammar (Steels 2011, 2012).

In this volume, we do not endorse any specific named version of Construction Grammar, as we take all versions to share the following (cf. Goldberg 2006: 213ff), (although the presentation in the remainder of this chapter is somewhat influenced by Croft’s Radical Construction Grammar):

- Constructions are pairings of form and meaning, and as such they are the basic building blocks of language
- There is uniform representation of grammatical structures, in that all linguistic units are viewed as form–meaning pairings
Constructions are organized in taxonomic dichotomies or hierarchies
- The theory is monostratal, with no surface structure – D-structure distinction
- There is no distinction between “core” and “periphery”

The existing versions of Construction Grammar differ primarily with regard to whether they are usage-based, reductionistic, and/or make use of a rigorous formalism. To take one example, Sign-Based Construction Grammar (Sag 2012; Michaelis 2013) has not adopted a usage-based approach to language and it maintains a very rigorous formalism. In contrast, Radical Construction Grammar (Croft 2001) is usage-based and non-reductionist, in that it assumes that the parts of a construction are derived from the whole, including for instance parts of speech and grammatical relations. Hence, on a non-reductionist approach to language and grammar, both parts of speech and grammatical relations are not only language specific but also construction specific.

In §3.1–§3.6, we outline some basic assumptions of Construction Grammar and lay out the diachronic implications of each of these assumptions, with examples from the existing literature when possible. We realize, of course, that we can by no means do justice to the ever-growing body of work within Diachronic Construction Grammar — our aim is to provide a research context for the studies published in the remaining chapters of this volume and to provide the non-initiated reader with a systematic overview of the diachronic implications following from the basic assumptions and mechanisms of synchronic Construction Grammar.

3.1 Form–meaning correspondence

The basic tenet of Construction Grammar is that a construction is a form–meaning or a form–function pairing, with symbolic links found between the form and the meaning (Langacker 1987, 1991, 2008). A construction is therefore a “sign” in the sense of Saussure, a symbolic unit, a form–function or form–meaning correspondence. This is illustrated in Figure 1 from Croft & Cruse (2004:258, also Croft 2001:18.), where the outmost box represents the construction as a whole and the two inner boxes represent the form and the meaning; the upper box represents the form and the lower box the meaning. Between the two boxes, there is a symbolic correspondence link, representing the pairing between the form and meaning fields.

The analytical machinery of Construction Grammar and its representational formalism is most obviously useful in modeling constructions that are semantically non-compositional, in the sense that the meaning of the whole is not a sum of the meaning of the parts, but is something more, less, or just different from the meaning of the parts. However, the analytical machinery of Construction Grammar can also be used to adequately represent the form–meaning pairing of
constructions that are semantically compositional, in the sense that the meaning of the whole does amount to the sum of the meaning of the parts. Therefore Construction Grammar can also be used to account for, or formalize, not only idioms but also regular expressions like argument structures, such as the intransitive or the transitive constructions whose semantics may be regularly derived. Semantically compositional and semantically non-compositional constructions have also been referred to in the literature as semantically general vs. semantically specific constructions (Tomasello 1998, Croft & Cruse 2004; Barðdal 2001a, 2008; Barðdal, Kristoffersen & Sveen 2011).

Consider now some instances of intransitive verbs in English:

(1)  
   a. UPS pilots complained.  
   b. The legend left.  
   c. Miranda cooks.

On the traditional conception of the relation between meaning and form, meaning is taken to come from lexical units, not from grammar itself, resulting in the view that the meaning of larger units than words must come from the sum of the meaning of the parts. This can be illustrated as in Figure 2, which makes use of the box formalism of Construction Grammar.

Exactly as in Figure 1 above (and following the notational conventions of Croft & Cruse 2004), the upper level in Figure 2, labeled \( \text{syn} \), stands for form or syntax, while the lower level, labeled \( \text{sem} \), stands for meaning or function, Italics are used to represent the form, while capital letters represent the concepts that are mapped to the form. The dotted lines between \( \text{Miranda} \) and \( \text{MIRANDA} \) and \( \text{cooks} \) and \( \text{COOKS} \) represent the symbolic correspondence links between form and

\[
\begin{align*}
\text{CONSTRUCTION} & \quad \text{FORM} \\
\text{SYMBOLIC} & \quad \text{CORRESPONDENCE} \\
\text{LINK} & \quad \text{(CONVENTIONAL)} \\
\text{MEANING} & \quad \text{SYN} \\
& \quad \text{SEM} \\
\end{align*}
\]

Figure 1. Form, meaning, and the correspondence between the two (Croft 2001: 18; Croft & Cruse 2004: 258)
meaning, resulting in the Saussurean sign. This sign, or lexical unit, itself is also
demarcated with an inner box in Figure 2, around *Miranda*, *Miranda* and the
symbolic link between the two. Figure 2 contains two such symbolic units, one for
each lexical word in the sentence *Miranda cooks*.

![Figure 2. The traditional conception of meaning in grammar and syntax (adopted from Barðdal 2014)](image)

Let us now compare this traditional view with how the correspondence
between form and meaning is viewed in Construction Grammar, as shown
in Figure 3. While CxG retains the independent symbolic units for each of the
two lexical items in the sentence, CxG also regards the form part as a whole and
the meaning part as a whole as symbolic units in themselves. This is shown via
the boxes around these two parts, the *syn* and the *sem* fields, and a third cor-
respondence link in Figure 3, combining these two units. This, in essence, is how
larger constructions become form–meaning correspondences in Construction
Grammar.

![Figure 3. The constructional approach to grammar as form–meaning pairings](image)
There are also two other types of links in Figures 2–3, the bold-faced link combining the syntactic elements, *Miranda* and *cooks*, and the solid link combining the semantic components, *Miranda* and *cooks*. The latter link, given in non-bold solid lines, represents the semantic relation between the concepts of *Miranda* and *cooks*, the event-participant relation, while the first link, given in bold-face, represents the syntactic relation between the noun phrase *Miranda* and the verb *cooks* (see further §3.4 below on syntactic relations).

### 3.1.1 Diachronic implications

On the assumption that constructions are form–meaning pairings, one might expect not just changes in meaning and changes in form, but also changes in the mappings between meaning and form. In the first scenario we get changes in the *sem* part, in the second scenario we get changes in the *syn* part, while in the third scenario we get changes in the linking between the *syn* and *sem* parts. Given that constructions are signs in the same sense as words, one would expect all the same kinds of changes with constructions as with lexical items.

Starting with the first type, when *constructions change their meaning*, in principle different kinds of changes can occur in the *sem* part, for instance: (a) changes in the lexical semantics of specific words in a construction, or (b) changes in the propositional semantics, the semantics of the whole. Such semantic changes will of course follow the known routes of semantic change, like extensions through metaphors and metonymy, bleaching, pragmatic inferences, etc. (cf. Hopper & Traugott 1993/2003 on semantic change, and Michaelis & Ruppenhofer 2001 on the development of the applicative *be-*construction in German along such routes). When changes in the meaning of a specific word occur, basically it is a change in one of the symbolic subunits of a construction, and such changes need not affect the meaning of larger constructions so much. However, in the second type of change, i.e. a change in the semantics of the whole, the most likely outcome is that a new construction arises out of the old one, usually because the meaning has changed from being compositionally derivable to becoming unpredictable from the sum of its parts – this is the kind of change typically described in grammaticalization, as a lexical item in the context of a construction changes its concrete referential semantic value for a more abstract grammatical semantic value. In addition to changes in the semantics, changes in information structure and use in discourse, as well as other pragmatic changes, may occur.

With regard to *changes in form*, these may be any of the known changes one finds with regard to form in general, such as morphological changes, phonological changes and changes in the syntax (cf. Hilpert 2013: 13–15). Well-known changes that do not affect individual constructions as such are, for instance, system-wide morphological deflections (cf. Barðdal 2009 on case deflection in Germanic),
system-wide phonological changes, like the sound laws in historical-comparative linguistics, as well as general syntactic changes that may affect a set of relevant constructions and not just a single construction (cf. Gildea 1993 on the introduction of a rigid VS order across multiple constructions in Panare, and Gildea 2000: 70 on the general change from OVS to VSO in all main clause constructions in Panare).

An example of a change in form that is specific to a given construction would be a phonological contraction of one persistent element in the form, an expected component of the grammaticalization process, although in our view this generally co-occurs with a higher degree of entrenchment of the string as a whole (cf. Bybee & Scheibman 1999; Bybee 2003). Reduction in form may occur in either highly lexicalized strings or in schematic constructions, such as the definite article or a full set of possessive pronouns (Hollmann & Siewierska 2007, 2011). Another type of change related to form would be the emergence of, or changes in, collocational restrictions for a set of words, often concomitant with changes in their categorical status as parts of constructions. This is found, for instance, in the development of the way-construction in English (discussed in §2), in which collocations of a general motion verb like ‘go’ with a few direct object ‘path’ nouns first becomes restricted to a single path noun, way, followed by the expansion of collocational partners for way to a wide range of motion verbs and beyond.

Finally, changes in the mapping between form and meaning are also well known: Croft (2000), for instance, devotes a whole chapter to this phenomenon under the label reanalysis, a use of the term which appears to be entirely compatible with the uses described in §2. In cases where changes in meaning create polysemy, they will be accompanied by changes in the mapping between form and meaning. For example, in the development of the indefinite and definite articles in Germanic, the indefinite article developed from the numeral ‘one’ and the definite article from a demonstrative ‘this’ (Nygaard 1906: 33ff, Wessén 1992: 28ff). In the early stages of this change, each form developed a new meaning while retaining the old, which entailed creating a new mapping from the same forms to the new meanings.

Another example would be when the English noun shit began to occur as the exclamation, Shit! In this new usage, the traditional link between the form shit and the nominal concept shit was not relevant, so the form developed a new link to an exclamative function, used in certain discourse situations as a cathartic exclamation, most frequently – but not necessarily – with a negative connotation. In a case like this, the mapping between form and meaning is totally altered through a simple change in use, which decouples the form from its original meaning. Although changes in meaning that apply to all uses of a form have no implications for form–meaning links, when the prior form–meaning link continues in some context, then use of the same form with innovative meanings in other contexts must also entail a new link between the old form and the innovative meaning.
However, it is also possible to have reanalysis of form–meaning linkage in which neither the form nor the meaning changes. When neither the form nor the meaning changes, it is obviously somewhat problematic to argue for a synchronic change in linkage. Nevertheless, once a subsequent change in form occurs, we may argue that it is only possible given a prior reanalysis, for which the observed change in form is the actualization (as described in §2). Croft (2000) mentions one change that is arguably of this type, the change in case marking from dative, genitive and instrumental objects to accusative objects in the Indo-European languages. Originally, we assume that the dative, genitive and instrumental cases contributed something with their meaning, and as a result, these forms occurred more frequently in collocation with semantically consistent subsets of verbs. At some point, speakers must have stopped using other cases with these verbs, thereby creating distinctive (and obligatory) case frames for the different semantic subclasses of verbs (as described in, for instance, Dahl 2009 for Sanskrit and Janda 2010 for Old Norse-Icelandic). Once the collocation became obligatory, there was no longer a reason for speakers to assign independent meaning to the different cases, so the case marking became merely a structural feature associated with each verb. In this way, the form and meaning both remained identical, but the link between the meaning and the form changed to be associated with the verb alone, leaving the dative, genitive and instrumental case markers as a formal feature associated with each verb, but with no direct link themselves to the semantic level. Although this reanalysis is covert, it provides the necessary condition for a subsequent change in form: since the case markers do not contribute to the meaning of the construction, it becomes possible for speakers to level them all to the default accusative case without effecting any change in meaning.

When an entire sequence of forms develops an innovative meaning, the old (generally more combinatorial) links to form and meaning persevere, but the same forms must develop a new link to the innovative meaning, which is generally not entirely predictable from the combination of the original meanings. One example is the development of a future construction in Swedish (Hilpert 2008), involving the verb ‘come’ + ‘to’ + ‘V’, *komma att V*, which has developed from an inchoative marker to a full-fledged future construction in the history of Swedish. This is the emergence of a new construction alongside the old (cf. Israel 1996; Traugott 2008a–b; Hilpert 2008; Bisang 2010; Traugott & Trousdale 2013), a phenomenon that is increasingly labeled with the term constructionalization.

Another line of research that falls out naturally from the assumption that constructions are form–meaning correspondences is syntactic reconstruction. The reason is that there is a natural leap from synchronic form–meaning correspondences to the units that the Comparative Method is based on, diachronic form–meaning correspondences (Eythórsson & Barðdal 2011; Barðdal & Eythórsson 2012a; Barðdal 2013, 2014; Barðdal et al. 2013). On a constructional account, clause-level constructions are form–meaning correspondences that can be inherited from an