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For a radically usage-based diachronic construction grammar

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This squib first sketches the state-of-the-art in diachronic construction grammar by tracing it back to two strands of research which it distinguishes as historical construction grammar and constructionist grammaticalization theory. It then differentiates between usage-based work in diachronic construction grammar that focuses on (frequency of) use and work that centres on knowledge. It is posited that, to arrive at truly (radically) usage-based models of change, one should separate individual knowledge, or internal systems/constructicons, from assumed-to-be-shared knowledge, or external systems/constructicons. Two usage-based models of constructional change, “Traugott/Trousdale” and “Fischer”, are assessed against this criterion. While the former explicitly distinguishes between individual and “community” knowledge, it is judged to confuse these by assigning a central role to reanalysis/neanalysis. The latter model revolves around the role of analogy and is less confined to a semasiological account of the linear developments dictated by an external outlook.

1. Diachronic construction grammar¹

As Martin Hilpert writes in one of the endorsements on the back cover of the recently published edited volume so entitled (Barðdal *et al.* 2015), “Diachronic Construction Grammar is an exciting new area of cognitive-functional linguistics that connects ideas from grammaticalization theory, cognitive linguistics, and constructional approaches to grammar”. In their introductory chapter to the book, in which they dig quite deep to uncover its epistemological roots, Barðdal and Gildea (2015, 11) speak of an “ever-growing body of work within Diachronic Construction Grammar”. It constitutes an area which — only slightly adapting the characterization offered by Traugott and Trousdale (2013, 39) — one could succinctly describe as a field of work in linguistics that addresses linguistic change from the perspective of construction grammar. One could conceive of it as constructionist historical linguistics, alternatively, switching round the object of study and the approach, as historical constructionist linguistics. Either way it is a field which looks at how constructions come into being as form-meaning pairings, which has come to be known as “constructionalization” (a term that made its first appearances with this sense in Bergs & Diewald 2008 and Traugott 2008a), and how these form-meaning pairings might subsequently change. More broadly, diachronic construction grammar considers the evolution of the constructional resources of a language — alternatively, as will

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become relevant below, of speakers —, in other words, it studies the evolution of “constructicons”. To me, this characterization does not warrant the use of capitals in the field name, so unlike Barðdal *et al.* (2015), I will continue to use small letters.

As a name for a research field, “diachronic construction grammar” first appeared hidden away in the concluding section of a paper by Debra Ziegeler on the development of causative *have* in English (Ziegeler 2004) which makes the double case that certain assumptions in construction grammar need to be borne out with diachronic evidence and that a constructional perspective should be beneficial to the study of grammaticalization. Though it has largely gone unnoticed the paper constitutes a quintessential contribution to a field that has been developing organically over the past twenty years around two overlapping strands of research, which for heuristic purposes I would like to distinguish as “historical construction grammar” and “constructionist grammaticalization theory” (as in Noël 2013).

The historical construction grammar strand is the youngest of the two, since not only is construction grammar itself a very young discipline still, very little of the earliest work is historical in nature. One of only a few exceptions to this is the pioneering paper by Michael Israel on the history of the *way* construction (Israel 1996); and, as this example indicates, some, especially the earliest, of the work in this stream offers a diachronic treatment of constructions that were previously dealt with in synchronic construction grammar, specifically argument structure constructions. Israel’s is a paper on the increasing schematization and productivity of such a construction. So as to categorize this thread of research a bit further, one could list it under the heading of “diachronic constructional semasiology”, a term from Coleman and De Clerck (2011), which covers studies of the evolution of the meaning of constructions, usually accompanied by increased schematicity or, conversely, specificity. Other work that could be listed here includes Barðdal (2007, 2011), Noël and Coleman (2010), Coleman (2011), Peng (2013, 2016) and David (2015).

Other thematic groupings one could distinguish comprise work on

- changes in constructional networks/the inheritance relations of constructions: Trousdale (2013); Van de Velde (2014); Torrent (2015);
- the disappearance of constructions: Verhagen (2000), Trousdale (2008a); Coleman & Noël (2012); and
- “constructional borrowing”, a term first used in an early, unpublished, paper by Adele Goldberg (Goldberg 1990): Mithun (2008); Noël (2008) and Coleman & Noël (2014); Doğruöz & Backus (2009); Backus *et al.* (2011); Backus (2014, 2015).

The second big strand, constructionist grammaticalization theory, encompasses the work in the grammaticalization theoretical tradition that followed a constructionist turn at the start of the century (for a discussion of the early contributions, see Noël 2007). This work represents by far the largest body of research that can be included under the heading of diachronic construction grammar.² It has progressed from establishing the centrality of constructions to grammaticalization changes (DeLancey 1994; Bisang 1998a,b; Bybee 2003a; Traugott 2003) and the relevance of construction grammar for the study of grammaticalization (Ziegeler 2004; Traugott 2008a,b; Fried 2009, 2013; Trousdale 2012a,b), or the appropriateness of a usage-based approach (Bybee 2003b, 2010, 2013), over discussions of whether schematic constructions

² I do not conceive of this research thread as a breakaway from grammaticalization theory, but rather as a continuation of it, unlike Heine *et al.* (2016), who are quite defensive of grammaticalization theory and construe it as standing in opposition to diachronic constructionist work.

grammaticalize just like substantive ones do (Noël 2007; Trousdale 2010), to distinguishing between grammaticalization and lexicalization in constructionist terms (Trousdale 2008b,c), or, more recently, between “grammatical constructionalization” and “lexical constructionalization” (Traugott & Trousdale 2013, 2014), and between “constructionalization” and “constructional changes” (Traugott & Trousdale 2013; Traugott 2015). A continuing and seemingly unresolved debate in this body of work concerns the primacy of either analogy (Traugott 2008b; Fischer 2007, 2008, 2010, 2013; De Smet 2009, 2012) or “reanalysis” (Traugott & Trousdale 2013; Traugott 2015) in the development of constructions.

To date, two monographs have appeared that reflect theoretically on linguistic change from a constructionist perspective, one that clearly belongs in the historical construction grammar strand and which dissociates itself from the grammaticalization paradigm, i.e. Hilpert (2013), and one that obviously builds on this paradigm and which I mentioned already in the previous paragraph as part of the constructionist grammaticalization theory thread, i.e. Traugott and Trousdale (2013). Like much of the work referred to so far, both books explicitly connect with usage-based linguistics but, through their coverage, put a different emphasis on what this entails, which is the topic of the next section.

2. Usage-based linguistics

Introductions to usage-based linguistics often give prominence to the relevance of studying the frequency of constructions. A good example is Diessel (2014):

The general goal of this approach is to develop a framework for the analysis of linguistic structure as it evolves from general cognitive processes such as categorization, analogy, automatization, and (joint) attention, which are not only relevant for language, but also for many other cognitive phenomena, such as vision, memory, and thought. In order to understand why linguistic structure is the way it is, usage-based linguists study language development, both in history and acquisition. On the assumption that language development is crucially influenced by the language user’s experience with particular linguistic elements, usage-based linguists have emphasized the importance of frequency of occurrence for the analysis of grammar. There is a wealth of recent results indicating that frequency has an enormous impact on the language users’ behavior in communication and information processing, and on the development of linguistic structure in acquisition and change.

The latter is indubitably the position of Hilpert, whose monograph is built around three frequency studies that have as one of their aims to “showcase[...] a small selection of modern techniques that demonstrate what is possible with diachronic corpora right now” (Hilpert 2013, 20). At the very end of his book, however, Hilpert (2013, 209) opines that it “is an embarrassing gap in a research program that describes itself as usage-based” that Construction Grammar has not “sufficiently integrated” “the role of the speakers and hearers as embodied agents who have to navigate actual speech situations, including their social and spatial contexts” and that “[i]n particular, little has been said about the functional role that the hearer might have”. Traugott and Trousdale’s book, which came out almost simultaneously with Hilpert’s, already seems to partially address this gap by putting greater focus on knowledge in the dyadic relationship between knowledge and use that forms part and parcel of a usage-

based approach. In line with the constructionist perspective they are adopting they conceive of linguistic knowledge as a network of relations among constructions, and of linguistic change as growth as well as contraction of the network and shifting relationships within it. The preview they offer at the start of their chapter on “A usage-based approach to sign change” perfectly captures the essence of their conception of how change operates:

[...], we use networks as a way of talking about individual knowledge (i.e. the representation of an idiolect, the reflection of an individual mind), community knowledge (i.e. the representation of the structure of English at a given point in time), and language change (i.e. how the structure of English varies over time), [...]. Crucially, for our perspective, innovations are features of individual knowledge, and as such are manifest in the networks of individuals, while changes must be shared across individual networks in a population. [...] Changes in a ‘community’ network develop through cross-population sharing of tiny innovative steps that occur in individual instances of speaker-hearer interaction largely via a processes [sic] of neoanalysis, including analogization [...]. (Traugott & Trousdale 2013, 46)

There is explicit reference to the knowledge of individual speakers and hearers here, as well as to interaction. Traugott and Trousdale (2013, 47) emphasize that “in order to understand change, it is necessary to recognize both knowledge and use” and that “knowledge is not fixed and immutable, but nevertheless the ground out of which innovation emerges”, which they specify by making reference to speakers, who “use existing resources to create novel expressions”. This should not be understood to refer to wilful creativity, however, since speakers use new expressions modelled on old ones because as hearers they have analysed other speakers’ utterances differently: when interpreting an utterance, “[t]he hearer may link all or some part of the utterance with nodes [in the/their constructional network] different from those intended by the speaker” (Traugott & Trousdale 2013, 51). It is clear, therefore, that these authors pay due attention to “the functional role of the hearer”, meeting one of the requirements for a true usage-based account as called for by Hilpert.

What is less clear is what exactly Traugott and Trousdale intend to be the reality status of “community knowledge”, referred to in the block quote above. Does their distinction between “individual knowledge” (“the representation of an idiolect”) and “community knowledge” (“the representation of the structure of English at a given point in time”) coincide with the difference Kemmer and Barlow (2000, viii) make, in their incisive and insightful introduction to Barlow and Kemmer (2000), between the “internal linguistic system” (“structures posited by the analyst as a claim about mental structure and operation”) and the “external linguistic system” (“hypothesized structures derived by the analyst from observation of linguistic data, with no expectation that such structures are cognitively instantiated”)? Probably not entirely in that, as usage-based diachronic construction grammarians, they are likely to aim for compatibility between the descriptions of individual and community knowledge, but “knowledge” necessarily has a different sense in either case, unless individual knowledge is understood to completely incorporate community knowledge. People who are considered to speak the same language should not be assumed to work with completely coinciding constructions, though, at least not beyond a certain amount of core grammar, and constructions that are shared may not be equally salient or entrenched for everyone (cf. Dąbrowska 2012; Barlow 2013; Schmid 2015). Though

as linguists we tend to make abstraction from individual speakers, the apparent reification of our abstractions has made us an easy target for critics of linguistics like Roy Harris (see, e.g., Harris 2007). When trying to formulate a usage-based model of change in the (assumed to be) shared constructional knowledge of speakers who are considered to speak the same language, we should avoid confusing knowledge with these generalizations. I will contend in the next section that Traugott and Trousdale have not completely succeeded in this in the “overarching view of constructional change” they propose and the account they give of “the special kind of change of the sort [they] call constructionalization” (Traugott & Trousdale 2013, 39).

3. For a radically usage-based diachronic construction grammar

An early and staunch advocate of a usage-based account (very clearly from Fischer 2007, chapter 7, and in subsequent publications), Olga Fischer has criticized the Traugottian tradition in work on grammaticalization for assigning a primary role to pragmatic-semantic motivation in grammaticalization changes (see, e.g., Fischer 2008, 340). This tradition persists in Traugott and Trousdale’s book in that in their model of change implicatures or invited inferences play a crucial role in the constructional changes leading up to constructionalization. Quoting from Traugott’s single-authored summary of parts of the book, pre-constructionalization constructional changes

typically involve language-users loosely associating an implicature or “invited inference” from a construct with the semantics of an existing construction in the constructional network, [...]. As a result of repeated associations, groups of language-users come to tacitly agree on a conventional relationship between the original form and a newly analyzed meaning. This leads to mismatch [...] between the morphosyntax of the original construction and the new constructs. (Traugott 2015, 55-6)³

While Fischer’s criticism was motivated by her alternative model of change, which, without outrightly rejecting pragmatic inferencing (cf. Fischer 2010, 204), attributes a more important role to form, one could also, from what I would call a “radically” usage-based perspective, which consistently separates individual knowledge from assumed conventional knowledge, question the reference to mismatch in the Traugott/Trousdale approach and ask: Whose mismatch are we talking about here? Is there a mismatch between the (meaning of the) innovators’ constructs and their own constructicons? Or is there a mismatch between the innovators’ constructicons and most other speakers’ constructicons? The latter would intuitively appear to me to be what models of change need to take into account. To mention the example revisited by both Traugott and Trousdale (2013, 217-224) and Traugott (2015, 65-73), as soon as speakers use *be going to* as a temporal marker, such a marker must be part of *their* grammars at least, if not those of other speakers. One might posit that at the level of individual knowledge semantics-syntax mismatch is an impossibility.⁴

In the Traugott/Trousdale model, however, not just semantic reanalysis but also its conventionalization precedes morphosyntactic reanalysis. Constructionalization only happens subsequently, “[w]hen there have been morphosyntactic and semantic

³ See Traugott and Trousdale (2013, 91-92) for a minutely differing formulation of the same ideas.

⁴ In an elaborate and detailed review of Traugott and Trousdale (2013), Börjars *et al.* (2015, 367-371) consider their case for the role of mismatch to be unconvincing for the different reason that they fail to precisely distinguish between form and function in the examples they adduce in support of it.

reanalyses that are shared across speakers and hearers in a social network”; only then “a new micro-construction or schema is added to the network, because a new conventional symbolic unit, and hence a new type node, has been created” (Traugott 2015, 56). In this model, therefore, constructionalization and conventionalization are very much entwined. When conventionalization has occurred, individual and community knowledge become aligned and the new construction becomes a potential source of a new mismatch. From a radically usage-based perspective, however, mismatch can only be assumed to play a part in constructional change if at the level of individual knowledge a realistic distinction can be made between shared and unshared knowledge. If the latter is unlikely the Traugott/Trousdale model turns out to be inaccurate.

When Olga Fischer called for a usage-based, analogy-centred approach that takes more notice of “the conventionalized formal system of language in which the development takes place” (Fischer 2010, 181), she as well seems to assume that all speakers of a language share the same construction. The operative word in the quote is “formal”, however, rather than “conventionalized”. In her approach the individual’s knowledge gets centre stage, without there being a mismatch between what speakers do and what they know. Her criticism of the old grammaticalization theoretical model is also applicable to its diachronic constructionist descendant:

[...] the position of the language-user should be a central issue in any theory concerned with language change [...]. The speaker/hearer who causes or spreads the change has no diachronic knowledge of his [sic] language; his system of grammar has developed from and is based on the language output that he [sic] hears around him. In grammaticalization studies, too much emphasis is placed on the changing language itself, on language as a free-floating object, as it were separate from users, and not enough on the speakers/hearers that produce or interpret it on the basis of the conventional system of grammar that they have developed in the course of language acquisition. (Fischer 2010, 182)

The reference to a “conventional” system in the last sentence of the quote is again unfortunate, but possibly the result of carelessness since it appears to be at odds with the defining relative clause following it. If grammatical knowledge is accumulated experientially, people that are considered to speak the same language should not be assumed to work with exactly the same construction. This would also exclude variation, and that in turn would preclude change. From a radically usage-based perspective there is only individual knowledge, though naturally there should be a fair amount of overlap between individual speakers’ constructions for communication “in the same language” to be possible. Barring the unlucky reference to a conventional system, however, Fischer’s analogical approach is quite radical in its usage-based stance.

What, then, are the implications (or some of them at least) of a radically usage-based slant on constructional change, i.e. one that separates internal from external constructions and which abstains from reifying the latter but instead zooms in on the former? I consider the main difference with the more traditional external perspective to be that one is not tracing the history of forms and that one is invited to contemplate the possibility that the explanation for the development of constructions with a certain substantive core cannot just be found in what from an external perspective are their substantive precursors. Rather than trace the lineage of forms, the question one is

asking is how come at some point speakers start using certain forms to express certain meanings. In other words, one is encouraged to complement a semasiological perspective with an onomasiological one (as argued for by Croft 2010 and Van de Velde 2011).

Naturally, this has repercussions for the role attributed in one's theoretical model of change to either reanalysis or analogy. Renaming the former "neoanalysis", as do Traugott and Trousdale (2013, 36), following Andersen (2001, 231), underscores that one's outlook is slanted towards an external system, given that the link between the old and the new analysis does not exist in the hearer/speaker's internal system, as is implicit from their motivation for adopting the term: "If a language user who has not yet internalized the construction in question, interprets the construction in a different way from the speaker, 're'-analysis has not occurred, only 'different' analysis; strictly speaking, one cannot 're'-analyze a structure one does not 'have'." It is a result of this external perspective that the Traugott/Trousdale model assigns a primary role to re/neoanalysis at the expense of analogy, or in the terminology of this model, "analogization" (Traugott & Trousdale 2013, 38). For Traugott and Trousdale (2013, 58) analogization is a kind of neoanalysis. In Olga Fischer's model, on the other hand, analogy is "the primary force" (Fischer 2010, 193), since the language user "does not actually reanalyse anything" and "[i]t is only from the point of view of the abstract system of grammar that one can speak of reanalysis" (Fischer 2010, 192, note 10). Fischer is, therefore, more radical in separating internal from external systems than are Traugott and Trousdale. The latter hold that a distinction must be made between "analogical thinking" as a "change-enabling process", i.e. something that speakers do cognitively, and "analogization" as a "mechanism or process of change" (Traugott & Trousdale 2013, 38), i.e. something that happens to a language, and, somewhat puzzlingly, that analogical thinking may be involved in a development without there being analogization, as for instance in the case of *be going to* (Traugott & Trousdale 2013, 222). However, more than anything else, this rather confirms their lack of attention for language as individual knowledge in that they move straight from a cognitive faculty to *the* language, i.e. what they term "community knowledge".

Another consequence of shifting one's focus from reconstructing the pathways of forms, or from re/neoanalyses of formal patterns, to motivations for their choice for use for certain purposes is an increased disposition to consider multiple sources of constructions. That is, one could allow for an analogical source in addition to a "reanalyzed" form, or one could take into consideration several analogical models even. As Fischer (2013, 528) puts it in her contribution to a collection on "multiple source constructions" (De Smet *et al.* 2013), "the analogies of one speaker need not necessarily be the same as the analogies of another". Equally pioneering, but emerging from a different, historical typological, tradition, has been the work by Rachel Hendery on the sources of relative clauses, which, like Fischer's work, is clearly inspired by a radically usage-based line of thinking in its distinction between an internal and an external perspective:

The sorts of diachronic relationships that can exist between constructions are much more complex than simple source-outcome relationships of the sort found in what we might think of as "prototypical" lexical etymologies. The types and subtypes of construction that linguists may identify are not always the same constructions that speakers treat as "similar" and "different", yet processes of change such as analogy, borrowing or calquing are the direct result of speakers' intuitions. (Hendery 2013, 116)

Given that these intuitions, or individuals' constructions, are where language change starts, diachronic construction grammar must be radically usage-based in its theoretical outlook to be able to achieve a realistic account of constructional change. This means it should consciously avoid an external approach and constantly ask whether there is a solid internal basis for externally apparent semasiological developments. It remains to be considered which existing methodologies can achieve this, and what new methodologies should look like, but there is promising potential in recent and on-going corpus research which looks at data from individual language users and variation across individuals, notably Schmid and Mantlik (2015), De Smet (2016a, b) and Peter Petré's ERC-Funded *Mind-Bending Grammars* project.⁵ Holding promise as well is artificial intelligence research on "agent-based" modelling of language evolution, which simulates how choices made by populations of individuals can lead to changes in "cultural" systems (see, e.g., Steels 2012; Pijpops *et al.* 2015; van Trijp 2016).

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⁵ Succinct descriptions of the project can be found at <https://erc.europa.eu/projects-and-results/erc-funded-projects/mindbendinggrammars> and at <https://www.uantwerpen.be/en/projects/mind-bending-grammars/> (both last accessed on 28 February 2016).

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