

Formal Evidence in Grammaticalization Research

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Volume 94

Formal Evidence in Grammaticalization Research
Edited by An Van linden, Jean-Christophe Verstraete and Kristin Davidse

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Kristin Davidse, An Van linden, Jean-Christophe Verstraete

Introduction

Kristin Davidse, An Van linden & Jean-Christophe Verstraete

In the last fifteen years or so, grammaticalization has become an increasingly popular topic of research. Even though it is not a 'school' of linguistic thought, it has become a recognizable approach attracting researchers worldwide. This is reflected in the organisation of a whole range of workshops and conferences devoted to grammaticalization. It is also telling that a canon of references (e.g. Lehmann 1982, 1985; Traugott 1982, 1989; Hopper 1991) and central textbooks (e.g. Hopper & Traugott [1993] 2003; Heine & Kuteva 2002) has been established which propose definitions of grammaticalization and criteria by which it can be recognized, and which relate grammaticalization to other processes of change. Central topics of study are the relation between grammaticalization and (inter)subjectification, the hypothesized unidirectionality of these two diachronic processes, and the relation between grammaticalization and lexicalization. Books dealing with these issues form a kind of secondary canon which includes: Traugott & Heine (1991), Giacolone Ramat & Hopper (1998), Fischer, Rosenbach & Stein (2000), Wischer & Diewald (2002), Traugott & Dasher (2002), Fischer, Norde & Perridon (2004), Bisang, Himmelmann & Wiemer (2004), Brinton & Traugott (2005). Finally, there have also been a number of in-depth studies of specific grammatical categories which take grammaticalization as the main, or at least a basic, perspective, viz. studies on modals, tense and aspect (Bybee, Perkins & Pagliuca 1994; Diewald 1999; Krug 2000), demonstratives (Himmelmann 1997; Diessel 1999), complex prepositions (Hoffmann 2005), complex sentences (Frajzyngier 1996) and discourse particles (Brinton 1996; Aijmer 2002; Simon-Vandenberghe & Aijmer 2007). They illustrate the particular appeal of grammaticalization as a focus of attention of approaches as varied as typology, diachronic and comparative study, synchronic language description, usage-based and corpus-based study, and language acquisition.

As is the case with many fashionable topics, however, the growing popularity of the concept has gone hand in hand with an increasing vagueness in its definition and delineation. On the one hand, scholars have included more and more instances of change in the category of grammaticalization, which has led to the criticism formulated in the contributions in Campbell (2001) that "grammaticalization" risks to be used to refer to any type of language change involving some aspect of grammar. On the other hand, there has also been a growing emphasis on

semantic and pragmatic aspects of grammaticalization, with less attention being devoted to more formal aspects. While semantic pathways and pragmatic factors are an integral part of arguments on grammaticalization, there is a serious danger of circularity and even vacuity if this is not accompanied by sound formal evidence for the changes posited, as cautioned by Fischer (2007).

The present volume seeks to redress the balance by showing how formal evidence is crucial in arguments about grammaticalization. More specifically, the articles in the volume deal with two major types of evidence that can be used in recognizing and explaining instances of grammaticalization: (i) system-internal factors steering the direction of grammaticalization and (ii) recognition criteria for grammaticalization. These two issues feed back into the fundamental question which, according to Diewald (2010), grammaticalization scholars can no longer avoid to face, viz. on what understanding of grammar is our definition of grammaticalization based? And conversely, has greater insight into changes leading to grammar sharpened our understanding of grammar itself? The study of grammaticalization has been inspired mainly by functional theories, such as those of Givón (1971, 1979), Chafe (1970) and Halliday (1985; Halliday & Hasan 1976) and, more recently, Langacker (1987, 1991) and Croft (2001), which view grammatical elements as form-function correlations and approach grammar from the perspective of usage and discourse. The issue of system-internal factors steering grammaticalization, then, raises general questions such as how to conceive of the relation between grammatical structures and related or alternative structures, and how to assess the importance of grammatical systems and functional domains. And one way of looking at the issue of recognition criteria of grammaticalization is that it requires us to reconnect the traditional recognition criteria of grammatical relations and classes to the defining criteria of changes leading to the formation of grammatical syntagms and paradigms.

The first part of the volume deals with the steering role the grammatical system can play in determining the direction and the endpoint of a process of grammaticalization. It contains four case-studies that analyse the influence of the wider grammatical system on a grammaticalizing item: Fischer, Frajzyngier, Yap, Choi and Cheung (henceforth referred to as Yap et al.), and Van den Nest. While much grammaticalization research has focused on the semantic relation between source and target categories and its cognitive or cultural motivations, far less attention has been devoted to the question why lexical items take a specific path towards a grammatical function, and why they end up in a specific place in the grammatical system. The two articles by Van den Nest and by Yap et al., which deal with conditionals in German and English, and nominalizers in Chinese respectively, show how the architecture of one particular language system, and internal developments in this system, can create functional niches that push or

pull developing items or constructions towards specific endpoints. More fundamentally, the issue of the dialectic between grammatical systems and grammaticalizing items touches on the basic definition of grammaticalization – how strictly or how broadly we want to define the process. Frajzyngier advocates a much broader definition of grammaticalization than it receives in the general tradition of grammaticalization studies. He defines it as the emergence of grammatical systems, more specifically, as the emergence of coding means of grammatical categories within functional domains. Fischer’s article deals with both of the issues this volume is concerned with: the impact of the grammatical system on grammaticalization, and grammaticalization parameters. We have put her contribution in the first part because the appeal to the wider grammatical system is central to its argumentation, and because Fischer was one of the first to make the point that grammaticalization cannot be studied independently of changes in the grammatical system contemporaneous with it. For instance, Fischer (1994) showed that the auxiliarization of *have to* was influenced by the basic change in word order taking place at the same time.

In keeping with the general theme of this volume, Fischer (p. 19) formulates a plea “that more notice should be taken of formal matters” in grammaticalization – not of form as such but of form in its inextricable relation with function (p. 21). This essential form-function relation, she notes, is reflected well in Anttila’s (2003) ‘analogical grid’, which consists of a syntagmatic contiguity axis and a paradigmatic similarity axis – both defined as form-meaning axes – and which provides a useful way of thinking about changes such as grammaticalization. She cautions against looking at a process of grammaticalization “as a historical object that floats through time, as it were divorced from speakers and from their system of grammar” (p. 20). Rather, the role of the speaker and hearer in the communicative situation and the overall synchronic grammar system acquired by them has to be taken into account in the study of particular processes of grammaticalization.

The concrete topic of Fischer’s study is the diachronic development of English epistemic modal constructions analogous to deontic ones, as in *He must be home by now* versus *You must go home*. This development has been argued to involve increase of scope (from the VP to the whole proposition) (Bybee et al. 1994; Tabor & Traugott 1998; Roberts & Rousseau 2003), thus going against Lehmann’s parameter of scope decrease. Against this, Fischer makes a case that the actual micro-steps in this change involved stability of scope. The first examples with epistemic modals in Old English had impersonal, non-agentive modals followed by impersonal infinitives such as *wesan*, *sin* ‘be’, *werden* ‘become’, *gesin* ‘happen’, on which the proposition depended, usually introduced by *þæt* ‘that’, as in *Eaðe mæg gewurðan þæt þu wite þæt ic nat* (lit. ‘easily may happen that you may know what I don’t’). Thus, the emergence of epistemic meaning was not accompanied by scope

increase, as the modal verb combined both in its deontic and its first epistemic uses with an infinitive governed as an object. Epistemic modals with personal subjects to which the following verb assigned an argument role became available in Middle English only, at the same time as subject-raising structures with verbs like *seem* began to occur (whose earlier form had been non-raised as well). Fischer argues that the bi-clausal epistemic structures of Old English, e.g. *It may be that he comes again*, were replaced by monoclausal modal constructions with a 'raised' agentive subject, as in *He may come again*, due to formal analogy with personal constructions containing dynamic or deontic modals, e.g. *He can [is able to] swim*. In other words, epistemic constructions as we know them now did not develop directly from OE deontic modals, but arose as a result of various related changes in the grammatical system of Middle English, such as the rise of structural subjects, the loss of impersonal verb constructions, and the emergence of subject-raising constructions with *seem*. She concludes that there is no need to give up Lehmann's parameter of scope reduction, which is tightly interwoven with his other parameters, on account of the development of epistemic modals in English. It remains of course to be seen, she notes, whether similar solutions will be possible for other cases of scope increase adduced in the literature.

Many of Fischer's concerns about the study of grammaticalization are shared by Frajzyngier. He too emphasizes the fundamental role of speaker and hearer – their communicative intentions and needs as well as their linguistic abilities. He also stresses that

[a] starting point for every grammaticalization is the grammatical system that exists at any given time for a particular language, with a finite number of coding means that can be combined and recombined, and a finite number of functional domains and sub-domains. (p. 45)

From this quote transpires the importance he attaches to forms in their relation to meaning, viz. as coding means, as well as to the system of oppositions within which they function, i.e. functional domains or classes of expressions of a certain set of meanings constructed by specific coding means. As noted above, in Frajzyngier's view grammaticalization is not restricted to the development of grammatical morphemes from lexical items, but is concerned with the emergence of coding means *tout court*. Coding means recruited from lexical sources typically come from *outside* the functional domain but have inherent syntactic, semantic or discourse properties that make them good candidates for coding the new grammatical function. Formal means that neither inherently nor iconically convey the particular meaning they come to mark typically originate *in* the functional domain, and are the result of modification of already existing coding means. The study of these phenomena does not traditionally fall within the ken of grammaticalization studies.

As an illustration of grammatical markers developing from non-lexical sources, Frajzyngier discusses the grammaticalization of tone in several Chadic languages, in which the contrast between low and high tone has come to code various, unrelated semantic contrasts. All involve oppositions within one functional domain, e.g. point of view of the subject versus unspecified point of view on the verb in Hausa, perfective versus habitual aspect in Mupun, and subject suffixes versus object suffixes in Gidar. The nature of the opposition is unpredictable; one cannot explain, for instance, why the tonal opposition in Hausa did not come to mark point of view of the subject versus point of view of the object (instead of unspecified point of view, as found now). However, it always seems to include an unmarked broader option and a narrower non-default form, with the latter being the product of grammaticalization. This type of grammaticalization *within* the functional domain involves modification of existing coding means, such as tone, which, according to Frajzyngier, is motivated by the speaker and hearer's ability, most often unconscious, to analyse language, an activity that falls within Hagege's (1993, 2004) concept of 'language builder'. The proposed addition to grammaticalization theory also contributes to the understanding of the origin of binary distinctions in language.

The article by Yap et al. studies the historical development of Chinese locative/spatial noun *di* ('bottom') into a nominalizer (bringing in the phonological variant *de*), which further develops into a relativizer and genitive, and then into an adverbial subordinator and an attitudinal or stance marker. It investigates the influence of the larger grammatical system on this development from two angles: (i) the analogical influence of other nominalizers at various stages of *di*'s development, and (ii) the impact of the word order tendencies of Chinese on this grammaticalization process. According to the authors, the main analogies fashioning *di*'s development were the following. The locative nouns with possessive functions *suo* and *xu* influenced locative *di* in postnominal position, in which it also acquired possessive meanings. Together with *suo* and *xu*, *di/de* further analogized with nominalizer *zhe* in the [NP] [light noun]-type possessive construction in Middle Chinese, which facilitated its extension to argument nominalization [VP *de/di*] in Late Middle Chinese. Nominalizers *suo* and *zhe* had developed relativizer and genitive uses in Middle Chinese, which *di* had largely replaced by Early Modern Chinese. The [VP *de/di*] nominalization construction in apposition to light noun *hua* led to the contemporary [VP *de hua*] subordinate clause construction. In a final development, 'stand-alone' nominalizer uses of *de/di* developed into sentence-final mood particle *de*. Similar developments involving the reanalysis of head-final (i.e. clause-final) nominalizers as sentence-final mood particles are also observed in the case of Chinese nominalizer *zhe*, and are attested in other Chinese dialects as well (e.g. Cantonese *ge3* and Chaozhou *kai*). Many other East Asian and Tibeto-Burman languages show a similar syncretism involving head-final nominalizers

being recruited for sentence-final mood marking functions, but most of these are verb-final languages, unlike Chinese. This raises the question of how the word order principles of Chinese could facilitate the reanalysis of nominalizers into sentence-final particles. The authors point out that Chinese is among the rare SVO languages with prenominal modification (Dryer 2003). Diachronic analysis in fact reveals that prenominal modifying expressions, including relative clauses, emerged as extensions or secondary developments from nominalization constructions. And Chinese nominalizers such as *zhe* and *di/de* evolved from light nouns juxtaposed to modifiers. Nominalizers in Chinese, then, are head-final, and when they occur in sentence-final position, they can become natural carriers of sentence-final prosody. This is why Chinese nominalizers, like their counterparts in verb-final languages, are frequently reanalysed as sentence-final particles.

Van den Nest's article examines asyndetic or conjunctionless conditionals in German and English. According to Jespersen's Model (1940), this construction arose diachronically from a paratactic discourse sequence with a polar interrogative. However, more recently Harris and Campbell (1995) have claimed that this model lacks any theoretical and empirical foundation. Van den Nest sets out to recover some basic insights from Jespersen and argues that asyndetic conditionals have to be viewed as emerging from discourse. In other words, they can be related to linked stages of systematization – both synchronically co-occurring variants and diachronic stages. In Present-day German, Van den Nest finds a spectrum of formal variation ranging from dyadic sequences to asyndetic conditionals. Study of the layers suggests that speech-situation evocation is relevant to the formation of interrogative-based conditionals. Regarding their diachronic development, Van den Nest formulates the hypothesis that asyndetic conditionals in German derived from a sequence in which a declarative was preceded not by an interrogative, but by a V1-declarative, in which V1-order marked the whole proposition as rhematic, or under discussion. The proposed development is compatible with observed specialization patterns relating to clause integration, the finite verb of the protasis and possible-world categories *realis*, *potentialis*, *irrealis*, but further evidence for this diachronic development is still needed. If validated, the diachronic development of the German asyndetic conditional (derived from V1-declarative) would be different from the synchronically emergent picture (interrogative-derived). Van den Nest ventures the thought that this might square with the transition in German from pragmatic to grammatical word order. For English no comparable scenarios can be proposed. In Present-day English, the asyndetic conditional is non-emergent in relation to interrogatives and in Old English it cannot, because of its association with the subjunctive, be plausibly related to either polar interrogatives or declaratives. This may be due, according to Van den Nest, to the very low ratio of asyndetic to syndetic conditionals throughout the history of English.

The importance of these four articles lies in the fact that they focus not just on the starting point and the endpoint of a process of grammaticalization, as is done in most studies, but also try to chart the precise path taken by an item and the grammatical factors determining why this particular path was taken. The larger grammatical system is shown to be an important factor, both through the specific architecture of the systems involved and through related structures exercising analogical influence.

The second part of the volume groups together six contributions dealing with various formal recognition criteria of grammaticalization: Fried, Liu, Schlüter, Shibashaki, Smessaert and Van Belle, and Sohn. The articles by Smessaert and Van Belle and Fried set out to relate general grammatical argumentation to features of the grammaticalization process. The other four studies, Liu, Schlüter, Sohn and Shibashaki, investigate frequency as a formal factor in grammaticalization.

In Smessaert and Van Belle's study of the Dutch adverb *anders*, the main focus is on the grammatical recognition criteria for distinguishing its three different uses. It is, in this respect, a model for the principled identification of co-existing synchronic layers. In its propositional uses (type I), *anders* 'different(ly)' functions as a manner adjunct or valency term, or as part of a participant NP or complex predicate. These uses display proportionality with the paradigms of the various corresponding constituents of the clause, which can also become the focus of clefting and can fall in the scope of a negative element preceding it. In these propositional, intraclausal uses, the meaning of *anders* is comparative and phoric, i.e. its interpretation crucially refers to referents in the discourse with regard to which 'difference' or 'otherness' is indicated. In its textual uses (type II), *anders* functions as conjunctive adverbial, connecting either a negative protasis to its apodosis ('otherwise'), or expressing exceptive relations ('otherwise, normally'). As expected, the tests for type I, which are oriented towards clause constituents, do not apply to these uses. Rather, the textual uses can be identified by accommodation (extra modifications) of the original first clause and interaction with conjunctions. The conjunctive adverbial uses of *anders* are phoric but not comparative, i.e. they serve a clause-linkage function, but the original 'other/different'-meaning has shifted to the expression of negative conditional or exceptive relations. Finally, *anders* is also used as an attitudinal discourse marker (type III), conveying stances of doubt or dissatisfaction ('though, rather') with regard to the proposition in its scope. These meanings contain elements of 'denial', 'concession' or 'preference', and are thus neither comparative nor phoric. The type I and the type II tests do not apply to these uses, but they do display word order tendencies distinct from the other uses of *anders*. Smessaert and Van Belle then relate these three distinct synchronic uses to a hypothesized diachronic process of change, and make some suggestions as to how their whole battery of grammatical tests from the structural, formal

and functional traditions can be linked to the parameters of grammaticalization proposed by Lehmann (1985) and Hopper (1991). For instance, possibility of clefting and negation can be seen as reflecting semantic weight and their non-applicability as indicating attrition (Lehmann 1985). Lehmann's obligatorification, and the stage of specialization preceding it according to Hopper, can be related to the "shrinking of substitution possibilities, ... i.e. the transition from proportionality for type I, via accommodation for type II, to total absence with type III" (p. 182).

Fried investigates the categorial, semantic-pragmatic and syntactic shifts affecting participial adjectives (PAs) in Old Czech. The form of these PAs reflects their mixed-category status: an adjectival suffix marking case, number and gender is attached to a verbal participial stem. Over time they shifted from having more verbal to having more adjectival characteristics. Semantically, they changed from profiling events to profiling participants in events. Syntactically, they moved from being used in predicative constructions to being used predominantly as attributive modifiers in NPs. The three stages of the change are: (i) PAs in event-profiling predicative function, (ii) PAs ambiguous between predicative and modifier functions, (iii) PAs in participant-profiling modifier function. Fried's main aim in the article is to use Construction Grammar to capture the precise mechanisms of change and gradual shifts. Accordingly, she interprets the partial transitions involved in this change as the result of interplay between the 'internal' morphosemantic patterning of the PA and the 'external' syntagmatic environments in which the PA functions. This allows her to capture both the internally motivated semantic-pragmatic 'push' towards new interpretations of the PAs and the 'pull', or generalizing attraction, exercised on them by the syntagmatic environment with Modifier-Head structure they came to prefer. In their original predicative function, PAs have the meaning '[who is] V-ing at the time of the main event', which can transparently and compositionally be put together from its inflectional morphological form. Ambiguous contexts inviting an interpretive shift from event- to participant-profiling may arise due to contextual factors or verb senses pushing towards the latter reading. The exclusive modification function of PAs arose in contexts manipulating the eventuality expressed by the PA in a way that led to participant- or entity-profiling, viz. the expression of habitual meanings (associated with agents), resultative meanings involving voice shift and reconfiguration of the valence of the root (associated with non-agents), as well as possibility and purpose meanings, adding modal elements to voice shift and valence reconfiguration. Fried convincingly shows that these partial transitions depended on elements of the morphosemantics of the PA being foregrounded by specific features of the recurring syntagmatic contexts in which it was used. Bare PAs with participant-profiling meaning gradually settled in the position immediately preceding the subject noun, which was no longer required to be animate. Fried interprets this as a case of "constructionalization"

(Traugott 2008), i.e. “a sharpening of an inherently available but vaguely delimited and context-dependent range of syntactic functions” (p. 216).

The other articles of the second part, Liu, Schlüter, Sohn and Shibashaki, investigate frequency as a parameter of grammaticalization, in relation to other factors such as prosody and changes in collocation and grammatical distribution. As argued by Bybee (2003), the shift from lexical item to grammatical element is typically accompanied by a dramatic increase in frequency, due to the increase in the number and types of contexts in which the grammatical element can be used. Frequency not only results from grammaticalization but also contributes to it, for instance by causing phonological, morphosyntactic or semantic changes. The articles by Shibashaki, Sohn and Liu strongly refer to Bybee’s work on frequency and position themselves in the discourse-and-grammaticalization tradition of Hopper (1987) and DuBois (2003). Schlüter’s study is a quantitative empirical study of the directionality of (de-)grammaticalization, which situates itself more in the tradition of Traugott (1989; Traugott & Dasher 2002).

Shibashaki’s contribution applies this perspective to the evolution of the Japanese second person pronoun *omae*, which developed from a noun meaning ‘front’ into a third person pronoun, and then into a second person pronoun. He chronicles the semantic and referential shifts involved in this process, relating them to the changing distribution of nominal and pronominal uses. He also links the different uses to a distributional analysis of their grammatical roles. For instance, when *omae* was used mainly as a nominal meaning ‘front’ in Old and Middle Japanese, it occurred primarily in oblique position. But when it began to take on pronominal properties in Pre-Modern Japanese, it changed to a type of Nominative-Accusative pattern. In these reconstructed changes, frequency figures in its usual role as indicator of change. Shibashaki then shows that the development of the pronoun use of *omae* was also subject to ‘pejorization’ in that the original honorific reference (motivated by the notion of appearing ‘in front of’ superiors) shifted to reference to subordinates. He argues that in this instance frequency functioned as cause of semantic change: “the more frequently *omae* ‘you’ was used, the less honorific it became” (p. 237).

Sohn studies the grammaticalization of the Korean negative verb *-cah-* into an interactive marker. The immediate source construction is the sequence of the comittal suffix *-ci* and the verb of negation *ahn-*, viz. *-ci ahn-*, used in interrogatives to seek agreement from the interlocutor about the proposition. *-ci ahn-* was reanalysed into the interactive marker *-cah-* used in declaratives, imperatives and propositives, with a value like English ‘you know’ to express the speaker’s assumption that the interlocutor will agree with the message conveyed. Using a spoken corpus drawn from natural discourse as well as a corpus of written Korean, this study traces the exact mechanisms of change as they can be observed in the distinct synchronic

layers. Sohn shows how the original long form has been phonologically reduced due to high frequency – particularly in some contexts of fixed collocations. She also reconstructs how prosody interacts with information structure in the reanalysis of *-ci ahn-*, which is mostly used with a high boundary tone in interrogatives, but has low boundary tone in the majority of the reduced forms in non-interrogatives. *-canh-* can mark accessible information to urge the interlocutor to recall or activate this information or it can mark inaccessible information for which it solicits agreement or empathy from the interlocutor. This study shows what mileage can be got out of studying the interaction between phonological features, frequency, information structure and discourse contexts.

Liu, then, posits that an indefinite article is emerging in spoken Mandarin from grammaticalizing *yi-ge* ‘one + general classifier’. She relates this claim to Huang’s (1999) proposal that *na-ge* ‘that + general classifier’ is evolving as a definite article in Mandarin Chinese. She bases her argumentation on the frequency and distribution of *yige* observed in a corpus of spontaneous spoken data. Against earlier claims that *yige* is extremely rare in spoken discourse, Liu found that in her data it occurred about once every minute. Functionally, she argues, *yige* has overgeneralized from its erstwhile numeral classifying function by whose positional and constructional constraints it is no longer bound. Whereas numeral classifiers typically occur in affirmative, non-interrogative and independent or main clauses, *yige* is now also found in negative, interrogative and subordinate clauses. It is also replacing more specialized classifiers, whose typical noun collocates it is taking over. This shows that *yige* is realigning with a new grammatical function, viz. the marking of indefinite referentiality in the sense of anchoring newly-mentioned nouns. In Liu’s data, this first-mention use of *yige* has extended to plural and abstract nouns, proper nouns, possessive expressions, and a large portion of non-identifiable non-referring nouns – all extensions from its numeral classifier use with singular count nouns. She interprets the change manifested by *yige* in terms of decategorization and recategorization. First, *yige* lost its original numeral classifier function and the morphosyntactic behaviour going with it: it detached itself from the function of marking the singular concept ‘one’, replacing other more specific classifiers and shedding the general distributional constraints of classifiers. Next, it recategorized into a marker of indefiniteness: it came to serve the function of anchoring unfamiliar, newly-mentioned referents, extending to all kinds of nouns and attaching even to various modifiers found in NPs.

Schlüter’s study of *dare* is set up as an empirical test case of the unidirectionality hypothesis of grammaticalization and auxiliarization (e.g. Traugott 1989; Traugott & Dasher 2002): do relative frequencies of uses in successive historical slices offer evidence that *dare* over time developed (more) into a full verb, as claimed by some? This study is form-oriented, operating on “the premise that formal criteria are

indicators of the categorial status of an item” (p. 295). Auxiliary, full verb and ambiguous forms are distinguished on the basis of features such as inflectional endings, *do*-support and the use of bare vs. *to*-infinitives following *dare*. It presents itself as the first frequency-driven study of *dare*, which chronicles and quantifies the spread of full verb properties at the expense of auxiliary features. Schlüter argues that *dare* is a case of de-auxiliarization and de-grammaticalization, with the auxiliary forms showing a decrease in frequency. She counters Traugott’s (2001) suggestion that *dare*’s labile status hovering between full verb and auxiliary has not fundamentally changed, by noting that it evolved full verb features it did not have in Old English and by pointing at the quantitative evidence of increasing proportions of full verb uses. Reversing the point that grammaticalization goes with increased frequency, she interprets the decrease in frequency of the auxiliary forms as a reflex of de-grammaticalization. Still, she cautions, *dare* is “neither a showcase example of auxiliarization nor of de-auxiliarization” (p. 321), but rather partakes of both processes. She sides with Lehmann’s (1995: 33) view that the difference between auxiliaries and main verbs is inherently gradual, both diachronically and synchronically.

In general, the importance of these six articles lies in the fact that they direct the main focus of attention onto what has often become a perfunctory part of grammaticalization studies, viz. the criteria for detecting instances of grammaticalization. The main parameters of grammaticalization to which they refer are the classic ones proposed by Lehmann (1982) and Hopper (1991) – which are complementary to each other in covering advanced and incipient grammaticalization respectively. An important parameter added to this canonical set is that of frequency, which was proposed under the heading of ‘incidence’ in Krug (2000) and has been further argued for in Bybee (2003). As discussed above, all six articles are also strongly usage-based, bringing rich and extensive corpus evidence to bear on the issue of formal evidence of grammaticalization.

Taken together, the contributions to this volume amply illustrate the importance of formal evidence in argumentation about grammaticalization: it is crucial to recognize grammaticalization and to relate instances of grammaticalization to the larger grammatical system. In fact, if one thinks through the thrust of these studies, they add up to a (re)confirmation of the tenet that formal changes are criterial for grammaticalization. Contextual enrichments, invited inferences and pragmatic shifts of the source signs in use may pave the way towards grammaticalization, but if one cannot show that new form-meaning pairs have been established, one cannot say that grammaticalization has taken place (Traugott 2010).

Such new form-meaning associations in morphosyntax may be identified by the different formal properties and syntactic behaviour of the newly formed grammatical signs. The contributions by Fischer, Yap et al., Van den Nest, Fried,

and Smessaert and Van Belle, in their own ways, all offer descriptions of syntactic changes in a broad sense (involving the syntagmatic as well as the paradigmatic axes) which reflect the new semantic components of the resulting constructions. Frajzyngier's study of new associations of phonological form and semantic function pays particular attention to the new systems of paradigmatic oppositions being formed, and the markedness relations between them.

Strikingly, in these closely argued studies of grammaticalization, one can notice a return to foundational analytical constructs of modern linguistics, such as the inextricable link between syntagm and paradigm (Saussure 1983 [1916]; Firth 1957), systems and markedness (Jakobson 1932) and distributional analysis (Harris 1954). While the classics of the structural-functional literature may not actually be referred to, it is worth remarking that these traditional grammatical notions and analyses are rediscovered and, to a certain extent, revindicated in grammaticalization studies concerned with formal evidence.

Very specific evidence of a shift from (more) lexical to (more) grammatical uses of elements is increased frequency. This is so for two reasons. Firstly, as lexical items are typically much less frequent than grammatical elements, the shift to a grammatical function can be expected to be accompanied by a noticeable increase in frequency. Secondly, the changed distribution of grammaticalizing elements, which extend to new environments, also causes an increase in frequency. The contributions by Liu and Sohn document the extension of the grammaticalizing elements studied to clause types and collocational environments that were incompatible with their earlier uses. Shibasaki's study also correlates distributional and frequency changes, and argues that the increase in frequency played a causal role in the semantic changes of *omae*. Interestingly, Schlüter's detailed quantified study of the development of auxiliary and full verb uses of *dare* hints at the limits of the notions of grammaticalization and degrammaticalization, which, she notes, cannot optimally capture the very gradual differences between auxiliary and main verb uses.

The formal correlates of grammaticalization are not only central to the question *if* grammaticalization has taken place, but also to the question *how* grammaticalization takes place. The express aim of the contributions by Fischer and Fried is to account for the micro-steps of the grammaticalization processes they are concerned with. For both, this also involves distinguishing grammaticalization, the development of types, from lexicalization, the development of tokens. Fischer's study of the development of English epistemic modals identifies formal replacement and structural analogy as crucial mechanisms. The biclausal epistemic modal constructions of Old English underwent formal replacement by a raised construction which emerged with *seem* in Middle English. An important factor in this replacement was the structural analogy with deontic and dynamic modals whose subjects are assigned an argument role by the following verb. Fried's study of the participial adjective in Old Czech sets out to capture the functional shifts

that gradually reorganized the participial adjective's typical syntactic pattern from predicative to attributive. These functional shifts are shown to result from the interplay between the participial adjective's internal morphosemantic structure and its grammatical and textual functions in larger syntagmatic environments, which led to the demotion of some constructional features and the promotion of others. Again, one is reminded here of a classic of the functional literature, viz. Haas's (1954) article on the bi-directional relation between internal and external functional levels of analysis.

At the beginning of this introduction, the question was raised if greater insight in grammaticalization feeds back into a better understanding of grammar. As noted by Fischer (p. 21), a school of thought such as Emergent Grammar, which she calls "an extreme form of grammaticalization theory", seems to suggest that there are no such things as a grammatical system with fixed structural templates (Hopper 1987: 156) and "signs with an essential inner core of constant meaning" (1987: 157). According to Hopper (1987), the structure of a grammar is "always in a process but never arriving, and therefore emergent" (1987: 156) and "lability between form and meaning" (1987: 157) of signs is a constant. If these claims appear as overstatements from the less extreme grammaticalization perspective adopted throughout this volume, the question remains how change, and the gradience in between beginning and endpoints, can be built into a conception of grammar that is linguistically, cognitively and socially adequate. We believe that this collection of articles, by carefully documenting and interpreting observable patterns of formal change, provide many interesting hints and suggestions for such a view of grammar. But the elaboration of a full-fledged theory of grammar accommodating flux and change remains a challenge for future research.

References

- Anttila, Raimo. 2003. Analogy: The warp and woof of cognition. In Joseph & Janda (eds), 425–440.
- Aijmer, Karin. 2002. *English Discourse Particles: Evidence from a Corpus* [Studies in Corpus Linguistics 10]. Amsterdam: John Benjamins.
- Bisang, Walter, Himmelmann, Nikolaus P. & Wiemer, Björn (eds). 2004. *What Makes Grammaticalization? A Look from its Fringes and its Components*. Berlin: Mouton de Gruyter.
- Brinton, Laurel. 1996. *Grammaticalization and Discourse Functions*. Berlin: Mouton de Gruyter.
- Brinton, Laurel & Traugott, Elizabeth C. 2005. *Lexicalization and Language Change*. Cambridge: CUP.
- Bybee, Joan L. 2003. Mechanisms of change in grammaticization: The role of frequency. In Joseph & Janda (eds), 602–623.
- Bybee, Joan L., Perkins, Revere & Pagliuca, William. 1994. *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*. Chicago IL: University of Chicago Press.

- Campbell, Lyle (ed). 2001. Grammaticalization: A critical assessment. Special issue of *Language Sciences* 23: 2–3.
- Chafe, Wallace. 1970. *Meaning and the Structure of Language*. Chicago IL: University of Chicago Press.
- Croft, William. 2001. *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: OUP.
- Diessel, Holger. 1999. *Demonstratives. Form, function, and grammaticalization* [Typological Studies in Language 42]. Amsterdam: John Benjamins.
- Diewald, Gabriele. 1999. *Die Modalverben im Deutschen: Grammatikalisierung und Polyfunktionalität*. Tübingen: Niemeyer.
- Diewald, Gabriele. 2010. On some problem areas in grammaticalization theory. In *Grammaticalisation: Current View and Issues* [Studies in Language Companion Series 119], Ekkehard König, Elke Gehweiler & Katerina Stathi (eds), 17–50. Amsterdam: John Benjamins.
- Dryer, Matthew. 2003. Word-order in Sino-Tibetan languages from a typological perspective. In *The Sino-Tibetan Languages*, Graham Thurgood & Randy LaPolla (eds), 270–288. London: Routledge.
- Du Bois, John W. 2003. Discourse and grammar. In *The New Psychology of Language: Cognitive and Functional Approaches to Language Structure*, Vol. 2, Michael Tomasello (ed.), 47–87. Mahwah NJ: Lawrence Erlbaum Associates.
- Firth, John Rupert. 1957. *Articles in Linguistics 1934–1951*. London: OUP.
- Fischer, Olga C.M. 1994. The development of quasi-auxiliaries in English and changes in word order. *Neophilologus* 78: 137–162.
- Fischer, Olga C.M. 2007. *Morphosyntactic Change: Formal and Functional Perspectives*. Oxford: OUP.
- Fischer, Olga C.M., Rosenbach, Anette & Stein, Dieter (eds). 2000. *Pathways of Change. Grammaticalization in English* [Studies in Language Companion Series 53]. Amsterdam: John Benjamins.
- Fischer, Olga C.M., Norde, Muriel & Perridon, Harry (eds). 2004. *Up and Down the Cline. The Nature of Grammaticalization* [Typological Studies in Language 59]. Amsterdam: John Benjamins.
- Frajzyngier, Zygmunt. 1996. *Grammaticalization of the Complex Sentence: A Case Study in Chadic* [Studies in Language Companion Series 32]. Amsterdam: John Benjamins.
- Giacolone Ramat, Anna & Hopper, Paul J. (eds). 1998. *The Limits of Grammaticalization* [Typological Studies in Language 37]. Amsterdam: John Benjamins.
- Givón, Talmy. 1971. Historical syntax and synchronic morphology: An archaeologist's field trip. *Chicago Linguistic Society* 7: 394–415.
- Givón, Talmy. 1979. *On Understanding Grammar*. New York NY: Academic Press.
- Haas, William. 1954. On defining linguistic units. *Transactions of the Philological Society* 1954: 54–84.
- Halliday, Michael A.K. 1985. *An Introduction to Functional Grammar*. London: Arnold.
- Halliday, Michael A.K. & Hasan, Ruqaiya. 1976. *Cohesion in English*. London: Longman.
- Hagège, Claude. 1993. *The Language Builder: An Essay on the Human Signature in Linguistic Morphogenesis* [Current Issues in Linguistic Theory 94]. Amsterdam: John Benjamins.
- Hagège, Claude. 2004. On the part played by human conscious choice in language structure and language evolution. In *Linguistic Diversity and Language Theories* [Studies in Language Companion Series 72], Zygmunt Frajzyngier, David Rood & Adam Hodges (eds), 105–118. Amsterdam: John Benjamins.

- Harris, Zellig. 1954. Distributional Structure. *Word* 10: 146–162.
- Harris, Alice C. & Campbell, Lyle. 1995. *Historical Syntax in Cross-Linguistic Perspective*. Cambridge: CUP.
- Heine, Bernd & Kuteva, Tania. 2002. *World Lexicon of Grammaticalization*. Cambridge: CUP.
- Hoffmann, Sebastian. 2005. *Grammaticalization and English Complex Prepositions: A Corpus-based Study*. London: Routledge.
- Hopper, Paul J. 1987. Emergent grammar. *Berkeley Linguistic Society* 13: 139–157.
- Hopper, Paul J. 1991. On some principles of grammaticization. In Traugott & Heine (eds), Vol. 1, 17–35.
- Hopper, Paul J. & Elizabeth C. Traugott. [1993] 2003. *Grammaticalization*. Cambridge: CUP.
- Himmelman, Nikolaus P. 1997. *Deiktikon, Artikel, Nominalphrase: Zur Emergenz syntaktischer Struktur*. Tübingen: Niemeyer.
- Huang, Shuanfan. 1999. The emergency of a grammatical category ‘definite article’ in spoken Chinese. *Journal of Pragmatics* 31: 77–94.
- Jakobson, Roman. 1932/1984. The structure of the Russian verb. In *Russian and Slavic grammar studies, 1931–1981*, Linda Waugh & Morris Halle (eds), 1–14. Berlin: Mouton de Gruyter.
- Jespersen, Otto. 1940. *A Modern English Grammar on Historical Principles*, Part 5: *Syntax*, Vol. 4. Copenhagen: Munksgaard.
- Joseph, Brian D. & Richard D. Janda (eds). 2003. *The Handbook of Historical Linguistics*. Oxford: Blackwell.
- Krug, Manfred G. 2000. *Emerging English Modals: A Corpus-based Study of Grammaticalization*. Berlin: Mouton de Gruyter.
- Langacker, Ronald. 1987. *Foundations of Cognitive Grammar*, Vol. 1: *Theoretical Prerequisites*. Stanford CA: Stanford University Press.
- Langacker, Ronald. 1991. *Foundations of Cognitive Grammar*, Vol. 2: *Descriptive Application*. Stanford CA: Stanford University Press.
- Lehmann, Christian. 1982. *Thoughts on Grammaticalization*. Cologne: University of Cologne.
- Lehmann, Christian. 1985. Grammaticalization: Synchronic variation and diachronic change. *Lingua e Stile* 20: 303–318.
- Lehmann, Christian. 1995 [1982]. *Thoughts on Grammaticalization*, 2nd rev. edn. Munich: Lincom.
- Roberts, Ian & Rousseau, Anna. 2003. *Syntactic Change: A Minimalist Approach to Grammaticalization*. Cambridge: CUP.
- de Saussure, Ferdinand. 1983 [1916]. *Course in General Linguistics*. Edited by Charles Bally & Albert Sechehaye. Translated by Roy Harris. La Salle IL: Open Court.
- Simon-Vandenberg, Anne-Marie & Aijmer, Karin. 2007. *The Semantic Field of Modal Certainty: A Corpus-Based Study of English Adverbs*. Berlin: Mouton de Gruyter.
- Tabor, Whitney & Traugott, Elizabeth C. 1998. Structural scope expansion and grammaticalization. In Ramat & Hopper (eds), 229–272.
- Traugott, Elizabeth C. 1982. From propositional to textual and expressive meanings: Some semantic-pragmatic aspects of grammaticalization. In *Perspectives on Historical Linguistics* [Current Issues in Linguistic Theory 24], Winfred P. Lehmann & Yakov Malkiel (eds), 245–271. Amsterdam: John Benjamins.
- Traugott, Elizabeth C. 1989. On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language* 57: 33–65.
- Traugott, Elizabeth C. 2001. Legitimate counterexamples to unidirectionality. Article presented at Freiburg University, 17 October 2001.

- Traugott, Elizabeth C. 2008. "All that he endeavoured to prove was...": On the emergence of grammatical constructions in dialogic contexts. In *Language in Flux: Dialogue Coordination, Language Variation, Change and Evolution*, Robin Cooper & Ruth Kempson (eds), 143–177. London: Kings College Publications.
- Traugott, Elizabeth C. 2010. (Inter)subjectivity and (inter)subjectification. A re-assessment. In *Subjectification, Intersubjectification and Grammaticalization*, Kristin Davidsse, Lieven Vandelanotte & Hubert Cuyckens (eds), 27–71. Berlin: Mouton de Gruyter.
- Traugott, Elizabeth C. & Heine, Bernd (eds). 1991. *Approaches to Grammaticalization*, Vol. 1: *Focus on Theoretical and Methodological Issues*; Vol. 2: *Focus on Types of Grammatical Markers* [Typological Studies in Language 19]. Amsterdam: John Benjamins.
- Traugott, Elizabeth C. & Dasher, Richard B. 2002. *Regularity in Semantic Change*. Cambridge: CUP.
- Wischer, Ilse & Diewald, Gabriele (eds). 2002. *New Reflections on Grammaticalization* [Typological Studies in Language 49]. Amsterdam: John Benjamins.