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Elizabeth Closs Traugott and Bernd Heine (eds.), *Approaches to Grammaticalization*. Vols. I–II. (Typological Studies in Language, 19.) Amsterdam: Benjamins, 1991. 360 + 556 pp.

Reviewed by Martin Haspelmath, Department of English, Free University of Berlin, D-1000 Berlin 33

The theoretical and empirical study of grammaticalization is finally making a comeback, after decades of neglect by mainstream theoretical linguistics. In the 19th century and until the beginning of this century, grammaticalization was widely recognized as one of the main mechanisms of language change and as an important explanatory factor in grammatical theory. For linguists such as Humboldt, Bopp (cf. Stolz 1991), Whitney (1875), Bréal (cf. Nerlich 1990), G. von der Gabelentz, Paul, and Meillet, the causes and consequences of grammaticalization were naturally of central concern. The rise of structuralism in the 20th century (first of the Saussurean and Bloomfieldian, later of the Chomskyan kind), with its insistence on the strict separation of *langue* and *parole*, and of synchrony and diachrony, led to a steep decline in research and knowledge about grammaticalization.

The two volumes under review (containing papers from a 1988 symposium held at the University of Oregon at Eugene) are not the only sign that a recovery is well under way. Other recent publications (e.g. Axmaker et al. (eds.) 1988, Heine et al. 1991) and on-going research activities show that grammaticalization (or grammaticization) is now a popular topic, at least among functionally oriented grammarians.

The volumes contain an introduction by the editors (printed at the beginning of each volume) and 25 papers (11 in vol. I, 14 in vol. II), as well as detailed indexes. Most papers deal with a rather narrow set of data from an individual language or a small group of languages and consider these data in depth in the light of grammaticalization theory. About 20 papers fall in this category, representing an astonishing variety of languages from five continents:

*Oceania:*

Talmy Givón (I)	New Guinea languages	serial verbs
Roger M. Keesing (I)	Melanesian Pidgin	substrates, calquing
Frantisek Lichtenberk (I)	To'aba'ita (Oceanic)	verb > prep., conj.

*Asia:*

Carol Genetti (II)	Newari (Tibeto-Burman)	postp. > subordinator
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Talmy Givón (II)	Biblical Hebrew	subordinate clauses
Susan C. Herring (I)	Tamil	rhetorical questions
Peter Edwin Hook (II)	Indo-Aryan	perfective aspect
James A. Matisoff (II)	Lahu (Lolo-Burmese)	various
Masayoshi Shibatani (II)	Japanese, Cebuano	topic > subject
<i>Africa:</i>		
Robert Carlson (II)	Senufo languages (Gur)	postp., word order
<i>Europe:</i>		
Werner Abraham (II)	German	modal particles
Lyle Campbell (I)	Estonian	various
John Haiman (II)	Northern Italian dialects	subject clitics
Christian Lehmann (II)	recent German	various
Johanna Nichols & Alan Timberlake (I)	older Russian	predicative instr.
Sandra A. Thompson & Anthony Mulac (II)	contemporary English	epistemic parentheticals
Elizabeth C. Traugott & Ekkehard König (I)	older English	conjunctions
<i>Americas:</i>		
Colette Craig (II)	Rama (Chibchan)	'go' > postp., preverb
Noel Rude (II)	Sahaptian, Klamath	verb > applicative
Marianne Mithun (II)	Cayuga (Iroquoian) and Selayarese (Austronesian)	subject

There are only two papers with exclusively theoretical orientation (by Paul Hopper, and by Bernd Heine, Ulrike Claudi, Friederike Hünemeyer), and three papers with emphasis on cross-linguistic data (by Joseph Greenberg, by Zygmunt Frajzyngier, and by Joan Bybee, William Pagliuca, Revere Perkins). Only the Bybee et al. paper (on the grammaticalization of futures) strives for world-wide coverage by means of a representative sample. However, the inclusion of this volume in the *Typological Studies in Language* series is clearly justified by the breadth of new data, often from little-known languages. For almost all of the non-European languages, the data were gathered by the authors directly in the field, a fact that should perhaps be mentioned explicitly and commended here, given the deplorably low prestige of fieldwork among many theoretical linguists.

In their introduction, Traugott and Heine distinguish three main perspectives on grammaticalization: two diachronic perspectives (lexical item > grammatical morpheme, and discourse > morphosyntax), and the 'grammatical coding perspective'. The latter can be exemplified by statements such as 'the dual is grammaticalized in

some languages, but in most languages it can only be expressed lexically'. The problem with such a non-diachronic use of the term is that it makes grammaticalization co-extensive with grammar (but cf. Himmelmann 1992, where this position is advocated). A special theory of grammaticalization can reasonably deal only with the first two senses of the term.

The 'discourse > (morpho)syntax' model and the 'lexical item > grammatical morpheme' model are not incompatible, but complementary and often overlapping. For example, the grammaticalization of the discourse entity topic into the syntactic entity subject (cf. Shibatani) may be accompanied by the grammaticalization of free pronouns into clitics and morphological affixes (cf. Haiman). And in the grammaticalization of the discourse pattern of rhetorical questions in Tamil (cf. Herring), the result is not only a new clause-combining pattern, but also a new grammatical item *ēṇṇā* 'because'. Similarly, the frequent discourse use of epistemic phrases such as English *I think* (cf. Thompson and Mulac) leads to the creation of a new restricted class of (quasi-) grammatical entities (*I think, I guess*). The main problem with the discourse > syntax perspective is that it is hard to demonstrate when it is not accompanied by changes in grammatical morphemes: old 'pre-grammatical' discourse is rarely documented, and internal reconstruction is much harder in syntax than in morphology. Thus, Shibatani's case for topic > subject syntacticization in Japanese and Philippine languages remains speculation.

Hopper's paper asks how grammaticalization can be recognized and proposes five 'heuristic principles' or criteria. Of these, two are clearly not restricted to grammaticalization but are present in lexical change as well: *divergence* (or split) of one item into two or more (cf. Craig's 'polygrammaticalization'), and *persistence* of residual features of the older form. The other three criteria refer to well-known effects of grammaticalization: *specialization* (corresponding to Lehmann's (1982) *paradigmaticization*) is the narrowing of choices in grammar, *de-categorialization* is the change in syntactic distribution as a noun or verb becomes a grammatical item, and *layering* refers to the simultaneous existence of more or less grammaticalized items within the same functional domain (called *grammaticalization scale* in Lehmann 1982). Hopper is skeptical about the trustworthiness of these criteria, but unnecessarily so, because the three latter phenomena are indeed restricted to grammaticalization. Contrary to what he suggests, the fact that grammaticalization is a matter of degree does not mean that grammar or grammaticalization cannot be identified at all.

More controversial than the question of the effects of grammaticalization is the question of its causes. Bybee et al. state that 'formal and semantic reduction proceed in parallel' (Vol. II, p. 47), leaving the question of causation open. Heine et al., Traugott and König, and Givón (Vol. I) express a different view: Grammaticalization is caused by creative semantic change, and structural change, lagging behind, only readjusts the morphosyntactic patterns. But within this semantics-first camp, opinion is divided as to the principal motivation of semantic change. According to Heine et al., this is metaphorical transfer as a problem-solving strategy (exploitation of old

means for novel functions). According to Traugott and König, it is pragmatic strengthening, a kind of conventionalizing of conversational implicatures.

The problem with evaluating the contradictory positions of Heine et al. and Traugott and König is that both consider only a small part of the relevant data. It could well turn out that both positions are right for the data they highlight and that the contradiction is only apparent. (Heine et al. make a rather sketchy attempt to reconcile both positions; cf. Heine et al. 1991: 65–97 for a fuller treatment.) Traugott and König themselves limit their claim to the early stages of grammaticalization. However, their data do not show clearly that pragmatic strengthening is a specific concomitant of grammaticalization, rather than a semantic change independent of grammaticalization. Consider Traugott's paradigmatic example, Old English *þa hwile þe* 'at the time that' > Middle English *while* 'during'. What changes here is mainly the form (which is reduced) and the use (which is expanded). Middle English *while* has undoubtedly become part of the grammar. But where is the evidence that the later change from 'during' to 'although' (by pragmatic strengthening) has anything to do with grammaticalization?

The two volumes are full of examples of grammaticalization that are very difficult to account for in terms of either metaphor or pragmatic strengthening, e.g. Sahaptian 'give' > benefactive applicative (Rude), Thai 'object, belonging' > genitive marker (Matisoff), Bengali 'host' > plural marker (mentioned by Lehmann), Tamil rhetorical questions > conjunctions (Herring). While both metaphor and pragmatic strengthening occur not only in grammaticalization, but are characteristic of semantic change in general, radical bleaching of this type is observed only in grammaticalization. This suggests that the old view that the semantic change accompanying grammaticalization is bleaching, or desemantization (cf. Whitney 1875: 124: 'oblivion and attenuation of meaning') may not be so far from the truth, after all. This view is also represented in the volumes (e.g. Bybee et al., Lehmann, Haiman, Hook, Matisoff). However, these authors do not pay as much attention to the nature of semantic change, and they do not defend their view against attacks from the metaphor and the pragmatic-strengthening camps. This is probably because bleaching is in itself less interesting than metaphor and pragmatic inference, and it is never regarded as the cause of grammaticalization. In contrast to the semantics-first view, representatives of the bleaching view tend to assume that formal and semantic reduction proceed in parallel.

To find the causes of grammaticalization, it is necessary to look not just at grammatical structure and meaning, but also at the low-level mechanisms of change. Carlson (Vol. II, p. 221) reminds us in a footnote that 'grammaticalization is something done by speakers, i.e. by agents using language in a purposeful way', but there is no discussion of how such purposeful action by individuals can change the social norms of a whole language community. Since grammatical change is often taken to be mainly due to the discontinuity in the transmission to the next generation, it would have been worthwhile to elaborate on the alternative conception according to which language use is an important locus of change. Here the concept of an *invisible hand*

*process*, explored in Keller (1990), would have to come in. This notion is also crucial in Lüdtke's (1980, 1986) highly original theory of language change and grammaticalization, which is, unfortunately, mentioned nowhere in the two volumes. (Lüdtke shows how the unidirectionality of grammaticalization can be explained within a framework where semantic and formal grammaticalization are taken to proceed in parallel.)

Some papers mention *reanalysis* as a mechanism of diachronic change (Heine et al., Lichtenberk, Matisoff, Herring), e.g. the Hayu noun phrase *ang lom* 'my way' is reanalyzed as a postpositional phrase, 'toward me' (Matisoff, Vol. II, p. 390). The general assumption seems to be that reanalysis is a secondary and rather uninteresting concomitant of grammaticalization. This is in marked contrast to views such as Lightfoot's (1979), where radical reanalysis is in the focus of attention. The relation between grammaticalization and reanalysis deserves more attention than it is given in the volumes. For example, there is universal agreement that grammaticalization changes are gradual, but at the same time Lichtenberk asserts that 'categorical reanalysis is, of necessity, abrupt' (Vol. I, p. 38). How can these two positions be reconciled? If one accepts fuzzy boundaries between word classes, postulating abrupt reanalysis at any particular point is not really necessary. And in several cases where the authors assume the reversal of a head-dependent relation, a different synchronic analysis would give a different picture: for example, in Hayu *ang lom* 'my way' > 'toward me', the noun *lom* gradually turns into a postposition, but it probably remains the head of the phrase. Grammaticalized heads may even remain heads after they have become bound affixes (Haspelmath 1992).

Several of the papers in the volumes use the methodological tool of quantitative analysis, especially text counts (Givón Vol. I, Vol. II, Lichtenberg, Hook, Thompson and Mulac, Craig). Since frequency of use is universally assumed to be an important factor in grammaticalization, such quantitative data are generally very useful evidence for the claims made. Particularly remarkable is the use made of statistics in Bybee et al.: the authors demonstrate the cross-linguistic covariation of semantic and formal grammaticalization of futures in 75 languages, using sophisticated statistical tools.

Almost completely missing from the volumes is a discussion of competing non-functional grammatical theories and analyses. (A striking exception is Abraham, who presupposes some kind of recent GB framework, which does not, however, seem crucial for the points he makes. Haiman's contribution is the only other paper that cites generative research, but not even he discusses generative analyses.) This observation is sad but hardly surprising. Radically differing basic assumptions about parole and langue, continuity and discreteness, diachrony and synchrony make communication between most functionalists and generativists almost impossible. However, one should never give up, and the fact that generativists are no less consistent in ignoring non-generativist research is no justification. Grammaticalization theory is highly relevant to many of the issues that have been at the center of attention in Government-Binding theory, especially the nature of functional categories, the behavior of

clitics (cf. Haiman), the null-subject parameter and its relation to 'rich' agreement, the syntactic behavior of auxiliaries, and the DP (determiner phrase) analysis.

The two volumes will be a rich source of data and inspiration for future research on grammaticalization. The findings of grammaticalization studies such as these are an important challenge to Lightfoot's (1979: 149) pessimistic view that 'there is no reason to expect plausible formal restrictions to be imposed on possible changes by a theory of change'. Naturally, these volumes cannot replace a systematic treatment like Lehmann's (1982), but they provide ample evidence for the crucial role of grammaticalization theory for our understanding of grammar.

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