SOME RECENT TRENDS IN GRAMMATICALIZATION

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ABSTRACT
Grammaticalization—the transformation of lexical items and phrases into grammatical forms—has been the focus of considerable study. Two chief directions can be identified. The first involves etymology and the taxonomy of possible changes in language, in which semantic and cognitive accounts of words and categories of words are considered to explain the changes. The second involves the discourse contexts within which grammaticalization occurs. Some researchers have questioned the standard idea of a stable synchronic a priori grammar in which linguistic structure is distinct from discourse, and have sought to replace this with the idea of “emergent grammar” in which repetitions of various kinds in discourse lead to perpetual structuration.

Amy manages to get a salary increase every year. When we study texts in English or any other language, we are struck by the fact that many ordinary, everyday words like manage can appear in contexts where their use is distinctly grammatical and quite different from their use in a full sense, such as Amy manages the sales office of a large corporation. The process whereby lexical forms such as the verb to manage are press-ganged into service as grammatical forms (in this case, as an auxiliary verb) is typical of “grammaticalization.”

The concept of grammaticalization is a very old one (for history, see 55, 73, 82). But in recent years some linguists have come to see in it possibilities for an explanatory framework for the study of language universals and typology, and some have even looked to it for an alternative account of linguistic structure to that offered by synchronic formal grammar. Grammaticalization is currently the focus of much research that, inevitably, comprises not only
empirical studies but also internal debate over the content and limits of the term itself.

The term grammaticalization appears to have been first used by the French linguist Meillet (94), who coined the word to refer to the “attribution of a grammatical character to a formerly autonomous word.” In his article “L’évolution des formes grammaticales” (94), Meillet described two processes by which grammatical forms come into being. One is analogy, the emergence of new forms through formal resemblance to already established ones, as when for some speakers *brang* replaces *brought* as the past tense of *bring* by analogy to *sing/sang, ring/rang*, etc. But analogy did not offer an explanation of the origins of the initial paradigm, and for this, Meillet named a second way in which new grammatical forms come into being: grammaticalization—"the passage of an autonomous word to the role of grammatical element" (94:131), "the progressive attribution of a grammatical role to autonomous words or to ways of grouping words" (94:132). In every case where certainty is possible, Meillet asserted, this is the origin of grammatical forms. Moreover, grammaticalization, in introducing new constructions, fundamentally changes the grammatical system. “Whereas analogy may renew forms in detail, usually leaving the overall plan of the system untouched, the ‘grammaticalization’ of certain words creates new forms and introduces categories which had no linguistic expression. It changes the system as a whole.”

Not long after Meillet’s introduction of the term grammaticalization, linguistics came to be dominated by Saussurean structuralism, a theory (or set of theories) founded on the synchronic perspective (30a), which had little time for the more diachronic fields. The study of grammaticalization remained an important tool in subdisciplines where change was a central fact, such as Indo-European linguistics (8, 79, 80, 95, 120), and was noted by a few linguists who had remained aloof from the mainstream (e.g. 3).

Especially in Romance linguistics, a field which had traditionally been hospitable to the study of variation, change, and grammaticalization, the study of the origins of and changes in grammatical forms was intensely pursued. Over the centuries of change since they emerged out of Latin, the Romance vernacular dialects, especially French, had changed in ways that made them bewilderingly different both from Latin and from the normative descriptions of the standard languages. Thus Bauche, in his description of Parisian French (7), by inverting some of the familiar analytic conventions of written French, revealed how an entirely new grammar had emerged. For example, obligatory subject pronouns were grammaticalized as prefixes on the verb in utterances such as *Le tramway il veut s'arrêter ici*, “The tram will stop here” (7:154) and *Moi j’aime pas le riz*, “I don’t like rice” (7:107). Similarly, a number of researchers (4–6, 33, 49, 52, 81, 98, 99) noted the emergence of an “object conjugation” in vernacular French (and other Romance languages) whereby not
only object pronouns but other relationships also could be “indexed” in the
verb in a way that strikingly recalled more exotic languages. For example, in
*Elle n’y a encore pas voyagé, ta cou sine, en Afrique, “Your cousin has never
traveled to Africa” (7:154), the subject *ta cousine and the locative *en Afrique
are referenced in the verbal expression with *elle and *y respectively. In fact, in
this type of French, the corresponding sentence without “pronouns,” i.e. *
*ta cousine n’a encore pas voyagé en Afrique, would be quite impossible (81).
The appearance is of a language that has reached an extreme stage of analytic
structure and is, so to speak, collapsing in on itself by creating new synthetic
structures through the grammaticalization of analytic elements (4, 104). Such
developments have clear implications for typologies based on the degree of
synthesis and for the historical development of inflections.

Outside the arenas of Indo-European and Romance linguistics, a renewed
interest in grammaticalization began to awaken in the 1970s. Several factors
underlay this resurgence. One was a growing interest in pragmatics and dis-
course, which probed at the interface between structure and use and in so do-
ing revealed phenomena at the fraying edge of change. Another was the inter-
est in language universals and the exploration of “naturalness” in language
conceived in functionalist terms. The groundwork for this kind of study had
been laid by Greenberg (42) in the 1950s with his cross-linguistic investiga-
tion of word order types. Greenberg established a typology based on the rela-
tive order of subject, verb, and object in the sentence and showed that other
configurations appeared to be implicationally related to these. For example, in
languages that placed the verb last in the sentence, speakers could be counted
on to put the possessive before the possessed noun (*the conductor’s baton as
opposed to the baton of the conductor), to indicate relationships with suffixes
rather than prefixes, and to place verbal auxiliaries after, rather than before,
the main verb. In his study of gender systems and their sources (43, 44), show-
ing that the class markers of Bantu and other languages had their origins in ar-
ticles that had themselves derived from demonstratives, Greenberg also iden-
tified the relationship between grammaticalization and typology.

By the 1970s, a number of researchers were seeing the advantages of com-
bining Greenberg’s typology with some long-standing observations of the
Prague school of linguistics. (For a useful account of the syntactic theories of
this school and for relevant literature, see 21.) The Prague school of linguists
had noted the widespread tendency for newer and more prominent informa-
tion to occur later in an utterance than older, more presupposed information.
This work had formed part of the basis for a semantically based linguistic the-
ory by Chafe (20). Li & Thompson (90) showed how the notion “subject of
the sentence” could be understood as the outcome of a process that began as
“topic of the discourse,” a role which, in Chinese and certain other languages,
remained the primary one. Li & Thompson also (89) showed how in Chinese
the reanalysis of a serial verb as a preposition was resulting in the appearance of SOV (verb-final) sentences. [The phenomenon had been noted in African languages by Lord (91, 92).] Consider the following example, from an older period of Chinese:

zu    ba    zhu-ben-zi    xi    kan.
drunk BA dogwood-tree careful look.

1. “While drunk, I took the dogwood tree and carefully looked at it” (ba ‘take’).
2. “While drunk, I carefully looked at the dogwood tree” (ba = accusative case preposition).

Here, ba is ambiguous between the older interpretation (statement 1) as a verb take and the newer interpretation (statement 2) as an accusative case marker. Synchronically, it is not clear how we should interpret ba, as a verb or as a case-marking preposition. Around this time, too, Haiman published an influential paper with the challenging title “Conditionals are Topics” (46), which showed that the relationship of the protasis (the if-clause) of a conditional to its main clause was essentially that of topic to comment. The idea that grammar could be understood as a historical process embedded in use rather than as a purely abstract synchronic state was in the air in the 1970s and was discussed in a number of studies in three volumes edited by Li (87–89). These volumes were the published proceedings of a series of annual or biennial symposia organized on the West Coast largely by Li, a series that has continued to the present. For other such volumes, see References 70 and 118.

An important figure in the development and popularization of the idea that grammar was a product of change and that its forms could be attributed to discourse functions was Talmy Givón. In an earlier paper (40), Givón had drawn attention to the origins of morphology in older syntactic patterns, and had explained the verbal prefixes of the Bantu languages as fossilized relics of older pronouns. The canonical word order of the modern Bantu languages is Subject-Verb-Object. However, the verbal prefixes, as in Swahili ni-li-ki-vunjia (I-Past-it-break), “I broke it,” appeared in the order Subject-Tense-Object-Verb because, Givón claimed, in Proto-Bantu that had been the original word order in the free sentence. Givón’s assertion that “today’s morphology is yesterday’s syntax” (for a critique of this notion, see 25) became something of a slogan for the new functionalist linguistics that was now emerging around him. In his course at the Linguistics Institute in 1976 and in his book (41), Givón illustrated the discourse motivation of such linguistic parameters as reference, tense-aspect, word order, and patterns of negation. He spoke of the “syntacticization” of grammaticalized constructions out of autonomous elements and identified (41:223–31) a series of functional poles that were
conducive to either a loose, unstructured or a tighter, grammaticalized formation:

<table>
<thead>
<tr>
<th>Looser, pragmatic mode</th>
<th>Tighter, syntactic mode</th>
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<tbody>
<tr>
<td>Pidgin/Creole</td>
<td>Standard language</td>
</tr>
<tr>
<td>Child language</td>
<td>Adult language</td>
</tr>
<tr>
<td>Unplanned/oral discourse</td>
<td>Planned/written discourse</td>
</tr>
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</table>

“Grammar” comprised a unidirectional movement from left to right along a structural continuum defined functionally by these poles. For example, a topic-comment structure typical of the pragmatic side develops into a subject-predicate structure of the syntactic side. On the pragmatic side, relationships among words in the pragmatic mode are inferred rather than explicitly indicated; on the syntactic side they are regulated by morphology and complex constructions, and so on. Givón also popularized among linguists the notion of grammaticalization itself, and he placed it in the context of typology. He pointed out numerous cross-linguistic consistencies in the ways that lexical items are pressed into service as grammatical categories; for example (41:222), typically tense, aspect, and modality markers derive from a rather small group of verbs:

want → FUTURE
go → IRREALIS → FUTURE
come → PERFECTIVE → PAST
have → PERFECTIVE → PAST
be → PROGRESSIVE → HABITUAL → FUTURE
know → can → HABITUAL-POSSIBLE-PERMISSIBLE
do → PERFECTIVE → PAST

Givón also argued that the meaning changes involved in such cases were to be characterized as “bleaching.” In recent years, this characterization has been much disputed (see below). It was in any case a very old idea, although it is not clear where Givón found it since Meillet, Gabelentz, and Kuryłowicz do not appear in his bibliography. While it is indisputable that many of these ideas were around in the 1970s, they were scattered and often unpublished, and this book as well as Givón’s course on diachronic syntax at the 1976 Linguistics Institute were notable events in the blend of typology, grammaticalization, and discourse linguistics that has characterized much of linguistics since the 1970s. In On Understanding Grammar, Givón assembled a new and coherent picture of language out of the general interest in pragmatics, variation, change, and discourse, and thus laid the foundation of an entire subdiscipline, one that presented itself in conscious opposition to the prevailing Chomskian formalism.
In Europe, a group of linguists at the University of Cologne, working originally under the auspices of Hansjakob Seiler’s Unityp (Universals and Typology) project, were developing a distinctive approach to grammaticalization both as an empirical tool in linguistic description and as a perspective on typology. Lehmann’s (82) is perhaps the first full-length study of grammaticalization as a subdiscipline of linguistics, and it includes an important survey of its earlier history. It is, however, not easily available, having been published only as a working paper of the University of Cologne Project on Language Universals. Heine & Reh’s Grammaticalization and Reanalysis in African Languages (59) presented an important survey of grammaticalization and laid out some of the principles that govern it [For a somewhat differently formulated set of principles, see Lehmann (83)]. By illustrating the way the term grammaticalization is used, I amplify some of these principles with familiar examples.

Heine & Reh (59:67) noted that the more a form is grammaticalized:

(a) …the more it loses in semantic complexity, functional significance, and/or expressive value. Comment: This idea of impoverishment has come to be disputed in more recent work, but it is a common feature of earlier studies. Taking the example of to manage mentioned above, the claim is that when the full word becomes an auxiliary (in to manage to do something) it loses the semantic richness and expressivity gained from all the contexts in which it appears, and is reduced to a small number of elementary features such as “ability.”

(b) …the more it loses in pragmatic and gains in syntactic significance. For example, the phrase the fact that normally requires that the following clause (known as the complement) be considered true by the speaker. Bill was astonished at the fact that his wallet was still lying on the sidewalk presupposes it to be true that the wallet was still lying on the sidewalk. The truth of the clause that follows the fact that is guaranteed by the presence of the word fact. But in some varieties of spoken English, the phrase the fact that is becoming grammaticalized as a simple complementizer. As a result, speakers of this variety of English are no longer constrained to presupposing the factual status of the complement and can freely say things like My opponent has charged me with the fact that I used illegal campaign funds (an utterance actually heard on the radio) without intending a confession. For such speakers, the fact that has only syntactic, no pragmatic significance.

(c) …the more reduced is the number of members belonging to the same morphosyntactic paradigm. Comment: The history of negation in French nicely exemplifies this. In the modern standard language, the verb is preceded by ne and followed by a “reinforcer” pas or, rarely, point. At an earlier stage of the language (39:755), ne could be optionally reinforced by any of a
number of more or less picturesque possible members of the category of rein-
forcers, including:

- *pas* ‘step, pace’
- *point* ‘dot, point’
- *mie* ‘crumb’
- *gote* ‘drop’
- *amende* ‘almond’
- *arest* ‘fish-bone’
- *beleoe* ‘sloe’
- *eschalope* ‘pea-pod’ (etc)

These may be compared to such colloquial English expressions as *not a drop, not a smidgen*, (British) *not a sausage*, etc. By the sixteenth century, a rather smaller number were possible:

- *pas* ‘step, pace’
- *point* ‘dot, point’
- *mie* ‘crumb’
- *goute* ‘drop’

Today, in modern French, the field of reinforcers has narrowed to only two, *pas* and *point*. Of these, *point* is a rare and emphatic alternative that cannot appear in all contexts. For example, *pas beaucoup* ‘not much’ cannot as an isolated phrase be replaced with *point beaucoup*. Effectively, *pas* is now an obligatory concomitant of *ne*, and indeed in the spoken vernacular has supplanted *ne* altogether, as in *moi j’aime pas le riz*, “I don’t like rice” (7:107). Note that both the category itself (the reinforcer of negation) and a specific exponent of it (*pas*) have become obligatory. See (e) below.

(d) …the more its syntactic variability decreases; that is, its position in the clause becomes fixed. Comment: A prerequisite of grammaticalization is the fixing of a habitual order, a preference for one out of several possibilities. The predecessor of French *[je] chanterai une chanson*, “I will sing a song” would have been a Latin phrase *habeo canticulum cantare*, “I have a song to sing, I have to sing a song,” whose component words could occur freely in any order (*canticulum cantare habeo*, etc). Even in Old and Middle French, some flexibility was possible between *cantar ayo* and *ayo cantar*, “I have to sing, I will sing” (4, 34, 35). But at the stage preceding the grammaticalization of *cantar ayo* as *chanterai* the order of the infinitive *cantar* and the auxiliary *ayo* has become fixed, and no variation is possible.

(e) …the more its use becomes obligatory in some contexts and ungrammatical in others. Again, French negation supplies a good example, with the once optional reinforcer of negation *pas*—and its competitors—becoming increasingly obligatory and eventually supplanting the *ne* altogether in the spoken vernacular.

(f) …the more it coalesces semantically, morphosyntactically, and phonetically with other units. Comment: Grammaticalization involves a collapsing and compacting of forms previously more distributed and separate. For exam-
ple, English I am going to buy a pig in some registers becomes I’m gonna buy a pig and even I ma buy a pig.

(g) …the more it loses in phonetic substance. Phonetic erosion is generally characteristic of change. It has been pointed out that in the spoken English phrase Yes’m, the -m is all that remains of the Latin mea domina ‘my mistress’ (> ma dame > madam > ma’am > mum > …). Grammaticalization often results in extreme erosion, even to the point where morphemes sometimes remain only as phonetic traces devoid of all meaning (67, 69). A familiar example is the history of the English negator not, originating from a reinforced negative in Old English ná wiht ‘not a thing, no thing’. Here, ná is the simple negator and wiht an emphatic element meaning ‘thing, creature’; compare present-day English no way. The history of ná wiht proceeds as follows: ná wiht > nówiht, nówuht > noght > n’t > t (in can’t).

A second direction of the Cologne linguists has been a strong empirical-descriptive project, centered around the Africanist Bernd Heine (beginning with 58, 59). The goals of this project have been:

1. The descriptive goal of using grammaticalization theory as a framework for the grammatical description of individual languages. Kilian-Hatz’s grammar of Baka (75) stands as an excellent example of this direction, as do several book-length detailed investigations, such as C König’s study of verbal aspect in Maa (77) and Claudi’s studies of the rise of gender systems in Zande (22) and of word order in Mande (23). The approach in this work has been a conscious combining of synchronic and diachronic analyses (called panchronic in 55) that provides an unusually enlightening and novel perspective on the languages.

2. The empirical goal of identifying the characteristic trajectories of change. From the earliest work of Heine’s group (e.g. 59), there has been a strong emphasis on an encyclopedic approach; cataloging in detail the types of changes that have been encountered, with a focus on African languages; and in particular aiming to identify the segments of the lexicon that are most likely to become grammaticalized. A recent result of this research has been the provisional version of an extensive index of grammaticalization phenomena in African languages (57). In one conclusion, Heine et al (55) discussed two models for starting points of prepositions, the body-part model (compare English back of, ahead of) and the landscape model. In the landscape model, the source of the preposition is a landscape feature such as summit, sky, etc (compare English down, originally hill). They noted (55:125; see also 53) that in African languages the body-part model predominates, although both are found, as in Ewe (55:129):

é-le Ḟu-á dzí
3sg-be car-DEF on
‘It is on top of the car’

é-le ɓu-á tá-me
3sg-be car-DEF on
‘It is on top of the car’

Here, dzí = ‘sky’, tá-me = ‘head-in’, and the two sentences are “largely synonymous.”

3. The theoretical goal of generalizing the results into statements about the universal basis of these trajectories in human cognition. The hundreds of types of grammaticalization uncovered by linguists working in this area point to a small number of general principles that in turn suggest ways in which the linguistic forms used to talk about the world of ideas and to express grammatical relationships typically emerge out of words standing for presumably more concrete and more precisely contoured entities. In Reference 55:158, topics—things that need to be expressed—are matched with vehicles—corresponding linguistic formulations of the same reality (Table 1).

In Table 1, changes in the meanings of words predictably go from the left-hand to the right-hand column, never the other way around, and there is a common human propensity to manage the more diffuse and less tangible parameters in the right-hand column through linguistic forms appropriate to the concepts in the left-hand column. Thus, causation may be formulated in terms of making, doing, and allowing. Notions of understanding and comprehension are expressed through physical acts like see and grasp, and obeying through hear. Words for heart and man come to stand for qualities like courage. Men-

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Linguistic coding of concepts⁴</th>
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<tbody>
<tr>
<td>Vehicle</td>
<td>Topic</td>
</tr>
<tr>
<td>Ideational</td>
<td>Clearly delineated, compact physical (visible, tangible, etc)</td>
</tr>
<tr>
<td></td>
<td>fuzzy, diffuse qualities</td>
</tr>
<tr>
<td></td>
<td>nonphysical, mental mental processes</td>
</tr>
<tr>
<td></td>
<td>space time, cause, manner</td>
</tr>
<tr>
<td>Textual</td>
<td>“real world” “world of discourse”</td>
</tr>
<tr>
<td></td>
<td>less discourse-based more discourse-based, or “speaker-based”</td>
</tr>
<tr>
<td></td>
<td>referential nonreferential</td>
</tr>
<tr>
<td></td>
<td>central participant circumstantial participant</td>
</tr>
<tr>
<td></td>
<td>new old</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>expressive nonexpressive</td>
</tr>
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</table>

⁴From Reference 55:158.
tal activities like thinking are “converted” into physical activities (to think hard, etc). The sociophysic al act of making something real to others or to oneself comes to stand for a mental process of bringing something to consciousness in the verb realize (attested in this sense only since the end of the nineteenth century). Time concepts are typically expressed in terms of more readily apprehensible space concepts (a long time, a short time, etc) and so on. Language also adapts in consistent ways to the self-referential task of talking about speech. Demonstratives (this and that) are readily used to refer to things that have been said: I have been home all evening, and that’s the truth. Concepts of the physical world come to be used as discourse markers (next originally meaning ‘nearest’, after originally meaning ‘behind’). Referential markers whose primary sense was to indicate a specific entity come to be used for general, nonreferential ideas; for example, the English indefinite article a(n) was once used only for already identified particulars, as in a (certain) man, but later comes to stand for nonspecific, unidentified entities, as in we called a taxi (see 71). Similarly, Old English sum ‘one, a certain’ was used to introduce central participants into the discourse, but its Modern English descendant some can only refer to a circumstantial participant (some official gave me permission). The change from new to old mentioned in Table 1 is nicely exemplified in languages where a cleft construction, as in It is John who is flying the plane, has become a normal one (i.e. now means simply “John is flying the plane”). For example, in Teso (Eastern Nilotic) (55:218) mam Petero e-koto ekingok, “Peter does not want a dog,” the negative mam derives from a cleft clause e-mam ‘it is not’, following which the name Petero would originally have been new to the discourse. The reanalysis of e-mam as a simple negator mam has meant that the following noun is interpreted as the subject of the verb and is “old” to the discourse. The last item in Table 1, the interpretation of expressive value through nonexpressive forms, is seen in the common change of intensifiers such as awfully, frightfully, and terribly in terribly nice of you, etc. (A similar source underlies English very from an Old French word meaning ‘truly’.)

An important question for many researchers has been whether typical relationships like these are driven by broader, still more general parameters. Earlier studies had referred to a change from “concrete” to “abstract” meanings. The idea of bleaching or loss of substantial meaning that had been introduced in the nineteenth century, e.g. by Bopp (9) and von der Gabelentz (119a), was revived for a time [e.g. by Givón (41:316–17)] to explain such changes as demonstratives becoming definite articles, and verbs with such meanings as ‘stand’, ‘lie’, ‘stay’ becoming copulas (e.g. Spanish estar ‘to be’ < Latin stare ‘to stand’). It was challenged as a number of researchers began to point to compensatory strengthening of pragmatic implicatures that accompanied the supposed “weakening” (78, 116).
In the 1980s and 1990s, the nature of the semantic changes that accompany grammaticalization has been the subject of lively debate. After earlier statements (112, 113), Traugott identified the principal semantic development as being from propositional to textual (114). During grammaticalization, forms went from having meanings that could be identified autonomously to ones that contributed to wider discourse contexts. For example, a demonstrative like *this, that* with a deictic meaning ascertainable from its isolated propositional context changed into a definite article (*the*), whose interpretation required access to a more complex discourse environment. The earlier meaning was “less situated,” that is, it required less discourse context; the later one was “more situated,” that is, it required more discourse context (117). Traugott amplified and extended this idea, and identified three “Semantic-Pragmatic Tendencies” governing change of meaning (115:34–35):

1. “Meanings based in the external described situation > meanings based in the internal (evaluative/perceptual/cognitive) situation.” For example, the Old English preposition *æfter* referred originally to a spatial situation, that is, ‘behind’, but came to have a temporal meaning ‘later than’. The temporal meaning is, of course, an internal, cognitive one, while the earlier spatial meaning is objective.

2. “Meanings based in the described external or internal situation > meanings based in the textual situation.” Meanings thus tend to become textual, and grammaticalized forms come to function as indicators of textual cohesion. To continue the same example (see also 118:208–9), *after*, because it is a temporal marker (*after he robbed the bank, he fled to Mexico*), enables arguments to be moved around the text without loss of coherence (e.g. *He fled to Mexico after he robbed the bank, with the events narrated in the "wrong" temporal order*).

3. “Meanings tend to become increasingly situated in the speaker’s subjective belief-state/attitude toward the situation.” Thus English *since*, from its earlier sense of ‘after’, is identified with a causal relationship. The speaker, that is, attributes subjectively a causal connection between events that are, objectively seen, only asserted in temporal succession. Similarly, *while* adds to its meaning of ‘during’ a concessive meaning equivalent to *although: While he is intelligent, he is often forgetful*.

Even more abstract characterizations of some of these processes have been discussed. Earlier work characterized the relationship between a lexical form and its grammaticalized counterpart as one of metaphor (24, 109, 110). For example, *ahead of* in *The Democrats are ahead of the Republicans in the polls* was said to be a metaphorical extension of the body-part noun *head*. This mode of explanation seemed unsatisfactory to many linguists, since it seemed to valorize an etymological method that compared single lexical items re-
moved from contexts. Clearly what had happened was not a sudden replacement of one meaning by another—a metaphorical leap—but a reanalysis together with the extension of a meaning already implicit in the form. If metaphor is defined narrowly as the replacement of a present meaning by an absent one, grammaticalization must be seen as involving not, or not only, the “vertical,” paradigmatic trope of metaphor but the “horizontal,” syntagmatic trope of metonymy, which works through “contiguity” to exploit a secondary meaning already present in a primary one.

The mechanism by which this occurs must involve a horizontal (linear, syntagmatic) contiguity in the discourse situation. Traugott & König (119) identified three types of contiguity: contiguity in sociophysical or sociocultural experience, contiguity in utterance (collocation), and contiguity in part-whole relationship (synecdoche). They then extended the notion of metonymy to include the pragmatic step of inferencing, that is, of contiguity based in the discourse world (119:211). The temporal conjunction since, for example, acquires a causal meaning through the “post hoc ergo propter hoc” reasoning of speakers. Thus, in Since it’s going to rain tomorrow, we have canceled the picnic, since is interpreted as ‘because’. But historically, since was not causal but temporal, e.g. in Since the army base was closed down the economy of the area has been depressed. The meaning change, Traugott & König argued, is the metonymic one of conversational inference, a case of contiguity in discourse. The meaning change of since thus occurred through “abduction” (1), with the hearer choosing the most likely of competing analyses in a given context.

The difference between the two approaches has been stated as follows (119:212): “Metaphorical change involves specifying one, usually more complex, thing in terms of another not present in the context. Metonymic change involves specifying one meaning in terms of another that is present, even if only covertly, in the context.”

The recent trend has been to see metaphor and metonymy not as mutually exclusive modes of explanation for the same phenomenon but as having their own roles in an overall explanatory schema. Thus Hopper & Traugott (73:87–90) see metonymy operating at earlier stages and being supplanted by metaphor later. They used as an example the grammaticalization of English be going to as a future tense. In accounting for the way that this expression is transformed between I am going [in order] to buy a pig and I am going to need a bicycle, for example, with the possibility of a nonaction verb such as to need in place of the action verb to buy, an intermediate stage is posited in which [be going] [to buy a pig] is reanalyzed as [be going to] [buy a pig]. In this intermediate stage, the purpose expression [be going] [to buy a pig] is reanalyzed as a future tense [be going to] [buy a pig], but there is still a constraint that the verb that follows be going to must denote an activity of some
sort, not a psychological state such as to need. This horizontal reanalysis along the syntagmatic axis involves a metonymic change. The extension of be going to to include all verbs rather than just activity verbs is an analogical one, a change down the vertical, paradigmatic axis, and therefore is considered metaphorical.

More than mere terminology is at stake here. There is a serious question of the kinds of data and the modes of explanation for the entire phenomenon. Is grammaticalization to be an etymological field concerned with the history of words, sustained by “cognitive” accounts of natural pathways of change in word semantics, as suggested by the title of Sweetser’s 1990 book From Etymology to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure (110)? Or are explanations to be sought in the nature of human interaction and discourse, as insisted by Givón in his 1979 book (41) and by his successors?

Current research has moved fruitfully in both directions. The etymological project of discovering and classifying the possible sources and trajectories of grammatical forms has been the concern of a number of researchers (2, 22, 29, 50, 51, 54, 56–58, 85). Particularly important has been the “Gramcats” (grammatical categories) project of Bybee (11–17), whose goal is to uncover universal pathways of change and sources of grammatical markers. This project began with a carefully designed method of arriving at a representative sample of languages. [Greenberg (42) had also recognized the need to identify a sample of languages that would not be “contaminated” by mutual genetic or areal relationships, but his approach had been less systematic and less rigorous.] The Gramcats project has focused especially on the verb and has thus intersected with a similar project in Sweden conducted by Dahl (14, 29), as well as with the work of Heine, Claudi, and others in Germany. Bybee’s group not only identified starting and ending points, such as the development of future tenses out of verbs of desiring and wanting (which had been noted by several researchers, e.g. 34, 35, 41), but described in some detail the characteristic intervening stages. For example, verbs denoting desire and ability assume meanings of intention and possibility, which in turn develop as futures. The change also involves the loss of the restriction to human subjects (I will > I will, it will).

The project of identifying paths of change on the basis of large samples necessarily meant a loss of detail in individual languages. However, the 1980s and 1990s saw numerous studies of grammaticalization phenomena in individual languages and in general. Although they are not addressed here, a sampling is listed in the bibliography (10, 18, 19, 26-28, 30, 32, 34, 47, 62, 63, 74, 76, 81, 84, 100, 101, 105, 106, 108). The edited collections (97, 118) contain a number of such studies.
In his 1991 paper, Hopper (68) attempted to pull together some of what had been learned in the form of some “principles” of grammaticalization. The goals of this article were to supplement earlier statements by Lehmann (83) and Heine & Reh (59; see above) by focusing on grammaticalization in its earliest stages, when obvious developments, such as the fusion of forms into stem + affix groups, had not yet occurred. The paper aimed to provide an empirical guide for identifying possible grammaticalization trends in discourse patterns. Moreover, by suggesting that the types of changes in question were not specifically “grammatical” ones, it endeavored to show that the border between lexical and grammatical phenomena was a very fuzzy one. The principles stated in this article are as follows.

1. **Layering.** Within a broad functional domain, new layers are continually emerging. As this happens, the older layers are not necessarily discarded but may remain to coexist with and interact with the newer layers.

   Layering points to something that had been noted by several researchers: Grammaticalization does not proceed by eliminating old forms and substituting new ones but by “crowding” the field with subtly differentiated forms all having approximately the same meaning (such as, for example, the many ways of expressing the future tense in English; see also 15).

2. **Divergence.** When a lexical form undergoes change to a clitic or affix, the original lexical form may remain as an autonomous element and undergo the same changes as ordinary lexical items.

   Divergence means that the grammaticalization of a form does not entail the disappearance of its lexical uses; rather, the grammaticalized form and its lexical counterpart may coexist, as in English *I’ve eaten it* (with ‘ve from *have* as an auxiliary verb) and *I have two of them* (with *have* as a main verb.)

3. **Specialization.** Within a functional domain, at one stage a variety of forms with different semantic nuances may be possible. As grammaticalization occurs, this variety of formal choices narrows and the smaller number of forms selected assume more general grammatical meanings.

   Specialization is a central aspect of grammaticalization, since it typically results in one form being singled out for a grammatical function, as in the example of French *pas* discussed above.

4. **Persistence.** When a form undergoes grammaticalization from a lexical to a grammatical function, so long as it continues to have a grammatical role, some traces of its original lexical meanings tend to adhere to it, and details of its lexical history may be reflected in constraints on its grammatical distribution.

   Persistence is characteristic of earlier stages, in which the original contextual meanings of forms continue as they move from lexical to grammatical...
cal functions. For example, the auxiliary use of manage mentioned in the first paragraph requires a main verb denoting an intentional action. I managed to buy a pig is possible but not *I managed to need a bicycle. This restriction on the auxiliary use of to manage is an immediate consequence of its history as a volitional verb.

5. Decategorialization. Grammaticalization always involves a loss of categoriality and proceeds in the following direction: Noun or Verb → another category, never the reverse.

Thus adverbs, auxiliaries, prepositions, and other “minor” categories would always derive from the prime categories Noun and Verb, never the reverse (see also 72, where this idea is discussed from a discourse perspective).

It had been noted (e.g. 115) that semantic and pragmatic changes in general apply equally to lexical and grammatical elements. Indeed, the theory of grammaticalization would appear to deny any diachronic relevance to the grammatical-lexical distinction. And if these levels cannot be distinguished diachronically, it is hard to see how they could be unambiguously assigned to different “modules” synchronically. For some researchers in the 1980s and 1990’s, this blurring of the distinction between grammar and lexicon added to a feeling that the concepts grammar and structure as applied to human language needed rethinking.

A discourse dimension to grammaticalization had been evident from Givón’s work in the 1970s (see especially 41). Hopper (64) argued that the semantic category of perfective aspect identifiable in a variety of languages derived from the discourse function of event foregrounding. Other examples of a close relationship between discourse functions and grammaticalization were also proposed, including the English present perfect (18, 105–107, 111), the Cree definite article (27, 28), the “medial verb” morphology in Papuan (47), the ergative case in Sacapultec (31), the English indefinite article (71), anaphora (36), the marking of noun and verb morphology (72), aspect in Maa (77), topic and antitopic in French (81), relative clauses in the creole Tok Pisin (102) and in Tamil (60), English parenthetical evidentials (111), and subordinate clauses in general (93). Also in the 1980s, Hopper (65, 66) suggested that the study of grammaticalization tended to undermine the assumption of a pre-existent a priori grammatical component that stood as a prerequisite to discourse and a precondition for communication, and he proposed instead that grammar was an emergent property of texts. “Structure” would then be an epiphenomenal by-product of discourse. The “emergent grammar” idea found parallels in the work of several linguists, such as Du Bois (31), Thompson (e.g. 111), and Himmelmann (61).

Perhaps some of the most important current empirical work on grammaticalization is that of Thompson, Fox, and others (e.g. 37) who are reevaluating
grammar by working out the recurrent structures as they “emerge” in live conversation. Most studies of grammaticalization in its discourse context have involved written texts, distributed over longer historical periods. The newer work is in the Conversational Analysis paradigm and has depended crucially on “intonation units” [for the use and history of this term, see Chafe (21, especially pp. 53–70)]. Intonation units are the short bursts of speech of which spoken discourse naturally consists. Each unit, Chafe hypothesized, comprises a single event or state. Their internal structure and dialogic interrelationships are held to constitute the prototypes for clauses and hence for “grammatical” structure in general. The study of natural conversation, for a long time the province of sociologists and psychologists, has once again captured the interest of linguists whose goal is to explain grammatical structure through “real” data.

Of the two dimensions of research, or at least of their two poles—the lexical/etymological one and the discourse/textual one—it may be said that they complement each other in that the first explains what is grammaticalized and the second how this occurs. However, to the extent that these are competing rather than complementary views of grammaticalization, it seems likely that the richer discourse/textual direction will dominate and that studies of word histories will decline as the more important problems resolve. The discourse/textual direction that grammaticalization seems destined to take (see 55:20–21 and 55:238–43 for some discussion, though not fully sharing this view) may eventually bring mainstream linguistics into a long overdue contact with those neighboring disciplines such as anthropology, rhetoric, and literature, for which a preoccupation with texts is indispensable.

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