



Grammaticalization

a conceptual framework

BERND HEINE is professor and director of the Institute of African Studies at the University of Cologne.
 ULRIKE CLAUDI is assistant professor at the Institute of African Studies at the University of Cologne.
 FRIEDERIKE HÜNNEMEYER is co-editor of *Afrikanistische Arbeitspapiere*.

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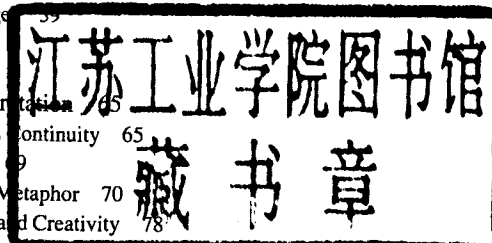
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B.H., U.C., F.H.

Abbreviations

ABL	ablative	IMP	imperative
ABS	absolute	IMPERF	imperfect
ACC	accusative	IMPFV	imperfective
ACT	actor	INCL	inclusive
ADV	adverb	INDEF	indefinitive
ALL	allative	INF	infinitive
AND	andative suffix	INGRESS	ingressive
AOR	aorist	INSTR	instrumental
ASP	aspect	INTR	intransitive
ASSOC	associative	IO	indirect object
AUX	auxiliary	LOC	locative
BEN	benefactive	MASC	masculine
CAUS	causative	NEG	negative
CL	noun class	NF	nonfuture
COMP	complementizer	NOM	nominative
COND	conditional	NOMI	nominalization
CONJ	conjunction	NP	noun phrase
COP	copula, copulative	OBJ	object
DAT	dative	OPT	optative
DEF	definite marker	part	participle
DEM	demonstrative	PASS	passive
DET	determiner	PAST	past
DIR	directional	PERF	perfect
DO	direct object	PFV	perfective
DS	different subject	PL	plural
DUR	durative	POSS	possessive
EMPH	emphatic	PREP	preposition
ENC	enclitic	PRES	present
EXCL	exclusive	PROG	progressive
FEM	feminine	PURP	purposive
FOC	focus	Q	interrogative
FUT	future	RED	reduplicative
GEN	genitive	REFL	reflexive
GER	gerund		

REL	relative	TNS	tense
REP	repetitive	TOP	topic
SG	singular	TRANS	transitive
SIN	singulative	VEN	venitive
SS	same subject	VOC	vocative
STAT	stative		
SUB	subordinate	1	first person
SUBJ	subject	2	second person
SUBJUNCT	subjunctive	3	third person

1 Introduction

Our minds delight in the discovery of resemblances, near and remote, obvious and obscure, and are always ready to make them the foundation of an association that involves the addition of a new use to an old name.
[Whitney 1875:86]

1.1 Some Notions of Grammaticalization

According to Kuhn (1962), a new theoretical “paradigm” starts with the scientist becoming aware of certain anomalies that are not predicted by the existing paradigm and that may even contradict it. The development of a new paradigm is completed once existent anomalies can be predicted within the new theoretical framework.

Most post-Saussurean models of grammar rely—explicitly or implicitly—on the following tenets:

- a) Linguistic description must be strictly synchronic.
- b) The relationship between form and meaning is arbitrary.
- c) A linguistic form has only one function or meaning.

The main purpose of the present work is to propose solutions to problems resulting from these premises. The nature of the problems involved may be illustrated by the following example taken from Ewe, a language belonging to the Kwa branch of the Niger-Congo family, spoken in eastern Ghana, southern Togo, and southern Benin.¹ Consider the following two sentences:

- (1) me-ná ga kofi
1SG-give money Kofi
'I gave Kofi money'
- (2) me-ple βotrú ná kofi
1SG-buy door give Kofi
(a) 'I bought a door and gave it to Kofi'
(b) 'I bought a door for Kofi'
- (3) me-wɔ dɔ́ vévié ná dodókpɔ lá
1SG-do work hard give exam DEF
'I worked hard for the exam'

Whereas in sentence (1) the element *ná* is a verb meaning ‘give,’ in sentence (2) it is ambiguous and may be interpreted alternatively as a verb (‘give’) or as a benefactive preposition (‘for’), and in (3) *ná* can be interpreted only as a preposition (‘for’).

We are dealing here with an instance of grammaticalization, whereby a lexical item, the verb 'give,' assumes a grammatical meaning, that of expressing a "prepositional" notion, 'for' or 'to' in certain contexts,² a process that has occurred in a number of languages worldwide.³

Not only is our interpretation of this process based on the meaning or translation of the relevant sentences, but it is also borne out by the morphosyntactic behavior of *ná* in these sentences. Thus, in sentence (1), where *ná* has full lexical meaning, it may receive the entire range of verb inflections. The same applies to sentence (2), as far as meaning (a) is implied. If, however, the intended meaning is that of (2b), *ná* loses its lexical status to become a grammatical element and appears in a "decategorized" form (cf. Hopper and Thompson 1984); that is, it no longer accepts verbal inflections such as tense, aspect, or negation markers. *Ná* in sentence (3) is an invariable function word that, unlike a verb, may not be preceded by a coordinating conjunction such as *éyé* 'and,' thus rendering sentence (4) ungrammatical:

- (4) * me-wó dɔ́ vévié éyé me-tsó-e ná . dodókpɔ́ lá
 1SG-do work hard and 1SG-take-3SG give exam DEF

Where a lexical unit or structure assumes a grammatical function, or where a grammatical unit assumes a more grammatical function, we are dealing with grammaticalization, a process that can be found in all languages known to us and may involve any kind of grammatical function. The implications that grammaticalization has for language structure, as well as for language description, are considerable. First, grammaticalization can be described alternatively as a diachronic or a synchronic phenomenon. Within a diachronic perspective, we might say that the verb *ná* "has developed" some prepositional uses, that is, that the verbal uses preceded the prepositional ones in time.

Within a synchronic analysis, grammaticalization provides a challenge to the notions of discrete morpheme classes or sentence constituents. In previous grammars of Ewe, for example, the morpheme *ná* has been cited as a case of homonymy, denoting a verb 'give' on the one hand and a preposition 'for, to' on the other (cf. Ansre 1966). Assuming that this analysis is correct, how is the meaning of *ná* in sentence (2) to be interpreted? Does the semantic ambiguity of *ná* in (2) involve overlapping homonymy, or are we dealing with a third "homonym," one that combines both verbal and prepositional uses? In the latter case, one might argue that this ambiguity is a result of translation rather than of inherent semantics.

That a homonymy/discrete-category approach raises a number of questions becomes even more obvious in view of the fact that the above data have provided a highly simplified, if not distorted, account of the actual situation: sentences (1), (2), and (3) include but a small collection of the many possible uses *ná* has. Given enough contexts in which this form occurs, it would be possible to demonstrate

that these uses can be arranged along a continuum extending from prototypical verbal uses, as in (1), to prototypical prepositional uses, as in (3). Sentence (2) exemplifies only one of a large range of possible points along this continuum. This means that, rather than analyzing the structure of *ná* in terms of discrete categories such as constituent types or morpheme classes, a more appropriate approach would be that which highlights the continuum nature of linguistic structures.

A theory of grammaticalization has to account for problems of this kind. In the present work, we wish to propose a framework for dealing with such problems.

The by now classic definition of the term "grammaticalization" was provided by Jerzy Kurylowicz ([1965] 1975:52): "Grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status, e.g. from a derivative formant to an inflectional one." More or less the same definition has been used by other scholars and will be adopted here.⁴ A number of alternative terms—such as "reanalysis" (see 8.2), "syntacticization" (Givón 1979a:208ff.; see 8.7), "semantic bleaching" (see 2.3.1), "semantic weakening" (Guimier 1985:158), "semantic fading" (Anttila 1972:149), "condensation" (Lehmann 1982:10–11), "reduction" (Langacker 1977:103–7), "subduction" (Guillaume 1964:73–86), etc.—are occasionally used as synonyms or near synonyms, although in most cases they refer to certain semantic or syntactic characteristics of grammaticalization. Grammaticalization has also been referred to as "grammaticization" (e.g., Givón 1975a:49; Bolinger 1978:489; Bybee and Pagliuca 1985) or "grammatization" (Matisoff, in press).⁵

Some authors have drawn attention to the problem of how grammaticalization is to be delimited from lexicalization. Most of them would agree that, when words belonging to an open class, like that of nouns, develop into closed class words such as adverbs, this constitutes an instance of grammaticalization. Anttila, however, argues that this is also an instance of lexicalization.⁶

In a number of works, the term refers only to the initial phase of the process, that is, to the development from lexical to grammatical structure. Thus, for Samuels (1971:58), grammaticalization "consists of intake from lexis"; it takes place when a word becomes "sufficiently empty of lexical meaning."⁷ According to Sankoff (1988:17), it is present when "the once content-words or open-class morphemes of the language have become function words, or closed class morphemes."

Other authors again confine the use of the term "grammaticalization" to the transition from pragmatic structures to syntax. Hyman (1984:73, 83), for example, observes that pragmatics provides much of the substance of syntax, and he reserves the term "grammaticalization" to "the harnessing of pragmatics by a grammar." It would seem that such narrow definitions restrict the use of the term unnecessarily, especially since it would require an alternative terminology for the

development from less to more grammatical structure on the one hand and for the entire development on the other.

Other authors again define the term in a wider sense than the one adopted here. In a number of more recent studies, for example, it is discussed in terms of coding strategies (cf. Mithun, in press), and, for Levinson (1983:9), grammaticalization simply covers "the encoding of meaning distinctions . . . in the lexicon, morphology, syntax and phonology of languages."⁸ Within the framework of emergent grammar proposed by Hopper, grammaticalization is used as a near synonym to grammar: "There is, in other words, no 'grammar' but only 'grammaticization'—movements toward structure" (Hopper 1987:148).

What is common to most definitions of grammaticalization is, first, that it is conceived of as a process. Most frequently it has been claimed to form essentially a diachronic process.⁹ Thus, Kurylowicz (1964) remarks in the preface to his *Inflectional Categories of Indo-European*, "Such shifts as *iterative* > *durative*, *static present* > *perfect*, *desiderative* > *future*, *adverb* > 'concrete' case > *grammatical case*, *collective* > *plural* . . . recur constantly and independently in all languages. They represent diachronic universals and must be somehow enrooted, directly or indirectly, in the elementary speech situation." Note also Traugott and König (in press), who define the term in the following way: "Grammaticalization . . . refers primarily to the dynamic, unidirectional historical process whereby lexical items in the course of time acquire a new status as grammatical, morphosyntactic forms, and in the process come to code relations that either were not coded before or were coded differently."

Other authors again have emphasized that grammaticalization can also be defined or interpreted as a synchronic process (cf. Lehmann 1986; Heine and Claudi 1986b). In a number of works, however, it is not specified how a grammaticalization process is to be conceived of.¹⁰ Second, while the term "grammaticalization" has been applied to all kinds of domains, including that of phonology (cf. Anderson 1981; Booij 1984:273–74), most scholars treat grammaticalization as a morphological notion, that is, as one that concerns the development of a given word or morpheme.

A third characteristic that is implicit in these definitions and has frequently been mentioned as an intrinsic property of the process is that grammaticalization is unidirectional, that is, that it leads from a "less grammatical" to a "more grammatical" unit, but not vice versa. A few counterexamples have been cited (e.g., Kahr 1976; Jeffers and Zwicky 1980; Campbell, in press). They concern either degrammaticalization or regrammaticalization (cf. Greenberg, in press). The former is present when the direction of grammaticalization is reversed, that is, when a more grammatical unit develops into a less grammatical one, while the latter applies when forms without any function acquire a grammatical function.¹¹ Although both degrammaticalization and regrammaticalization have been ob-

served to occur, they are statistically insignificant and will be ignored in the remainder of this work.¹² Note that many cases of alleged degrammaticalization found in the literature on this subject can be shown to be the result of an inadequate analysis (see Lehmann 1982:16–20).

1.2 Previous Approaches

The question as to the origin and development of grammatical categories is almost as old as linguistics. This fact should not stop us, however, from viewing grammaticalization as a new paradigm. In the present section, some developments in grammaticalization studies will be reviewed to provide a better understanding of this paradigm, although more detailed historical treatment of the subject is urgently required (for details, see Lehmann 1982).

1.2.1 Earlier Works

It would seem that the notion of grammaticalization was first recognized outside the world of Western scholarship. At the latest, since the tenth century, Chinese writers have been distinguishing between "full" and "empty" linguistic symbols, and Zhou Bo-qi (Yuan dynasty, A.D. 1271–1368) argued that all empty symbols were formerly full symbols (Harbsmeier 1979:159ff.).

An interest in grammaticalization, as we now conceive of it, however, goes back to the eighteenth century. Scholars such as the French philosophers Etienne Bonnot de Condillac and Jean Jacques Rousseau argued that both grammatical complexity and abstract vocabulary are historically derived from concrete lexemes. Condillac was apparently the first to notice that verbal inflections such as tense suffixes are historically derived from independent words (Condillac 1746, 1749)—an observation that appears to have inspired generations of nineteenth-century scholars engaged in formulating the principles of comparative (Indo-European) grammar.

It was Condillac's contemporary J. Horne Tooke who may be regarded as the father of grammaticalization studies. For Horne Tooke, the "secret" of words lies in their etymology. A key notion in his work, which appeared first in 1786 and 1805 and was published later in one volume (Horne Tooke 1857), is "abbreviation": nouns and verbs are called "necessary words" and are considered to be the essential parts of speech, while other word classes, such as adverbs, prepositions, and conjunctions, result from the abbreviation or "mutilation" of "necessary words."¹³ Inflectional and derivational forms are treated by him as fragments of earlier independent words agglutinated to the root word (see Robins [1967] 1979:155–58).¹⁴

That verb forms inflected, for example, for tense or aspect can be explained as being the result of the coalescence of several independent words had already been pointed out forty years earlier by Condillac (1746). Horne Tooke's work, how-

ever, led to such observations being used to develop a theory according to which language in its original state is "concrete" and "abstract" phenomena are derived from concrete ones.

Grammaticalization was also a topic in linguistics throughout the nineteenth century. It formed a central theme in the work of Franz Bopp (1816, 1833) on the principles of comparative grammar. In the tradition of Horne Tooke and other eighteenth-century scholars, Bopp presented numerous examples of the development from lexical material to auxiliaries, affixes, and, finally, inflections. Grammaticalization, as conceived of by Bopp, forms an important parameter in understanding diachronic Indo-European linguistics.

August Wilhelm von Schlegel (1818) presented a number of thoughts that have come up again in recent discussions on grammaticalization. His "paper-money theory," as we propose to call it, according to which words are stripped of their semantic content in order to facilitate their circulation in language, is based on some of the paradigm cases of grammaticalization: the development from demonstrative to definite article (cf. Greenberg 1978a), from the numeral 'one' to an indefinite article (cf. Givón 1981), or from *have*-constructions to perfective/past markers (Fleischman 1983):

Man entkleidet einige Wörter ihrer Bedeutungskraft und läßt ihnen nur einen Nennwert (valeur nominale), um ihnen einen allgemeineren Kurs zu geben und sie in den Elementarteil der Sprache einzuführen. Diese Wörter werden zu einer Art Papiergeld, das den Umlauf erleichtert. Zum Beispiel irgendein Demonstrativpronomen wird zum Artikel. Das Demonstrativpronomen lenkt die Aufmerksamkeit auf einen Gegenstand, dessen reale Präsenz es anzeigt; als Artikel zeigt es nur noch an, daß das Wort, dem es vorangeht, ein Substantiv ist. Das Zahlwort *ein* wird unter Verlust seines numerischen Wertes zum unbestimmten Artikel. Ein Verbum, das das Besitzen bezeichnet, verbindet sich mit einem anderen Verbum als Hilfsverb und drückt nun nur noch den idealen Besitz der Vergangenheit aus. [Schlegel 1818:27–28, quoted in Arens 1969: 190]

Even more influential was a lecture presented by Wilhelm von Humboldt in 1822 (and published in 1825) to the Academy of Science in Berlin, entitled "Über das Entstehen der grammatischen Formen und ihren Einfluß auf die Ideenentwicklung" (On the origin of grammatical forms and their influence on the development of ideas). Humboldt defended Horne Tooke's thesis that word classes such as prepositions and conjunctions "have their origin in real words denoting objects" (Humboldt 1825:63), and he proposed the following four-stage evolution of means employed for achieving grammatical designations:

Stage I (which he calls "the lowest stage"): idioms, phrases, and clauses;

Stage II: fixed word order and words vacillating between "matter and form meaning";

Stage III: "analogs of forms," which are "pure expressions of relations";

Stage IV ("the highest stage"): "true forms, inflection, and purely grammatical words" (Humboldt 1825:66).

This model, which later came to be known as the "agglutination theory" or "coalescence theory" (Jespersen 1922:376), is closely related to the well-known three-stage typology developed by Schlegel and Humboldt: Stages I and II roughly correspond to the isolating type, while Stage III is suggestive of the agglutinating and Stage IV of the inflectional type. Furthermore, this model reveals Humboldt's major motivation for dealing with grammaticalization: linguistic typology and the way it correlates with the evolution of language and thought.

It was Franz Wüllner who developed perhaps the most pronounced notion of grammaticalization during the first half of the nineteenth century. In his *Über Ursprung und Urbedeutung der sprachlichen Formen* (On the origin and original meaning of linguistic forms), he summarized his findings in the following way: "From these few examples we may draw the conclusion that designations for all non-perceptible are derived from perceptible [concepts]" (Wüllner 1831:14). His examples include instances of the development from independent word to inflection, for example, from auxiliary verb to tense inflection, or from self-standing pronoun to bound personal ending, and he discussed in some detail the transition from periphrastic constructions to tense markers.

A comparable perspective was adopted by William Dwight Whitney (1875) in his *Life and Growth of Language*. While his evolutionary thesis and a number of his etymologies are no longer tenable, some of his views on semantic change are immediately relevant to modern conceptions of grammaticalization. According to Whitney, transfer and extension are important factors in semantic change; they lead to "a movement in the whole vocabulary from the designation of what is coarser, grosser, more material, to the designation of what is finer, more abstract and conceptional."¹⁵ This development, he argues, is not confined to the lexicon; rather, it also leads to the emergence of grammatical forms, involving a process of "attenuation, a fading-out, a complete formalizing, of what was before solid, positive, substantial" (Whitney 1875:89–90, 90). One of his examples of how lexemes enter "into the service of formal grammatical expression" concerns the development from a verb 'seize, grasp' (Latin *capere*), to one expressing possession (Latin *habere*, English *have*), to a perfect marker on the one hand (e.g., *I have gone*) and a marker of obligation (*I have to go*) and futurity (French **je fendre ai > je fendr-ai* 'I'll split') on the other. The following passage illustrates his way of semantic reasoning:

Present possession often implies past action: *habeo cultellum inventum*, *habeo virgulam fissam*, *habeo digitum vulneratum*, 'I possess my knife (recovered after loss), I possess a twig that is split, I have a wounded finger: here the several conditions have been pre-

ceded by the several acts, of finding, splitting, wounding. On this absurdly narrow basis is built up the whole immense structure of the "perfect"-tense expression: the phrase shifts its centre of gravity from the expressed condition to the implied antecedent act; and *I have found the knife, ich habe das Messer gefunden, j'ai trouvé le couteau*, become indicators of a peculiar variety of past action contemplated as completed. [Whitney 1875:91]

Various works by German scholars that appeared in the second half of the last century dealt with issues that are only now beginning to be discovered as being of interest to grammaticalization studies. Attention should be drawn, *inter alia*, to the studies of Wegener (1885), in particular to his concept of *Sprachleben* and his description of discourse pragmatic patterns developing into morphosyntactic constructions. Furthermore, we owe some important contributions to grammaticalization theory to Riis (1854) and Christaller (1875), two German missionaries working on the Twi (Akan) language in Ghana, who presented a new framework for describing the development from lexical to grammatical categories (Lord 1989). By the time Georg von der Gabelentz ([1891] 1901:250–51) proposed the notion of an evolutionary spiral to describe the development of grammatical categories, the "what-today-are-affixes-were-once-independent-words" paradigm had become almost a commonplace in linguistics. Gabelentz's attempt to account for grammaticalization in terms of two "driving forces," *Bequemlichkeitstrieb* (indolence, ease) and *Deutlichkeitstrieb* (distinctness), had a considerable impact on early twentieth-century views of grammaticalization: "Nun bewegt sich die Geschichte der Sprachen in der Diagonale zweier Kräfte: des Bequemlichkeitstriebes, der zur Abnutzung der Laute führt, und des Deutlichkeitstriebes, der jene Abnutzung nicht zur Zerstörung der Sprache ausarten lässt. Die Affixe verschleifen sich, verschwinden am Ende spurlos; ihre Functionen aber oder ähnliche bleiben und drängen wieder nach Ausdruck" (Gabelentz [1891] 1901:256).

Subsequent generations of linguists were concerned with more detailed descriptions of this process. Toward the end of the century, for example, the semanticist Michel Bréal pointed out, "Among all words of a certain kind, distinguished by a certain grammatical imprint, there is always one which is little by little drawn apart from its fellows. It becomes the pre-eminent exponent of the grammatical conception of which it bears the stamp. But at the same time it loses its individual value, and is no more than a grammatical instrument, one of the wheels of the phrase" (Bréal 1897, quoted in Matisoff, *in press*).

It was Bréal's compatriot, Antoine Meillet, who may be called the founder of modern grammaticalization studies. His "L'évolution des formes grammaticales" (1912) marks the beginning of a perspective of grammaticalization that is still prevalent today. Meillet not only introduced the term *grammaticalisa-*

tion (1912:133), but he also justified the relevance of grammaticalization studies as one of the major activities in the science of language.

In his discussion of the transition of words from what he referred to as *mots principaux* to *mots accessoires*, Meillet followed Bopp, rather than Humboldt, in using grammaticalization as an explanatory parameter in historical linguistics. Like Gabelentz, he argued that linguistic development proceeds in spirals, and his discussion of the distinction between *affaiblissement* (weakening) and *expression intense* (intensive expression) is also strongly reminiscent of that between Gabelentz's two driving forces.

Meillet claimed that there are only two ways in which new grammatical forms arise, either via analogical innovation or via grammaticalization (= *l'attribution du caractère grammaticale à un mot jadis autonome*). While the former does not interfere with the overall system of language, the latter leads to a transformation of the entire system by introducing new categories for which no linguistic expressions existed before: "Tandis que l'analogie peut renouveler le détail des formes, mais laisse le plus souvent intact le plan d'ensemble du système existant, la 'grammaticalisation' de certains mots crée des formes neuves, introduit des catégories qui n'avaient pas d'expression linguistique, transforme l'ensemble du système" (Meillet 1912:133). The distinction between analogy and grammaticalization is important to Meillet, especially since it helps him set off his own view from that of the then very powerful neogrammarians, who, he claimed, were preoccupied with only two things: "phonetic laws" and analogical innovation.¹⁶

The transition from lexical items (*mots principaux*) to auxiliaries and other morphemes fulfilling grammatical functions (*mots accessoires*), also referred to as "empty words" (*mots vides*), is described by Meillet as a kind of continuum,¹⁷ although he insists that at the same time this is also a discrete distinction. With this observation on the dual character of the process, he has captured one aspect that any theory of grammaticalization has to take into consideration, as we shall try to demonstrate. Another important observation relates to the inverse correlation between the increase in the frequency of use and the decrease in expressive value that units undergo on their way to becoming *mots accessoires* (Meillet 1912:135–36).

A number of generalizations on language structure that more recently have become key notions of grammaticalization are contained in Sapir's *Language* (1921). Although chapter 5 of this book mainly deals with synchronic typology, it contains a wealth of observations on grammaticalization. For example, what today is referred to as the "bleaching model" (see 4.4) was presented by him under the label "thinning-out process," and our notion of a "form-meaning asymmetry" in the process of grammaticalization (8.1) was described in the following way: "Now form lives longer than its own conceptual content" (Sapir 1921:98).

Sapir's description of the concrete-abstract continuum and its relation to linguistic expression is still relevant to modern studies on the development of grammatical categories (see chap. 2).¹⁸ The following statement illustrates Sapir's understanding of language structure: "It is enough for the general reader to feel that language struggles towards two poles of linguistic expression—material content and relation—and that these poles tend to be connected by a long series of transitional concepts" (Sapir 1921:109). At the same time, however, his framework did not include grammaticalization as a major paradigm.

The Boppian perspective of grammaticalization as an essential part of classic Indo-European linguistics is still apparent in the work of Kurylowicz ([1965] 1975) and Benveniste (1968). The former has volunteered a definition of this term that is now widely, though not generally, accepted (see sec. 1.1 above).

Benveniste proposed a distinction between "innovating mutation" and "conservative mutation" that is strongly reminiscent of Meillet's distinction between analogical innovation and grammaticalization: both distinctions contrast two major types of morphosyntactic change, and both draw attention to grammaticalization as forming one of these types. But, whereas Meillet's *grammaticalisation* relates mainly to the transition from one category of words (*mots principaux*) to another (*mots accessoires*), Benveniste's term "conservative mutation" highlights the morphosyntactic process involved, which, according to him, is periphrasis: conservative mutation, Benveniste (1968:86) argued, serves "to replace a morphemic category by a periphrastic category with the same function." Thus, case inflections are replaced by prepositional phrases etc. The data presented by Benveniste include an insightful description of the evolution from a periphrastic construction *habere* + past participle in Latin to a perfective category and from *habere* + infinitive to a future category in French.

Up to 1970, grammaticalization was viewed mainly as being part of diachronic linguistics, as a means of analyzing linguistic evolution, of reconstructing the history of a given language or language group, or of relating modern linguistic structures to previous patterns of language use.¹⁹ This tradition has yielded a wealth of data on individual grammatical developments and on the way such developments may contribute to understanding synchronic language states. Lockwood, for example, has described the evolution from demonstrative to definite article in German in the following way: "The natural way of giving linguistic expression to the desire to draw attention to the definite or familiar is to qualify the noun in question with a demonstrative pronoun, i.e. with a word meaning 'this' or 'that' or both. But in this new function, the demonstrative force of the word automatically diminishes, eventually disappearing altogether; when this happens the article is born" (1968:86).

This evolution, which was later defined in more precise terms by Greenberg (1978a), offers an explanation as to why there are now two forms of the German demonstrative paradigm *der, die, das* 'this/that': one form that still carries stress

and preserves the original function as a demonstrative, contrasting with another one "where the original demonstrative now bears no stress, having become an article pure and simple" (Lockwood 1968:87).

By around 1970, the notion of grammaticalization had been accepted by a number of linguists as constituting one of the factors responsible for language change. Anttila (1972:149–52), for example, discussed it in his *Introduction to Historical and Comparative Linguistics*, together with lexicalization, as one of the processes to be observed in semantic change.

1.2.2 Recent Approaches

One of the main merits of grammaticalization studies after 1970 was that attention was drawn to the potential they offer as an explanatory parameter for understanding synchronic grammar. Dissatisfaction with existing models of grammatical description provided a major incentive for turning to grammaticalization as a means of surmounting "static" approaches for analyzing grammar, in particular structuralism and generative transformational grammar. One point of criticism concerns the fact that structuralist and generative approaches, in particular the Chomskyan paradigm of transformational grammar, are hard pressed to account for the relation between cognitive domains such as space, time, manner, etc. and the effect that creative processes such as metaphor and other figures of speech have on language structure. A number of works, many of them inspired by Fillmore's notion of case grammar, were devoted to this issue in the early 1970s.

A noteworthy but little-known attempt to reconcile generativist theory with findings on metaphor, metonymy, synecdoche, and other cognitive processes was that of Lambert (1969), who, by adopting a modified version of Fillmore's case grammar, proposed an extended model, called "modified case grammar." An essential part of this model includes "construal rules" whose function it is to resolve feature contradiction by means of creative language processes on the one hand and metaphor on the other.²⁰ The latter two are said to differ from one another in that "creative language processes" come in when there is compatibility, though not identity, between lexical features and case features, while metaphor is employed to resolve feature contradiction. By incorporating such cognitive activities within the framework of case grammar, Lambert was able to demonstrate that grammatical and lexicographical descriptions can be simplified considerably. On the basis of earlier studies by Weinreich (1966), McCawley (1968), and others, he proposed a catalog of common construal patterns, which serve to resolve such notorious problems as "feature contradiction," inadequately accounted for by previous linguistic schools.

According to another, perhaps better-known paradigm, many structures that appear in grammar can be derived from the domain of space: "Spatial expressions are linguistically more basic . . . in that they serve as structural

templates, as it were, for other expressions" (Lyons 1977:718). This line of research has been referred to as the "localist hypothesis" or "localism" (Lyons 1967; Anderson 1971; Pottier 1974), of which an extended version can be found in Diehl (1975). Diehl proposed an egodeictic space hierarchy in which four types of space are distinguished. These spaces are ordered in the form of an inward/outward progression, where "social space" is closest to the core and "logical space" is the most peripheral (see 2.4.1). Each space has its own deictic center, which is glossed by Diehl in the following way:

Social space	<i>me</i>
Spatial space	<i>here</i>
Temporal space	<i>now</i>
Logical space	<i>in this case</i>

While Lambert, Diehl, and others aimed at accounting for language structure within prevalent paradigms of linguistics, a number of other scholars argued that existing models of linguistic analysis were inadequate and that a new perspective on the subject was required according to which language structure is the result of nonlinguistic phenomena, above all of cognitive processes. Perhaps the most noteworthy approaches are those of Talmy (1972, 1975, 1978, 1983, 1985a), Lakoff and Johnson (1980), Lakoff (1987), and Langacker (1981, 1982, 1986).

Another major point of criticism of the mainstream theories concerns the problem of explanations in linguistic theory. Dissatisfaction with the restrictions of structuralism and other rigidly synchronic models led to an awareness of the need for parameters that might help explain linguistic behavior in a noncircular way. It was mainly thanks to the work of Talmy Givón that attention was focused on new parameters, one of them being diachrony and linguistic evolution, whereby a new perspective of analysis emerged, inspired by typological works such as that of Greenberg (1963b). In one of his earliest writings, Givón sketches this perspective in the following way: "in order to understand current morphologies and morphotactics of a language, one must construct specific hypotheses about the syntactic order and transformational structure of the language at some earlier stage of its historical development" (Givón 1971b:394). Givón's by now classic assertion that "today's morphology is yesterday's syntax" (Givón 1971b:413), possibly influenced by Hodge's description of a cyclic typological evolution in Egyptian, marked the beginning of a new era of research on the development of grammatical categories.²¹ Like Hodge (1970), he assumed that linguistic evolution is cyclic, involving the development from free lexemes to bound affixes, which undergo attrition and eventually fusion with the stem, the result being the beginning of a new cycle (Givón 1971b:411-12).

In later years, a revised approach emerged in Givón's work. Since the

mid-1970s, discourse pragmatics came to be recognized as a major parameter for understanding language structure in general and the development of syntactic structures and grammatical categories in particular. On the basis of their analysis of the development of relative clause structures in New Guinean Tok Pisin, Sankoff and Brown arrived at the following conclusion: "We find that the basic processes involved in relativization have much broader discourse functions, and that relativization is only a special instance of the application of general 'bracketing' devices used in the organization of information. Syntactic structure, in this case, can be understood as a component of, and derivative from, discourse structure" (Sankoff and Brown 1976:631).

In addition to his earlier slogan, "Today's morphology is yesterday's syntax," Givón drew attention to another paradigm case of linguistic evolution, one that can be paraphrased roughly as, "Today's syntax is yesterday's pragmatic discourse." Givón argued that, in the process of grammaticalization, a more pragmatic mode of communication gives way to a more syntactic one. According to this perspective, loose, paratactic discourse structures develop into closed syntactic structures. Since the latter in time erode via morphologization, lexicalization, and phonological attrition, the result is a cyclic wave of the following kind (Givón 1979a:208-9):

Discourse > syntax > morphology > morphophonemics > zero

This line of research has opened a new window on grammaticalization studies, one that encourages a view of grammaticalization not simply as the "reanalysis of lexical as grammatical material" but also as the reanalysis of discourse patterns as grammatical patterns and of discourse-level functions as sentence-level, semantic functions (Hopper 1979a, 1979b, 1982; Herring 1988, in press; Thompson and Mulac, in press). New findings, such as DuBois's observation, according to which recurrent patterns in discourse tokens exert pressure on linguistic types (DuBois 1985), have stimulated research in particular on discourse frequency as an indicator for the emergence of new grammatical patterns (Givón 1984b; Bybee and Pagliuca 1985; DuBois 1987; Durie 1988; Hopper 1987). We will return to this issue in later chapters (see 7.2.2, 8.7).

That grammaticalization processes may be material to understanding synchronic language structures was demonstrated most clearly by Li and Thompson (1974a). Like Givón, they used grammaticalization as an explanatory parameter to account for certain language structures, such as the shift from an SVO (subject-verb-object) basic order to a verb-final, SOV (subject-object-verb) syntax in Chinese.

Rather than relying on prevalent models of that time—for example, that of Vennemann (1973), according to which new word orders result from a direct reorganization of sentential constituents within simple clauses—they argue that the transition from SVO to SOV in Chinese is the result of a process whereby

verbs assume a grammatical function. In an SVO language, when the first verb (V1) in a sequence S-V1-O-V2 is grammaticalized to a case marker, then the result is an SOV structure since V2 assumes the role of the only verb in the sentence. Li and Thompson argue that exactly this has happened in Chinese. For example, with the grammaticalization of the verb *bǎ* 'to take hold of' as V1 to an objective case marker, V2 becomes the main verb; hence, an SOV order emerges. The result is a structural shift of the following kind:²²

S = V1 = O = V2 > S-objective case-O-V

Li and Thompson conclude that the gradual shift in word order helps explain a number of characteristics of Chinese grammar, for example, why certain sentences have an SVO order or why case markers in an SOV language derived from the order SVO are prenominal rather than postnominal (Li and Thompson 1974a:210). Not only have such insights contributed to our understanding of synchronic language structure, but they have also provided new techniques for reconstructing earlier states of language development (Claudi 1988, 1990).

A new framework of grammaticalization has emerged in the work of Elizabeth C. Traugott. Her major concern is with principles of meaning change in the process of grammaticalization (cf. Traugott 1980:46). On the basis of the Hallidayan tripartite distinction of language functions, she suggests that the main change involved in the process of grammaticalization is from the propositional/ideational via the textual to the interpersonal/expressive functional-semantic component: "If there occurs a meaning-shift which, in the process of grammaticalization, entails shifts from one functional-semantic component to another, then such a shift is more likely to be from propositional through textual to expressive than in reverse direction" (Traugott 1982:256). Reverse changes, she argues, that is, changes from expressive through textual to propositional functions, are "highly unlikely in the history of any one grammatical marker" (Traugott 1987:1). This process, which is said to lead toward greater pragmaticization of meaning, is also called "subjectification" by Traugott since, over time, "meanings tend to come to refer less to objective situations and more to subjective ones (including speaker point of view), less to the described situation and more to the discourse situation" (Traugott 1986a:540).²³

More recently, Traugott has proposed a refined framework in which the following three tendencies of semantic-pragmatic change are distinguished (see Traugott and König, in press):

I	External described situation	> Internal (evaluative/perceptual/cognitive) situation
II	External or internal situation	> Textual situation
III	(Textual situation)	> Speaker's subjective belief state

Traugott cites the development of Old English *hwilum* 'at times' to Middle English *while* 'during' to present-day English *while* 'although' as an example: the meaning 'at times' "refers to a situation viewed as existing in the world," thus being part of the propositional component of language, while the meaning 'during' "signals a cohesive time-relation not only between two events in the world but also between two clauses, and therefore has a strongly text marking function." Finally, the concessive sense of 'although' is said to be primarily expressive of the speaker's attitude (Traugott 1987:1).

Concerning the question as to how these changes come about, Traugott draws attention to the role played by strengthening of informativeness, conversational implicatures, and metonymy in the development of grammatical categories (cf. Traugott and König, in press). It is this line of research that has had a considerable impact on the framework proposed here (see esp. chap. 3).

While in some previous works, such as that of Givón, the question as to where grammaticalization starts and where it ends was raised, Heine and Reh (1984) were concerned with the internal mechanism of the process. Observing that this process affects all levels of language structure, they distinguish between functional, morphosyntactic, and phonetic processes:

- a) *Functional processes*: desemanticization, expansion, simplification, and merger;
- b) *Morphosyntactic processes*: permutation, compounding, cliticization, affixation, and fossilization;
- c) *Phonetic processes*: adaptation, erosion, fusion, and loss (Heine and Reh 1984:16ff.).

To a large extent, the arrangement of processes both between and within the three groups reflects the chronological order in which they operate. For example, functional processes chronologically precede both morphosyntactic and phonetic processes; that is, if a linguistic unit undergoes both desemanticization and cliticization, then the former is likely to precede the latter in time. Furthermore, Heine and Reh (1984:67) list a number of more general observations that can be made during the process of grammaticalization. For example, the more grammaticalization processes a given linguistic unit undergoes,

- a) the more it loses in semantic complexity, functional significance, and/or expressive value;
- b) the more it loses in pragmatic and gains in syntactic significance;
- c) the more reduced is the number of members belonging to the same morphosyntactic paradigm;
- d) the more its syntactic variability decreases, that is, the more its position within the clause becomes fixed;
- e) the more its use becomes obligatory in certain contexts and ungrammatical in others;

- f) the more it coalesces semantically, morphosyntactically, and phonetically with other units;
- g) the more it loses in phonetic substance.

Between 1971 and 1975, a wealth of data on the development from lexical to grammatical categories in non-Indo-European languages was accumulated. One major theme of this research was to demonstrate, for example, what implications the grammaticalization of verbs to case markers, complementizers, or tense/aspect categories has both for synchronic grammar and for the reconstruction of previous language states (Givón 1971a, 1975a; Li and Thompson 1974a, 1974b; Li 1975a; Lord 1973, 1976).

Roughly a decade later, a new line of research developed that was concerned with the linguistic nature of the process of development from lexeme to grammatical marker. On the basis of evidence from a number of unrelated languages, Heine and Reh concluded, "Grammaticalization is an evolutionary continuum. Any attempt at segmenting it into discrete units must remain arbitrary to some extent" (Heine and Reh 1984:15).

One of the earliest attempts to describe the nature of continua resulting from the grammaticalization of lexemes to function words was made in works on Chinese grammar. In treatments written prior to 1980, the "co-verbs" of this language were usually classified either as full verbs or prepositions or as some category derived from either of these, like the "quasi-verbs" of Gao (1940:32), although the diachronic and synchronic relation existing between verbal and prepositional uses was both recognized and described (cf. Chao 1968; Hagège 1975; Li and Thompson 1974a, 1974b; Li 1975a; see also Li and Thompson 1981).²⁴

Perhaps the first to refer to the "amphibious nature" of the co-verbs in Chinese as a continuum ranging from a verbal to a prepositional pole was Chang (1977). A description of this continuum was presented five years later by Paul (1982). Her analysis of six co-verbs suggests not only that each of them forms a continuum of "decreasing verbality" but also that these co-verbs differ from one another in the extent to which they (still) exhibit a verbal behavior and can be arranged along a scale of relative verbal characteristics. At one end of this scale is the co-verb *yòng* 'to use; with,' which has a wider range of verbal characteristics than, for example, *dào* 'to arrive at, go to; until'; *bǎ* 'to take; direct object marker,' however, is located at the other end of the scale since it exhibits a minimal range of verbal characteristics.

Subsequently, the structure of the continuum from verb to preposition also became the subject of two more detailed studies on languages other than Chinese, one on Thai (Kölver 1984) and another on Ewe (Hünemeyer 1985). More recent observations suggest that, in addition to its continuum structure,

grammaticalization also has the characteristics of a chain (cf. Heine, Claudi, and Hünemeyer, in press).

In an important paper published in 1985, Bybee and Pagliuca drew attention to a number of salient characteristics of grammaticalization. The first relates to the process of generalization, or weakening of semantic content, which had also been mentioned by some previous writers: "The notion of generalization, it should be noted, is twofold. On the one hand, a more general morpheme has a more general distribution, since it can be used in more contexts, and on the other hand, it is more general in that it lacks certain specific features of meaning. . . . Thus by generalization we do mean to imply that meanings are emptied of their specificities" (Bybee and Pagliuca 1985:63).

Another observation concerns frequency of use. Bybee and Pagliuca note not only that morphs that are recruited for grammaticalization are characterized by "very frequent and general use" (cf. Bybee and Pagliuca 1985:72) but also that their use further increases once they undergo this process: "As the meaning generalizes and the range of uses widens, the frequency increases and this leads automatically to phonological reduction and perhaps fusion." (Bybee and Pagliuca 1985:76). Furthermore, these authors proposed metaphorical extension as an important mechanism underlying generalization, whereby concrete lexical items serve to express grammatical functions that "in themselves are necessarily abstract" (Bybee and Pagliuca 1985:72). In later works by these authors, however, metaphor is no longer mentioned as a parameter of grammaticalization.

The framework of Bybee and Pagliuca (1985) appears to have been influenced by Givón (1981). Givón had pointed out that there are two prerequisites for the development from the numeral 'one' to a referential indefinite marker to take place, a development that has in fact occurred in many languages worldwide: a relatively high text frequency of the use of the numeral and a process of "semantic bleaching" or "generalization," in that order (Givón 1981:51).

The notion of "generalization" contrasts with that of "generality," proposed by Bybee in her monograph on morphology (1985a). She notes that derivational morphology is transitional between lexical and inflectional expression and proposes "a lexical/derivational/inflectional continuum" (Bybee 1985a:82), which is described in terms of two parameters, "relevance" and "generality." While the former relates to the relative degree to which an element directly affects or modifies the meaning of another element, "generality" refers to the degree of obligatoriness within a given syntactic construction (Bybee 1985a:13ff.). A high degree of relevance correlates with a low degree of generality, and vice versa.

These correlations are graphically represented in a simplified form in figure 1.1. Grammatical elements are located somewhere along this morphological

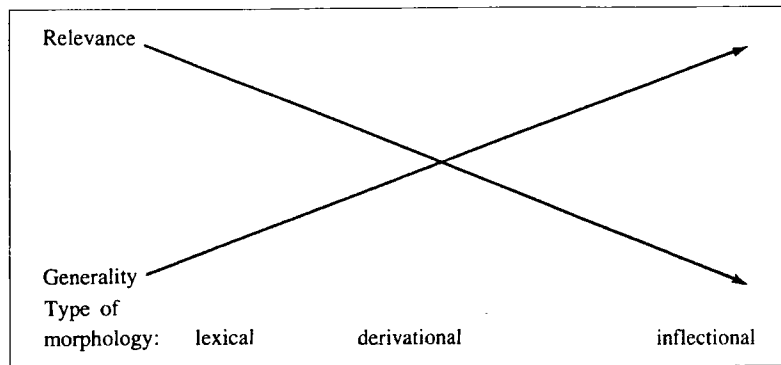


FIG. 1.1 Parameters underlying the lexical/derivational/inflectional continuum (according to Bybee 1985a).

continuum leading from lexical items to inflectional elements. The category of number, for example, tends to be located to the left of the category of case since in many languages it is likely to be less inflectional, and hence higher in relevance but lower in generality, than case.²⁵ More refined quantitative techniques for measuring relative degrees of grammaticalization are discussed in Bybee, Pagliuca, and Perkins (in press).

The search for synchronic parameters in describing grammaticalization is also apparent in the writings of Lehmann (1982, 1986), who draws attention, however, to the distinction between a diachronic and a synchronic aspect of this process. With regard to the synchronic aspect, Lehmann's primary interest lies in finding ways of measuring "grammaticality" (see above). For this purpose, he proposes six parameters (see table 1.1), set up on the basis of three aspects that are relevant for determining the autonomy of a linguistic form, namely "weight," "cohesion," and "variability," and the relation of these notions to their paradigmatic selection and syntagmatic combination.

These six parameters serve to order linguistic units along a synchronic scale

TABLE 1.1. Synchronic Parameters of Grammaticalization (according to Lehmann 1982, 1986)

	Paradigmatic Aspect	Syntagmatic Aspect
Weight	Integrity	Scope
Cohesion	Paradigmaticity	"Bondedness"
Variability	Paradigmatic variability	Syntagmatic variability

TABLE 1.2 Parameters and Processes of Grammaticalization (according to Lehmann 1986)

Parameter	Weak Grammaticalization	Process	Strong Grammaticalization
Integrity	Bundle of semantic features; possibly polysyllabic	Attrition	Few semantic features; oligo- or monosegmental
Paradigmaticity	Item participates loosely in semantic field	Paradigmaticity	Small, tightly integrated paradigm
Paradigmatic variability	Free choice of items according to communicative intentions	Obligatorification	Choice systematically constrained, use largely obligatory
Scope	Item relates to constituent of arbitrary complexity	Condensation	Item modifies word or stem
Bondedness	Item is independently juxtaposed	Coalescence	Item is affix or even phonological feature of carrier
Syntagmatic variability	Item can be shifted around freely	Fixation	Item occupies fixed slot

of grammaticalization. They may be of help, for example, in determining that fusional case affixes are more grammaticalized than adpositions and that these in turn are more grammaticalized than relational nouns (Lehmann 1986:3). Furthermore, they can be used to describe processes rather than states, once the "correlative increase or decrease" of all six parameters is measured.

In order to capture the processual nature of grammaticalization, Lehmann formulates six processes, namely attrition, paradigmaticization, obligatorification, condensation, coalescence, and fixation. These processes are construed as a "dynamicization" of the synchronic parameters listed in table 1.1. Table 1.2 describes the way these processes relate to the parameters of table 1.1. The development from Proto-Indo-European **esti* to English *is* (frequently *z*) is given as an example for a decrease in phonological integrity (= "phonological attrition") and that from Latin *hac hora* 'at this hour' to Spanish *ahora* 'now' as an example for a decrease in semantic integrity (in this case the loss in specification of the time unit), that is, as one paradigmatic parameter of grammaticalization.

The processes proposed by Lehmann differ considerably from those of previous authors, for example, in that they are not confined to specific areas of language structure. Whereas Heine and Reh (1984) differentiate processes in accordance with linguistic levels and hence distinguish between functional,

morphosyntactic, and phonetic processes (see above), Lehmann's processes cut across different levels of language structure. The notion of "attrition," for example, simultaneously refers to loss in semantic content and phonological substance and in the ability to inflect (Lehmann 1986:6-7), hence corresponding to different processes introduced by Heine and Reh (1984), where "attrition" refers to both the functional process of "desemanticization" and the phonetic process of "erosion."

Lehmann's framework, like most other studies on the subject, is based mainly on observations made on completed, that is, easily identifiable, instances of grammaticalization; it is more difficult to apply to processes that have not yet led to the "idiomatization" or "conventionalization" of grammatical structures (cf. Nichols and Timberlake, in press). Paul Hopper has therefore drawn attention to the incipient, less easily accessible stages of the process, and he proposes the following five principles that are said to underlie the emergence of grammatical forms (Hopper, in press):

- a) *Layering*: When new layers emerge within a functional domain, older layers are not necessarily discarded but may remain to coexist and interact with the new layers.
- b) *Divergence*: This principle refers to the fact that, when some entity undergoes grammaticalization, the result is that there are now "pairs or multiples of forms having a common etymology but diverging functionally."
- c) *Specialization*: This refers to "the narrowing of choices that characterizes an emergent grammatical construction."
- d) *Persistence*: When a grammaticalized meaning B develops, this does not necessarily mean that the earlier meaning A is lost; rather, B is likely to reflect A—at least as long as B has not yet undergone "morphologization."
- e) *Decategorialization*: Grammaticalization leads to a decrease in cardinal categoriality of the entity concerned. This implies a loss of optional markers of categoriality, such as modifiers, on the one hand, and of discourse autonomy on the other.²⁶

The study of the role of grammaticalization in the interaction between discourse and grammar has opened an important new field of research. There is now, for example, an increasing awareness of the fact that tense and aspect categories may develop from discourse functions (Fleischman 1983; Herring 1988), that coordination and subordination in grammar arise as discourse structures that become conventionalized and, hence, grammaticalized (Haiman and Thompson 1988:x), and that clause combining may be interpreted as a grammaticalization of the rhetorical organization of discourse (Matthiessen and Thompson 1988).

Much of this research has been inspired by Paul Hopper, who has proposed the most pronounced discourse-based position on grammaticalization (Hopper 1979a, 1979b, 1982, 1987). By contrasting some previous approaches to lin-

guistics, which he refers to as "a priori grammar," with his notion of emergent grammar, defined as a continual movement toward structure, Hopper argues against the general "habit of seeing utterances in terms of a fixed framework of rules," his major concern being with the identification of recurrent strategies in building discourses (1987).

Ten years earlier, Gillian Sankoff (1977) had drawn attention to the distinction between ad hoc strategies in language use on the one hand and syntactic rules on the other, and she had proposed the term "syntacticization process" to refer to the transition from the former to the latter.²⁷ According to Hopper, either there is no grammar, or "grammar is always emergent but never present"—what there is, is grammaticalization (= "grammaticization" in his terminology), that is, movement toward structure (Hopper 1987:145-48). We shall return to this position in various later chapters (see esp. 3.3.3).

One of the paradigm cases of grammaticalization studies during the past decade concerned the structure of FUTURE categories. After a thorough analysis of the development of FUTURE marking in Romance languages by Suzanne Fleischman (1982a, 1982b, 1983), this tense category also became the subject of a comparative-typological analysis by Bybee and her associates (Bybee and Pagliuca 1987; Bybee, Pagliuca, and Perkins, in press). One question raised in these as well as various other studies on the development of FUTURE morphemes relates to the role played by "semantic bleaching" in the rise of grammatical categories.

Since the 1970s, a view has prevailed according to which grammaticalization forms a kind of filtering device, leading to what has been referred to variously as "bleaching" (Givón 1975a; Lord 1976:183), "semantic depletion" (Lehmann 1982:127), or "weakening of semantic content" (Bybee and Pagliuca 1985). This view is also shared by Sweetser (1988), who observes that there is in fact a development toward "fleshing out" or "abstracting out" central aspects of meaning and that the only component that remains unaffected in this process is the image-schematic or topological structure of the entities concerned.

Sweetser argues, however, that this loss in semantic content forms but one part of the development concerned: by transferring the schematic structure from the source domain to some particular target domain, the meaning of the latter is added to the meaning of the transferred entity (Sweetser 1988:400). Thus, in addition to losses, there are also semantic gains in grammaticalization.

A number of parameters have been proposed during the past two decades to account for grammaticalization. In a brief review of the more recent literature, Willett (1988) discusses the following main hypotheses that have been proposed for "semantic generalization" to be observed in the process of grammaticalization:

- a) the "metaphorical extension" hypothesis, according to which the concrete meaning of an expression is applied to a more abstract context;

- b) the "containment" hypothesis, according to which grammatical meanings are part of the internal semantic structure present in their lexical source;
- c) the "implicature" hypothesis, according to which the predominant mechanism for creating secondary meanings, which gradually take over as primary meanings, is the conventionalization of implicatures.

Willett cites Bybee and Pagliuca (1985) as representatives of *a*, Givón (1973) of *b*, and Dahl (1985) of *c*. On the basis of his cross-linguistic survey of evidentiality marking, he comes to the conclusion that the metaphoric extension hypothesis is the most plausible.

1.2.3 Outlook

In the preceding paragraphs, we have picked out a few salient points from the multitude of topics, approaches, and positions that have arisen in studies on grammaticalization. Only a few works were discussed, and we have reduced those that were to some aspect or other that we consider to be of interest for the development of the subject.

In the course of our discussion, some major themes emerged that were of particular interest to students of grammaticalization. One of them is the evolution of language or languages. At the latest since Humboldt presented his agglutination theory in 1822 (see Humboldt 1825), scholars have attempted to demonstrate that linguistic evolution takes place in spirals (Gabelentz [1891] 1901:251; Meillet 1912) or cycles (Hodge 1970). A closely related theme concerns typological change, which has been discussed all the way from Humboldt to Givón (1975a, 1979a; see also Claudi 1990).

According to another tradition, grammaticalization is described as a unidirectional process leading toward decline or decay, for example, toward idiomatization and ossification (cf. Nichols and Timberlake, in press) or morphological degeneration (cf. Lehmann 1982; Heine and Reh 1984).

Yet another line of research, which can be traced back to Bopp (1816) and the neogrammarians, employs grammaticalization as an explanatory parameter of diachronic linguistics. Traugott's search for principles of semantic change (cf. Traugott 1980) may be viewed as a modern continuation of this tradition.

A fifth theme relates to the contribution that grammaticalization studies can make for understanding synchronic grammar and/or linguistic universals (cf. Lehmann 1982; Bybee 1985a; Bybee, Pagliuca, and Perkins, in press).

A sixth theme, marking a more recent direction of research, views grammaticalization as being located in discourse pragmatics, that is, as forming a concomitant feature, or an outcome, or even an inherent constituent of discourse pragmatic forces (Sankoff and Brown 1976; Givón 1979a; Hopper 1979a, 1979b, 1982, 1987; Herring 1988, in press).

Finally, there is a more recent line of research according to which the basis of

grammaticalization is to be sought outside language structure, the main factors responsible for it being cognitive in nature (cf. Claudi and Heine 1986; Svorou 1988; Sweetser 1988; Heine, Claudi and Hünemeyer, in press). This is also a position that forms the major concern of the following chapters.

1.3 The Present Study

While more recently abundant data on grammaticalization processes have become available, there are a number of problems that have remained unsolved. In the present work, we will be concerned in particular with the following list of questions (cf. Traugott and Heine, in press, introduction):

- a) What motivates grammaticalization?
- b) Is grammaticalization a gradual/continuous or a discontinuous process?
- c) What roles do metaphor and other related phenomena play in this process?
- d) To what extent is grammaticalization the result of discourse pragmatic forces?²⁸
- e) What constraints are there in the choice of concepts serving as the input of grammaticalization?
- f) What is the semantic relation between the input and the output of grammaticalization? Does the latter represent a simplified, or "bleached out," version of the former?²⁹
- g) If a given grammatical category is derived from more than one input, is this difference reflected in the semantics of the output? Conversely, do the various inputs necessarily have a common semantic denominator?³⁰
- h) How can grammaticalization contribute to our understanding of language structure, such as providing explanatory parameters?
- i) What is its status within linguistics? Does it belong to diachronic linguistics, synchronic linguistics, both, or neither?

Another question, which has repeatedly aroused the interest of linguists, is whether the principles underlying grammaticalization are the same as those to be observed in other areas of linguistic evolution. Various attempts have been made to demonstrate that grammaticalization forms a process that in no way differs from other kinds of language change (cf. Sweetser 1988; Hopper, in press).³¹

This by no means exhausts the list of questions that a theory about grammaticalization has to answer. Grammaticalization may be influenced by various factors, such as our physical configuration, our neurophysiological apparatus, our sociocultural environment, the context in which we act, language contact, interference between the written and the spoken form of a given language, overall typological developments, etc. These factors will not be considered here and require a separate treatment.³² The purpose of this work is not to present a textbook or some encyclopedic treatment of grammaticalization. Rather, our main concern is to provide a new framework for understanding grammaticalization. This framework is based on the assumption that grammaticalization is initiated

by forces that are located outside language structure. The approach used, which will be outlined in more detail in chapters 2, 3 and 4, concerns a level of cognition that is intermediate between language and the external or "real" world (see Svorou 1988:55); it is the level of the world as experienced, that is, the projected world, as Jackendoff (1983:28) has called it.

Givón (1979a:3-4) has proposed a catalog of eight parameters for explaining language structure. Here, we shall be primarily concerned with three of these and their prevailing interrelations. These parameters are cognitive structure, world-view pragmatics, and diachronic change.

Since we are all Africanists, our examples are confined mostly to evidence from African languages, whereas a number of more general works that are available on this subject have been based on findings made in Indo-European languages. By drawing on data from other language families, we hope to demonstrate that some of the observations made so far are not confined to Indo-European but might be of universal significance.

One might wonder, on the other hand, what justification there is for dealing with problems of linguistic development by relying mainly on evidence from languages for which hardly any historical documents are available. It is hoped that the data presented in the following chapters will show that such an approach may, nevertheless, be justified. The following observations may be helpful in this respect. The first is that by means of methods in diachronic linguistics, such as internal reconstruction and the comparative method, former language states can be and have fairly well been reconstructed in a number of African languages and language groups. Thus, contrary to a widespread assumption, there do exist some data on language history and language development in Africa. Furthermore, in a number of cases we were able to obtain a diachronic perspective by means of systematic comparisons within groups of closely related languages and dialects.

For example, in many African languages there is one and the same linguistic expression denoting both the verbal meaning 'go' and the grammatical function of a future tense. On the basis of the framework proposed here, we will predict that in such cases the grammatical function is historically derived from the verbal meaning. This hypothesis can be strengthened by looking at the morphemes that have been reconstructed as being ancestral to the present-day spoken forms within the relevant language group: most likely, it is the meaning 'go,' rather than 'future,' that will figure in the list of such reconstructions. This prediction is corroborated by looking at languages for which sufficient historical evidence is available. Such languages are, for example, French and English, which also have a morpheme used for the expression both of the verbal meaning 'go' and of a future tense.

The term "grammaticalization" will be used here in much the same way as that proposed by Kurylowicz ([1965] 1975:52) cited in section 1.1 above. His

definition is fairly narrow, and in the following chapters a number of examples will be discussed that cannot strictly be subsumed in it. Thus, instead of lexical or other morphological segments, grammaticalization may involve discourse or clause patterns or nonsegmental structures such as word order.

It has been observed, for example, that polar questions may be grammaticalized to conditional clauses (cf. Haiman 1978; Traugott 1985a). Now, if in a given language such questions are distinguished from declarative clauses by word order only, then grammaticalization may have the effect that word order becomes the only distinguishing feature involved in grammaticalization, as appears to have happened in German, where the verb-initial (VSO; verb-subject-object) syntax found in polar questions has been extended to mark conditional clauses (Lockwood 1968:221). In spite of such extended uses, we shall return to the definition provided by Kurylowicz, whenever the need arises, to discriminate between grammaticalization and other kinds of processes.

Some terms used here may give rise to misunderstandings since they have been employed with different meanings in linguistics and other academic fields. A typical example is provided by the term "evolution," which will be used to refer to changes in the development of linguistic units or structures according to their inherent tendencies (cf. Svorou 1988:213). It is important to note that we are dealing here not with the "evolution of languages" but rather with evolutions relating to specific parts of languages. How or to what extent such evolutions affect the overall structure of the languages concerned is a topic that is beyond the scope of the following chapters.

Other terms that have been connected in some way or other with grammaticalization studies are avoided here as far as possible, either because their relevance to the present subject matter is not clear or because their use may give rise to divergent interpretations and, hence, cause misunderstandings. This applies, for example, to terms such as "similarity" or "analogy," the latter frequently occurring in such phrases as "analogical transfer," "analogical extension," "analogical change," etc. While some argue that grammaticalization and analogy have to be strictly separated (cf. Meillet 1912; Lehmann 1982:142), analogy forms a key notion in the more recent work of Givón (1989, in press a). First, differing views about the role of analogy in grammaticalization are not necessarily the result of divergent theoretical positions; rather, they may simply be due to the fact that the term has been applied to different referents by different authors. Second, while the role of analogy in metaphorical processes has been outlined sufficiently in writings since Aristotle (*Poetics* 21), it must be viewed as a relation rather than the cause of metaphoric transfers and/or grammaticalization processes, and as such it does not seem to constitute or provide any explanatory parameter (cf. Quine 1979; Nöth 1985; Ricoeur 1986:179).³³

Our main concern in this work will be with the initial stages of grammaticalization, especially with what causes this process. We will not be