A USAGE-BASED THEORY OF GRAMMATICAL STATUS AND GRAMMATICALIZATION

Author(s): Kasper Boye and Peter Harder

Source: *Language*, MARCH 2012, Vol. 88, No. 1 (MARCH 2012), pp. 1-44

Published by: Linguistic Society of America

Stable URL: https://www.jstor.org/stable/41348882

A USAGE-BASED THEORY OF GRAMMATICAL STATUS AND GRAMMATICALIZATION

KASPER BOYE   PETER HARDER

University of Copenhagen   *University of Copenhagen*

This article proposes a new way of understanding grammatical status and grammaticalization as distinctive types of linguistic phenomena. The approach is usage-based and links up structural and functional, as well as synchronic and diachronic, aspects of the issue. The proposal brings a range of previously disparate phenomena into a motivated relationship, while certain well-entrenched criteria (such as 'closed paradigms') are shown to be incidental to grammatical status and grammaticalization. The central idea is that grammar is constituted by expressions that by linguistic convention are ancillary and as such discursively secondary in relation to other linguistic expressions, and that grammaticalization is the kind of change that gives rise to such expressions.*

Keywords: grammatical vs. lexical status, grammaticalization, ancillariness, discourse prominence, dependency

1. INTRODUCTION. The distinction between lexical and grammatical expressions has been a cornerstone in linguistic theory from the earliest beginnings. Via the distinction in Priscian and medieval logic between CATEGOREMATA and SYNCATEGOREMATA, it can be traced all the way back to Aristotle (Lyons 1968, Klima 2005). Today it plays an important role in all major approaches to the study of language (cf. Slobin 1997:265–66), formal as well as functional, and it serves to define a number of important theoretical notions. For instance, grammatical rather than lexical status is often taken to be what distinguishes aspect from aktionsart (e.g. Comrie 1976:6–7, n. 2) and mood from modality (e.g. Palmer 1986:7), as well as tense from time, and number from enumeration (cf. Palmer 1986:7).

The distinction is thus very much part of the furniture of linguistics. Yet there is a striking lack of clarity about what it means to be a grammatical or a lexical expression. It seems as if there has been a feeling that we all know what a grammatical expression is, and because of this the distinction has remained pretheoretical and intuition-based.

On this background, it is natural to ask whether the distinction between lexical and grammatical expressions can (or should) be maintained at all. Perhaps standard examples of lexical and grammatical expressions are better conceived of as belonging to different poles of a continuum in which not even an approximate dividing line can be drawn? This position has been gaining ground since the early 1980s, especially in studies dealing with grammaticalization. Drawing on ideas that are often traced back to Meillet (1912), a number of scholars have explored diachronic changes in which nouns, verbs, and other lexical expressions develop into grammatical expressions such as affixes, clitics, and auxiliaries (e.g. Traugott & Heine 1991, Lehmann 2002a, Hopper & Traugott 2003). In support of the idea of a continuum, they have demonstrated that such changes are gradual, and the stages can be arrayed along 'grammaticalization clines' with prototypical lexical expressions at one end and prototypical grammatical expressions at the other.

1

What can be concluded beyond doubt as a result of this type of grammaticalization research is that grammar and lexicon are not worlds apart. The lexicon feeds diachronically into the grammar in a way that excludes a conception of grammar as autonomous (in the strong sense of 'sealed' and 'independent'). In this respect grammaticalization research may be seen as a challenge in particular to mainstream generative linguistics (as acknowledged by Roberts and Roussou (2003)).

Arguably, this challenge would be strongest if some sort of systematicity in the relation between lexicon and grammar could be demonstrated. Accordingly, works on grammaticalization have repeatedly stressed the uniformity of the various pathways. Standard examples of grammaticalization changes have been found to be bound up with a recurrent cluster of diachronic processes—phonological, morphosyntactic, and semantic—and grammaticalization has been claimed to be a distinct, sui generis type of phenomenon.[1]

In recent years, however, this claim has itself been challenged (see especially Campbell 2001, Janda 2001, Joseph 2001, and Newmeyer 2001). While some phonological, morphosyntactic, and semantic processes perhaps typically do accompany grammaticalization changes, they do not always accompany them, and they are frequently found also with changes that cannot be claimed to involve grammaticalization (e.g. Campbell 2001). They can hardly serve to define grammaticalization, then. So paradoxically, those who wish to claim that grammaticalization is a distinct type of change that moves across the continuum from lexicon into grammar find themselves entangled in the selfsame problem that they brought into focus in the first place: the problem of defining in a satisfactory manner the distinction between lexical and grammatical expressions. The problem simply will not go away.

The present article proposes a solution to the problem. It argues that the distinction between lexical and grammatical expressions should be maintained, and proposes a specific conception of it. After a brief discussion of the problems connected with standard definitions of grammatical status and grammaticalization, it outlines a unified theory of the two notions. The theory is usage- or discourse-based, and it is functional in the European sense that it focuses on the functional role of grammatical expressions in relation to other linguistic expressions (cf. Engberg-Pedersen et al. 1996), but not in the sense that functional factors outside of language determine what expressions are grammatical. The central idea behind the theory is that grammar is constituted by expressions that by linguistic convention are ancillary and as such discursively secondary in relation to other expressions—and that grammaticalization consists in the diachronic change that leads to such expressions. Conversely, lexical expressions are by linguistic convention potentially primary in terms of discourse prominence. The concept of discourse prominence is understood in terms of a core idea that we regard as essentially uncontroversial: in entertaining complex mental content, there is always a priority dimension involved, so that some parts of the content are more highly prioritized than others (cf. §3.1).

In subsequent sections, the article offers six arguments in support of the theory. The arguments for the theory are: it allows a generalization over standard as well as nonstandard examples of grammatical expressions; it allows a generalization over standard as well as nonstandard examples of grammaticalization; it provides a qualification of and a preliminary answer to the question of what qualifies a lexical expression for un-

---

[1] For instance, many authors regard grammaticalization as a 'process' itself (e.g. Heine & Kuteva 2002:4, Lehmann 2002a:vii, Traugott 2003:645; see Newmeyer 2001:189–90 for discussion).

dergoing grammaticalization; it provides a unified account of the features normally associated with grammaticalization; it makes possible a precise characterization of grammaticalization clines and of the relation between grammaticalization on the one hand and regrammaticalization and degrammaticalization on the other; it allows a precise characterization of the relationship and differences between grammaticalization on the one hand and lexicalization and 'constructionalization' on the other. The article ends with an attempt to situate the proposed theory in the theoretical landscape of grammaticalization and a brief summary.

2. STANDARD DEFINITIONS OF GRAMMATICAL EXPRESSIONS AND GRAMMATICALIZATION. When grammatical expressions and grammaticalization are defined at all, they are usually defined in one of three ways.

    (i) ostensively, with reference to uncontroversial examples
    (ii) in terms of sets of features found with uncontroversial examples
    (iii) in terms of one feature found with uncontroversial examples

All three types of definitions, however, give rise to serious problems.

An example of a definition that is ultimately ostensive is found in Matthews 2007. Matthews's definitions of 'grammatical morpheme' and 'grammatical word' redirect one to his definition of 'grammatical meaning'.

    (1) a. 'grammatical morpheme': 'A morpheme which has grammatical meaning.' (Matthews 2007:165)
       b. 'grammatical word': 'One which has grammatical meaning.' (Matthews 2007:165)

In turn, he defines grammatical meaning as follows.

    (2) 'grammatical meaning': 'Any aspect of meaning described as part of the syntax and morphology of a language as distinct from its lexicon. Thus especially the meanings of CONSTRUCTIONS and INFLECTIONS, or of WORDS WHEN DESCRIBED SIMILARLY.' (Matthews 2007:164, emphasis added)

Matthews's definitions of grammatical morpheme and grammatical meaning avoid complete circularity by ultimately defining grammatical expressions in terms of typical examples: 'constructions and inflections' and 'words when described similarly'. The problem with definitions based on typical examples is that they leave one in the dark when it comes to linguistic expressions that are not uncontroversially grammatical or lexical. In 3, for instance, are *nothing* and *him* lexical or grammatical expressions, is *seem* a lexical verb or an auxiliary, and is *down* a lexical adverb or a grammatical particle?

    (3) Almost nothing seems to get him down.

Examples of definitions in terms of sets of typical features are found in Heine & Reh 1984 and Lehmann 2002a. Heine and Reh see grammaticalization as 'an evolution whereby linguistic units lose in semantic complexity, pragmatic significance, syntactic freedom, and phonetic substance' (1984:15). Lehmann takes grammaticalization to be 'a complex phenomenon which is constituted by ... and has no existence independently of' changes along six parameters: integrity, paradigmaticity, paradigmatic variability, structural scope, boundness, and syntagmatic variability (2002a:110–11). Definitions like these often refer to one or more of the following features.

- boundness (also known as 'boundedness' or 'bondedness')
- phonological reduction
- semantic reduction (bleached, generalized, or abstract meaning)
- closed-class membership
- obligatoriness

There are two problems in relying on such features in definitions of grammatical expressions and grammaticalization (cf. Campbell 2001, and §7). First, even with uncontroversial cases of grammatical expressions and grammaticalization, often only a subset of these features is found (e.g. Fischer 2007:119–20). Second, most—if not all—of the features are frequently found also with uncontroversial examples of lexical expressions, and with changes that may be considered entirely lexical. To begin with phonological reduction, one form is the type known as haplology, which is found in the development of *Engla-lond* 'land of Angles' into *England*. Semantic reduction is found in the extension of the verb *fly* from having the meaning of 'move quickly through the air', as in *birds fly*, to having the meaning of 'move quickly', as in *Flying Scotsman*. In the complex-predicate construction *put away*, boundness and obligatoriness are arguably properties not only of *away* but also of the unquestionably lexical verb form *put*. Finally, closed-class membership is arguably a property of all lexical verbs that can be construed with an accusative-with-bare-infinitive complement: *I saw/heard/*persuaded him run*.

Alternatively, one might fall back on prototype theory and conceive of the features as defining prototype examples, rather than being necessary or sufficient criteria. Like Croft (2003:224–25), for instance, one might say that prototype examples of grammatical expressions and grammaticalization have all or a certain subset of features. Again, however, this would not solve all problems. First, it would still be unhelpful when it comes to grammatical expressions and cases of grammaticalization that are not prototypical. Second, some cases that intuitively ought to belong among the standard cases in fact seem to possess very few of the familiar features, if any at all. Schematic constructions like the English interrogative clause are a case in point. They figure as uncontroversial examples of grammatical expressions in Matthews's definition of grammatical meaning cited above. But they can hardly be described as phonologically or semantically reduced (what would they be reduced in relation to?), they are bound only in the sense that they require some lexical and morphological material to fill them, and it is not at all clear in what sense one could talk about them in general as obligatory and as belonging to a closed class.

As for definitions in terms of a single feature only, two types may be distinguished (cf. Kiparsky 2005): those that refer to a morphosyntactic feature, and those that refer to meaning (or function). Haspelmath (2004:26) provides a definition of the first type: 'A grammaticalization is a diachronic change by which the parts of a constructional schema come to have stronger internal dependencies'. This definition suffers from at least the first of the two problems discussed in connection with definitions in terms of sets of typical features: it seems that even uncontroversial cases of grammaticalization are not necessarily accompanied by a strengthening of the internal dependencies between the parts of a constructional schema (cf. Kiparsky 2005). For instance, it is not obvious that the dependency that holds between the slot filled by the auxiliary *have* and the slot filled by the main verb in an English perfect construction is in any sense stronger than the dependencies between the slot filled by the lexical verb *have* and the slots filled by its complements (subject, object) in a transitive construction. Hence, it is not obvious that the grammaticalization of lexical *have* into an auxiliary involves a strengthening of dependencies.

Examples of definitions in terms of 'grammatical meaning' (or 'grammatical function') are found in Heine et al. 1991, Traugott 2003, and Diewald 2006. According to Heine and colleagues, grammaticalization is a change 'where a lexical unit or structure assumes a grammatical function, or where a grammatical unit assumes a more grammatical function' (1991:2). According to Traugott and Diewald, likewise, grammatical-

ization is '[t]he process whereby lexical material in highly constrained pragmatic and morphosyntactic contexts is assigned grammatical function, and, once grammatical, is assigned increasingly grammatical, operator-like function' (Traugott 2003:645; cf. Diewald 2006:2–3). Definitions like these are no less problematic than those already discussed. For one thing, we have already seen that unless they are supplemented by a definition of grammatical meaning (or grammatical function) that is independent of the notions of grammatical expressions and grammaticalization, there is a risk of circularity: grammatical expressions are defined in terms of grammatical meaning, while grammatical meaning is defined in terms of grammatical expressions.

This leaves definitions in terms of the kind of meaning that is characteristic of grammatical expressions. There are three main ways of defining grammatical meaning in the literature. One way, as already noted, is to define it as reduced (bleached, generalized, or abstract) or even nonexistent. For instance, Trask defines a 'grammatical morpheme' as a 'morpheme which has LITTLE OR NO SEMANTIC CONTENT and which serves chiefly as a grammatical element' (1993:123, emphasis added). This way of thinking about grammatical expressions is pervasive in terms like 'form word' and 'function word' (e.g. Crystal 2008). Another way of defining grammatical meaning invokes an assumption that grammatical meaning is of an ontologically distinct type. For instance, Nicolle (1998), within the framework of RELEVANCE THEORY, claims that grammatical expressions have procedural, as opposed to conceptual, meaning. The third way of defining grammatical meaning exploits the finding that, crosslinguistically, the meanings that grammatical or grammaticalizable expressions can have seem to fall within a notionally limited range (e.g. Slobin 1997, Talmy 2000, Croft 2003:225). Accordingly, one might envisage that grammatical expressions and grammaticalization can be defined simply in terms of this notional range. Either a list of the notions covered by the range can be provided, or some common notional denominator. For instance, Diewald (2010) suggests that it is common to meanings of grammatical expressions that they are weakly deictic (see also Traugott 1989 on subjectification).

However, all three ways of defining grammatical meaning are problematic. Some definitions, like Diewald's or Nicolle's, do not obviously cover all uncontroversial examples of grammatical expressions. It is not clear, for instance, in what sense noun classifiers, gender distinctions, and derivational affixes like English -ing are 'weakly deictic' or procedural.[2] Other definitions are insufficient because they also apply to certain lexical expressions. This includes definitions in terms of the most intuitively appealing feature, the property of being 'empty' or 'bleached', or 'abstract': in one sense, the word *thing* is virtually empty of descriptive content (cf. *it's just one of those things* as opposed to *thing* in the sense of 'physical object'), but the word is normally considered lexical in both usages (but see Fronek 1982). All definitions in terms of notional domain suffer from this problem, as can be illustrated with the domain of possession. Compare the expressions emphasized in 4–6.

(4) John HAS a mother.
(5) the mother OF John
(6) John's mother

---

[2] By contrast, if the notion of 'procedural' is interpreted broadly (i.e. as 'includes procedural meaning' rather than 'has nothing but procedural meaning'), Nicolle's (1998) proposed generalization can be contrasted with the position that all meaning is basically procedural (cf. Harder & Togeby 1993, Harder 2007 on 'instructional semantics', and e.g. Evans & Green 2006, Evans 2009 on linguistic meanings as 'prompting' or 'providing access to' conceptual knowledge).

While there would probably be some disagreement about the status of *of* in 5, most scholars would recognize *has* in 4 as a lexical expression, and *-s* in 6 as a grammatical expression. But this distinction cannot be accounted for with reference to differences in terms of notional domain: 4–6 all express 'possession', and would all have to figure in an account of how possession is expressed in English (irrespective of the differences in meaning between the three expressions). More generally, one can refer to the glosses standardly provided for grammatical categories: the grammatical difference between *hat* and *hats* is standardly glossed by the lexical contrast 'singular' vs. 'plural'.

This does not contradict generalizations about what notional domains are liable to be grammaticalized, such as Talmy's (2000:24) observation that the domain of color never is. The unsolved problem is the contrast between grammatical and lexical expressions WITHIN those domains that sometimes grammaticalize.

These problems notwithstanding, we claim that there is such a thing as grammaticalization as a distinct type of linguistic change (pace Campbell 2001 and other contributors to *Language Sciences* 23), and that there is such a thing as a distinct class of grammatical expressions, which are the result of grammaticalization (pace Hopper 1991:33). This claim is not at variance with the existence of gray zones, or clines (including grammaticalization clines). As pointed out by Putnam (2001:38), the fact that a clear distinction cannot be made in all cases does not entail that the distinction is invalid; his example is that the distinction between 'bald' and 'not bald' is not rendered invalid by the existence of people with fuzz on their heads. In a similar vein, Aarts (2007) offers a meticulous argument showing how gradient properties both within and across categories can be captured in a framework that keeps the categorical boundaries precise while recognizing that instantiations constitute a cline. In contrast, an account that recognizes ONLY gradience has difficulties in being precise about the role (if any) of categories.[3] We propose a discourse-based theory of grammar that at the same time provides a clear delimitation and a motivation for a cline between marginal and central instances.

3. OUTLINE OF A DISCOURSE-BASED THEORY OF GRAMMATICAL STATUS AND GRAMMATICALIZATION. The theory we wish to propose is panchronic in that it covers both grammatical expressions considered synchronically and grammaticalization conceived of as the type of change that diachronically gives rise to grammatical expressions. The central idea is that while grammatical expressions and grammaticalization cannot be defined in terms of specific phonological, morphosyntactic, or semantic features, alone or in combination, they can be defined in terms of the ancillary status that grammatical expressions by linguistic convention have in relation to other expressions. Whereas lexical expressions may or may not, in actual communication, convey the main point of a linguistic message, grammatical expressions (morphemes, words, constructions) are conventionally specified as noncarriers of the main point, serving instead an ancillary communica-

---

[3] Aarts's topic is gradience among distribution-based syntactic categories. He argues (in continuation of Ross 1969, Huddleston 1976, and Huddleston & Pullum 2002) that verbs constitute one overarching category, with no clear categorial boundary between main verbs and auxiliaries. But at the same time he recognizes that there are clear intracategorial differences between more or less prototypical verbs. This might appear to go against our proposal for a clear distinction between grammatical and lexical expressions, including a clear distinction between auxiliaries as grammatical expressions and main verbs as lexical expressions. But that would only be the case if we claimed that a criterion for grammaticalization was the rise of a new, clear-cut distributional class. This is not what we claim: like classic grammaticalization research, we assume that when lexical expressions undergo grammaticalization, it happens one expression at a time. Some historical developments may create a new distributional class, but there is no one-to-one relation between grammaticalization of individual lexical expressions and the rise of new syntactic categories.

tive purpose as secondary or background elements. The fact that this is in 'European' terms a functional definition (cf. §1), rather than a definition in terms of inherent features, can be illustrated with an analogy: a second violin is not inherently different from a first violin—it just has a secondary function in relation to that of the first violin.

(7) LEXICAL EXPRESSIONS: Lexical expressions are by convention capable of being discursively primary.

(8) GRAMMATICAL EXPRESSIONS: Grammatical expressions are by convention ancillary and as such discursively secondary.

(9) GRAMMATICALIZATION: Grammaticalization is the diachronic change that gives rise to linguistic expressions that are by convention ancillary and as such discursively secondary.

With the definitions provided in 7–9, the theory links up function and language use with linguistic structure (§3.2), it pinpoints general similarities and differences between lexical and grammatical meaning (§3.3), and it makes possible explicit, decidable tests for grammatical status (§3.4). Before we go on to show this, however, we need to clarify what we mean by the notions drawn upon in the definitions.

3.1. THEORETICAL PREREQUISITES. The theory we propose depends on the notion of DISCOURSE PROMINENCE, which forms the basis for the notions of DISCURSIVELY PRIMARY vs. DISCURSIVELY SECONDARY status. Furthermore, our account of the relation between discourse and grammar depends on the notion of LINGUISTIC CONVENTION. Finally, in order to make clear what we understand by discourse prominence as a conventional property of linguistic expressions, we need to be precise about how it differs from and relates to the notion of FOCUS.

DISCOURSE PROMINENCE. We understand PROMINENCE as a universal feature of human understanding of complex mental content. In understanding incoming information there is always a priority dimension involved, so that some parts of the information are more highly prioritized—more prominent—than others. This idea enters, in different modulations, into the foundation for various linguistic and nonlinguistic theories—for instance, Sperber and Wilson's (1995) relevance theory, Langacker's COGNITIVE GRAMMAR (cf. Langacker 2008:12), and Bundesen's (1990) theory of visual attention. In actual processing, the prioritization may be seen as involving a 'race' (cf. Bundesen 1990).[4] We therefore assume that differential assignment of prominence is going on in all cases of information processing, including for instance the processing of visual information. When incoming information is conveyed by means of language, we speak of DISCOURSE prominence: some aspects of linguistically conveyed mental content are more prominent than others.

Discourse prominence is a scalar phenomenon. This means that a given element can be ranked as higher or lower on a scale of prominence than another expression. In principle, at least, the discourse prominence of any given element can also be measured and assigned a value on a scale. The theory that is advocated here, however, depends only upon the ability to COMPARE different elements in terms of discourse prominence. More precisely, it depends on the relative discourse prominence of linguistic expressions that are syntagmatically related and belong to the same utterance. This is where the distinction between primary and secondary status comes in: to be discursively primary is to

---

[4] The term 'race' is used of different processing phenomena. For instance, Frauenfelder and Schreuder (e.g. 1992) refer to the choice between two processing routes for words (as single units vs. as morphologically complex units) as a 'race'. The race for prominence is in principle independent of such other types of race.

have higher discourse prominence than all other syntagmatically related elements in the utterance; to be discursively secondary is to have lower prominence than one or more syntagmatically related expressions in the utterance. It follows that an element can be secondary in relation to another element that is itself secondary in relation to a third element—but a primary element cannot be primary (or secondary) in relation to another primary element.

Discourse prominence as described above is what in European linguistics is called a 'substance domain', or in Pike's terminology an 'etic' as opposed to an 'emic' phenomenon. That is, it is nonconventional and not inherently associated with specific structural features at all. In addition to being a prelinguistic feature of human life, however, it also serves as a basis for linguistic conventions that associate prominence properties with specific linguistic expressions. In this, discourse prominence is analogous to 'time' or 'possibility': these notions also exist independently of any specific linguistic expressions, but are conventionally associated with linguistic elements such as tense and temporal adverbs (in the case of time), and modal verbs and modal adverbs (in the case of possibility).

LINGUISTIC CONVENTION. We understand the notion of LINGUISTIC CONVENTION in accordance with the tradition of Lewis (1969), Clark (1996:70–72), and Croft (2000: 95–99) as reflecting a state of coordination between members of a community that goes beyond individual instances of linguistic communicative interaction. Like other kinds of conventions, linguistic conventions can be understood in terms of 'status assignments' that are shared between the members of a community (cf. Searle 1995:37–43 on status functions and collective intentionality).

Because linguistic conventions depend on a state of coordination in the speech community, they are distinct from the properties of any single usage event and the mental representations that go with it in the minds of the specific language users involved. To see this, consider the following example, which is relevant for grammaticalization: A person with limited command of Spanish might say *ho dos casas instead of tengo dos casas 'I have two houses', taking Spanish haber to convey the same possessive meaning as English have. In such a case there would be a recoverable usage meaning of 'possession', and that meaning would then be part both of an actual communicative event and of a mental representation in the minds of the interlocutors, but it would be at odds with the conventional meaning potential of the verb haber, which is limited to meanings associated with the auxiliary function of the verb.

Although they are distinct, usage and conventions interact. On the one hand, conventions are dependent on usage: conventions can remain stable only if they continue to be reflected in actual usage and may therefore change as a result of changes in usage. On the other hand, usage is dependent on conventions: when conventions are in operation, they constrain actual usage events. Conventions do not operate REGARDLESS of circumstances of use, as sometimes claimed by overeager structuralists, but they INTERACT with circumstances of use. This is why conventions may be overridden in specific situational circumstances, as illustrated in the *ho dos casas case discussed above. Overriding may in the long run result in new conventions, and in this way usage properties may over time come to be conventional properties of the language. But individual cases of overriding do not in themselves constitute language change (i.e. change in linguistic conventions in the community).

Linguistic convention is what underlies all language-specific properties, from phonetics via structural relations to meaning. It also applies to social meaning in cases like honorifics, and to attitudinal stance in cases like positively vs. negatively charged

words such as *thrifty* vs. *stingy*. On this background it is not surprising that it should also apply to discourse prominence. Within the overall situational process of understanding a linguistic message, conventions about what is prominent are important for the same reason that other linguistic conventions are important: speakers and hearers need to align with each other, also in terms of prominence assignment. If interlocutors' assumptions about what is the main thing do not coincide, they are literally talking at cross-purposes. Prominence assignment as an etic or usage phenomenon takes place all the time in all speakers, irrespective of what the precise conventions about prominence may be—but if the emic or conventional prominence properties function efficiently, they reduce the percentage of cases in which speaker and hearer assignments do not coincide. As will be apparent, our theory depends on understanding discourse prominence both as a substance or etic phenomenon and as a conventional or emic phenomenon. If this dual mode of existence is missed, the point of our article gets lost.

This view of discourse prominence as a conventional phenomenon forms the background for our claim that the contrast between lexical and grammatical expressions is one way in which prominence properties are conventionalized. The most familiar manifestation of prominence in language, however, is the notion of FOCUS, to which we now turn.

FOCUS. The natural point of departure for understanding the conventionalization of discourse prominence is the notion of focus. In broad terms, being prominent means more or less the same as being in focus (cf. Langacker 2008:66–73, 418). Since we claim that there is also a conventional link between prominence and lexical status, we need to make clear why focus in itself does not exhaust the prominence issue, which requires a more precise account of the nature of focus. Based on this account, we first try to describe precisely under what narrowed-down conditions focus and primary status coincide; second, we demonstrate where they may diverge; and finally, we use the foundations established to address the distinction between lexical and grammatical status.

The account we present is based on assumptions shared between Lambrecht (1994) and 'alternative semantics' (cf. Rooth 1992). Citing Akmajian, Lambrecht (1994:212) describes the focused element as serving to fill out the missing argument in a proposition; thus in 10, *Mitchell* is the focused element because the information conveyed by 10 can be analyzed as in 11.

(10) MITCHELL urged Nixon to appoint Carswell.
(11) [x urged Nixon to appoint Carswell], [x = Mitchell]

The general idea is that the focus is a semantic 'slot' or 'role' that might also have been filled out by a range of other options (in the case of *Mitchell*, e.g. Haldeman, Ehrlichman, or Haig). Thus conceived, focus constitutes an extra semantic element over and above sentence meaning as standardly understood: it adds the property of presupposing a contextual set of alternative propositions, all identical except for the value of some variable. The focus construction then (in an assertive utterance) specifies that the referent of the focalized constituent is the actual value.

This account makes it possible to specify both why prominence and focus differ and how they may coincide. Focus assignment is not basically a matter of prominence assignment, but of specifying information structure—but it is obvious why the focal part of the information GETS higher prominence: the nonfocal part has presupposed status, and thus makes no dynamic contribution to the message. Further, a central feature is that focus assignment brings about a bipartition of utterance meaning (into the focal and the nonfocal part). In so doing, it superimposes a digital element on the basically gradient nature of prominence as a prelinguistic phenomenon (cf. Bolinger 1968:17).

In spite of the differences, these properties also demonstrate that there is a point of convergence, which is crucial for our purposes: at the privileged binary level imposed by focus assignment, the focal constituent, viewed as a whole, is the most prominent part of utterance meaning, and the rest of it, viewed as a whole, is less prominent. With the terms introduced above, the focal constituent has DISCURSIVELY PRIMARY status while the nonfocal part has DISCURSIVELY SECONDARY status. For that reason, focus can be used to diagnose whether particular expressions have a potential for primary status (cf. §3.4).

Although focus is a property of linguistic utterances, its relationship with linguistic conventions is complex, and a full account would take us well beyond the scope of this article (cf. Lambrecht 1994 for a painstaking discussion of the issue). In order to be precise about the relations between focus and the lexical-grammatical distinction, however, it is necessary to go a little bit further into the issue of the coexistence of different levels of granularity and of conventionalized and nonconventionalized aspects of prominence. A key issue is the distinction between broad and narrow focus, and the very indirect relation between auditory prominence and discourse prominence that it entails (cf. Ladd 1980, 2008, Lambrecht 1994:17).[5] Consider first example 12 (from Ladd 2008:214; the small capitals are ours).

(12) I gave him five FRANCS.

Following Ladd, in the BROAD-focus reading, auditory prominence (accent placement) goes on the last word in the focused part of the sentence—which may be the whole message 'I gave him five francs' or part of it, such as 'five francs' (Ladd 2008:215, n. 2; see also Lambrecht 1994:247). In contrast, the NARROW-focus understanding is one in which focus (and hence nonpresupposed status) is on the accented word only (i.e. the currency 'francs').[6]

Based on the distinction between broad and narrow focus, it can be seen that there is a micro level of granularity at which prominence is not reducible to focal vs. nonfocal position. For illustration, we take another example from Ladd (1980:75, discussing Schmerling 1976), understood in a broad-focus reading where the whole NP *a wonderful man* is understood as being in focus.

(13) John is a wonderful MAN.

[5] Auditory prominence is strictly a property of the 'sound' side of the linguistic sign, as opposed to the content side. Although there is an iconic element, such that prominence on the content side (i.e. discourse prominence) in certain (and language-specific) cases covaries with auditory prominence, the full story is much more complex. First of all, one type of auditory prominence has little to do with the issue, namely word (or lexical) stress. In the case of the segmentally identical verb and noun *import*, relative auditory prominence of one syllable over the other signals word class, not which syllable is more discourse-prominent. Second, there is by contrast a prosodic level at which auditory prominence enters into the linguistic marking of focus (with associated discourse prominence). This is what is known as sentence stress (or sentence accent). In 10 (*MITCHELL urged Nixon to appoint Carswell*), for example, *Mitchell* has sentence stress. The sentence stress might alternatively be assigned to *Carswell*—in which case focus would be assigned to a different part of the sentence. *Mitchell* also has lexical stress on the first syllable *Mitch-* (while other names may have lexical stress on the second syllable, e.g. *Liddell*). The two types, word stress and sentence stress, are thus clearly distinct.

[6] The difference between the broad and narrow reading is a difference in terms of the type of alternatives that would be relevant (cf. §3.1 on alternative semantics). In the narrow-focus reading, it is only alternatives to the meaning of the stressed word that are relevant—in 12, for instance, 'dollars', 'euros', or 'rubles'. In the broad-focus reading, the range of alternatives may be broader, up to alternatives to the whole sentence meaning (in the case of what Lambrecht calls sentence-focus structure; Lambrecht 1994:233). Alternatives would then be of the form 'Joe gave him a hard time', 'Jill stripped him of everything', 'Bill lent him five pounds'—for instance, in answer to the question *What happened?*.

The auditory prominence (accent) is on *man*; the stipulated focus marks as discursively primary the NP *a wonderful man*. In other words, the range of alternatives, defined in terms corresponding to the noun phrase *a wonderful man*, may include 'my old friend', 'a complete idiot', 'your second cousin', and so forth. But below the binary level, at the micro level of discourse prominence, the most natural reading of 13 is one in which the most prominent element is *wonderful* (*man* being an unsurprising category in the situation). On that assumption, at a micro level of granularity *wonderful* would be discursively primary, and all other elements secondary in relation to it.[7]

This shows that a description in terms of focus alone does not cover everything there is to say about discourse prominence as a property of linguistic utterances. This means, first of all, that there is room for asking how other linguistic factors may reflect prominence differences. Second, it means that in using focus properties to throw light on the distinction between lexical and grammatical expressions, it is practical to think in terms of NARROW focus, where stress, focality, and prominence are most tightly correlated.

DISCOURSE PROMINENCE AND LEXICAL STATUS: A COMPLEX RELATIONSHIP. By our definition, the prominence properties associated with the distinction between grammatical and lexical status differ in two ways from the prominence properties associated with focus. First of all, grammatical or lexical status is not bound to a particular utterance— it is a property of items in the inventory of conventional expressions of the language. Second, this entails that the crucial property is one involving potential rather than actualized meaning: viewed as an item in the inventory, an expression does not have any actualized discourse prominence.

A lexical expression, on that view, is one with the potential for contributing the primary element of utterance meaning. What this means can be illustrated with an example that parallels the *wonderful man* case, but with a grammatical expression involved. For example, in the announcement *Joe has died*, the present perfect is naturally understood as part of the focus (relevant focal alternatives might be 'will return', 'is missing', 'cannot cope', etc.), but from that it does not follow that the perfect is as prominent as the meaning of the verb *die* (which would be the obvious candidate for discursively primary status).

Further, consider 14.

(14) Michael has always loved to swim.

If our theory is correct, the distinction between grammatical and lexical expressions means that there is something we know about prominence assignment in 14, irrespective of sentence stress and focus assignment, and even if it is understood with a broad-focus reading that includes the entire utterance (sentence focus; see Lambrecht 1994:336): by convention, the discursively primary element in 14 is not 'an anterior state of affairs with current relevance has occurred' (or whatever the best paraphrase of

---

[7] It may be useful to spell out in more painstaking detail (i) why neither the basic notion of discourse prominence nor the more specific notion of discursively primary status reduces to being in focus or being auditorily prominent, and (ii) under what circumstrances they converge. (i) Sentence stress (auditory prominence) would be on *man* also if for some reason *man* was the most discourse-prominent term; hence, discourse prominence could vary without change of stress. Also, a broad-focus interpretation entails that the meanings of BOTH words are in focus—which means they are included in the most prominent part of the utterance, without for that reason being equally prominent. (ii) However, in the case of narrow focus, as in 10, all prominence-related factors converge: *Mitchell* has (prosodic) auditory prominence, is the sole focus element, and is discursively primary—and this is why cases of narrow focus can have a diagnostic function also when it comes to the prominence that we claim is associated with grammatical status (cf. §3.4).

the present perfect construction might be). As a grammatical expression, the present perfect construction is by convention secondary in relation to the lexical verb *love*.

In order to find out what the primary elements might be, we can restrict our attention to lexical expressions. Lexical expressions differ from grammatical expressions in that by convention, they have the potential to be discursively primary, although in actual communication they need not be primary. All lexical expressions (*love*, *swim*, *Michael*, and *always*) are thus potential candidates for primary status. What is actually primary at the micro level depends on the individual utterance; it may be any of them, or a combination such as 'loves to swim': there may be no differentiation below the binary level of focus vs. nonfocus. The point here is that just as prominence per se cannot be reduced to focus, so are the prominence properties associated with the distinction between lexical and grammatical expressions irreducible to focus properties alone.

It may appear to be a problem that we base the categorical distinction between lexical and grammatical expressions on discourse prominence, which is a scalar phenomenon. Lexical expressions are not defined in terms of 'high prominence', however, nor are grammatical expressions in terms of 'low prominence'. Rather, they are defined in terms of, respectively, being or not being potentially discursively primary (i.e. the main point of an utterance).

3.2. DISCOURSE PROMINENCE AND LINGUISTIC STRUCTURE. The theory finds a natural place within a general theory of usage-based structure. The defining property of grammatical expressions—their conventional discursively secondary status—links up properties pertaining to the usage and function of grammatical expressions with structural properties.

On the one hand, the conventional property must be understood in relation to usage: it is distilled out of usage, but as soon as it has been established it also restricts subsequent usage patterns, because convention now also plays a role in where prominence goes in actual communication.

On the other hand, the conventional property unique to grammatical expressions links up with structural properties. In particular, it follows from the conventional property that grammatical expressions are DEPENDENT upon one or more cooccurring expressions (lexical or grammatical). Since they are by convention secondary, they require something with respect to which they can be secondary in actual communication. This goes for grammatical expressions of all levels of morphosyntactic complexity. In 14 above (*Michael has always loved to swim*), for instance, the morphologically simple present-tense suffix -*s* is dependent upon the auxiliary *have* with respect to which it is secondary, but the auxiliary is itself dependent upon the verb *love* with respect to which it is secondary. Ultimately, schematic constructions are dependent upon the morphological material they require to be filled in with, and with respect to which they are secondary. For instance, the declarative construction in English conventionally expresses, as discursively secondary, the illocutionary meaning of 'assertion' (in the weak sense that contrasts with 'question', rather than a strong sense that would contrast with e.g. 'suggestion'). But in order to convey this meaning, it requires its slots to be filled in with morphological material with respect to which it can be secondary.

Since lexical expressions are by convention potentially primary, they are not (necessarily, at least) dependent upon cooccurring expressions. As a special case, they may be primary by virtue of the fact that they occur as the only expression in an utterance. The complex expression *the house is on fire!* can thus be reduced to the lexical expression *fire!*—by paring away all other meanings while keeping the primary element of the message intact.

3.3. GRAMMATICAL MEANING AND LEXICAL MEANING. The definitions of grammatical and lexical expressions central to the proposed theory are bound up with definitions of the functions or content sides of the two kinds of expressions. We refer to these functions or content sides as GRAMMATICAL MEANING and LEXICAL MEANING respectively, without a priori assuming that they differ in any particular respect (for instance, such that lexical meaning is 'conceptually rich' while grammatical meaning is 'abstract'). The definitions are as follows.

> (15) LEXICAL MEANING: Lexical meaning is by convention capable of being discursively primary.
>
> (16) GRAMMATICAL MEANING: Grammatical meaning is by convention discursively secondary.

With these definitions, the theory highlights one similarity and one difference between grammatical and lexical meanings.

The similarity is that both grammatical and lexical meanings are conventional. Grammatical and lexical meanings thus contrast with conversational implicatures that are entirely situationally determined. Just like conventional meanings, however, conversational implicatures can be either discursively primary or discursively secondary. Among the classic examples, *it's cold in here* can be mentioned as a case where the relevance-triggered implicature 'perhaps we should close the window' is the speaker's primary point. In contrast, *there's a garage round the corner* triggers an implicated meaning, 'the garage is open now', that is not the primary point of the message.

The difference between grammatical and lexical meanings has to do with the expressions they are found with. It follows from the definition above that grammatical meaning can be conventionally associated not only with grammatical expressions, but also with lexical expressions. Lexical expressions need to have lexical meaning—otherwise they would not be capable of being discursively primary, and this would by definition disqualify them as lexical expressions. But lexical expressions can additionally have grammatical meaning. Consider, for instance, the English verb form *ran*. This form can be analyzed as having (at least) two conventional meanings: 'run' and 'past'. Arguably, the former of these meanings is lexical in that it is potentially primary, but the latter is grammatical in that it is secondary by convention:[8] it cannot, as long as conventions are adhered to, be used to communicate the meaning 'past' as the main point of a linguistic message. Similarly, *tree*, in addition to its lexical meaning, conventionally expresses its membership in the grammatical class 'countable noun' (i.e. 'individuated member of a category'), which cannot constitute discursively primary meaning. In contrast to grammatical meaning, lexical meaning can be found only with lexical expressions. The possibility of a grammatical expression with lexical meaning is excluded because lexical meaning makes the expression by convention potentially primary.

3.4. SYMPTOMS OF AND TESTS FOR GRAMMATICAL STATUS. In many cases, speakers can make fairly clear intuitive judgments about whether a given linguistic expression is conventionally suited to convey the primary point of an utterance. For instance, it is hard to imagine the suffix *-ly* in *happily* as conveying the main point (cf. §4). Appeals to such intuitive judgments enter into the discussion below. The empirical base of the theory, however, will be strengthened to the extent that such judgments can be supported by clear-cut diagnostic procedures.

---

[8] The meaning element 'past' may be understood as indexically rather than symbolically coded (cf. Andersen 2010).

It follows from the definitions given in the beginning of §3 that identification of an expression as lexical requires evidence that it can be discursively primary in actual usage, while identification of a given expression as grammatical requires evidence that it cannot be (because it is secondary by convention). In this section, we first point out two diagnostic symptoms of grammatical status, and then suggest two concomitant sets of tests that can be used to provide such evidence. Both sets of tests exploit the fact that languages possess conventional means for singling out which expression is intended to have discursively primary status in a given utterance (cf. §3.1). Subsequently, we discuss limitations and exceptions to the tests.

The first diagnostic symptom involves 'focalizability'. As described in §3.1, the focal expression is the primary element of the utterance (at the appropriate level of granularity). Focalizability is thus a symptom of lexical status: only lexical—potentially primary—expressions can be assigned discursively primary status by focalizing expressions. It follows that nonfocalizability is a symptom of grammatical—conventionally secondary—status.

> (17) NONFOCALIZABILITY AS SYMPTOM OF GRAMMATICAL STATUS: Grammatical expressions cannot be assigned discursively primary status by focalizing expressions.

This symptom can be brought out in a range of different tests that depend on language-specific means of marking focus. In English, focalizing expressions include cleft constructions, pseudo-cleft constructions, narrowly focal stress, and focus particles like *only, just*, and *even*. For English, a list of focus tests thus includes those in 18.

> (18) FOCUS TESTS (English)
>   a. Grammatical expressions cannot independently occur in the focal position of cleft constructions.
>   b. Grammatical expressions cannot independently occur in the focal position of pseudo-cleft constructions.
>   c. Grammatical expressions cannot independently receive narrowly focal stress (this is a familiar feature of grammatical expressions; cf. Bybee at al. 1994:7).
>   d. Grammatical expressions cannot independently occur in the semantic scope of focus particles like *only, just*, and *even*.

It is an empirical question to what extent one can find counterparts to these tests in other languages. For instance, languages may lack cleft and pseudo-cleft constructions. However, as long as a given language has sentence-internal means for indicating focus (for instance, focus particles), it will be possible to establish such tests for grammatical status.

The second symptom of grammatical status involves what we call 'addressability': to address (the meaning of) a linguistic expression is to take it up in a subsequent utterance. Like focalizability, addressability is a symptom of lexical status: only lexical—potentially primary—expressions can be assigned primary status by being addressed in subsequent discourse. Unlike focalizability, however, addressability is a sentence-external and discourse-based symptom. It trades on linguistic means for questioning, confirming, denying, responding to, or otherwise commenting upon or 'addressing' an expression belonging to a previous utterance in a subsequent utterance, and rests on the assumption that addressing an expression belonging to a previous utterance entails assigning it discursively primary status. This assumption reflects the same intuition as the *loi d'enchainement* ('law of linking') suggested by Ducrot (1972:81) in his speech acts-inspired semantics, which says that presupposed elements cannot form the link to the next utterance, and also as the idea, central to Posner's (1972) theory of *Kommentieren*

('commenting') and *Kommentierbarkeit* ('commentability'), according to which the fact that something in an utterance is commented upon shows that this element has the 'highest communicative relevance' (Posner 1972:11). The same idea is found in Dahl's (2004:86) remark on the 'inaccessibility' of inflectional meaning. In accordance with this assumption, nonaddressability is a symptom of grammatical—conventionally secondary—status.

(19) NONADDRESSABILITY AS SYMPTOM OF GRAMMATICAL STATUS: Grammatical expressions cannot be assigned discursively primary status by being addressed in subsequent discourse.

This symptom can be exploited in a number of addressability tests that depend on language-specific means of addressing and thus assigning discursively primary status to an expression in a previous utterance. For English, a list of addressability-based tests includes those in 20.

(20) ADDRESSABILITY TESTS (English)
   a. Grammatical expressions cannot independently be questioned by WH-questions (the close relation between addressability and focalizability can be seen from the fact that WH-constituents are structurally marked as focal: by being FOCALIZED in the subsequent clause, the element in the previous clause is thus ADDRESSED as primary).
   b. Grammatical expressions cannot independently be referred to anaphorically or cataphorically (i.e. they do not introduce discourse referents that can be picked out by indexical expressions).
   c. Grammatical expressions cannot independently be questioned by yes-no questions.

As in the case of focus tests, addressability tests do not work in the same way in all languages.

Let us illustrate how the tests work by applying them to an uncontroversial example of a grammatical expression: the English auxiliary *gonna*, illustrated in 21.

(21) Jones is gonna call her tomorrow.

Gonna comes out as a grammatical expression by the addressability tests. In hearing 21, one cannot reply *how?* and intend to be understood as meaning 'how, gonna?'. The reply *how?* addresses the manner in which a state of affairs takes place, and can only be understood as addressing *call*: 'how, call? (—by cellphone or by Skype?)'. By the addressability tests, accordingly, *call* differs from *gonna* in being lexical. The addressability tests go naturally with the fact that in every language there appears to be a limited set of interrogative devices, and this set never includes devices for questioning the meanings of grammatical expressions (cf. Boye & Harder 2007:575). *Gonna* is grammatical also by the focus tests. For instance, it cannot be brought into narrow focus by means of sentence stress (but see the discussion of putative exceptions below). This is a familiar feature of grammatical expressions (cf. Bybee et al. 1994:7). Thus, whereas it would be straightforward to give *Jones* narrow focus (analogously to *Mitchell* in 10) and also straightforward to read sentence stress on *tomorrow* as indicating narrow focus, *gonna* is a bad candidate for narrow focus.

In contrast to *gonna*, a full verb like *kill* comes out as lexical by both the addressability tests and the focus tests. It can be put in narrow focus by means of stress (22), be addressed by *how* (23), and be inserted in the focal slot of a pseudo-cleft construction (24) or a focus particle (25).

(22) I'll KILL anyone who insults my mother.
(23) —I am fully prepared to kill.
    —How? ('how, kill?'; alternatively 'how, prepared to kill?')
(24) What I want is to kill (him).
(25) I am ready to even kill.

Compare also 'parenthetical' *I think* in 26 and *Jill regrets* in 27.

(26) Jill left her husband, I think.
(27) Jill regrets that she left her husband.

By the addressability test, parenthetical *I think* comes out as grammatical (Boye &
Harder 2007): in hearing 26, one cannot ask a yes-no question such as *really?* and in-
tend to be understood as meaning 'really, do you think so?'; yes-no questions address
the clause *Jill left her husband*. In contrast, *Jill regrets* comes out as lexical: in hearing
27, it is perfectly possible to ask *really?* and intend to be understood as meaning 'really,
does she regret?'.[9]

As mentioned, there are limitations to some of the tests. They result from the fact that
focus markers and linguistic means for addressing expressions in previous utterances
are often bound up with structural constraints. For instance, WH-questions and
anaphoric pronouns address (sub)constituents only, and yes-no questions apply only to
clauses. Similarly, cleft and pseudo-cleft constructions are structurally constrained to
operate at or above the phrasal level (cf. Huddleston & Pullum 2002:1417–19). This
means that the tests cannot in all cases serve their diagnostic purpose. For instance,
focus tests 18a and 18b, which draw on cleft and pseudo-cleft constructions respec-
tively, fail to distinguish grammatical expressions from lexical expressions that are not
(sub)constituents. Their direct diagnostic value is thus limited to cases where the ex-
pression under investigation is not for obvious distributional reasons unqualified for
filling the focal slot of cleft and pseudo-cleft constructions.

The diagnostic value is obviously higher the more widely applicable the test is, and
this makes focus test 18c, which draws on focal stress, the most useful test. Thanks to
stress-signaled narrow focus, there is a possibility of diagnosing all lexical expressions
as such, since subphrasal lexical expressions can be brought into narrow focus by this
means. By focus test 18c, for instance, attributive adjectives like *wonderful* are lexical,
whereas the definite article *the* is grammatical.

(28) Joe is a WONDERFUL man.
(29) ?What is THE weather like?

But we cannot simply identify all grammatical expressions as those that fail the test—
because for distributional reasons not all grammatical expressions can be naturally put
to the test. Take, for instance, the English plural suffix *-s* in 30.

(30) The streets are wet.

Obviously, because it is not a constituent, it cannot be focalized by cleft or pseudo-cleft
constructions or by focus particles, and since it is not an independent syllable it is im-

---

[9] It is important that addressability and nonaddressability are understood as applying to linguistic elements.
In hearing 26 (*Jill left her husband, I think*), it is of course perfectly possible to question the speaker's epis-
temic stance by asking *do you really think so?*. Such a question does not, however, address the linguistic ele-
ment *I think* in 26: it does not tie up with the meaning 'I think' AS EXPRESSED BY THE PARENTHETICAL. The same
question may follow an utterance like *Jill left her husband*, in which there is no *I think*. Thus, locutors are free
to pick up and dwell on all kinds of meaning expressed or implied in the preceding discourse (cf. Bohnemeyer
2009 on temporal anaphora in tenseless languages), and independently of preceding discourse they may in-
troduce new meanings. Outside of metalinguistic and contrastive contexts (cf. §3.4), however, they are not
free to address all linguistic elements in the preceding discourse.

mune even to narrow-focal stress. Thus, none of the focus tests discussed above can really be applied. Therefore, we are left with intuitions to tell us whether -s is potentially discursively primary. We believe intuitions are firm enough to warrant the answer 'no'. One might choose to claim that the mere fact that such cases cannot be brought to pass the test for lexical status shows that they are grammatical—but we prefer to say that in certain cases we have to rest content with intuitive judgments unsupported by tests.

There is also a set of exceptions to the tests. These exceptions are well defined, however, as the set of contexts in which focalizing and addressing serve metalinguistic and contrastive purposes. In both metalinguistic and contrastive contexts, grammatical expressions can be brought into narrow focus, and at least in metalinguistic contexts, they can also be addressed (cf. Boye & Harder 2007:575). What makes these contexts exceptional is that here focalizing and addressing do not assign discourse prominence in the sense in terms of which grammatical and lexical expressions are defined: they do not serve the purpose of singling out an element as discursively primary in relation to SYNTAGMATICALLY related elements (cf. §3.1).

Consider first two cases of metalinguistic focus.

(31) I said Smith hatED her—not hates.
(32) —Has he called her?
     —No, he is GONNA call her.

Examples 31 and 32 differ in a clear-cut way from standard cases of narrow focus of the kind discussed in §3.1 in that the focal expressions, -ed and gonna, are not just used, but also mentioned. Something similar can be said of 33 in which the question what? can be read as metalinguistically addressing gonna: the question concerns not just the meaning of gonna, but also the appropriateness of using the word gonna.

(33) —He is gonna call her.
     —What? He has called her already, hasn't he?

In any case, focalizing gonna in 32 and addressing it in 33 is clearly not a matter of singling gonna out as discursively primary in relation to its syntagmatic context. Rather, it is a matter of drawing attention to the appropriateness of the expression used—possibly in relation to PARADIGMATICALLY related expressions. An analogous example is when metalinguistic stress overrides conventional lexical accent, as in 34. This is clearly not a matter of assigning primary status to the stressed element (im-) in relation to its syntagmatic context (-port), but rather a matter of drawing attention to the appropriateness of the stressed element im- as contrasting with the paradigmatic alternative ex-.

(34) I said they IMport (not EXport) toxic waste.

Consider now a case of contrastive-focus readings.

(35) This is what we HAVE done; now I'll talk about what we're GONNA do.

Contrastive focus can be described as superimposed on ordinary focus. The superimposed property of contrastive focus involves two characteristic properties (Erteschik-Shir 2007:48–49). First, unlike ordinary focus, it can be assigned to something that is not a syntactic category. Second, it semantically invokes the contrast set as part of the interpretation (in 35, gonna is understood as 'rather than have').[10] Like metalinguistic

---

[10] This is different from the sense in which alternative semantics (cf. §3.1) describes focus generally as invoking the presence of potential alternatives, also in the case of noncontrastive focus. The crucial property of focus is that it brings the information state forward. The focused part of the message is privileged because something other than the actual expression might have been inserted here, while the rest of the message is presupposed. In the case of contrastive focus, the point includes denying the alternatives, not simply specifying the 'true' value.

focus, then, contrastive focus does not serve the purpose of highlighting an expression in relation to its syntagmatic context. Rather, it highlights the focal expression in relation to its PARADIGMATIC alternatives. This is why contrastive-focus contexts represent an exception to the application of the focus tests.[11] The theory proposed in the present article thus offers empirical procedures for determining whether a given expression is lexical or grammatical—without claiming that the identification of grammatical expressions is in all cases a straightforward matter.

There is an extra dimension of the problem of identification, which would be present no matter what criterion was involved: identifications depends on the individuation of conventionalized expressions. How many different conventional expressions are there with the phonological form *have*, for instance? The obvious difficulties lead some authors to abandon all hope of making any distinctions and to recognize only gradience, but as discussed in §2, this does not really solve the problem. The problem also has a diachronic counterpart: at what precise point in the history of English was it possible to distinguish auxiliary from lexical *have*? Some scholars might wish to introduce a split between expressions as soon as even the most subtle distributional differences arise. Others might wish to lump them together all the way through. As will be apparent, the more disposed one is to recognize as a special, conventional expression a usage type in which an expression has secondary status, the more grammatical expressions one will recognize in a language. Conversely, the more one is disposed to maintain a monolexemic interpretation that includes the lexical, potentially primary, source, the fewer grammatical expressions there will be. We take no stand on this issue, because the theory we propose does not depend on it.

4. THE THEORY PROVIDES A GENERALIZATION OVER EXAMPLES OF GRAMMATICAL EXPRESSIONS. The first of the arguments that we present for the theory is that it covers standard and uncontroversial examples of grammatical expressions. This is a fundamental argument for the theory. If there were not a considerable degree of overlap between what everybody agrees is grammatical and what is classified as grammatical on the basis of the theory, it might be claimed that the theory is not a theory of grammatical status, but of something else.

It has already been demonstrated, in §3.4, that the English auxiliary *gonna* and the article *the* pass the tests for grammatical status that are part of the theory. Similarly, affixes such as past-tense *-ed*, clitics such as the 'group genitive', and auxiliaries such as progressive *be* come out as grammatical by the proposed theory: intuitively, at least (cf. §3.4 on the limitations to the proposed tests for grammatical status), they cannot constitute the main point of an utterance. For instance, the main point of uttering 36 could not plausibly be to convey the meaning of 'past'.

    (36) She hated him.

The same goes for schematic constructions. By the proposed theory, they are unequivocally grammatical. As discussed in §3.2, for instance, the English declarative as a schematic grammatical expression has the illocutionary meaning 'assertion', but the main point of uttering a declarative sentence like that in 36 is not to convey that an as-

---

[11] There is also another type of case that may appear to constitute a counterexample: replies of the form *he* HAS or *they* DID to observations like *has he done his homework?* or *they didn't make it*. In such cases, however, the auxiliaries *has* and *did* do not convey merely their secondary grammatical content; they also stand as proforms for the whole asserted proposition (cf. also the discussion in n. 12 of the grammatical status of words like *probably* when they stand alone as answers to a question).

sertion is being made. Since the theory thus captures cases that everybody considers grammatical, it provides an explicit rationale for what used to be an implicit consensus.

As an example of where this rationale can contribute to the discussion, consider derivational morphemes. Hopper and Traugott (2003) make a distinction between lexical and grammatical derivational morphemes. The former, for instance English -*ling* in *duckling*, are said to 'add a meaning component without affecting the category in question'. The latter, for instance -*ly* in *happily*, 'change the category of the word' (Hopper & Traugott 2003:5). From the point of view of the theory proposed here, both types of derivational morphemes are clearly grammatical expressions, secondary and ancillary to the stems to which they are attached. Neither can be independently addressed or focalized outside of metalinguistic and contrastive contexts. They differ in terms of their meanings, not in terms of their conventional discourse-prominence potential.

However, the theory also includes among grammatical expressions cases that are not standardly associated with grammatical status (cf. also Egan 2010:136–39 on the possible grammaticalization of *fail to* into an auxiliary). Adverbs as a category are often taken to be lexical expressions. In FUNCTIONAL GRAMMAR and FUNCTIONAL DISCOURSE GRAMMAR (Dik 1997, Hengeveld & MacKenzie 2008), for instance, they belong to the group of lexical 'satellites' as opposed to the group of grammatical 'operators'. With some adverbs, this view is perfectly compatible with the theory proposed here. Manner adverbs like *quickly*, temporal adverbs like *yesterday*, and locational adverbs like *here* are all potentially primary. They can be addressed by *how*, *when*, and *where* respectively. But by our definitions, wide-scope adverbs like *however*, *probably*, and *evidently* are clearly grammatical expressions. They cannot be singled out as discursively primary by being addressed or focalized (cf. §3.4). They are by convention secondary and thus dependent upon an accompanying expression in relation to which they can be secondary in actual communication.[12]

In other cases, the theory excludes from the class of grammatical expressions those that have been associated with grammatical status. A case in point is the Danish modal verb *kunne* 'can'. Danish grammarians have frequently treated *kunne* as an auxiliary— a grammatical verb (Wiwel 1901:151, Diderichsen 1946:169, Davidsen-Nielsen 1990: 22). As argued in Boye 2010, however, *kunne* is frequently discursively primary. Another example is demonstratives. Mainly because they constitute a closed class, demonstratives are considered grammatical and mentioned as illustration cases of the relation between grammatical and lexical types of meaning by Talmy (2000:25). However, as pointed out by Diessel (1999:150–52, 2006), the conception of demonstratives as grammatical does not capture their unique properties. Among these are their very early appearance in acquisition, their nonderived status, and their universal occurrence as means of coordinating joint attention. Demonstratives, moreover, are the SOURCES of a

---

[12] The fact that, for instance, *probably* can be used on its own, as a reply to a yes-no question and a signal of assent, might be viewed as a problem for this analysis.

    (i) —Is he right?
        —Probably!

Even in (i), however, the meaning of the adverb *probably* does not express the main point. Rather, *probably!* must be understood as a short form of *Yes, probably he is right*, which expresses as its main point a confirmation of a proposition, and in which *probably* adds only a secondary and backgrounded qualification. This account tallies with the fact that **improbably* would not be a possible answer, while *probably not* is okay, with *not* as an intervening operator between *probably* and the elided proposition (adjectives, in contrast, remain primary and foregrounded, since a negative adjectival reply is okay: *not bloody likely!*).

variety of grammaticalization chains, including cases ending up in definite articles and complementizers. Rather than 'markers', Diessel suggests (2006:473, following Brugmann & Delbrück 1911:311, Bühler 1934:144) that demonstratives should be understood essentially as 'particles' and defined in terms of their unique discourse function rather than any particular grammatical alignment.[13] This discourse definition is sufficient to delimit demonstratives as a closed class.

In support of Diessel's analysis, demonstratives are clearly nongrammatical by the addressability and the focus tests. For instance, the demonstrative *that* can be both addressed and focalized.

    (37) —Look at that.
          —What? (Oh, that!)
    (38) What I like about him is exactly that.

This is the case also with adnominal demonstratives.

    (39) —Look at that picture over there.
          —Which picture?
    (40) Was it that one you meant?

Thus, demonstratives are by convention potentially primary. Accordingly, they qualify as lexical expressions (cf. Woodworth 1991:285 on demonstratives as lexical expressions).

Like demonstratives, personal pronouns are often considered grammatical expressions. They make up a closed class, and they can be derived diachronically from nouns or noun phrases. This is the case, for instance, with the Spanish pronoun *usted* 'you' (singular, polite), which developed from *vuestra merced* 'your grace'. However, while *usted* and, for instance, the English pronoun *he* are certainly not prototypical nouns, neither this nor their closed-class membership or diachronic sources makes them grammatical by our theory (cf. §2 on gradience). They clearly retain the potential of being discursively primary. They can fill out a whole argument slot on their own, which makes them part of the semantic core of a simple clause. The pronoun *he* may be addressed as well as brought into focus (cf. *it was he who did it*), which in accordance with the tests introduced in §3.4 classifies it as lexical, even if it may typically be discursively secondary.

Our noncommittal stance on how to individuate expression types (cf. §3.4), however, entails that even though the distribution of pronouns includes lexical subtypes, other subtypes may be considered grammatical. The two sets of pronominal forms in French may throw light on this: *moi, toi, lui* (corresponding to emphatic *me, you, he*), and so forth are potentially primary and thus lexical, while the clitics (or affixes) *je, te, il* are by convention secondary and thus grammatical. In English, rather than lumping all instances of *he* into one (nongrammatical) expression, one might choose to distinguish grammatical and lexical subtypes of personal pronouns on distributional grounds. The grammatical variant of *he* (which would show familiar signs of grammatical status such as phonological reduction) would be the translation equivalent of French *il*, and so forth.

---

[13] Heine and Kuteva (2007) challenge Diessel's claim that demonstratives are typically nonderived, pointing out that they are frequently derived from locational expressions; but if words like *there* are included in the demonstrative class, presumably this observation could be rephrased as saying that nominal demonstratives are frequently derived from a combination of a nominal element and a 'demonstrative' adverbial, as in Danish *den der* 'it there' and *den her* 'it here'.

Just as a distinction can be made between lexical and grammatical pronouns, a distinction can be made between lexical and grammatical prepositions (cf. also Lehmann 2002b:8). The English prepositions *of* and *off* have the same source, but while the former, at least as a possessive marker, is arguably grammaticalized, the latter seems not to be. Thus, possessive *of* cannot be addressed, but *off* can.

(41) —This will be the death of me.
    —*Why (of)?

(42) A: —Keep your hands off me.
    B: —Why (off)?
    A: —Touching implies intimacy!

Just as for pronouns, however, it would be possible in principle to set up distributional subtypes for other prepositions, and thus to distinguish between grammatical and lexical cases.

It is natural to ask, finally, what the proposed theory implies for the status of so-called 'function words'. Function words are generally regarded as a subset of grammatical expressions, but the class is beset by the same traditional problem of fuzzy boundaries that we saw in the case of the lexical-grammatical continuum (cf. van Gelderen 2005 on the cline between lexical and functional words). In our theory, however, it is an empirical question whether all expressions referred to as 'function words' are in fact grammatical—that is, whether they are all by convention discursively secondary. While most function words may turn out to be grammatical, there are exceptions such as, for instance, indexicals that can head NPs/DPs. We believe it would be possible to define the category of function words so as to include words that are lexical in addition to words that are grammatical by our criterion.

To sum up, we believe the proposed theory provides a generalization over all uncontroversial cases of grammatical expressions as well as a means of clarifying the status of expressions that are found in between uncontroversial cases of grammatical expressions and uncontroversial cases of lexical expressions. Sometimes, the status assigned to dubious cases by the theory may be in conflict with traditional ideas of what is lexical and what is grammatical, as in the case of demonstratives and the Danish modal verb *kunne*. Since, however, these traditional ideas are not based on a coherent theory but remain pretheoretical and intuition-based, such conflicts may be regarded as a problem for the tradition rather than necessarily for the theory proposed here (cf. Boye 2010:98–99).

5. THE THEORY PROVIDES A GENERALIZATION OVER EXAMPLES OF GRAMMATICALIZATION. Just as the theory generalizes over uncontroversial examples of grammatical expressions, it generalizes over uncontroversial examples of grammaticalization. This is another fundamental argument for the theory. As in the case of grammatical expressions, if there were not a considerable degree of overlap between what everybody considers grammaticalization and what is classified as grammaticalization on the basis of the theory, it might be claimed that the theory is not a theory of grammaticalization, but of something else.

Consider again the proposed definition of grammaticalization.

(43) GRAMMATICALIZATION: Grammaticalization is the diachronic change that gives rise to linguistic expressions that are by convention ancillary and as such discursively secondary.

In accordance with this definition, a distinction can be made between three basic types of grammaticalization (cf. Andersen 2008 for an alternative detailed typology of grammatical changes).

The first type of grammaticalization has its source in a lexical expression. Here, grammaticalization consists in ANCILLARIZATION, a CHANGE IN EXISTING DISCOURSE-PROMINENCE CONVENTIONS: the potentially primary status of a lexical expression is replaced with the secondary status of a grammatical expression.

The second type has its source in a 'pragmatically conveyed' meaning with secondary status. Here, grammaticalization consists in a CONVENTIONALIZATION OF A DISCURSIVELY SECONDARY MEANING as a property of a new linguistic expression: a linguistic expression—for instance fixed word order—becomes conventionally associated with a secondary meaning that was originally part of a pragmatic total message, but not conventionally associated with any linguistic expression.

In the third type of grammaticalization the source is an already existing grammatical expression. Here, grammaticalization consists in the development of such an expression into a new grammatical expression distinct from its source.

The third type is dealt with in §8. At present we are concerned with the two other types. The first type of grammaticalization is the standard or prototype case, captured by the classical definitions of Meillet (1958 [1912]:131) and Kuryłowicz (1975 [1965]: 52), and in the dictionary definition of Matthews (2007:164). The second, 'nonstandard' type was recognized already by Meillet (1958 [1912]:147–48), who mentions fixation of word order as a case of grammaticalization, but some scholars are reluctant to include it under grammaticalization proper (e.g. Hopper & Traugott 2003:60). As should be clear, both types of grammaticalization find a natural place in the theory advocated here. The theory provides a generalization over both types, and at the same time pinpoints the difference between them. In what follows, we illustrate this in more detail, dealing first with standard cases of grammaticalization (§5.1) and then with nonstandard cases (§5.2).

5.1. STANDARD CASES OF GRAMMATICALIZATION. As an example of the standard type, we return to the development of the English prospective auxiliary *going to/gonna*.

> (44) I am going$_{LEX}$ (in order) to eat.   >
> I am going$_{GRAM}$ to (= gonna) eat.

From the point of view of the proposed theory, as mentioned, developments like this involve a change in existing discourse-prominence conventions. The crucial difference between the input to the change, a progressive form of the verb *go*, and the output of it, the auxiliary *going to/gonna*, is that while the former as a lexical expression can by convention convey its meaning either as primary or as secondary, the latter can only convey its meaning as secondary. As argued in §3.4, the main point of saying *I am going to/gonna eat* is not to indicate prospectivity. Rather, as opposed to lexical *go*, which need not be in construction with a following verb form, *going to/gonna* is dependent on a verb stem such as *eat* because it requires an expression in relation to which it can be secondary in actual communication.

According to the proposed theory, grammaticalization of lexical expressions consists in the rise of this crucial difference. The bridge between lexical *going* and grammatical *going to/gonna* is the secondary uses of the former. In examples like *I am going to eat* in 44 (cf. Hopper & Traugott 1993:2), *go* is accompanied by another verb that can compete with it for discourse prominence. In actual discourse, the construction in 44 can be used either to convey 'THAT I am going', in which case *eat* is secondary in relation to *go*, or to convey 'WHY I am going', in which case *go* is secondary in relation to *eat*. Grammaticalization is the conventionalization of *going* as having secondary status. The competition scenario is illustrated in 45, where boldface marks the expression that comes out as primary, while LEX and GRAM mark an expression as respectively lexical or grammatical.

(45) The grammaticalization of *going*

LEXICAL STATE	
going$_{\text{LEX}}$ to eat	Competition for discourse prominence, and *going* wins the competition (so that *eat* is secondary)
<>	Synchronic usage alternation
going$_{\text{LEX}}$ to **eat**	Competition for discourse prominence, and *eat* wins the competition (so that *going* is secondary)
>	<u>Grammaticalization: conventionalization of *going* as secondary</u>
GRAMMATICAL STATE	
going$_{\text{GRAM}}$ to **eat**	Result of grammaticalization: a grammatical descendant of lexical *going* that is by convention secondary

Of course, this scenario does not bring us all the way to *gonna*. In order to get there, *going*$_{\text{GRAM}}$ needs, among other things, to fuse with *to* and subsequently undergo phonological reduction. Moreover, the scenario does not say anything about the change to prospective meaning. The scenario in 45 concerns only the criterial change whereby a lexical expression acquires grammatical status (cf. §8.1 on continued grammaticalization).

We suggest that all standard cases of grammaticalization of lexical expressions conform to a generalized version of the scenario in 46.

(46) Generalized scenario for standard cases of grammaticalization

LEXICAL STATE	
$\mathbf{X_{LEX}}$ Y_{LEX}	Competition for discourse prominence, and X wins the competition (so that Y is secondary)
<>	Synchronic usage alternation
X_{LEX} $\mathbf{Y_{LEX}}$	Competition for discourse prominence, and Y wins the competition (so that X is secondary)
>	<u>Grammaticalization: conventionalization of X as secondary</u>
GRAMMATICAL STATE	
X_{GRAM} $\mathbf{Y_{LEX}}$	Result of grammaticalization: grammatical descendant X of lexical X that is by convention secondary

Compare, for instance, the grammaticalization of *going to* into *gonna* with the development of adnominal demonstratives into articles (47), the development of cataphoric demonstratives into complementizers, as in Faroese *tað* > *at* (48), and the development of Afrikaans *ek glo* 'I think' into the evidential particle or adverb *glo* (49).

(47) that man > the man
           (cf. Traugott 1980:49, Diessel 1999:128–29, Heine & Kuteva 2002:109–11)

(48) Faroese   (Lockwood 1968:223, from Diessel 1999:124)
   eg sigi **tað**, hann kemur.   >   eg sigi, **at**   hann kemur.
   I   say that he   comes   I   say that he   comes
   'I say that: he comes.'   'I say that he comes.'

(49) Afrikaans   (Boye & Harder 2007:591–92; cf. Thompson & Mulac 1991:318)
   ek glo   hy ryk is.   >   hy is **glo**   ryk.
   I   think he rich is   he is EVIDENTIAL rich
   'I think that he is rich.'   'He is said (supposed, believed) to be rich.'

The four changes—44 and 47–49—differ with respect to both source and result. But in all cases, the source is an expression that is lexical in the sense of being potentially pri-

mary, and the result is an expression that is grammatical in the sense of being secondary by convention (cf. §4 on the lexical status of demonstratives). And in all cases, a prerequisite for the change is a construction in which the lexical expression competes with another lexical expression for discourse prominence—and eventually loses the competition: the adnominal demonstrative in 47 competes with its head noun (*man*). The cataphoric demonstrative in 48 competes with the clause to which it refers (*hann kemur*), and the matrix clause *ek glo* in 49 competes with its complement clause (*hy ryk is*).

We hope to have demonstrated by now that the proposed theory generalizes over examples of grammaticalization of lexical expressions. The scenario illustrated in 46 is not just an adequate generalization, however. It also inherently emphasizes the fact that grammaticalization of lexical expressions occurs in specific constructions (e.g. Lehmann 1992:406, Croft 2003:253, Hopper & Traugott 2003:2–3; cf. also §9), and in accordance with the functional-cognitive view of linguistic structure as arising from usage, it pinpoints the discourse basis of grammaticalization (cf. §6).

The scenario illustrated in 46 does not, however, say anything about the specific mechanisms by which a grammatical expression arises. Two possibilities may be mentioned. First, there may be a change whereby a particular meaning goes from being potentially primary to being by convention secondary—the simplest scenario in the standard type. Second, a secondary meaning of a lexical expression may oust a distinct, potentially primary meaning of the same expression. A subcase of such a change involves a secondary meaning that is pragmatically, rather than conventionally, associated with the lexical source expression and consists in what has been called 'conventionalization of implicature' or 'pragmatic strengthening' (cf. Traugott 1988).

5.2. NONSTANDARD CASES OF GRAMMATICALIZATION. Nonstandard cases have been widely discussed (e.g. Hopper 1991:17, Lehmann 2008:207) in relation to a scenario suggested by Givón (1979:207–22) under the term 'syntacticization'. Syntacticization consists in the change from 'loose parataxis' to 'tight syntax' (Givón 1979:208), or in the words of Traugott and Heine (1991:2–3), 'the evolution of syntactic ... structure through fixing of discourse strategies' (cf. Heine & Reh 1984:28–31 on 'permutation', Lehmann 2002a:153–59 on 'fixation of word order', Lehmann 2008 on information structure and grammaticalization, and Croft 2003:257 on 'rigidification' and 'permutation'). One of Givón's examples of such change is the development in 'noneducated American English' from topic to subject, accompanied by the development of a resumptive pronoun into an agreement marker (Givón 1979:209).

(50) My ol' man, he rides with the Angels. > My ol' man he-rides with the Angels.
        TOPIC   PRO   SUBJECT   AGR-

Another example is the development in Kimbundu of a left-dislocated object topic into a subject of passive.

(51) Kimbundu   (Givón 1979:211)
      Nzua, a-mu-mono   > Nzua a-mu-mono   (kwa meme)
      John they-him-saw   John they-him-saw (by   me)
        'John, they saw him.'   'John was seen by me'

From the point of view of the proposed theory, changes like these differ from the standard cases of grammaticalization discussed in §5.1 in that they cannot be said to involve a change in existing discourse-prominence conventions. As described by Givón, the changes in 50 and 51 are changes from a discourse structure into a grammatical syntactic structure. We may conceive of the input to the change as a pragmatic phenomenon: the as-

sociation of initial position with the 'topic-of' relation follows from the principle that 'what comes first is what it is all about'. The output, by contrast, is a structural phenomenon: the association of initial position with the 'subject-of' relation is conventionalized.

Clearly, both the meaning of 'topic-of' and the meaning of 'subject-of' are secondary by convention. For instance, neither of the two sentences in 50 can be used with the main purpose of communicating that 'my old man is the topic/subject of this clause'. Arguably, then, the developments in 50 and 51 involve the conventionalization of a hitherto pragmatically conveyed secondary meaning. Clause-initial position arises as a linguistic expression in that it comes to be a conventional marker of a 'subject-of' relation (in 50 a new agreement marker, *he-*, simultaneously arises to index the same relation). In the proposed theory the two cases unequivocally qualify as (nonstandard) examples of grammaticalization. Example 52 illustrates the scenario for 50.

(52) Syntacticization of the 'subject-of' relation in 'noneducated American English'

My ol' man, he rides with the Angels TOPIC PRO	Secondary 'topic-of' relation conveyed as pragmatic meaning according to the pragmatic principle that what comes first is what it is all about
>	<u>Grammaticalization: conventionalization of secondary meaning as associated with a new linguistic expression (clause-initial position)</u>
My ol' man he-rides with the Angels SUBJECT AGR-	Result of grammaticalization: linguistic expression (clause-initial position) that conventionally expresses its meaning (a 'subject-of' relation) as secondary

As in the case of the scenario illustrated in 45 in §5.1, the scenario illustrated in 52 does not say everything there is to say about the development it covers. It does not capture, for instance, the fact that the grammaticalization of clause-initial position in 50 is accompanied by a change of meaning from 'topic' to 'subject'. Nor does it pinpoint the exact mechanisms by which pragmatic discourse structure gives rise to syntactic structure. However, it is not intended to capture this. The scenario in 52 is only intended to capture what makes the change in 50 a case of grammaticalization.

We hope to have demonstrated that the proposed theory generalizes also over non-standard cases of grammaticalization. Furthermore, it provides a precise characterization of what is common to and what is different in standard and nonstandard cases. Both types of grammaticalization have as their output an expression that is grammatical in that it is by convention discursively secondary. But they have different types of input and thus different ways of arriving at the output.

6. WHAT QUALIFIES A LEXICAL EXPRESSION FOR GRAMMATICALIZATION? The proposed theory allows us to qualify and provide a preliminary answer to the question of what qualifies a lexical expression for grammaticalization—that is, an answer to the question of what conditions standard cases of grammaticalization like the ones discussed in §5.1.

As discussed above, it has often been noted that standard examples of grammatical expressions have meanings that belong to a limited range of notional domains (e.g. Heine et al. 1991:32–39, Bybee et al. 1994:10, Slobin 1997, Croft 2003:225; cf. §2).

Underlying such definitions is a view according to which the motivation for grammaticalization is notional (cf. phrases like Slobin's 1997 'grammaticizable notions' or Croft's 2003:225 'grammatical concepts'). A few attempts to narrow down what qualifies a notion for grammaticalization have been made. Lyons (1968:438) takes generality to be a crucial feature. By contrast, Heine and colleagues (1991) characterize the notional 'source structures' ('concepts' and 'propositions') of grammaticalization as having to do with 'some of the most elementary human experiences' (p. 33) and as being 'basic to human experience' (p. 36). Arguing convincingly against granting frequency the ultimate responsibility for grammaticalization (pp. 38–39), they hypothesize that what makes 'source concepts' 'eligible' for grammaticalization 'is the fact that they provide "concrete" reference points for human orientation that evoke associations and are therefore exploited to understand "less concrete" concepts' (p. 34). In a similar vein, Bybee and colleagues speculate 'that rather than generality, it is the reference plane of basic, irreducible notions—whether they concern existence or movement in space or psychological or social states, perspectives, and events—which serves as the basis for grammatical meaning in human languages' (1994:10; cf. Traugott 1982:246).

These characterizations are all quite vague, and, as pointed out by Slobin (1997:295–96), they do not account for the fact that notions found with grammatical expressions are also found with lexical expressions (cf. Lyons 1968:438, and §2). As for the question of what makes a notion grammaticalizable, it seems appropriate to conclude with Slobin, then: 'At present there is no useful answer to this question beyond an empirically based list of the notions that receive grammatical expression in the languages of the world' (1997:295).

The theory we propose allows us to come up with a preliminary answer, which may at least set the stage for further research. As discussed in §3.2, the theory links up function and language use with linguistic structure. In accordance with the theory, we argue below that not only function and usage but also structural considerations play a role in grammaticalization. In other words, a lexical expression must qualify not only functionally or notionally but also structurally for grammaticalization.

The structural qualification ultimately derives from the definitions of lexical expressions as potentially primary and grammatical expressions as secondary by convention. As discussed in §5.1, it is a prerequisite for standard cases of grammaticalization that there is a structural possibility of competition for discourse prominence; and when grammaticalization occurs, this competition results in a new structural relation. Consider the generalized scenario for standard cases of grammaticalization in 46, repeated here for convenience as 53.

(53) Generalized scenario for standard cases of grammaticalization

LEXICAL STATE

$X_{LEX}\, Y_{LEX}$	Competition for discourse prominence, and X wins the competition (so that Y is secondary)
$\diamond$	Synchronic usage alternation
$X_{LEX}\, \mathbf{Y_{LEX}}$	Competition for discourse prominence, and Y wins the competition (so that X is secondary)
$>$	Grammaticalization: conventionalization of X as secondary

GRAMMATICAL STATE

$X_{GRAM}\, \mathbf{Y_{LEX}}$	Result of grammaticalization: grammatical descendant X of lexical X which is by convention secondary

In accordance with this scenario, in order for a lexical expression, X_{LEX}, to develop into a grammatical expression, X_{GRAM}, it needs to be in construction with another lexical expression, Y_{LEX}, with which it can compete for discourse prominence. This is the structural qualification.

> (54) STRUCTURAL QUALIFICATION FOR THE GRAMMATICALIZATION OF A LEXICAL EXPRESSION: In order for a lexical expression to qualify for grammaticalization, there has to be a structural possibility for competition for discourse prominence in the form of an adequate accompanying lexical expression.

It is an empirical question which classes of expressions may compete with each other for discourse prominence. Grammaticalization of verbs into auxiliaries obviously presupposes a competition between lexical verbs. This was in effect noted almost thirty years ago by Bolinger (1980:297): 'The moment a verb is given an infinitive complement, that verb starts down the road to auxiliariness'. Accordingly, English *going* could not grammaticalize into an auxiliary in the construction in 55.

> (55) I am going (to Rome).

The reason is that in 55 there is no other verb with which *going* can compete for discourse prominence.

Bolinger's observation is not entirely accurate, however. A verb does not start down the road to auxiliariness as soon as it is given a verbal complement. The possibility of competition for discourse prominence is necessary but not sufficient for a lexical expression to grammaticalize. In order to grammaticalize, the lexical epression also has to lose the competition. And it has to lose so badly that it is eventually conventionalized as a loser.

Only losers qualify for grammaticalization, then, and this brings us to the next question: What qualifies a lexical expression functionally or notionally for grammaticalization? We are now in a position to reformulate this in a more precise way: What makes a lexical expression come to be conventionalized as secondary?

Clearly, frequency plays a role here. One role of frequency has been, and would have to be, acknowledged in any theory of grammaticalization: in order for an expression to come to be conventionalized as grammatical, it must be used with a certain frequency. In light of the proposed theory, a second role may be hypothesized that is entirely overlooked in the literature. It may be hypothesized that in order for an expression to come to be conventionalized as secondary, it must be used with a high frequency with secondary status RELATIVE TO ITS USES WITH PRIMARY STATUS. Consider again English *going* in its lexical 'movement' sense and in combination with an adverbial of purpose.

> (56) I am going to eat.

Even if *going* in this construction were frequently used with secondary status, this possibly would not make the verb grammaticalize into a prospective marker if it were also frequently used with primary status. In order to be conventionally associated with secondary status, an expression may need to occur predominantly with this function.

The question now is: Which functional or notional property qualifies a lexical expression for being used frequently, in both of the two aforementioned ways, as secondary? We agree with Lyons that generality is part of the answer. In order to be used with some frequency, in the first of the two aforementioned ways, a lexical expression cannot be too semantically specific and idiosyncratic (it is not an accident that words like *gargoyle* or *defenestrate* are not among attested instances of grammaticalization). Generality cannot be the whole answer, though. *Food*, *fish*, and *furniture* are all semantically at a general (superordinate) level, but nevertheless disinclined to undergo grammaticalization.

What our theory suggests is that grammaticalization candidates must be generally applicable with SECONDARY status. In order to undergo grammaticalization, they must be suitable for enhancing, in a generalizable way, the functional potential of an accompanying lexical expression. This, we suggest, is the other part of the answer. With the 'second violin' analogy: only instruments that serve well as secondary accompaniments to the lead instrument get recruited for such functions.

> (57) FUNCTIONAL QUALIFICATION FOR THE GRAMMATICALIZATION OF A LEXICAL EXPRESSION: In order for a lexical expression to qualify for grammaticalization, it must have a functional or notional property that makes it enhance the functional potential of an accompanying expression in relation to which it is secondary.[14]

If we look at the staple examples of grammatical categories such as tense, aspect, mood, number, case, their semantic contribution has an obvious ancillary 'enhancement' potential: a proposition such as 'the house BE on fire' is more useful if tensed, for example, and the information 'Joe DRINK' is enhanced if we know whether it is habitual or in progress. Also, it is plausible that temporal locations (tense) and contours (aspect) will frequently be more functionally useful as accompaniments to an event whose location and contour they specify—rather than standing on their own, or being the primary point.

Note that there is no claim that these notional types of meaning cannot ever be the primary point. For instance, the lexical expression *more than one* and the grammatical plural add the same descriptive information. In fact, it may in some cases be practical to have both grammatical and lexical expressions of the same notion at one's disposal. For a detective who has just established that a crime cannot have been committed by a single person, it would be more appropriate to highlight this fact by using the lexical expression, as in *there is more than one (criminal) involved*, than to express the plurality as secondary information by means of -*s*, as in *there are criminals involved*.

This does not necessarily contradict other theories proposed. It may well be that lexical expressions that undergo grammaticalization 'provide "concrete" reference points for human orientation that evoke associations and are therefore exploited to understand "less concrete" concepts' (Heine et al. 1991:34). It may be that they have to do with 'the reference plane of basic, irreducible notions' and 'concern existence or movement in space or psychological or social states, perspectives, and events' (Bybee et al. 1994:10). In light of the proposed theory, however, it is crucial that they also meet the structural and functional qualifications described above. What in our view disqualifies color terms from ever becoming grammaticalized, as pointed out by Talmy (cf. §2), is not that they are not sufficiently general or basic in meaning, but that it is not sufficiently frequently relevant to add a secondary accompanying specification of color to a message.

7. FEATURES STANDARDLY ASSOCIATED WITH GRAMMATICALIZATION. As argued in §2, grammatical expressions and grammaticalization cannot be defined in terms of any phonological, semantic, or morphosyntactic features. No such features are both invariantly and exclusively found with grammatical expressions and grammaticalization. However, the following are more or less frequently found with grammatical expressions.

---

[14] When we say 'enhance the functional potential', to pursue the violin analogy, we intend to describe a 'support relationship' analogous to the functional relation between a second violin and the first violin. Instead of looking for what the grammatical expression does in itself, the point is to ask what a grammatical expression does for the usefulness of the element in relation to which it is secondary. A second violin does not contribute a melody of its own, but provides a background that contributes to the musical effect of the whole.

- boundness
- phonological reduction
- semantic reduction (bleached, generalized, or abstract meaning)
- closed-class membership
- obligatoriness

Below we argue that the proposed theory provides a coherent motivation for why this is so (cf. Boye & Harder 2009:32–38).

7.1. BOUNDNESS. Boundness cannot in itself serve to define grammatical expressions, since lexical material can be bound. In an English indicative sentence such as *Joe left*, for instance, the verb *left* is bound to the subject (in this case, *Joe*) in the sense that it cannot occur without it and still be an indicative sentence. In fact, with the exception of holophrases like *ouch* and *hurrah*, which constitute a whole utterance on their own, all expressions can be said to be bound in different ways to those expressions that they combine with. However, whereas boundness is a variable property of lexical items, it is an invariant property of grammatical items. The proposed theory provides a motivation for why this is so.

From the point of view of the theory, the boundness of grammatical expressions is a direct consequence of the fact that they are by convention secondary. Grammatical expressions require the cooccurrence of other expressions with respect to which they can be secondary. In our standard example, the English auxiliary *gonna* is dependent upon an infinitive with respect to which it can express its 'prospectivity' meaning as secondary.

(58)   I am gonna go.
(59)   *I am gonna.

Likewise, as discussed in §3.2, schematic constructions as grammatical expressions are dependent upon the lexical and morphological material they require to be filled in with, and with respect to which they express their meaning as secondary.

The theory also allows us to see a difference between the boundness of grammatical expressions and the boundness of lexical expressions. Lexical expressions are not bound in the sense in which grammatical expressions are. They are not dependent upon other expressions with respect to which they can be ancillary and secondary.

7.2. PHONOLOGICAL REDUCTION. Like boundness, phonological reduction cannot serve to define grammatical expressions. Lexical expressions tend to undergo phonological reduction when they are used frequently enough. Reportedly, for instance, a bus driver managed to reduce *Århus Amtssygehus* ('Århus County Hospital') to one syllable when announcing it as the next stop (cf. also the emergence of short forms of names such as *Viv* from *Vivian*). Still, it seems that grammatical expressions that develop from lexical expressions are often phonologically reduced in relation to their diachronic source. Compare, for instance, the English auxiliary *gonna* with its diachronic source *going to*. The former expression is phonologically less prominent than the latter in that it has retained only two out of originally three syllables. The standard account of this turns on frequency: grammatical expressions that undergo phonological reduction do so because they are highly frequent.

We do not wish to cast any doubt upon this account. As discussed in §6, the proposed theory is fully compatible with the assumption that frequency plays a role in grammaticalization: in order for a lexical expression to undergo grammaticalization, it must be used with secondary status frequently enough to be conventionally associated with this status, and this may lead to phonological reduction.

However, the proposed theory offers a supplementary account that, unlike the pure frequency account, provides a unique link between grammatical status and phonological reduction. Just as boundness may be a consequence of the conventional secondary status of grammatical expressions, so may phonological reduction: the low discourse prominence of grammatical expressions may iconically motivate their low phonological prominence.[15]

7.3. SEMANTIC REDUCTION. Semantic reduction cannot be used to define grammatical expressions any more than phonological reduction. Just as lexical expressions can be bound and phonologically reduced, they can also have a meaning that is reduced, general, bleached, or abstract (cf. §6 on *food, fish,* and *furniture*). Nevertheless, there are factors motivating why grammatical expressions tend to have such meanings. The proposed theory specifies two ways in which grammaticalization interacts with semantic reduction.

On the one hand, as discussed in §6, semantically reduced status may be seen as a PREREQUISITE for grammaticalization. In order for a string to become conventionally associated with a secondary meaning, it must be used with some frequency with this meaning, and the meaning must be generally applicable as secondary information. For instance, it was a prerequisite for the grammaticalization of the verb *go* into the auxiliary *gonna* that it became conventionally associated with the meaning of 'prospectivity' because this meaning, serving to localize predications in time, is generally applicable as a secondary companion of predications.

In addition, the proposed theory allows us to see semantic reduction as a CONSEQUENCE of grammaticalization. The background (i.e. the area outside focus) of a photograph has low salience and lacks sharp contours. Similarly, a meaning that is by convention secondary, as background information, must have low salience and must be prone to lose its contours, its semantic specifics. Consider again the development of the Afrikaans particle *glo* 'allegedly, presumably, seemingly' from *ek glo* 'I think' (49, repeated here as 60).

(60) Afrikaans   (Boye & Harder 2007:591–92; cf. Thompson & Mulac 1991:318)
    ek glo hy ryk is.   > hy is **glo**   ryk.
    I think he rich is   he is EVIDENTIAL rich.
    'I think that he is rich.'   'He is said (supposed, believed) to be rich.'

The semantic development from the meaning 'I think' to the meaning 'allegedly, presumably, seemingly' may be a consequence of the former meaning getting secondary status. On that interpretation, what is grammaticalized to begin with is epistemic attitude, marked by an explicit reference to the speaker. Initially, then, an expression arises that is much like clause-medial English *I think*.

(61) He is, I think, rich.

Only later does the lack of salience associated with the secondary status of this marker lead to a bleaching of its meaning as well as loss of the first-person pronoun.

7.4. CLOSED-CLASS MEMBERSHIP. Closed-class membership, as well as its diachronic correlate, paradigmatization, is also a problematic definiens of grammaticalization. On the one hand, many uncontroversially lexical expressions can be said to belong to closed classes. Examples are certain verb classes, Latin first names, and simplex nu-

---

[15] As pointed out to us by Ilja Serzants (p.c.), phonological reduction may be seen as 'phonetically' connected with discursively secondary status: discursively secondary expressions tend not to have their own accent, and lack of accent is very often a prerequisite for shortening.

merals. On the other hand, the notion of paradigms is far from uncontroversial. American functionalists, in particular, are generally skeptical toward the usefulness of the notion (e.g. Bybee 1985).

According to the proposed theory, paradigmatization into closed classes is not a direct or necessary consequence of grammaticalization. Still, by highlighting semantic generality as a prerequisite for grammaticalization (cf. §6), the theory provides a place for a link between grammaticalization and paradigmatization: the more general the meanings involved are, the fewer it takes to cover a whole functional or notional domain. It is thus natural to find paradigms of grammatical expressions that carve up a functional or notional domain into a few general regions.

7.5. OBLIGATORINESS. Like boundness, phonological reduction, semantic reduction, and closed-class membership, obligatoriness cannot be used to define grammaticalization. On the one hand, only a subset of the standard examples of grammatical expressions can be claimed to be obligatory in any useful sense of the term. For instance, derivational suffixes like -*ness* in *kindness* can hardly be claimed to be obligatory (cf. §4 on the status of derivational morphemes as grammatical). You need them, of course, if you want to use a nominalized form of the adjective, but it is true of all linguistic expressions, including lexical ones, that you need them for certain purposes. On the other hand, there are obligatory choices that would not usually be understood as grammatical. For instance, with very few possible exceptions, Danish first names are rigidly feminine or masculine, so if you select a first name, you get gender in the bargain. In our view, this does not make gender in first names part of the grammar of Danish.

In the proposed theory, obligatoriness may be seen as one possible consequence of grammatical status, especially when it is understood as applying to CHOICES rather than to expressions. With the conception of grammatical expressions as secondary companions of other expressions, the rise of obligatory choices can be seen as a frequency effect: as a limiting case, when a grammatical expression accompanies another expression frequently enough, its absence becomes significant, and an obligatory choice arises between presence and absence of the expression (cf. Bybee 1994:240).

8. GRAMMATICALIZATION CLINES, REGRAMMATICALIZATION, AND DEGRAMMATICALIZATION. In §5, a distinction was made between three basic types of grammaticalization: in addition to the standard and nonstandard examples discussed in §5, a third type was introduced, to which we now turn. The third type of grammaticalization consists in the development of an already existing grammatical expression into a new grammatical expression distinct from its source. Within this type a distinction can be made between three subtypes: (i) the development of a grammatical expression into a new expression that is in some sense more grammatical than its source—we refer to this subtype as CONTINUED GRAMMATICALIZATION; (ii) the development of a grammatical expression into a new expression that is less grammatical than its source—a subcase of what is often referred to as DEGRAMMATICALIZATION; (iii) the development of a grammatical expression into a new expression that is neither more nor less grammatical than its source—this is what we call REGRAMMATICALIZATION.[16] The first two of these three sub-

---

[16] Our notion of regrammaticalization differs a little both from Greenberg's (1991) notion and from Andersen's (2006, 2008) notion of 'regrammation'. Greenberg (1991:301) uses the term 'regrammaticalization' to refer to cases where a heavily grammatical expression acquires a new grammatical meaning. For Andersen 'regrammation' is '[a] change by which a grammatical expression, through reanalysis, is ascribed different grammatical content' (2008:21), irrespectively of whether the new content is associated with a higher or lower or equal degree of grammatical status (cf. n. 17). By contrast, we classify as regrammaticalization only changes in which the input and the output are grammaticalized to the same degree, whether or not there is a semantic difference between them.

types are frequently discussed in the literature. Below, in §8.1, we argue that the pro-
posed theory not only is compatible with the distinction between subtypes, but also pro-
vides a theoretical basis for it, which is currently missing from the literature.
Subsequently, in §8.2, we deal with the special case of degrammaticalization that con-
sists in the development of a grammatical expression into a lexical one. Again, we argue
that the proposed theory not only is compatible with this kind of development, but also
makes possible a precise characterization of it.

8.1. DEGREE OF GRAMMATICAL STATUS. Continued grammaticalization, regrammati-
calization, and those types of degrammaticalization that do not proceed all the way to
lexical status have in common that they result in a grammatical expression. All three
types of development are thus covered by the definition of grammaticalization given in
§3. The distinction between the three types presupposes a distinction between different
degrees of grammatical status. Consider, for instance, the grammatical part of the so-
called 'verb-to-affix cline' in 62, discussed by Hopper and Traugott (2003:111–14).

(62) (vector verb >) auxiliary > clitic > affix

Any change that proceeds from left to right (e.g. from auxiliary to clitic) is a case of
continued grammaticalization, and any change that proceeds from right to left (e.g.
from affix to clitic) is a case of degrammaticalization. Any change that does not make
any progression on the cline (e.g. a change from one auxiliary to another, distinct auxil-
iary) would be a case of regrammaticalization. In a synchronic interpretation, 62 repre-
sents a ranking of grammatical expressions in terms of degree of grammatical status:
auxiliaries are taken to be less grammatical than clitics, which in turn are taken to be
less grammatical than affixes.

As conceived of in the literature, the distinction between different degrees of gram-
matical status often seems to be entirely based on preconceptions about grammatical
expressions.[17] Theoretical arguments for conceiving of affixes as more grammatical
than auxiliaries have to our knowledge never been given. Auxiliaries may give rise to
affixes, and not vice versa, but the conception of the developments in which they do so
as cases of continued grammaticalization—a case of change from grammatical to more
grammatical—appears to be entirely a result of the fact that affixes are better (in the
sense of 'more uncontroversial') examples of grammatical expressions than auxiliaries
(cf. the proliferation of terms like 'semi-auxiliaries' for cases of grammatical verbs that
are not uncontroversial). Similarly, Kuryłowicz's (1965:69) view of inflectional affixes
as being more grammatical than derivational ones is theoretically hollow.

In practice, degree of grammatical status is typically linked to (some of) the features
discussed in §7: a grammatical expression is seen as more grammatical than another
one if it is more bound, more phonologically reduced, more semantically reduced, or if
it belongs to a more closed class. For instance, the main argument for identifying the
change of the Estonian question-marking suffix -s into the question-marking word *es* as
a case of degrammaticalization (Campbell 1991, 2001:128) is that the latter is con-
ceived of as less bound than the former. As discussed, however, phonological reduction,
semantic reduction, and so forth are not found exclusively with grammatical expres-
sions, and as long as they are not linked theoretically to grammatical status and gram-
maticalization, any use of the features as diagnostics is unwarranted.

---

[17] Accordingly, some scholars avoid the distinction altogether. Notably, when Andersen (2006, 2008) talks
about 'regrammation' and 'degrammation', he is not concerned with degree of grammatical status, but with
development of new grammatical meaning and loss of grammatical meaning, respectively.

The basic problem is that in the absence of a theory of what it means to be grammatical, any claim that one grammatical expression synchronically is more or less grammatical than another one or gives rise to an expression that is more or less grammatical than itself is empty.

The proposed theory offers a solution to the problem. As discussed in §7, it provides a link between grammatical status and grammaticalization on the one hand and features like boundness, phonological reduction, and semantic reduction on the other. With the theory, there is thus a theoretical basis for talking about grammatical expressions that are more bound, more phonologically reduced, or more semantically reduced than others as 'being more grammatical', at least in the sense of 'showing more features potentially motivated by grammatical status'. For instance, affixes can be claimed to be more grammatical than auxiliaries on the grounds (i) that they are more bound, and (ii) that boundness is motivated by conventional secondary status. That is, affixes are more grammatical than auxiliaries at least in the sense that they show MORE SYMPTOMS of being grammatical. Caution is warranted, however. Since, as discussed, the relevant features are found also with lexical expressions (and thus only POTENTIALLY motivated by grammatical status), they are not diagnostic symptoms (as opposed to nonfocalizability and nonaddressability; cf. §3.4). It cannot be taken for granted that showing more symptoms is always equivalent to being more grammatical.

With a theoretical anchoring of degree of grammatical status, the distinction between continued grammaticalization, regrammaticalization, and degrammaticalization into a less grammatical expression is no longer hollow. The three types of changes may be distinguished in terms of the changes in amount of symptomatic features they lead to (whether the output of the change has more, less, or the same amount as the input). It is not obvious to us that all changes that are accepted as cases of degrammaticalization in the literature are actually valid cases in this theoretically qualified sense. Consider, for instance, the change in English from the genitive marker -s attaching to noun stems to attaching to the outermost element of an NP. This change is seen by, for instance, Campbell (2001:127–29) and Norde (2001:247–56, 2009:4) as a case of degrammaticalization, a change from affix to clitic. But it is not obvious that the change involves any change in quantity of symptoms of grammatical status (including 'degree of boundness', whatever that might be).

8.2. DEGRAMMATICALIZATION. Degrammaticalization basically consists in a change in which a grammatical expression gives rise either to a lexical expression or to a 'less grammatical' expression. However, the definitions of degrammaticalization found in the literature differ with respect to details. Norde (2009) requires that the output of degrammaticalization preserves both the identity of the construction that includes the expression undergoing degrammaticalization and the identity of the place of the expression in that construction. Andersen (2008) in his definition of what he calls 'degrammation' does not require anything like that.

The subcases of degrammaticalization that result in a (less) grammatical expression were discussed in §8.1. Here, we focus on those subcases that result in a lexical expression. A case in point is the Welsh development in 63 in which the originally adpositional phrase *yn ol* 'after, fetch' is reinterpreted as a verb and subsequently reduced to *nôl* 'fetch' (Norde 2009:4, referring to Willis 2007:294, 297).

(63) Yna yd   aeth y gweisson **yn ol** y   varch a   'e arueu   y Arthur.
     then PTCP went the lads   after his horse and his weapons for Arthur
        'Then the lads went after/went to fetch his horse and his weapons for
        Arthur.'

>
Nolwch   y   Brenin i 'w   examnio.[18]
fetch.2PL.IMP the king   to 3SG.M examine.INF
       'Fetch the king to be cross-examined.'

Existing discussions of cases like 63 suffer from the by now familiar problem that they lack a clear theory about what it means to be a grammatical expression. As in the case of the change from affix to auxiliary, there is no theoretically based way to classify the change from adposition to verb as a case of degrammaticalization. In her discussion of degrammaticalization, Norde (2009) relies on features traditionally associated with grammatical expressions like those discussed in §7, but there is no attempt to relate these features theoretically to grammatical status, and as argued in §7, the features are not diagnostic.

Degrammaticalization into a lexical expression falls outside grammaticalization by the definition given in §3. Still, the proposed theory may help to throw light on the phenomenon. To begin with, the theory provides a theoretical basis for talking about degrammaticalization in the first place. Second, the tests discussed in §3.4 provide a means of diagnosing cases of degrammaticalization: a diachronic change can be classified as a case of degrammaticalization into a lexical expression if the output of the change can in actual communication be used with primary status, while the input to the change cannot. Third, the theory entails a crucial difference between changes from lexical to grammatical and changes from grammatical to lexical that may serve to motivate why, as acknowledged also by Norde (2009), the latter are relatively infrequent. By the theory, change from lexical to grammatical is natural and expected in the sense that it exploits the potential of lexical expressions to have discursively secondary status, and simply consists in the conventionalization of this status. In contrast, change from grammatical to lexical may be considered unnatural: the change from being by convention secondary to being by convention potentially primary requires that conventions are overridden in actual language use.

9. LEXICALIZATION AND CONSTRUCTIONALIZATION. Construction grammar raises a challenge for the theory proposed above. The constructional format of description cuts across the distinction between lexical and grammatical units, and the changes whereby constructions arise have elements both of lexicalization and grammaticalization. We believe, however, that our theory can throw light on the differences between these two types of change, while maintaining awareness of the shared features. In the following, we take up two points: first, the issue of how to distinguish between lexicalization and grammaticalization in the rise of constructions, and second, the relation between what we referred to in §5 as standard cases of grammaticalization (i.e. the development of grammatical expressions from lexical expressions) and what has been referred to as 'constructionalization'.

As pointed out in the literature (e.g. Lehmann 2002b:1, Brinton & Traugott 2005:89–90, Fischer 2007:226–29), grammaticalization is similar to lexicalization in that both are changes whereby a new conventional expression arises—and both may involve reduction, phonological and morphosyntactic as well as semantic. Fischer mentions the development of *cupboard* as an example of lexicalization that involves reduction. Semantically, the meaning 'cup' has disappeared; phonologically, /p/ has disappeared, and

---

[18] Abbreviations: INF: infinitive, M: masculine, PL: plural, PTCP: participle, SG: singular.

so forth. This is fully in harmony with our account, where reduction is not criterial for grammaticalization.

However, it leaves the question of how to tell lexical expressions and lexicalization from grammatical expressions and grammaticalization. Fischer's proposal focuses on 'schematicity' and more precisely on the difference between (in her terms) token and type: lexical expressions are understood as tokens alone, while grammar involves types (i.e. classes like 'adjective'). But Fischer herself points out that her approach does not always provide a clear-cut criterion (2007:229). Thus the development of *going to* and later *gonna* as auxiliaries, which is among the standard examples of grammaticalization, involves the development of what in Fischer's terms is a token (*going to* and later *gonna*)—in her terms, a lexical element—as well as abstract types (*be* as well as an infinitive, both of which are necessary accompaniments of *going to*). For such cases, where both tokens and abstract types are involved, Fischer invokes the standard criteria (boundness, etc.) in a version adapted from Lehmann 1985 (Fischer 2007:118), and these criteria do not make clear what precisely qualifies as an example of grammaticalization rather than lexical change (cf. §7 above). The problem with Fischer's approach is evident in her discussion of the change of Old English *hwilum* into the connective *while*. Fischer is reluctant to class this change as grammaticalization, because she sees Brinton and Traugott's (2005) 'decategorialization' account as depending on 'a too facile distinction between lexical and functional material' (Fischer 2007:229). We see our theory as providing a new rationale for Brinton and Traugott's account: when it develops into a connective, *while* is conventionalized with a discursively secondary role (in relation to the clauses linked by the connective). In our view, lexicalization and grammaticalization are both instances of conventionalization; both create a new linguistic expression. The only difference is that grammaticalization results in an expression that is by convention discursively secondary (see also below on Lehmann 2002b, 2004).

We now turn to the relation between standard cases of grammaticalization and the rise of constructions. In grammaticalization studies, the need to consider the whole construction was stressed already by Lehmann (1982), but construction grammar has brought about an increasing focus on the issue (cf. the programmatic formulation in Bergs & Diewald 2008:3). Although the modern concept of construction has provided an illuminating new generalization that unites previously disparate aspects, there is also a potential source of confusion in the fact that the term 'construction' has been generalized from the classic sense of 'pattern' to all expressions, all 'form-meaning pairs' (cf. Goldberg 2006:3). Even if we maintain focus on the core sense in which the construction means the larger syntagmatic whole, there is still a risk of a too undifferentiated approach. As pointed out by Traugott (2008:34), the 'holistic' focus may detract attention from the complexity of which the overarching construction in itself is only one part.

This risk manifests itself, for instance, in Trousdale 2008:54: 'It is important to stress the constructional nature of the process of grammaticalization ... grammaticalization applies ... to the construction as a whole'. As we saw above, however, the emergence of a construction may also involve lexicalization: 'As constructions grammaticalize, they become more schematic; as they lexicalize, they become more idiom-like' (Trousdale 2008:59). The holistic approach offers an account of 'where grammar and lexis meet' (cf. Brinton 2008, Trousdale 2008:58, citing Algeo 1995)—but no clear way of telling them apart.

The theory proposed here, in contrast, provides an account of both the changes that affect the whole construction and the changes that affect individual units within it. We use the term CONSTRUCTIONALIZATION for the overarching change into a new whole con-

struction. Within it, several more specific developments may occur. With respect to the rise of a fully schematic construction, see §5.2. With respect to constructions that are less schematic—that is, constructions that are bound up with specific fillers—two things may happen. First, constructionalization can occur without grammaticalization of a lexical expression (cf. §5.2). Second, constructionalization may go hand in hand with the grammaticalization of a lexical expression. In our standard example, the grammaticalization of *going to* into an auxiliary is bound up with the rise of a whole new construction of which it forms part (cf. Hopper & Traugott 1993:82). In addition to the change in *going* from verb of movement to prospective marker, the full construction includes two other syntagmatically associated elements: a form of *be* that goes before it, and a *to*-infinitive form that comes after (as an obligatory feature of the verb that conveys the main lexical content). Two grammaticalization changes may thus be seen to go hand in hand: the rise of the new auxiliary *going to*, and the rise of the new schematic construction BE *going to* + V, both by convention discursively secondary.

The constant element in all cases is constructionalization—that is, the rise of a whole construction. It may be combined with standard cases of grammaticalization, or with lexicalization, or it may occur on its own. Standard cases of grammaticalization (i.e. grammaticalization of a lexical expression), conversely, cannot occur except as part of constructionalization: an expression never becomes grammaticalized in one fell swoop across all construction types (cf. the lexical status of *going to* in front of place names like *Rome*).

This, we claim, is the precise sense in which the construction is central to grammaticalization—and that sense can only be made clear if you have a precise definition of what constitutes grammaticalization. Otherwise, the phrase 'where grammar and lexis meet' has no precise meaning.

Our position is close to that of Lehman (2004:168), who sums up his view by saying that 'grammaticalization pushes a sign into the grammar, while lexicalization pushes it into the lexicon', and explicitly links up the synchronic and diachronic dimensions in an integrated theory of grammar and grammaticalization.[19] In a two-dimensional diagram (Lehmann 2002b:3, 2004:168–69), the cline from grammar to lexicon is one dimension, while hierarchical level is the other dimension (thus a collocation may turn into a complex, lexically loaded construction, while fusion such as *hussy* out of *housewife* creates a new simplex word). As indicated above, his theory similarly views the change affecting the whole construction as the only constant element, while the rise of a new grammatical word or morpheme is optional (Lehmann 2002b:15).

Nevertheless, we think that our account has an advantage in its clearer separation of constructionalization and delexicalization as two linked, but distinct types of development. Lehmann repeatedly describes grammaticalization as moving 'downward'—that is, toward the inflectional corner of his diagram (Lehmann 2002b:15, 2004:168–69). This suggests that he understands the role of constructionalization as 'setting the stage' for the standard (and still central) development that leads toward inflectional morphemes. In contrast, our account focuses on the creation of conventionally secondary and thus ancillary expressions (whether constructions, words, or morphemes) as the

---

[19] Lehmann (2004:155), however, defines grammaticalization as involving a sign losing autonomy and becoming more subject to constraints of the linguistic system (cf. the arguments against boundness as a criterion of grammatical status in §§2 and 7.1). Our theory can be viewed as a narrowed-down version of his: what we claim is that only the loss of autonomy that follows from secondariness ('second violins do not come alone') counts as a criterion of grammaticalization.

defining feature of grammaticalization. Moreover, it suggests an additional function for the whole construction: it provides the frame for the competition that the emerging grammatical word or morpheme is in the process of losing—as when a complement construction ends up as a construction involving an auxiliary plus a main verb.

10. THE PLACE OF OUR PROPOSAL IN THE GRAMMATICALIZATION LITERATURE. Grammaticalization has grown into a vast and sprawling area, and it is not possible in a journal article to provide an account of how precisely our 'ancillariness' theory relates to all of the literature. We try instead to give a bird's eye view of where the theory belongs in the field as a whole.

Beginning at the most general level, Rosenkvist (2006) has provided a useful overview of approaches to grammaticalization, distinguishing between three main trends. The first (GramE) is the broad tradition from Meillet and Kuryłowicz, which he calls the 'empirical' approach because it does not do much more than point to the existence of the phenomenon and instantiations of it, without positing any theoretical assumptions about it. Its central feature is that it describes a range of changes that involve more or less of the features that were discussed in §7. The second is the modern functionalist approach (GramT for 'theory'), which focuses on grammaticalization as a way of showing the dependence of grammatical expressions on meaning and discourse and puts on the agenda a number of general claims including unidirectionality, the existence of a limited number of crosslinguistically frequent paths, and suggested phases of pragmatic strengthening alternating with semantic bleaching (e.g. Traugott 1989). The third kind is a more recent development by formally oriented linguists (GramS for syntax), including Roberts and Roussou (2003). A central interest is in showing the extent to which grammatical change can be viewed as reflecting the pressure to simplify syntactic structures.

Our proposal situates itself in continuation of the modern functionalist discussion (GramT), both by taking its point of departure in usage phenomena and by addressing the issue at a theoretical level. Within this tradition, one can roughly distinguish between two orientations, one with a focus on the basis in language use and one with a focus on semantically oriented generalizations. The first of these, representing what has been called 'West Coast functionalism', played a major role in putting grammaticalization on the map as something that contradicts the theoretical chasm between structure on the one hand and discourse on the other. Two major positions in this tradition are part of the foundation we build on: Givón's illustration of how 'today's syntax is yesterday's discourse pattern' (1979:209) and Hopper's (1991:33) emphasis on how 'the same' word may occur sometimes in lexical uses and sometimes in grammatical uses. When we say that expressions may serve an ancillary function in discourse, and that ancillary status sometimes becomes part of the structure of language, we are echoing central claims of both Givón and Hopper.

The other focus, on semantic generalizations, is also part of our foundations. On one point, however, it is at odds with our key theoretical claim, since we offer our proposal as an alternative to theories that try to define grammatical status and grammaticalization in terms of specific semantic characteristics. Once the case has been made for that (from our point of view) crucial point, it is clear that there is a close affinity between the relevant semantic characteristics and the ancillary status we argue for. As argued in §7.3, semantic reduction can be motivated by the ancillary status of grammatical expressions—there is a natural relationship between losing prominence and losing semantic substance. However, the two things can occur independently of each other, and it is

only the kind of bleaching that is associated with secondary status that is characteristic of grammaticalization (cf. also Traugott 1988:408). The notion of 'strengthening', as in 'pragmatic strengthening' (cf. Traugott 1988), might at first glance appear to be at odds with our central notion of discursively secondary status, but this is not the case for the kind of meanings Traugott is interested in, which involve a 'situating' relation to the text or to the speaker. While the meaning of an expression becomes enriched when these previously purely situational interpretations become conventionalized, this kind of meaning is not a candidate for primary status. When Old English *hwilum* (cf. Traugott 1988:407) turns into the temporal connective *while*, thereby strengthening its textual meaning, the new meaning is by convention secondary. This is not to say that pragmatically inferred meanings can never be lexical (cf. the development whereby *corn* comes to mean 'maize' in America)—it is the 'situating' meaning that is naturally secondary to the meaning that it situates. Traugott's theory entails that bleaching, where it occurs, is a later stage than pragmatic strengthening—and this would fit into our account in the following way: once an inherently ancillary meaning (such as the connective meaning of *while*) has become conventional, the next stage may be that this meaning takes over from the potentially primary meaning as the raison d'etre for using the word. When the potentially primary meaning disappears, the word goes from being a part-time secondary to being a full-time secondary, as it were, thus becoming fully grammaticalized (cf. §5.1).

This can also throw light on the sense in which our theory is congenial with key elements of theories that in our view are not sufficient in themselves, including Diewald's (2010) theory that grammatical items are characteristic by being 'weakly deictic', and Nicolle's (1998) theory that grammatical elements are procedural. Like bleached and pragmatically recruited meanings, deictic and procedural meanings are obvious candidates for being ancillary. Deictic (indexical) meanings have the natural function (cf. Deacon 2003) of providing a situational anchor for the symbolic meaning that serves as the focal point—the only exception to this is STRONG deictic meaning, which may constitute the focal point, when it is the situational location that is the issue (*he's here!*). (Purely) procedural meanings are almost by definition ancillary, since (in relevance theory) their purpose is to pave the way for the propositional content (the 'explicature').

It should be emphasized that other authors have introduced notions closely related to what we mean by discursively secondary and discursively primary. The list includes Myhill (1988:261), who sets up a distinction between morphemes that function as 'nucleus', which conveys 'information of central importance', and morphemes that are 'satellites', which convey peripheral information; Talmy (2007:267; cf. Talmy 2000:76–84), who speaks of 'attentional backgrounding' of grammatical expressions; Croft (2001:259), who speaks of lexical heads as 'primary information-bearing units'; and Dixon (2006: 11), who distinguishes between primary and secondary concepts. The intuition on which we build is thus far from new, but previous accounts all tend to see their categories as two inherently different classes of expressions (whether in terms of semantic content or discourse function). We believe we have supplied an account of the usage-based pathway from primary to secondary status, and a theory that covers both the diachronic relation and the synchronic difference of status between lexical and grammatical expressions.

Our theory includes many of the standard assumptions about grammaticalization and language change, including the frequent claim that all semantic changes can occur equally in lexical change and grammaticalization (including metaphor, metonymy, extension, and narrowing). We suggest the conventional ancillary relation, and the development of this relation, not as something that replaces the points made by all the other accounts, but as something that makes them fall into place.

11. CONCLUSION: THE MISSING LINK? The theory that we have presented does not radically change everything we know about grammar and grammaticalization. What it does is to incorporate core elements of existing assumptions into a unified understanding that has until now not been available.

The critical factor in the theory we offer is the functional link between conventional discursively secondary status and structural differentiation. The prevailing focus on individual expressions and on development away from full lexical status casts the development of grammatical status in the role of a form of loss. If instead we focus on the new relation that comes into being whereby one linguistic expression assumes the role of structural sidekick for the other, it becomes clear that the output is functionally enriched. The point is to look not at the single expression but at the combination of the grammaticalized expression and the expression to which it is attached.

If we assume that this combination is what makes grammatical expressions 'weaker' than lexical expressions, while it makes the combination of lexical and grammatical expressions more powerful than isolated lexical expressions, we may perhaps venture to speculate why such a unified account has not been reached before, in spite of the related proposals that we have cited in the discussion. We believe the crux of the matter lies in the polarization of the issue of structure. Two dominant positions have divided the field in such a way that the most salient positions either separated structure radically from other aspects of language, or, on the contrary, sought to challenge all dividing lines that appeared to give structure an unwarranted special status. We have tried to show that the development whereby elements acquire grammatical status has to be understood by combining discourse and structure, recognizing at the same time that structure emerges from usage and that once emerged, structural facts are not reducible to usage facts.

We see our proposal, therefore, as providing the missing link in the familiar, traditional picture. It is by no means all there is to say about grammatical status and grammaticalization—but all there ALWAYS is to say.

REFERENCES

AARTS, BAS. 2007. *Syntactic gradience: The nature of grammatical indeterminacy*. Oxford: Oxford University Press.

ALGEO, JOHN. 1995. Having a look at the expanded predicate. *The verb in contemporary English*, ed. by Bas Aarts and Charles F. Meyer, 203–17. Cambridge: Cambridge University Press.

ANDERSEN, HENNING. 2006. Grammation, regrammation, and degrammation: Tense loss in Russian. *Diachronica* 23.231–58.

ANDERSEN, HENNING. 2008. Grammaticalization in a speaker-oriented theory of change. *Grammatical change and linguistic theory*, ed. by Thórhallur Eythórsson, 11–44. Amsterdam: John Benjamins.

ANDERSEN, HENNING. 2010. From morphologization to demorphologization. *The Continuum companion to historical linguistics*, ed. by Silvia Luraghi and Vit Bubenik, 117–46. London: Continuum.

BERGS, ALEXANDER, and GABRIELE DIEWALD. 2008. Contexts and constructions. *Constructions and language change*, ed. by Alexander Bergs and Gabriele Diewald, 1–14. Berlin: Mouton de Gruyter.

BOHNEMEYER, JÜRGEN. 2009. Temporal anaphora in a tenseless language. *The expression of time*, ed. by Wolfgang Klein and Ping Li, 83–128. Berlin: Mouton de Gruyter.

BOLINGER, DWIGHT. 1968. *Aspects of language*. New York: Harcourt.

BOLINGER, DWIGHT. 1980. *Wanna* and the gradience of auxiliaries. *Wege zur Universalienforschung: Sprachwissenschaftliche Beiträge zum 60. Geburtstag von Hansjakob Seile*, ed. by Gunter Brettschneider and Christian Lehmann, 292–99. Tübingen: Gunter Narr.

BOYE, KASPER. 2010. Raising verbs and auxiliaries in a functional theory of grammatical status. *Language usage and language structure*, ed. by Kasper Boye and Elisabeth Engberg-Pedersen, 73–104. Berlin: Mouton de Gruyter.

BOYE, KASPER, and PETER HARDER. 2007. Complement-taking predicates: Usage and linguistic structure. *Studies in Language* 31.569–606.

BOYE, KASPER, and PETER HARDER. 2009. Evidentiality: Linguistic categories and grammaticalization. *Functions of Language* 16.9–43.

BRINTON, LAUREL J. 2008. 'Where grammar and lexis meet': Composite predicates in English. *Theoretical and empirical issues in grammaticalization*, ed. by Elena Seoane and María Jóse López-Couso, 33–53. Amsterdam: John Benjamins.

BRINTON, LAUREL J., and ELIZABETH CLOSS TRAUGOTT. 2005. *Lexicalization and language change*. Cambridge: Cambridge University Press.

BRUGMANN, KARL, and BERTHOLD DELBRÜCK. 1911. *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*. Strassburg: Teubner.

BÜHLER, KARL. 1934. *Sprachtheorie*. Jena: Fischer.

BUNDESEN, CLAUS. 1990. A theory of visual attention. *Psychological Review* 97.523–47.

BYBEE, JOAN L. 1985. On the nature of grammatical categories. *Eastern States Conference on Linguistics (ESCOL)* 2.17–34.

BYBEE, JOAN L. 1994. The grammaticalization of zero: Asymmetries in tense and aspect systems. *Perspectives on grammaticalization*, ed. by William Pagliuca, 235–54. Amsterdam: John Benjamins.

BYBEE, JOAN; REVERE PERKINS; and WILLIAM PAGLIUCA. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

CAMPBELL, LYLE. 1991. Some grammaticalization changes in Estonian. In Traugott & Heine, vol. 1:285–99.

CAMPBELL, LYLE. 2001. What's wrong with grammaticalization? *Language Sciences* 23. 113–61.

CLARK, HERBERT H. 1996. *Using language*. Cambridge: Cambridge University Press.

COMRIE, BERNARD. 1976. *Aspect*. Cambridge: Cambridge University Press.

CROFT, WILLIAM A. 2000. *Explaining language change: An evolutionary approach*. London: Longman.

CROFT, WILLIAM A. 2001. *Radical construction grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.

CROFT, WILLIAM A. 2003. *Typology and universals*. 2nd edn. Cambridge: Cambridge University Press.

CRYSTAL, DAVID. 2008. *A dictionary of linguistics and phonetics*. 2nd edn. Oxford: Blackwell.

DAHL, ÖSTEN. 2004. *The growth and maintenance of linguistic complexity*. Amsterdam: John Benjamins.

DAVIDSEN-NIELSEN, NIELS. 1990. *Tense and mood in English: A comparison with Danish*. Berlin: Mouton de Gruyter.

DEACON, TERRENCE. 2003. Universal grammar and semiotic constraints. *Language evolution*, ed. by Morten H. Christiansen and Simon Kirby, 111–39. Oxford: Oxford University Press.

DIDERICHSEN, PAUL. 1946. *Elementær dansk grammatik*. Copenhagen: Gyldendal.

DIESSEL, HOLGER. 1999. *Demonstratives: Form, function, and grammaticalization*. Amsterdam: John Benjamins.

DIESSEL, HOLGER. 2006. Demonstratives, joint attention, and the emergence of grammar. *Cognitive Linguistics* 17.463–89.

DIEWALD, GABRIELE. 2006. Context types in grammaticalization as constructions. *Constructions all over: Case studies and theoretical implications* (Special issue of *Constructions* 1), ed. by Doris Schönefeld, 1–29.

DIEWALD, GABRIELE. 2010. On some problem areas in grammaticalization theory. *Grammaticalization: Current views and issues*, ed. by Katerina Stathi, Elke Gehweiler, and Ekkehard König, 17–50. Amsterdam: John Benjamins.

DIK, SIMON. 1997. *The theory of functional grammar*, vols. 1–2. Berlin: Mouton de Gruyter.

DIXON, R. M. W. 2006. Complement clauses and complementation strategies in typological perspective. *Complementation*, ed. by R. M. W. Dixon and Alexandra Y. Aikhenvald, 1–48. Oxford: Oxford University Press.

DUCROT, OSWALD. 1972. *Dire et ne pas dire: Principes de semantique linguistique*. Paris: Hermann.

EGAN, THOMAS. 2010. The *'fail to'* construction in Late Modern and Present-Day English. *English historical linguistics 2008, vol. 1: The history of English verbal and nominal constructions*, ed. by Ursula Lenker, Judith Huber, and Robert Mailhammer, 123–41. Amsterdam: John Benjamins.

ENGBERG-PEDERSEN, ELISABETH; MICHAEL FORTESCUE; PETER HARDER; LISBETH F. JAKOBSEN; and LARS HELTOFT. 1996. *Content, expression and structure: Studies in Danish functional grammar*. Amsterdam: John Benjamins.

ERTESCHIK-SHIR, NOMI. 2007. *Information structure*. Oxford: Oxford University Press.

EVANS, VYVYAN. 2009. Semantic representation in LCCM theory. *New directions in cognitive linguistics*, ed. by Vyvyan Evans and Stephanie Pourcel, 27–55. Amsterdam: John Benjamins.

EVANS, VYVYAN, and MELANIE GREEN. 2006. *Cognitive linguistics: An introduction*. Edinburgh: Edinburgh University Press.

FISCHER, OLGA. 2007. *Morphosyntactic change: Functional and formal perspectives*. Oxford: Oxford University Press.

FRAUENFELDER, ULI H., and ROBERT SCHREUDER. 1992. Constraining psycholinguistic models of morphological processing and representation: The role of productivity. *Yearbook of Morphology* 1991.165–83.

FRONEK, JOSEF. 1982. *Thing* as a function word. *Linguistics* 20.633–54.

GIVÓN, TALMY. 1979. *On understanding grammar*. New York: Academic Press.

GOLDBERG, ADELE E. 2006. *Constructions at work: The nature of generalization in language*. Oxford: Oxford University Press.

GREENBERG, JOSEPH H. 1991. The last stages of grammatical elements: Contractive and expansive desemanticization. In Traugott & Heine, vol. 1:301–14.

HARDER, PETER. 2007. Shaping the interactive flow: Language as input, process and product. *Acta Linguistica Hafniensia* 39.7–36.

HARDER, PETER, and OLE TOGEBY. 1993. Pragmatics, cognitive science and connectionism. *Journal of Pragmatics* 20.467–92.

HASPELMATH, MARTIN. 2004. On directionality in language change with particular reference to grammaticalization. *Up and down the cline: The nature of grammaticalization*, ed. by Olga Fischer, Muriel Norde, and Harry Perridon, 17–44. Amsterdam: John Benjamins.

HEINE, BERND; ULRIKE CLAUDI; and FRIEDERIKE HÜNNEMEIER. 1991. *Grammaticalization: A conceptual framework*. Chicago: University of Chicago Press.

HEINE, BERND, and TANIA KUTEVA. 2002. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.

HEINE, BERND, and TANIA KUTEVA. 2007. *The genesis of grammar: A reconstruction*. Oxford: Oxford University Press.

HEINE, BERND, and MECHTHILD REH. 1984. *Grammaticalization and reanalysis in African languages*. Hamburg: Buske.

HENGEVELD, KEES, and J. LACHLAN MACKENZIE. 2008. *Functional discourse grammar: A typologically-based theory of language structure*. Oxford: Oxford University Press.

HOPPER, PAUL J. 1991. On some principles of grammaticalization. In Traugott & Heine, vol. 1:17–35.

HOPPER, PAUL J., and ELIZABETH CLOSS TRAUGOTT. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.

HOPPER, PAUL J., and ELIZABETH CLOSS TRAUGOTT. 2003. *Grammaticalization*. 2nd edn. Cambridge: Cambridge University Press.

HUDDLESTON, RODNEY. 1976. Some theoretical issues in the description of the English verb. *Lingua* 40.331–83.

HUDDLESTON, RODNEY, and GEOFFREY PULLUM. 2002. *The Cambridge grammar of the English language*. Cambridge: Cambridge University Press.

JANDA, RICHARD D. 2001. Beyond 'pathways' and 'unidirectionality': On the discontinuity of language transmission and the counterability of grammaticalization. *Language Sciences* 23.265–340.

JOSEPH, BRIAN D. 2001. Is there such a thing as 'grammaticalization'? *Language Sciences* 23.163–86.

KIPARSKY, PAUL. 2005. Grammaticalization as optimization. Stanford, CA: Stanford University, MS. Online: http://www.stanford.edu/~kiparsky/Papers/yalegrammaticalization.pdf.

KLIMA, GYULA. 2005. Syncategoremata. *Encyclopedia of language and linguistics*, 2nd edn., ed. by E. Keith Brown, 353–56. Oxford: Elsevier.

KURYŁOWICZ, JERZY. 1975 [1965]. The evolution of grammatical categories. *Esquisses linguistiques, vol. 2*, 38–54. Munich: Wilhelm Fink. [Originally published in *Diogenes* 51.55–71, 1965.]

LADD, D. ROBERT. 1980. *The structure of intonational meaning: Evidence from English.* Bloomington: Indiana University Press.

LADD, D. ROBERT. 2008. *Intonational phonology.* 2nd edn. Cambridge: Cambridge University Press.

LAMBRECHT, KNUD. 1994. *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents.* Cambridge: Cambridge University Press.

LANGACKER, RONALD W. 2008. *Cognitive grammar: A basic introduction.* Oxford: Oxford University Press.

LEHMANN, CHRISTIAN. 1982. *Thoughts on grammaticalization: A programmatic sketch*, vol. 1. Köln: Universität zu Köln.

LEHMANN, CHRISTIAN. 1985. Grammaticalization: Synchronic variation and diachronic change. *Lingua e stile* 20.303–18.

LEHMANN, CHRISTIAN. 1992. Word order change by grammaticalization. *Internal and external factors in syntactic change*, ed. by Marinel Garritsen and Dieter Stein, 395–416. Berlin: Mouton de Gruyter.

LEHMANN, CHRISTIAN. 2002a. *Thoughts on grammaticalization.* 2nd edn. Erfurt: Seminar für Sprachwissenschaft der Universität.

LEHMANN, CHRISTIAN. 2002b. New reflections on grammaticalization and lexicalization. *New reflections on grammaticalization*, ed. by Ilse Wischer and Gabriele Diewald, 1–18. Amsterdam: John Benjamins.

LEHMANN, CHRISTIAN. 2004. Theory and method in grammaticalization. *Zeitschrift für germanistische Linguistik* 32.152–87.

LEHMANN, CHRISTIAN. 2008. Information structure and grammaticalization. *Theoretical and empirical issues in grammaticalization*, ed. by Elena Seoane and María Jóse López-Couso, 207–29. Amsterdam: John Benjamins.

LEWIS, DAVID. 1969. *Convention: A philosophical study.* Cambridge, MA: Harvard University Press.

LOCKWOOD, WILLIAM B. 1968. *Historical German syntax.* Oxford: Clarendon.

LYONS, JOHN. 1968. *Introduction to theoretical linguistics.* Cambridge: Cambridge University Press.

MATTHEWS, PETER H. 2007. *Oxford concise dictionary of linguistics.* 2nd edn. Oxford: Oxford University Press.

MEILLET, ANTOINE. 1958 [1912]. L'évolution des formes grammaticales. *Linguistique historique et linguistique générale*, 130–48. Paris: Champion. [Originally published in *Scientia* 12.384–400, 1912.]

MYHILL, JOHN. 1988. Categoriality and clustering. *Studies in Language* 12.261–97.

NEWMEYER, FREDERICK J. 2001. Deconstructing grammaticalization. *Language Sciences* 23.187–229.

NICOLLE, STEVE. 1998. A relevance theory perspective on grammaticalization. *Cognitive Linguistics* 9.1–35.

NORDE, MURIEL. 2001. Deflexion as a counterdirectional factor in grammatical change. *Language Sciences* 23.231–64.

NORDE, MURIEL. 2009. *Degrammaticalization.* Oxford: Oxford University Press.

PALMER, FRANK R. 1986. *Mood and modality.* Cambridge: Cambridge University Press.

POSNER, ROLAND. 1972. *Theorie des Kommentierens: Eine Grundlagenstudie zur Semantik und Pragmatik.* Frankfurt am Main: Athenäum.

PUTNAM, HILARY. 2001. *Enlightenment and pragmatism.* Amsterdam: Koninklijke van Gorcum.

ROBERTS, IAN, and ANNA ROUSSOU. 2003. *Syntactic change: A minimalist approach to grammaticalization.* Cambridge: Cambridge University Press.

ROOTH, MATS. 1992. A theory of focus interpretation. *Natural Language Semantics* 1.75–116.

ROSENKVIST, HENRIK. 2006. Fyra vyer av begreppet grammatikalisering. *Vetenskapssocieteten i Lund årsbok* 2006.1–17.

ROSS, JOHN ROBERT. 1969. Auxiliaries as main verbs. *Studies in philosophical linguistics*, ed. by William Todd, 77–102. Evanston, IL: Great Expectations.

SEARLE, JOHN R. 1995. *The construction of social reality*. Harmondsworth: Penguin.

SCHMERLING, SUSAN F. 1976. *Aspects of English sentence stress*. Austin: University of Texas Press.

SLOBIN, DAN I. 1997. The origins of grammaticizable notions: Beyond the individual mind. *The crosslinguistic study of language acquisition, vol. 5: Expanding the contexts*, ed. by Dan I. Slobin, 265–323. Mahwah, NJ: Lawrence Erlbaum.

SPERBER, DAN, and DEIRDRE WILSON. 1995. *Relevance: Communication and cognition*. 2nd edn. Oxford: Blackwell.

TALMY, LEONARD. 2000. *Toward a cognitive semantics*, vols. 1–2. Cambridge, MA: MIT Press.

TALMY, LEONARD. 2007. Attention phenomena. *Handbook of cognitive linguistics*, ed. by Dirk Geeraerts and Hubert Cuyckens, 264–93. Oxford: Oxford University Press.

THOMPSON, SANDRA A., and ANTHONY MULAC. 1991. A quantitative perspective on the grammaticalization of epistemic parentheticals in English. In Traugott & Heine, vol. 2:313–29.

TRASK, ROBERT L. 1993. *A dictionary of grammatical terms in linguistics*. London: Routledge.

TRAUGOTT, ELIZABETH CLOSS. 1980. Meaning-change in the development of grammatical markers. *Language Sciences* 2.44–61.

TRAUGOTT, ELIZABETH CLOSS. 1982. From propositional to textual to expressive meanings: Some semantic-pragmatic aspects of grammaticalization. *Perspectives in historical linguistics*, ed. by Winfred P. Lehmann and Yakov Malkiel, 245–71. Amsterdam: John Benjamins.

TRAUGOTT, ELIZABETH CLOSS. 1988. Pragmatic strengthening and grammaticalization. *Berkeley Linguistics Society* 14.406–14.

TRAUGOTT, ELIZABETH CLOSS. 1989. On the rise of epistemic meanings in English: An example of subjectification. *Language* 65.31–55.

TRAUGOTT, ELIZABETH CLOSS. 2003. Constructions in grammaticalization. *The handbook of historical linguistics*, ed. by Brian D. Joseph and Richard D. Janda, 624–47. Oxford: Blackwell.

TRAUGOTT, ELIZABETH CLOSS. 2008. The grammaticalization of NP of NP patterns. *Constructions and language change*, ed. by Alexander Bergs and Gabriele Diewald, 23–45. Berlin: Mouton de Gruyter.

TRAUGOTT, ELISABETH CLOSS, and BERND HEINE (eds.) 1991. *Approaches to grammaticalization*, vols. 1–2. Amsterdam: John Benjamins.

TROUSDALE, GRAEME. 2008. Constructions in grammaticalization and lexicalization: Evidence from the history of a composite predicate construction in English. *Constructional approaches to English grammar*, ed. by Graeme Trousdale and Nicholas Gisborne, 33–67. Berlin: Mouton de Gruyter.

VAN GELDEREN, ELLY. 2005. Function words. *Encyclopedia of linguistics*, vol. 1, ed. by Philipp Strazny, 362–64. New York: Fitzroy Dearborn.

WILLIS, DAVID. 2007. Syntactic lexicalization as a new type of degrammaticalization. *Linguistics* 45.271–310.

WIWEL, H. G. 1901. *Synspunkter for dansk sproglære*. Copenhagen: Det Nordiske.

WOODWORTH, NANCY L. 1991. Sound symbolism in proximal and distal forms. *Linguistics* 29.273–99.

Boye
LANCHART
University of Copenhagen
Njalsgade 136
2300 Copenhagen S, Denmark
[kabo@hum.ku.dk]

Harder
Department of English, Germanic and Romance Studies
University of Copenhagen
Njalsgade 128
2300 Copenhagen S, Denmark
[harder@hum.ku.dk]