

Wortarten und Grammatikalisierung

Perspektiven in System und Erwerb

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Gram, construction, and class formation

Abstract

This chapter has three parts. The first part presents a definition of grammaticisation which involves both a grammaticising element *and* a grammaticising construction (in the literature there is a strong tendency to neglect either one or the other of these two levels). The second part defends a view of word classes as essentially distributional *form* classes which are defined by the fact that they do *not* correlate exactly with ontological categories ('things', 'actions', and the like) or the discourse functions of reference and predication. The third part, finally, explores the interrelationship between grammaticisation processes and word classes, noting among other things that while grammaticisation processes by definition involve class formation, they rarely bring about large and extensive classes such as the widely used major classes *noun*, *verb*, and *adjective*.

1. Introduction

Work on grammaticisation in the 1980s (for example, Lehmann 1982, Heine & Reh 1984) was almost exclusively concerned with the element-level.¹ That is, it focussed on changes such as semantic bleaching, cliticisation and phonological erosion which occur with regard to the grammaticising element on its course 'into the grammar'. In the 1990s, a number of authors (including Lehmann 1992, Bybee et al. 1994, Himmelmann 1997, Traugott 2003) have emphasised the fact that grammaticisation always pertains to constructions, not to isolated lexical elements. While the latter view is adopted here again, there has been a certain tendency to do away completely with the element level and to apply the term *grammaticisation* to a whole range of changes where there is no grammaticising element. This includes the 'grammaticisation' of grammatical relations (subject, object), compounds, word order and word classes. This 'elimination' of the grammaticising element is often done implicitly, but Lehmann (2002: 7) explicitly states:

1 While Heine & Reh (1984) completely exclude constructional aspects, Lehmann (1982) mentions and discusses them. Still, his primary concern is with what happens to the grammaticising element. This is perhaps most obvious in his schematic representations of paths of grammaticisation which only depict the grammaticising element, but not the construction.

[...] it is the construction of which the element is a constituent which may embark on either [grammaticalization or lexicalization]. If this is so, then the grammaticalization of a construction does not entail the grammaticalization of any of its component elements.

It will be argued here that attempts to eliminate the grammaticising element are ill-conceived and lead to a number of problems. Most importantly, without being ‘anchored’ to a grammaticising element, *grammaticisation* becomes more or less synonymous with grammatical change and thus void as a term for a specific type of grammatical change.² The major purpose of this paper, then, is to reaffirm and expound the position that grammaticisation pertains to AN ELEMENT IN ITS CONSTRUCTIONAL CONTEXT or, put in a slightly different way, to CONSTRUCTIONS WHICH ARE IDENTIFIABLE BY A CONSTRUCTION MARKER (in the sense that an accusative construction involves an accusative case marker and a future construction is identifiable by its future marker, etc.). A secondary goal is to briefly explore some of the consequences of this definition of grammaticisation for the theory of word classes.

There are three parts to this paper. The first part provides a definition of grammaticisation which pays equal attention to the grammaticising element and the construction in which it occurs. The second part briefly clarifies a few basic points regarding word classes. Part three, finally, discusses the interrelationships between grammaticisation processes and word classes.

Where appropriate the phrase *grammaticising element* will be shortened to *gram*. Note that the usage of *gram* here largely, but not perfectly matches the one in Bybee & Dahl (1989).

2. Defining grammaticisation³

A definition of grammaticisation that pays equal attention to the grammaticising element and its constructional context has to be explicit about what exactly

2 Apart from questioning the unidirectionality hypothesis, a second major criticism that has been leveled against grammaticisation theory in recent years pertains to exactly this point: Authors such as Campbell and Janda (2001) and other contributors in the same issue of *Language Sciences* doubt that grammaticisation theory has been successful in identifying a specific type of grammatical change which warrants its own theory and terminological apparatus. Rather, they claim that grammaticisation phenomena are essentially just coincidental co-occurrences of principally independent linguistic changes. A part of this problem, I would hold, is due to the fact that the term *grammaticisation* has been extended so much that the phenomena covered by it are too heterogeneous to allow for interesting generalisations. The definition of grammaticisation presented in section 2 is intended to rectify this problem.

3 This section gives a highly condensed, but also up-dated summary of the view of grammaticisation first presented in Himmelmann (1992) and expanded in Himmelmann (1997: 28–33, 2004), which in turn owes much to the work of Joan Bybee and associates (see, in particular, Bybee & Dahl 1989 and Bybee et al. 1994).

is meant by ‘constructional context’. There are in fact three different types of context which are of relevance in this regard.⁴

First, the immediate (or construction-internal) context is provided by the class of elements the gram is in direct construction with. For example, at the outset of the grammaticisation process which turns a demonstrative into a definite article, the demonstrative will typically occur adjacent to a set of nominal expressions which typically denote highly individuated and salient entities (the kinds of things one is likely to talk about for some time). This class of elements can be called the *host class* because many of the phenomena which often occur in grammaticisation processes pertain to the local relationship between grammaticising element and the host class (for example, the gram may become a clitic which has to be (phonologically) ‘supported’ by its host).

The precise nature of the syntactic relationship between gram and host may vary. The two elements could be merely juxtaposed, as is often the case for demonstratives and nouns, but there could also be some kind of dependency relation (the gram governing the host as in the case of a verb which develops into an adposition). And while it will be convenient for the further exposition to assume that both gram and host are word-level entities (i.e. a demonstrative, a noun, a verb, etc.) at the outset of the grammaticisation process, this is not at all a necessary assumption (which is the reason why the term *element* is used here, instead of more level-specific terms such as *word*, *lexeme*, or *phrase*). That is, the grammaticising element could also be in construction with a phrase (e.g., in the source construction for deverbal adpositions, the verb will often take a phrasal complement and not just a noun). At later stages of the grammaticisation process, host classes can be stems or roots rather than morphosyntactically complete word-forms.

The second notion of context which is relevant for grammaticisation processes is the larger syntactic (or construction-external) context. That is, the construction consisting of a gram and its host will in general be part of a larger syntactic unit or constructional pattern. The grammaticisation of a DEMONSTRATIVE+NOUN construction to an ARTICLE+NOUN construction does not happen in isolated units consisting of just DEMONSTRATIVE+NOUN. Instead, the DEMONSTRATIVE+NOUN syntagma will be part of a larger construction (for example, an adpositional phrase or a clause).

Thirdly, there are the contexts of use, i.e. the semantic and pragmatic conditions that determine the appropriate use of the construction consisting of a grammaticising element and its host. The semantic-pragmatic usage conditions

4 Note that the notion of *context* here is quite different from the one discussed in Diewald (2002), who discusses three types of (semantic-pragmatic) contexts relevant at different stages of a grammaticisation process.

for a DEMONSTRATIVE+NOUN construction, for example, include being present and visible in the speech situation (for exophoric uses), having been mentioned in the preceding stretch of discourse (for anaphoric uses), or being part of the specific shared knowledge between speaker and hearer (for recognitional uses).

Given these three types of contexts, a grammaticisation process can be defined as a process of context expansion on all three levels, as summarised in the following formula:

$$(1) (X_n) A_n B | K_n \rightarrow (X_{n+x}) A_{n+x} b | K_{n+x}$$

where *A* and *B* represent full lexical items, *b* a grammaticised element and the following three types of contextual changes occur:

- a) host class formation/expansion: $A_n \rightarrow A_{n+x}$ (e.g., common nouns \rightarrow common and proper nouns)
- b) syntactic context expansion: $X_n \rightarrow X_{n+x}$ (e.g., core argument position \rightarrow core and peripheral argument positions)
- c) semantic-pragmatic context expansion: $K_n \rightarrow K_{n+x}$ (e.g., anaphoric use \rightarrow anaphoric and associative anaphoric use)

To briefly comment on each level of context expansion:

With regard to the immediate constructional context, the host class may be expanded (*host-class expansion*). For example, when demonstratives are grammaticised to articles, they may start to co-occur regularly with proper names or nouns designating unique entities (such as *sun*, *sky*, *queen*, etc.), i.e. nouns they typically did not co-occur with before.

Second, the larger syntactic context may be expanded in that the grammaticising construction is allowed to occur in a greater number of syntactic contexts (*syntactic context expansion*). For example, DEMONSTRATIVE+NOUN constructions are common in core argument positions (subject or object position), but much less common, and sometimes impossible, in adjunct function. When grammaticisation towards an article progresses further, use of an ARTICLE+NOUN construction may become obligatory in adjuncts and other syntactic environments it did not occur in before ('obligatory', that is, provided that the semantic-pragmatic usage conditions are met; see Himmelmann 1998 for examples and discussion).

Thirdly, and most importantly, the semantic and pragmatic contexts in which the construction is used is expanded (*semantic-pragmatic context expansion*). Constructions consisting of DEMONSTRATIVE+NOUN are used only in deictic (exophoric, discourse deixis), anaphoric or recognitional reference. The usage contexts for ARTICLE+NOUN constructions are broader and include in particular larger situation uses (*the queen*, *the pub*) and associative anaphoric uses (*a wedding – the bride*, *a house – the front door*), contexts in which use of

demonstratives is impossible (compare *#this queen's dog got attacked yesterday* in a context where queen and dog are first mentioned).

Typically, these three kinds of context expansion co-occur in grammaticisation processes. It is, however, a matter for further debate and empirical research whether evidence for all three types of context expansion is necessary in order for a given instance of change to qualify as an instance of grammaticisation. This will depend in part on whether it is possible to develop some reliable diagnostics for detecting minor expansions with regard to host class and syntactic context. For the time being, I would hold that semantic-pragmatic context expansion is the core defining feature of grammaticisation processes. That is, analysing a given instance of change as an instance of grammaticisation minimally requires that it is possible to show that the semantic-pragmatic usage contexts of the construction at hand have expanded.

The above definition of grammaticisation makes use of observations and assumptions that are well-known from the literature. It differs from previous definitions of grammaticisation in two ways. First, it is selective, singling out context expansion in general and semantic-pragmatic context expansion in particular as the major defining feature of grammaticisation. All the other phenomena which are often observed in grammaticisation processes and which are considered criterial in other definitions (such as paradigm formation, erosion, obligatoriness/redundancy, etc.) do not occur in this definition, as further discussed shortly.

Second, the definition pays equal attention to the grammaticising construction *and* the grammaticising element. According to it, a grammaticisation process primarily pertains to a construction but requires the presence of at least one grammaticising element in this construction (such as the article in ARTICLE-NOUN constructions, the preposition in PPs, etc.). This grammaticising element functions as the construction marker and usually, but not necessarily, also undergoes changes as part of the overall process. The most obvious and well-known processes applying to grams are phonological erosion and coalescence/fusion, which often go hand in hand. Unlike in many other definitions of grammaticisation, however, erosion and fusion here are considered epiphenomena. Their occurrence depends on at least two factors. For one, they depend on the overall typological profile of a given language (e.g. in isolating languages the potential for fusion is generally very limited). For another, the construction type also appears to play a major role, independently of the particular typological profile. Thus, viewed cross-linguistically, the basic potential for fusion appears to be greater for tense-aspect-mood and case markers than for articles and the one for articles in turn greater than that for conjunctions.

In principle, syntactic context expansion and semantic-pragmatic context expansion may also occur with other types of constructions which do not involve a grammaticising element. That is, a certain word order pattern or a

compounding pattern may also come to be used in different syntactic or semantic-pragmatic contexts (for example, when main clause word order gets used in subordinate clauses). These changes, however, are not considered instances of grammaticisation here, because the changing constructions do not involve a construction marker. One obvious consequence of lacking a construction marker is the fact that such constructions also lack the distinction between gram and host. Hence, host class expansion is in principle impossible in these constructions, which therefore are excluded from grammaticisation processes as defined in (1).

There are at least three reasons for defining grammaticisation the way it is done in (1).

First, the definition in (1) avoids all the problems associated with a teleological view, i.e. a view which assumes a set of categories as end points or goals of grammaticisation processes. In such a view, the category DEFINITE ARTICLE exists in some sense before the process starts and this pre-existing category functions as the goal towards which the grammaticising element develops. As noted by Bybee & Pagliuca (1985: 76) this “cannot be so, because not all languages grammaticise the same categories.”

Second, the definition provides for a coherent domain of phenomena which promises to allow for both empirically substantial and theoretically interesting claims. Most importantly, it avoids the tendency noticeable in the recent literature to consider all kinds of linguistic changes as instances of grammaticisation, including simple reanalysis, analogical levelling and contact-induced change. This tendency is due to the fact that the standard diagnostics for grammaticisational change such as erosion, paradigm formation, semantic bleaching, etc. apply widely and it is probably hard to identify a type of change which does not involve at least one of these diagnostics. But such use of the diagnostics is mistaken in at least two ways: First, it ignores the fact that the diagnostics are, in principle, intended to apply as a set, i.e. the underlying assumption is that grammaticisation is defined by the *correlation* of a number of changes which, in principle, may also occur independently of each other. Second, it treats all diagnostics as being of essentially equal value. While the postulation of an unranked list of diagnostics certainly was a useful and valid research strategy at the time when grammaticisation research was reinvigorated in the early 1980s, research since has made it clear that the diagnostics are not of equal rank and that one has carefully to distinguish between essential and accidental features. The definition in (1) is an attempt to do just that.

Finally, and closely linked to the preceding point, the definition in (1) allows for a useful and empirically challengeable statement of the unidirectionality hypothesis, which I believe to be at the core of grammaticisation theory (without it, there would be no theory). In this view, the essential claim of the unidirectionality hypothesis is that there are no developments which could be

described as contractions of the three-way context expansions defining grammaticisation. That is, a grammaticised construction by itself never changes in a way that leads to a shrinking in the size of the host class. A hypothetical example for such a shrinking would be a ‘definite article’ which is only used with nouns denoting animates after having been used with all nouns. Nor is there any shrinking in the number of syntactic contexts in which a grammaticised construction occurs (hypothetical example: the ARTICLE+NOUN construction is only allowed to occur in subject and object function while at an earlier stage it was also used in adjunct function). And, of course, no shrinking or contraction occurs with regard to the semantic-pragmatic usage contexts. A hypothetical example for such a contraction would be a ‘definite article’ which no longer occurs in larger situation use (in English, this would mean that at some point one would regularly say again *sun was shining* instead of *the sun was shining*).

The qualification ‘by itself’ is necessary since apparent contractions on all three levels may occur when a newly grammaticising construction ‘intrudes’ into the usage contexts of an already existing one. Thus, for example, in a number of smaller European languages, including Frisian and Catalan, there are two so-called definite articles (see Himmelmann (1997: 54 f., 100) for examples and references). One of them is usually restricted to anaphoric reference and thus could be called an anaphoric article. In this state of affairs, the other, ‘truly’ definite article would appear to ‘lack’ one of its defining usage contexts, i.e. anaphoric use. Inasmuch as there is evidence that this article once occurred in this context, it would imply that the possibility of using the definite article for anaphoric reference was lost and hence that its semantic-pragmatic usage contexts have contracted. The unidirectionality hypothesis does not exclude such apparent contraction by ‘curtailing’.⁵ What it excludes is ‘spontaneous’ contraction, that is, the shrinking of the host class or the ‘loss’ of syntactic or semantic-pragmatic usage contexts *without* the interference of another grammaticising construction.

3. Word classes

In agreement with most of the literature, it is assumed here that membership in a word class is a feature which pertains to both morphosyntactic words (word-forms), i.e. the concrete forms of words assembled in syntactic units, and to

5 Another pertinent example is the ongoing grammaticisation of *be going to* as a future marker in English and its interaction with the older grams *will* and *shall*. Bybee (1988) provides an account of this state of affairs that is fully compatible with the view of grammaticisation sketched here.

lexemes, i.e. abstract dictionary units representing whole sets or paradigms of morphosyntactic words with a common lexical meaning. Usually, all the morphosyntactic word-forms realising a single lexeme will belong to a single word class, which is also the word class ascribed to the lexeme. Possible exceptions to this rule can be ignored for the purposes of this paper (possible exceptions include participles and infinitives which in many languages are considered to be part of the inflectional paradigm of verbs despite the fact that their morphosyntactic characteristics resemble those of adjectives and nouns, respectively).

Word classes are based on the morphological and syntactic (distributional) potential of lexemes and morphosyntactic words, which is widely represented by features. For example, the features [+ verb, + class 2b] in the entry of the German lexeme *biegen* 'bend' indicate that this is a verbal lexeme inflecting according to the irregular pattern 2b (past tense *bog*, not **biegte*, etc.). Furthermore, fully inflected forms such as the second singular present tense active *biegst* are marked as [+ finite (verb)], which limits its syntactic distribution to second position in declarative main clauses and final position in subordinate clauses.

Note that the two classifications just illustrated pertain to two different levels. The first one pertains to morphological paradigms and thus is a morpho-lexical classification. The second one pertains to syntactic distribution. While in European languages classifications on both levels are fully commensurate in that the smaller morpho-lexical classes are fully included in the larger, distributionally defined classes, this is not necessarily the case. Morpho-lexical and syntactic-distributional classification do not have to match but may involve largely unrelated sets of features (see Sasse 1993a/b and Himmelmann (in print) for examples and discussion). Thus, strictly speaking, one should distinguish between *morpho-lexical categories*, which specify morphological and lexical characteristics of lexemes, and (terminal) *syntactic categories*, which specify distributional characteristics of the morphosyntactic words realising a lexeme. Inasmuch as this distinction is not relevant here, I will simply speak of *lexical categories*. The term *major lexical categories* refers to large, open classes such as NOUN and VERB, which are primarily defined by their distributional properties but in some languages, including all European languages, can also be identified on the basis of their morphological properties.

As widely noted, major lexical categories such as NOUN and VERB tend to correlate with ontological categories ('animate beings/things' and 'events', respectively). However, it should be clearly understood that lexical categories as grammatical features are only necessary and useful inasmuch as there is *no* perfect match between lexical and ontological category. In a language where the grammatical properties and behaviour of morphosyntactic words is completely predictable on the basis of the ontological category of their denotata, there is no need for an additional (grammatical) level of lexical categories.

Instead, morphological and distributional characteristics of lexemes and morphosyntactic words could be directly related to their semantics.

A typical example of the tendency to turn ontological categories into (spurious) lexical categories is the use of periphrastic comparative and superlative constructions to define the lexical category ADJECTIVE. If no other features correlate with these constructions, the class established in this way is the class of gradable concepts which, I would hold, is an ontological rather than a linguistic class. In languages where ADJECTIVE is a formally well-defined class, it is typically the case that not all adjectives are gradable (e.g. *dead, ready*). On the other hand, lexical items which clearly are not adjectives on formal grounds can be used in comparative constructions simply because they are ontologically gradable (e.g., *Where would you find more beauty than in this place?*).

Similarly, it is widely agreed that the members of the major lexical categories NOUN and VERB have prototypical discourse (or pragmatic) functions, i.e. reference and predication, respectively. It is also widely, if not unanimously, agreed that these major discourse functions are universal in the sense that all languages have to provide means for performing these functions. However, it would be wrong to conclude from these two widely held views that the distinction between the two word classes noun and verb is also universal. That is, from the fact that all languages have to provide means for performing the acts of reference and predication it does not follow that the linguistic units used as referring and predicating expressions are formally distinguishable (in terms of phonological, morphological or syntactic properties). And even if one were to grant that in most, if not all languages referring expressions in some way can be distinguished from predicating expressions with regard to at least one formal property, it does not necessarily follow that such formal differences are found on the *lexical* level. It is very well possible that one may distinguish between referring phrases (marked, for example, by some kind of article) and predicating phrases (which may be unmarked or have a specific marker of their own) without being able to claim that the content words of the language fall into two classes with regard to their propensity to occur in one or the other phrase type.

On first sight, this may seem like a rather trivial point. However, when looking at the literature discussing word classes and discourse functions, time and again one will notice contributions where the distinction between the lexical and the phrasal level is neglected or obscured in one way or another. One example is Sapir's oft quoted passage on the (near) universality of nouns and verbs:

It is well to remember that speech consists of a series of propositions. There must be something to talk about and something must be said about this subject of discourse once it is selected. This distinction is of such fundamental importance that

the vast majority of languages have emphasized it by creating some sort of formal barrier between the two terms of the proposition. The subject of discourse is a noun. As the most common subject of discourse is either a person or a thing, the noun clusters about concrete concepts of that order. As the thing predicated of a subject is generally an activity in the widest sense of the word, a passage from one moment of existence to another, the form which has been set aside for the business of predicating, in other words, the verb, clusters about concepts of activity. No language wholly fails to distinguish noun and verb, though in particular cases the nature of the distinction may be an elusive one. (Sapir 1921: 119)

On a sympathetic reading, taking into account the fact that this quote is from a textbook and that most generalisations are properly hedged, there is nothing much to take issue with (in fact, it's a brilliant summary of nearly two thousand years of musings on this topic). Nevertheless, taken literally, the assertion "the subject of discourse is a noun" is somewhat misleading because the "subject of discourse" does not have to be a noun. It could also be a *noun phrase* or, even more generally, a *referring expression*. The same point holds for the use of *verb* in this passage, which could be replaced by *verb phrase* or *predicative expression*. As it stands, this passage may induce the wrong inference that the distinction between nouns and verbs is a direct and necessary consequence of the universality of the two discourse functions "subject" and "predicate". If it is true that, as Sapir puts it, a "formal barrier between the two terms of the proposition" exists in most languages, the formal differences may exist either on the phrasal or the lexical level or on both. Neither empirically nor logically a direct relation exists between universal discourse functions and lexical categories.

The way in which the grammatical categorization of lexemes and morpho-syntactic words deviates from the 'ideal' perfect match with ontological category and discourse function is at least in part due to historical coincidence. This is obvious and uncontroversial in the case of morpho-lexical categories such as verbal conjugation classes (among other things, phonological change may lead to the emergence as well as disappearance of conjugation classes, as amply documented and discussed in work by Wurzel (1984) and others). But it also holds for the major categories NOUN and VERB. That is, while there are cross-linguistic communalities which relate to a similar ontology and identical discourse functions, lexical categories are strictly speaking always language-specific, as further elaborated in the following section.

4. Lexical categories and grammaticisation

Based on the preceding definitions and observations, the role and import of grammaticisation processes for systems of lexical categorization may be summarized by the following three points.

4.1 Grammaticisation involves class formation

According to the definition given in (1), grammaticisation processes generally involve class formation, in particular host class formation. A host class is the class of lexemes the grammaticising element is in construction with. At the beginning of the process, the host class will usually be well motivated in semantic terms. For example, a word denoting 'back, backside' at first will only be in construction with (collocate with) words denoting entities and locations which inherently have a backside (such as (larger) animates, (some types of) houses, pictures, etc.). In the course of further grammaticisation to an adposition meaning 'behind, after', it will also combine with words for entities which conceptually do not have an inherent backside, such as trees, roads, tables, ideas, etc. Similarly, demonstratives tend to be used with words for concrete, individuated entities and locations. When they become grammaticised as articles, they combine with words for all kinds of entities and situations. That is, in the course of the grammaticisation process, the semantic basis of the host class will tend to become less and less transparent and thus at some point it will be warranted to speak of a lexical category in the sense that the morpho-syntactic words of the language in question have to be subcategorised as co-occurring or not co-occurring with the grammaticising element.

Host classes of individual grams differ significantly in size. Plural markers may be restricted to nouns denoting animate beings, passive markers to transitive verbs, applicatives to motion and transfer verbs, etc. Only certain types of grams are associated with a host class which is co-extensive with a major lexical category. Well-known examples are tense-aspect-mood auxiliaries, (clitic) articles, (some) simple adpositions (or clitic case markers) and negators. These gram types can be used to define highly general syntactic slots where practically all the members of a given major lexical category may occur. For this reason, they are widely used as diagnostics for major lexical categories. To give just one example, in Standard Indonesian a major distributional difference between nouns and verbs pertains to the fact that nouns cannot be negated with *tidak* and that when verbs are negated with the nominal negator *bukan* the negation is emphatic or contrastive (see Sneddon (1996: 195 f.) for details).

Apart from host class formation, grammaticisation processes may lead to class formation in another way: Sometimes (but clearly not necessarily) grammaticising elements which are similar in terms of function and degree of grammaticisation tend to form small classes of function words in complementary distribution, the result being well-known minor lexical categories such as auxiliaries, determiners, adpositions, etc. This aspect of the grammaticisation process has been termed *paradigmatisation* (Lehmann 1982) or simply *paradigm formation* (Bybee & Dahl 1989).

4.2 Grams typically do not *mark* lexical categories

As noted in the preceding section, grammaticisation processes bring about a subclassification of the lexical items in a given language. Especially in the very early and the later stages of grammaticisation (i.e. once the gram has become an affix), this subclassification tends to be fairly fine-grained, the resulting classes typically correspond to what was called *morpho-lexical categories* in section 3 above. For example, inflectional grams often differ according to conjugation or declension classes so that strictly speaking there are no grams which identify the category VERB as a whole. Instead, the classes identifiable on the basis of inflectional affixes are classes such as *verbs of the 2nd conjugation class*, or *nouns belonging to the class of three-dimensional objects*, and so on. Furthermore, these grams usually do not mark a class per se, but an inflectional category (2ND PERSON SINGULAR PRESENT ACTIVE INDICATIVE, etc.), a point to which we will return shortly.

The gram types which can be used to define major lexical categories (negators, articles, simple prepositions, and TAM auxiliaries) are typically (clitic) function words, i.e. with regard to Lehmann's (1982) parameter of coalescence, they are in an intermediary stage of grammaticisation. Again, the primary function of these grams is not to mark major lexical categories per se. Rather, their function is to mark grammatical categories such as definiteness/specificity, past tense, negation, etc. The fact that they can be used as diagnostics for major lexical categories appears to be a secondary or coincidental property. When these grams are further grammaticised and become affixes, there is a strong tendency for formal idiosyncrasies to appear so that the major lexical category (formally) becomes split up into a number of smaller morpho-lexical categories (e.g., clitic perfective markers usually occur with all verbs, but perfective inflections tend to be distributed across different conjugation classes, and so on).

Given the preceding observations, it will not come as a surprise that lexical categories generally do not occur as possible stages on grammaticisation paths. To date, there is only one proposal for a grammaticisation path which includes a (major) lexical category as one of its stages. This is the well-known development from demonstratives to noun markers, first sketched in Greenberg's seminal article (1978), which can be very roughly summarized as follows:⁶

(2) demonstrative → definite article → specific article → noun marker

6 For a much more detailed discussion and representation of this path, which also includes the constructional context, see Himmelmann (1997: 23–33).

There are only very few examples of grammatical elements which come close to what is called a 'noun marker' in this development. Probably the best example is the ubiquitous suffix *-tl(i)* which occurs on many (but not all!)⁷ nouns in Nahuatl (for other possible examples, see Greenberg 1981). As Greenberg (1978) shows, the more likely and frequent outcomes of developments along this path are class or gender markers.

Note that derivational affixes which mark lexical categories, i.e. nominalisers, verbalisers, etc., are usually also not lexical category-marking grams in a strict sense. On the one hand, they mark a *change* in lexical category and hence generally do not occur on primitive members of the category in question. On the other hand, they generally do not just mark a change of category but rather convey some additional meaning or function. Nominalisers, for example, typically convey a specific orientation (i.e. they denote an instrument, agent or place associated with the event denoted by the underlying verb).

To conclude, while grammaticisation processes generally lead to a subclassification of the lexical items in a given language, this subclassification appears to be coincidental in the sense that strictly speaking there are no class marking grams. The emergence of host classes is a necessary by-product of grammaticisation processes, but the meaning and function of grammaticising elements hardly ever directly relates to marking lexical categories.

4.3 The role of existing lexical categories

In practically all historically attested grammaticisation processes, there are already lexical categories to begin with. That is, the process does not start with a morpho-lexically and morphosyntactically undifferentiated class of lexemes. Instead, apart from forming various semantic classes, the lexemes the emerging gram is in construction with will already be subcategorized for morphological or syntactic distributional classes. In this case, the existing lexical categories provide 'natural' limits and targets for the grammaticisation process. They provide a natural target in the sense that if a grammaticisation process starts with a subclass of nouns there will be tendency to generalize it to all nouns. But the context expansion defining such a process will also find its 'natural end' at the limits of major lexical categories. That is, it is rare that the host class expansion observed in a given grammaticisation process transcends the boundaries of a major lexical category. For example, it is hardly ever observed that elements that are correctly analysed as definite articles at some stage of their grammaticisation come to be used regularly with verbs at a later stage in their development. Similarly, auxiliaries are not usually further grammaticised in a way that includes nominal hosts.

⁷ The exceptions include terms for plants and animals. See Launey (1981: 27 *passim*) for details.

Consequently, it would appear that in particular major lexical categories tend to be part of the structural conditions which determine the development and outcome of grammaticisation processes rather than being themselves a target and outcome of such processes. Obviously, word class systems can be completely restructured (see Sasse (1993b: 660 f.) for an example from Aramaic), but it needs further investigation to determine whether and to what extent such restructuring processes are instances of grammaticisation.

5. References

- Bybee, Joan L. (1988): "Semantic substance vs. contrast in the development of grammatical meaning", *BLS* 14: 247–264.
- Bybee, Joan L. & William Pagliuca (1985): "Cross-linguistic comparison and the development of grammatical meaning", in: Fisiak (ed.), 59–83.
- Bybee, Joan L. & Östen Dahl (1989): "The Creation of Tense and Aspect Systems in the Languages of the World", *Studies in Language* 13, 51–103.
- Bybee, Joan L., Revere Perkins & William Pagliuca (1994): *The Evolution of Grammar. Tense, Aspect, and Modality in the Languages of the World*, Chicago: University of Chicago Press.
- Campbell, Lyle & Richard Janda (2001): "Introduction: conceptions of grammaticalization and their problems", *Language Sciences* 23, 93–112.
- Diewald, Gabriele (2002): "A model for relevant types of contexts in grammaticalization", in: Wischer & Diewald (eds), 103–120.
- Fisiak, Jacek (ed.) (1985): *Historical Semantics. Historical Word-Formation*, Berlin et al.: de Gruyter (=Trends in Linguistics SaM 29).
- Gerritsen, Marinel & Dieter Stein (eds) (1992): *Internal and External Factors in Syntactic Change*, Berlin: Mouton de Gruyter.
- Greenberg, Joseph H. (1978): "How does a language acquire gender markers?", in: Greenberg et al. (eds) III, 47–82.
- (1981): "Nilo-Saharan moveable *-k* as a stage III article (with a Penutian typological parallel)", *Journal of African Languages and Linguistics* 3, 105–112.
- Greenberg, Joseph H., Charles A. Ferguson & Edith Moravcsik (eds) (1978): *Universals of human language*, 4 vols., Stanford: Stanford University Press.
- Heine, Bernd & Mechthild Reh (1984): *Grammaticalization and reanalysis in African languages*, Hamburg: Buske.
- Himmelmann, Nikolaus P. (1992): *Grammaticalization and Grammar*, Arbeitspapier Nr. 16, Köln: Institut für Sprachwissenschaft.
- (1997): *Deiktikon, Artikel, Nominalphrase: Zur Emergenz syntaktischer Struktur*, Tübingen: Niemeyer (=Linguistische Arbeiten 362).
- (1998): "Regularity in irregularity: Article use in adpositional phrases", *Linguistic Typology* 2, 315–353.
- (2004): "Lexicalization and grammaticization: opposite or orthogonal?", in: W. Bisang, N. P. Himmelmann & B. Wiemer (eds), *What makes grammaticalization – a look from its components and its fringes*, Berlin: Mouton de Gruyter, 21–42.
- (in print): "Lexical categories and voice in Tagalog", in: Peter Austin & Simon Musgrave (eds), *Voice and Grammatical Functions in Austronesian Languages*, Stanford: CSLI.
- Hopper, Paul & Elisabeth Closs Traugott (1993): *Grammaticalization*, Cambridge: Cambridge University Press.
- Jacobs, Joachim, Arnim von Stechow, Wolfgang Sternefeld & Theo Vennemann (eds) (1993): *Syntax*, vol. 1, Berlin: de Gruyter.

- Joseph, Brian D. & Richard D. Janda (eds) (2003): *The handbook of historical linguistics*, Oxford: Blackwell.
- Launey, Michel (1981): *Introduction à la langue et à la littérature aztèques. Tome 1: grammaire*, Paris: l'Harmattan.
- Lehmann, Christian (1982): *Thoughts on Grammaticalization. A Programmatic Sketch*, Vol. I, akup 48, Universität zu Köln [2nd edition 1995, München: Lincom].
- (1992): “Word order change by grammaticalization”, in: Gerritsen & Stein (eds), 395–416.
- (2002): “New reflections on grammaticalization and lexicalization”, in: Wischer & Diewald (eds), 1–18.
- Sapir, Edward (1921): *Language*, New York: Harcourt etc.
- Sasse, Hans-Jürgen (1993a): „Das Nomen – eine universale Kategorie?“, *Sprachtypologie und Universalienforschung* 46, 187–221.
- (1993b): “Syntactic Categories and subcategories”, in: Jacobs et al. (eds), 646–686.
- Sneddon, James N. (1996): *Indonesian. A comprehensive grammar*, London: Routledge.
- Traugott, Elisabeth Closs (2003): “Constructions in grammaticalization”, in: Joseph & Janda (eds), 624–647.
- Wischer, Ilse & Gabriele Diewald (eds) (2002): *New reflections on grammaticalization*, Amsterdam: Benjamins.
- Wurzel, Wolfgang U. (1984): *Flexionsmorphologie und Natürlichkeit*, Berlin: Akademie Verlag.