

Recent Changes in the Notion of Grammaticalization and the Rise of Alternative Concepts

Elena Smirnova



Electronic version

URL: <https://journals.openedition.org/hel/6899>

DOI: 10.4000/14jz3

ISSN: 1638-1580

Publisher

Société d'histoire et d'épistémologie des sciences du langage (SHESL)

Printed version

Number of pages: 263-290

ISSN: 0750-8069

Electronic reference

Elena Smirnova, "Recent Changes in the Notion of Grammaticalization and the Rise of Alternative Concepts", *Histoire Épistémologie Langage* [Online], 47-1 | 2025, Online since 11 August 2025, connection on 31 August 2025. URL: <http://journals.openedition.org/hel/6899> ; DOI: <https://doi.org/10.4000/14jz3>



The text only may be used under licence CC BY-NC-ND 4.0. All other elements (illustrations, imported files) are "All rights reserved", unless otherwise stated.

RECENT CHANGES IN THE NOTION OF GRAMMATICALIZATION AND THE RISE OF ALTERNATIVE CONCEPTS

Elena Smirnova

Université de Neuchâtel

Abstract — This paper deals with the “modern” notion of grammaticalization as it has been developed in the 1980s. It is since the programmatic study by Christian Lehmann that the research on grammaticalization has received increasing interest and resulted in a large body of work. However, for the last two or three decades the interest in research on grammaticalization seems to be rather fading. Even more, the concept of grammaticalization is being gradually ousted by alternative notions such as constructionalization and constructional change. I will focus on the relevant paradigmatic changes which have occurred within the framework of grammaticalization research dating from the 1980s. At least two significant shifts occurred during this time, mainly due to the steadily increasing amount of extensive empirical studies on grammaticalization and due to the shift of interest from formal to functional aspects of diachronic processes. First, a shift occurred from the loss aspect towards the rearrangement aspect. Second, the conceptualization of the locus of change has been widened from single elements to constructions. With respect to the latter aspect, the growing interest in constructionist approaches to language structure has decisively influenced this shift of perspective. In light of these recent changes, the ultimate question will be whether the concept of grammaticalization as it has been originally introduced is still needed or whether it would be better to abandon it altogether and to use instead other concepts proposed in the most recent literature.

Keywords — grammaticalization, constructionalization, constructional change, German, complex prepositions, verb-nominal constructions

Résumé — Cet article traite de la notion « moderne » de grammaticalisation telle qu'elle a été développée au milieu des années 1980. Depuis l'étude programmatique de Lehmann, la recherche sur la grammaticalisation a suscité un intérêt croissant et a donné lieu à un grand nombre de travaux. Cependant, au cours des deux dernières décennies, l'intérêt pour la recherche sur la grammaticalisation semble plutôt s'estomper. Plus encore, le concept de grammaticalisation est progressivement évincé par des notions alternatives telles que la constructionnalisation et le changement constructionnel. L'article se concentrera sur les changements paradigmatiques pertinents qui se sont produits dans le cadre de la recherche sur la grammaticalisation depuis le milieu des années 1980. Au moins deux changements significatifs se sont produits pendant cette période, principalement en raison de l'augmentation constante du nombre d'études empiriques approfondies sur la grammaticalisation et en raison du déplacement de l'intérêt des aspects formels vers les aspects fonctionnels des processus diachroniques. Premièrement, on est passé de l'aspect perte à l'aspect réarrangement. Deuxièmement, la conceptualisation du lieu du changement a été élargie des éléments individuels aux constructions. En ce qui concerne ce dernier aspect, l'apparition et l'intérêt croissant pour les approches constructionnistes de la structure du langage ont influencé de manière décisive ce changement de perspective. À la lumière de ces changements récents, la question sera de savoir si le concept de grammaticalisation tel qu'il a été introduit à l'origine est toujours nécessaire ou s'il serait préférable de l'abandonner complètement pour utiliser d'autres concepts proposés dans la littérature la plus récente.

Mots-clés — grammaticalisation, constructionnalisation, changement de constructions, allemand, prépositions complexes, constructions à verbe support

INTRODUCTION

Since the mid-eighties of the 20th century, the notion of grammaticalization has received increasing interest,¹ despite the critical voices that have been raised against the basic assumptions of grammaticalization research, such as the unidirectionality hypothesis, the distinctive nature of grammaticalization processes, the theoretical status of the grammaticalization framework, etc. (e.g. Newmeyer 1998, 2001; Campbell 2001; Campbell & Janda 2001; Janda 2001; Joseph 2001; Norde 2001; *inter alia*).

In this paper, I will first argue that the very notion of grammaticalization should be best understood as a prototypically organized concept. Although this view has been implicitly present in the work on grammaticalization, it has only rarely been mentioned explicitly (e.g. Barth-Weingarten & Couper-Kuhlen 2002). The theoretical concept of grammaticalization is primarily a product of human (i.e. linguists') characterization generally based on induction and abduction. As the very notion of grammaticalization is basically a theoretical abstraction based upon empirically observed linguistic evidence—and this is the way the notion of grammaticalization came into being—it ought to be self-evident that it is prototypically structured. Also, the concept of grammaticalization largely depends on how the concept of grammar is defined in a particular theoretical tradition, and whether the lexicon and the grammar are seen as completely different modules of linguistic structure or not. As the concept of grammar itself is most likely prototypically organized, the concept of grammaticalization inherits this prototypical structure as well.

Second, I will be dealing with the notion of grammaticalization from a historical perspective. In so doing, I will show that the concept of grammaticalization has undergone significant changes in the last four decades. Due to the steadily increasing number of extensive studies of grammaticalization (and related) processes in the languages of the world, which have delivered much additional empirical evidence, and due to the shift of interest from formal (i.e. phonological and morphosyntactic) to functional (i.e. semantic and pragmatic) aspects of grammaticalization processes, the concept of grammaticalization has significantly changed. More in particular, the prototypical core of the notion of grammaticalization has expanded, whereby at least two significant shifts may be detected. First, a shift occurred from the loss aspect towards the rearrangement aspect. Second, the conceptualization of the locus of change has been widened from single elements to constructions. This second shift, largely influenced by the recent developments of constructionists approaches to language and language change, resulted in a reconceptualization of the very notion of grammaticalization, the traditional

1 Of course, the history of grammaticalization research dates much earlier than the mid-eighties of the 20th century, and it should be emphasized at this point that the central ideas of grammaticalization have been developed much earlier by researchers such as Meillet (1912), Kuryłowicz (1975[1965]), von der Gabelentz, Bopp and Schlegel.

concept of grammaticalization being gradually ousted by alternative notions such as *constructionalization* and *constructional change* (Traugott & Trousdale 2013). I will conclude that the concept of constructionalization cannot be simply equated with the concept of grammaticalization and therefore grammaticalization cannot be ‘translated’ in constructionist terms as grammatical constructionalization. I will further conclude that it is the concept of paradigmaticity, as well as its dynamic counterpart *paradigmaticization*, that constitute key elements of grammaticalization, and that this component is missing in construction-based accounts.

The outline of the paper is as follows: In Section 1, I will discuss several definitions of grammaticalization and conclude that the notion of grammaticalization is essentially of prototypical nature. In Section 2, some recent changes in the original concept of grammaticalization will be discussed, with a particular focus on the shift towards constructionist approaches. Section 3 and Section 4 will present two case studies that challenge the concept of constructionalization as an alternative concept to grammaticalization. Section 5 concludes with reflections on the concept of paradigmaticity, which I believe should be central to any definition of grammaticalization but is currently absent from the notion of constructionalization.

1. GRAMMATICALIZATION AS A PROTOTYPICAL CONCEPT

Prototypical categories usually display the following generally acknowledged properties (Berlin & Kay 1969; Rosch 1978; Coleman & Kay 1981; Mervis & Rosch 1981; Geeraerts 1989; *inter alia*):

1. *Lack of classical definition.* A prototypical category cannot be given a rigid definition. Instead, it displays a flexible structure. A prototypical concept cannot be described by means of a single set of necessary and sufficient attributes.
2. *Family resemblance structure.* Prototypical categories have a family resemblance structure: “A family resemblance relationship takes the form AB, BC, CD, DE. That is, each item has at least one, and probably several, elements in common with one or more items, but no, or few, elements are common to all items” (Rosch & Mervis 1975: 575).
3. *Degrees of representativeness.* The members of a prototypical category are more or less representative of the category. That is, there are better and worse examples of a category. Only the prototype is the best or the clearest member of a category.

In the following, I discuss in more detail how these properties manifest themselves in the notion of grammaticalization and its diachronic development.

The notion of grammaticalization has often been (re-)defined in the course of the last four decades (see e.g. the survey of definitions presented in Campbell &

Janda 2001). Most definitions are very similar in that they all foreground the basic nature of grammaticalization. “A standard definition of grammaticalization is that it is the process whereby lexemes or lexical items become grammatical” (Traugott 2003: 624). As Campbell & Janda (2001: 106) rightly point out, “there is a prototypical or core notion of how grammaticalization is understood” (cf. also Hopper 1998 on “canonical grammaticalization”). However, there are also some significant differences between the numerous definitions of grammaticalization. Some of them concentrate on the mere change in status from lexical to grammatical, which is the most popular way of defining grammaticalization. Others emphasize the role of usage context (cf. e.g. Hopper & Traugott 2003). Again, others highlight the loss of autonomy of a linguistic sign (cf. e.g. Lehmann 2002 [1982]).

I would like to focus on the pivotal mechanisms or processes, sometimes called criteria, which are involved in grammaticalization, because they reveal the prototypical structure of this concept in a very transparent manner.

Lehmann (2002 [1982]: 164ff.) proposes the following six processes as being definitional for grammaticalization (they correspond to his six grammaticalization parameters):

1. attrition, i.e. loss in semantic and phonological substance;
2. paradigmaticization, whereby linguistic signs come to constitute small and tightly knit paradigms;
3. obligatorification, whereby a linguistic sign becomes obligatory and reduces its paradigmatic variability;
4. condensation, i.e. the decrease in structural scope of a linguistic sign;
5. coalescence, whereby the degree of syntagmatic cohesion between adjacent forms increases;
6. fixation, whereby the syntagmatic organization of linguistic signs becomes fixed.

Heine *et al.* (1991: 15, see also Heine 2003: 579) propose a slightly different, but in essence very similar set of four mechanisms:

1. desemantization or bleaching, i.e. the process of loss in meaning content of a linguistic sign;
2. extension or context generalization, whereby a linguistic sign comes to be used in new contexts;
3. decategorialization, i.e. loss in morphosyntactic properties characteristic of the source forms (including such processes as cliticization and affixation);
4. erosion or phonetic reduction, the process of loss in phonetic substance.

Hopper (1990: 159, 1991: 22) describes the following set of “principles” involved in grammaticalization processes:

1. accumulation or layering, whereby “the older layers are not necessarily discarded, but may remain to coexist with and interact with new layers” (Hopper 1991: 22);
2. divergence or split describes the situation whereby the original lexical form remains as an autonomous item and coexists with the new grammaticalized form;
3. specialization refers to the process whereby the spectrum of formal choices narrows and the smaller number of forms selected assume more general grammatical meanings;
4. persistence, i.e. the adherence of some traces of the original lexical meaning to the grammaticalized form, so that its lexical history may be reflected in constraints on its grammatical distribution ;
5. decategorialization, the process whereby morphological markers and syntactic privileges characteristic of the full lexical categories are lost or neutralized.

Himmelmann (2004: 33) defines grammaticalization primarily in terms of context expansion and suggests the following formula for his definition: $(X_n) A_n B \mid K_n \rightarrow (X_{n+x}) A_{n+x} b \mid K_{n+x}$, “where A and B represent full lexical items, b a grammatical element and the following three types of contextual changes occur”:

1. host-class expansion, whereby a grammaticalizing item starts to co-occur with an expanded class of (lexical) elements;
2. syntactic context expansion, whereby a grammaticalizing item starts to occur in syntactic contexts it did not occur in before;
3. semantic-pragmatic context expansion, whereby usage contexts for a grammaticalizing item become broader.

As can be seen from the above classifications, the criteria are quite heterogeneous. That is, they cannot be used as a uniform list of necessary and sufficient attributes of grammaticalization. Admittedly, some of the proposed mechanisms or characteristics are similar or even equal. So are, for example, Heine’s viz. Lehmann’s erosion and (phonological) attrition, Heine’s viz. Lehmann’s desemanticization/semantic bleaching and (semantic) attrition, and Heine’s and Hopper’s decategorialization. Others are very similar, e.g. decategorialization and coalescence, or context expansion and extension. However, some characteristics from one classification do not even overlap with characteristics presented in the other classifications: for instance, layering and persistence in Hopper’s list do not correspond to any criterion from other classifications. This situation clearly illustrates the first property of a prototypically structured category: lack of classical definition.

As mentioned above, a single instance of grammaticalization does not necessarily have to meet all relevant characteristics of the overall concept of grammaticalization. By this observation, the second property of prototypicality—family resemblance structure—is addressed. As the four criteria describing prototypicality are closely connected to each other (for more details, see Geeraerts 1989), it is not

surprising that the boundaries between single (defining) aspects of a prototypical category are fuzzy.

In the last couple of years, the question has frequently been raised as to whether the development of discourse particles and of modal particles (especially in German) should be considered an instance of grammaticalization (e.g. Aijmer 1997; Traugott 1997, 2007; Günthner 1999; Autenrieth 2002; Barth-Weingarten & Couper-Kuhlen 2002; Lehti-Eklund 2003; Auer & Günthner 2005; Diewald 2006a). It has been detected that the observed processes of such elements in different languages show significant similarities. As for the structural changes, they always arise from other linguistic elements via decategorialization (A), they sometimes exhibit traces of phonological reduction (B), and their developments are clear examples of fixation (C). As for the semantic changes, they mostly develop by means of generalization, i.e. they undergo a process of semantic bleaching (D), and they are clear instances of (inter-)subjectification (K). However, it has been pointed out that such elements show neither a decreasing degree in structural scope (E), nor an increasing degree in paradigmaticity (F) and obligatoriness (G). Thus, the short notation for the development of discourse particles and modal particles may be represented in the following manner: ABCD...K, whereas the attributes E, F, and G are not met.

Now, let us take another example which is without any doubt considered an instance of grammaticalization, the development of English *be going to* into a future tense auxiliary. This development exhibits the following characteristics (for a more detailed account of this phenomenon, see e.g. Hopper & Traugott 2003 [1993]: 2f.):

- a. semantic bleaching—from a movement verb with many semantic specifications (e.g. by foot, from a particular local reference point away, animate activity, etc.) to a future tense marker, indicating only the temporal localization of an event relative to the time of the speech situation (D);
- b. decategorialization—from full verb to auxiliary (A);
- c. phonological erosion—from *be going to* > *gonna* (B);
- d. obligatorification—*be going to* must be used in specific (communicative) contexts (G);
- e. paradigmaticization—*be going to* is fully integrated in the English tense paradigm (F);
- f. reanalysis and fixation—[[... be going][to S]] > [... be going to V] (C) and (E);
- g. metaphoric shift—“movement through space” > “movement through time” (H);
- h. metonymic shift—conventionalization of conversational implicatures of intention and future occurrence (I);
- i. context expansion (generalization)—*be going to* as a future auxiliary is used in many more contexts than its original lexical counterpart (J).

Hence, the short notion representing the bundle of features of this developmental process may be sketched as follows: ABCDEFGHIJ. Thus, the development of *be going to* only shares with the development of discourse particles the properties A, B, C, and D.

Individual instances of grammaticalization show different degrees of representativeness. This means that not every grammaticalization process can be ascribed grammaticalization status to the same extent. This can already be seen from the examples of *be going to* and discourse particles presented above. The development of discourse particles is thus a less prototypical instance of grammaticalization than the development of auxiliaries such as English *be going to*. However, the development of auxiliaries is not the best example of grammaticalization. Members with the highest degree of prototypical, or the best examples of grammaticalization, are usually instances of morphologization or affixation.

It is fairly obvious that such a view primarily relies on historical grounds. The notion of grammaticalization was first developed in the course of the 18th and 19th centuries in the frameworks of two linguistic traditions—Indo-European historical linguistics (Jerzy Kuryłowicz, Émile Benveniste) and language typology (Wilhelm von Humboldt, Franz Bopp, August Schleicher, Georg von der Gabelentz, Edward Sapir). Within the latter framework, the term “agglutination” was the key issue, whereas within the former, the rise of inflectional forms was given most attention. Thus, a traditional view on grammar that concentrated on (inflectional) morphology and that treated inflectional forms as best or prototypical grammatical forms dominated the picture. In this connection, it is not surprising that cases of morphologization, including cliticization and affixation, have been considered to be prototypical cases of grammaticalization.

Good, prototypical, or representative cases of grammaticalization are thus shifts that are cases of morphologization on the cline *lexical item* > *clitic* > *affix*. These developments follow either the nominal cline “(relational) noun > secondary adposition > primary adposition > agglutinative case affix > fusional case affix” (cf. Lehmann 1985: 304) or the verbal cline “full verb > auxiliary > verbal clitic > verbal affix” (Hopper & Traugott 2003: 111). Such processes display the highest number of the grammaticalization features mentioned above and are thus most representative of grammaticalization. This observation may be projected onto the well-known grammaticalization path proposed by Givón (1979: 209):

Discourse > Syntax > Morphology > Morphophonemics > Zero

and its respective phases:

Syntacticization > Morphologization > Demorphemicization > Loss

If we look at these two paths, the prototype of grammaticalization is located somewhere in the middle: the development of syntax towards morphology, viz. morphologization. Other stages along the cline are considered less prototypical cases of grammaticalization.

Less prototypical and less representative cases of grammaticalization include, for example, developments of free grammatical morphemes like adpositions, conjunctions, and auxiliaries. Even less prototypical and less representative are developments of discourse markers and modal particles. Furthermore, grammaticalization processes, whereby the formal (i.e. morphological) realization of grammatical markers gets reduced to zero, also represent less representative instances of grammaticalization. Thus, the further we depart from the middle of the grammaticalization path, the lower is the prototypicality of an individual grammaticalization case.

To conclude, the discussion above has shown that the concept of grammaticalization meets the three criteria of a prototypically organized category introduced at the beginning of this section and can thus be considered as prototypical.

2. RECENT CHANGES WITHIN THE CONCEPT OF GRAMMATICALIZATION

In this section, I will concentrate on relevant paradigmatic changes which have occurred within the framework of grammaticalization research from the mid-eighties. In doing so, I will try to outline some general tendencies in grammaticalization research that point towards significant shifts in the overall concept of grammaticalization.

Originally, grammaticalization was associated with diachronic mechanisms of loss or reduction, whereby the loss was assumed to occur at the formal as well as on the content side of the grammaticalizing linguistic element:

From very early times researchers on issues related to grammaticalization have observed that it involves a process of loss of semantic content. This has been described by the metaphor of “fading” or “bleaching” (Gabelentz spoke of “*verbleichen*” “grow pale,” Meillet of “*affaiblissement*” “weakening”) (Hopper & Traugott 2003 [1993]: 94).

With the term “grammaticalization” we refer essentially to an evolution whereby linguistic units lose in semantic complexity, pragmatic significance, syntactic freedom, and phonetic substance, respectively (Heine & Reh 1984: 15).

Whereas the tendency to lose certain components (i.e. semantic components, phonetic elements, syntactic variability, and morphosyntactic properties) is indeed very strong in the process of grammaticalization, there are also rearrangements and gains which cannot be ignored, however. Importantly, if initial stages of grammaticalization processes are taken into account, there are hardly any losses or reductions on the side of the grammaticalizing element. Instead, it tends to gain pragmatic significance

(via pragmatic strengthening) and to expand its usage frequency. Consequently, this fact has been documented in the descriptions of grammaticalization in tandem with its initially observed relevant characteristics. Most importantly, semantic and pragmatic aspects were considered, cf.:

There is no doubt that over time, meanings tend to become weakened during the process of grammaticalization. Nevertheless, all the evidence for early stages is that initially there is a redistribution or shift, not a loss, of meaning (Hopper & Traugott 2003 [1993]: 94).

We thus cannot be said to have merely “lost” meaning; we have, rather, exchanged the embedding of this image schema in a concrete, spatial domain of meaning for its embedding in a more abstract and possibly more subjective domain (Sweetser 1988: 392).

According to this hypothesis [that of pragmatic strengthening; ES], some of the original, often relatively concrete, semantic components of a lexeme may be generalized or even lost, but more abstract ones may be gained, as well as new pragmatic meanings (Traugott 2003: 633).

[...] in the same way as linguistic items undergoing grammaticalization lose in semantic, morphosyntactic, and phonetic substance, they also gain in property characteristic of their uses in new contexts [...], sometimes to the extent that their meaning may show little resemblance to the original meaning (Heine 2003: 579).

Increase in frequency is another example of a “gain”-mechanism in grammaticalization:

A grammaticalizing construction’s frequency of use increases dramatically as it develops. One source of the increased frequency is an increase in the types of contexts in which the new construction is possible (Bybee 2003: 147).

Similar views on changes in grammaticalization are also presented in Bybee *et al.* (1994), Bybee (2003), and many others. Traugott and Trousdale (2013) explicitly distinguish between two perspectives on grammaticalization: grammaticalization as reduction and grammaticalization as expansion. Whereas the former has been defined in terms of formal reduction, freezing, obligatorification, reduced complexity, and semantic bleaching (see esp. Givón 1979; Heine *et al.* 1991; Lehmann 2002 [1982]), the latter has been associated with context expansion, host-class expansion, and semantic-pragmatic expansion (see esp. Himmelmann 2004).

Another relevant shift in the conceptualization of the notion of grammaticalization concerns the locus of change, i.e. the linguistic element that grammaticalizes. The traditional view concentrated primarily on single elements undergoing grammaticalization (e.g. full verb > auxiliary; adposition > affix, etc.):

Research on grammaticalization until very recently has focused primarily on the grammaticizing element. This focus is evident in almost all definitions of grammaticalization, the essence of which is usually the claim that grammaticalization occurs when a lexical item develops into a grammatical item (e.g. the word for “go” becomes a future marker) or when a grammatical item becomes a more grammatical item (e.g. a directional marker becomes a dative marker and later in an accusative marker). Major diagnostics for grammaticalization are the change of meaning occurring in the grammaticizing element (its meaning usually becomes more general and abstract) and changes in its morphological and phonological characteristics (cliticization, erosion, etc.). Again, these diagnostics focus on the grammaticizing element. In short, we may call this the element-based view on grammaticalization (Himmelmann 2004: 31).

More recently, the focus has gradually moved from individual linguistic elements towards phrases or constructions, e.g. verbal complex > periphrastic grammatical construction, nominal complex > clause connective, nominal complex > discourse markers, etc. (see especially Bybee *et al.* 1994; Traugott 2003; Diewald 2006b; Diewald & Bergs 2008). According to the revised view, it is not a single element that undergoes grammaticalization, but rather, an element undergoes this process within its immediate contextual environment:

Instead, it is the grammaticizing element in its syntagmatic context which is grammaticalized. That is, the unit to which grammaticalization properly applies are constructions, not isolated lexical items (Himmelmann 2004: 31).

As the multiplicity of examples grew involving relationships between lexemes and grammaticalization, more attention began to be paid on both sides of the Atlantic to the role of “phrases” or “constructions” (Traugott 2003: 625).

Grammaticalization is usually defined as the process by which a lexical item or a sequence of items becomes a grammatical morpheme, changing its distribution and function in the process. [...] However, more recently it has been observed that it is important to add that grammaticalization of lexical items takes place within particular constructions and further that grammaticalization is the creation of new constructions. [...] If grammaticalization is the creation of new constructions (and their further development), then it also can include cases of change that do not involve specific morphemes, such as creation of word order patterns (Bybee 2003: 146).

In their monograph *Constructionalization and constructional changes*, Traugott and Trousdale (2013) have introduced an explicit construction-based view on diachronic change including grammaticalization. They define constructionalization as

the creation of form_{new}-meaning_{new} (combination of) signs. It forms new type nodes, which have new syntax or morphology and new coded meaning, in the linguistic network of a population of speakers. It is accompanied by changes in degree of schematicity, productivity, and compositionality. [...] [M]inimally,

constructionalization involves neoanalysis of morphosyntactic form and semantic/pragmatic meaning (Traugott & Trousdale 2013: 22).

Traugott and Trousdale (2013) redefine the notions of grammaticalization and lexicalization in the framework of construction grammar. They argue that grammatical (or procedural) constructionalization involves an increase in schematicity and productivity of a construction, accompanied by a decrease in compositionality; whereas lexical (or contentful) constructionalization involves decrease in schematicity, productivity, and compositionality. Trousdale and Norde (2013: 44), taking up this idea, conclude that “[...] grammaticalization is a subset of grammatical constructionalization, and [...] lexicalization is a subset of lexical constructionalization”. In what follows, I will critically assess this view based on the discussion of two case studies. Regarding the concepts of grammaticalization and (grammatical or procedural) constructionalization, I will pose the following questions: What benefits do we gain by adopting the constructional perspective, specifically the concept of (grammatical) constructionalization? And what might we potentially lose in the process?

3. CASE STUDIES

3.1. German light verb constructions

In German linguistic tradition, the notion *Funktionsverbgefüge* (which basically corresponds to the English terms “complex predicate,” “composite predicate,” “expanded predicate,” “verbo-nominal construction,” or “complex verb”) refers to all kinds of more or less irregular combinations of a so-called ‘function’ verb with an abstract, often deverbal noun, with or without a preposition, see (1):

- (1) a. *in Angst versetzen*
frighten
b. *zur Diskussion stellen*
put up for discussion

In such combinations, the verbs (*versetzen* “transfer, move” or *stellen* “put”) are said to differ from their respective lexical variants in (2).

- (2) a. *Sie will die Knöpfe an ihrem Kleid versetzen.*
She wants to move the buttons on her dress.
b. *Er stellt die Vase auf den Tisch.*
He is putting the vase on the table.

In (1), the semantic core of the predication is in the noun. For this reason, it has been assumed that *Funktionsverbgefüge* may be considered semantically equivalent to the verbs underlying the nouns (in this case *ängstigen* “frighten” and *diskutieren* “discuss;” e.g. Helbig 1979; von Polenz 1987). Due to their bleached semantics, the “function” verbs are highly productive, as they usually combine with many different nouns. *Funktionsverbgefüge* display a number of morphosyntactic restrictions, which point to the fixed and idiosyncratic status of these combinations. Most notably, the productivity of the “function” verb is usually restricted, and a particular verb (as e.g. *stellen* “put”) combines only with a limited number of particular nouns. Of course, the special status of “function” verbs has received much attention in the traditional accounts of German grammar (see e.g. Helbig 1979; von Polenz 1987). One of the first accounts is Heringer (1968), who explicitly treats “function” verbs like *kommen* “come” and *bringen* “bring” as semi-auxiliaries (see also Eisenberg 2006), e.g.:

*Die nächsthöhere Stufe nach dem Funktionsverb wäre das Hilfsverb, das bei kommen nicht existiert. Aber bei sein und werden erkennen wir, dass sie als Hilfsverb so eng semantisch mit dem zugehörigen Verb verschmelzen, dass sie keine eigenen Bedeutungselemente mehr bewahren*² (Heringer 1968: 36).

In the literature on English composite predicates, the intermediate status of these constructions between lexical units and free syntactic combinations has long been recognized. From the diachronic perspective, their development has been treated as lexicalization by some linguists and as grammaticalization by others. The former account emphasizes their lexical properties such as fusion, fixation, loss of compositionality and high degree of idiomaticity. The latter focuses on properties usually associated with grammatical status, such as productivity, decategorialization and acquisition of procedural meanings. Yet some linguists see the processes of grammaticalization and lexicalization to be simultaneously at work in the development of individual composite predicates. Trousdale (2008), for example, describes the development of the ‘give gerund construction’ as in *give someone a kicking* “beat repeatedly” as an interplay of grammaticalization and lexicalization. In this vein, Brinton (2011: 566) proposed to differentiate between two types of composite predicates: the lexicalized, *lose sight of* type of construction, on the one hand, and the grammaticalized, *take a look (at)* type constructions, on the other. Table 1 briefly summarizes these two types.

² The second-highest level after the function verb would be the auxiliary verb, which does not exist with *kommen*. But with *sein* and *werden* we recognize that as auxiliary verbs they merge so closely semantically with the corresponding verb that they no longer retain their own elements of meaning.

Table 1. Two types of composite predicates (based on Brinton 2011: 566).

lexicalized combinations	grammaticalized combinations
<i>lose sight of</i> type	<i>take a look (at)</i> type
non-productive	productive
fossilized	schematic
non-compositional	compositional
highly specified semantic content	grammatical function

The view of composite predicates introduced in Table 1 is related to the general picture of grammaticalization (see Section 1), as well as to more recent concepts of lexical and grammatical constructionalization (see Section 2).

In Smirnova & Stöber (2022), a corpus study based on 27,000 observations from the DTA corpus (deutschestextarchiv.de, New High German data 1600–1899), we analyzed the behavior and the status of combinations of the verb *kommen* “come” and prepositional phrases with the preposition *zu* “to.” The analysis is based on several quantitative and qualitative criteria: type and token frequency, frequency changes, collostructional strength; morphosyntactic variability and (ir-)regularity, compositionality and semantic transparency. The results of this study clearly show that indeed, following the proposal of Brinton (2011), we can distinguish between two different groups of constructions in German that differ in terms of schematicity, productivity, and compositionality.

We call the first group of combinations the *zuStande kommen*-type, after one of the frequent nouns used in this construction, see (3) and (4):

- (3) *Doch wann war jemals ein russischer Vertrag zu Stande gekommen, der nicht nachher irgendwo einen Haken zeigte?* (Treitschke, 1894)³

But when had a Russian contract ever been concluded that didn’t show a snag somewhere afterwards?

- (4) *und so ist endlich, fast wider seinen Willen, dieses Buch zustande gekommen* (Justi, 1888)

and so finally, almost against his will, this book came into being

Other combinations pertaining to the same group are for example *zur Sprache kommen* “come up” in (7), *zum Vorschein kommen* “appear, surface” in (8), and *zu Hilfe kommen* “come to so.’s aid” in (6).

³ Here and in the following, the examples from the DTA and the DWDS corpora are cited using the following form: (Author, Year)

- (6) *Endlich kam ein Zufall zu Hilfe.* (von Ense, 1837)
Finally a coincidence came to help.
- (7) *Nun aber kam ganz unvermeidlich die Hochzeit zur Sprache.* (Möricke, 1832)
But now the wedding unavoidably came up.
- (8) *denn da muß eine Lücke ihres Charakters zum Vorschein kommen...* (La Roche, 1771)
because there must come to light a gap in her character...

The *zuStande kommen*-type constructions generally display the following characteristics. They have relatively high token frequency, they are formally fixed and morpho-syntactically irregular, they are non-compositional, and they have a specific, often idiomatic, thus contentful meaning, in the terminology of Brinton (2011) and Traugott & Trousdale (2013).

On the other hand, there is a second group of constructions which we call *zur Anwendung kommen*-type, illustrated in (9) — (11).

- (9) *Und zwar ist es ausschließlich die öffentlichrechtliche Form der Anstaltsnutzung, die hier zur Anwendung kommt.* (Mayer, 1896)
And it is exclusively the public-law form of institutional use that applies here.
- (10) *Das Verwaltungsrecht ist eine besondere Art des öffentlichen Rechts und soll als solche zur Darstellung kommen.* (Mayer, 1895)
Administrative law is a special type of public law and should be represented as such.
- (11) *Als dieser Prozess zur Verhandlung kam...* (Wilamowitz-Moellendorff, 1893)
When this case came to the trial...

The empirical evidence (see Smirnova & Stöber 2022 for further details) strongly speaks in favor of the establishment of an abstract schematic construction [*zur Nung kommen*]. The open N-slot has gradually become formally fixed in the course of time, thus allowing for deverbal nouns with the suffix—*ung*. We observe hence the emergence of a regular and analytically accessible schema. The data shows changes in token and type frequency related to the increase in schematicity and productivity, to the decrease in structural variability and to the establishment of a productive syntactic pattern. As concerns the semantics, this type of construction is associated with rather general semantics and may in most cases be described as passive or

passive-like, thus displaying procedural meaning in the terminology of Traugott & Trousdale (2013). That is, *zur Anwendung kommen* in (9) may be paraphrased as *angewendet werden* “be applied,” and *zur Darstellung kommen* in (10) corresponds to *dargestellt werden* “be represented.”

Table 2. Two types of verbonominal constructions in German.

zu <i>Stande kommen</i> -type	zur <i>Anwendung kommen</i> -type
fixed individual types (no general schema) non-productive idiomatic—contentful meaning (loss of compositionality)	loss of syntactic variability (schema) productive general passive semantics—procedural meaning (loss of compositionality)

Regarding the changes in these two types of verbonominal constructions with *kommen* ‘come’ as to whether they constitute lexical or grammatical constructionalization (see Section 2), it can be concluded that the diachronic development of the constructions from the *zuStande kommen*-group, i.e. fixed, non-productive and idiomatic individual constructions, seems to fall into the category of lexical constructionalization. For the *zur Anwendung kommen*-type, on the other hand, we see an establishment of a fixed schematic pattern that is productive and has general passive semantics, thus resembling grammatical constructionalization. These differences are represented in Table 2. However, this view is not without problems, and I will come to this point in Section 4.

3.2. German complex prepositions

German complex prepositions are usually described as an open class of multi-word expressions (e.g. Di Meola 2000; Hüning *et al.* 2020). However, it has been notoriously difficult to provide a precise definition of this class, as the boundaries to the simple prepositions, on the one hand, and to free syntactic combinations, on the other hand, are often blurred (see e.g. Lehmann & Stolz 1992: 17; Meibauer 1995). The majority of complex prepositions in present-day German are realizations of the syntagmatic pattern [P N P] as shown in (12), and most “newcomers” are formed according to this structure.

- (12) *in Bezug auf, im Zusammenhang mit, mit Hilfe von, im Vergleich zu*
 in relation to, in connection with, with the help of, in comparison with

Interestingly, and in parallel to verbonominal constructions dealt with in Section 3.1, the question has often been posed whether the development of complex prepositions

constitutes a case of lexicalization or grammaticalization. Very generally, the discussion may be roughly summarized as follows. The addition of a new expression to the lexicon of a language is usually considered the result of lexicalization. As the development of complex prepositions involves the creation of a new linguistic string which has not been there before, there are reasons to call their emergence lexicalization.

We have seen that prepositions [...] come about not by grammaticalization, but by lexicalization. Once they have come into existence, they may then be grammaticalized. [...] From among all the new prepositions [...], only a fraction is grammaticalized. All the others are abandoned and replaced by other neologisms (Lehmann 2002: 18).

On the other hand, the newly emerged expression behaves similarly to primary or simple prepositions and constitutes an intermediate stage on the grammaticalization cline “ADPOSITIONAL LOCUTION > COMPLEX ADPOSITION > SIMPLE ADPOSITION > CASE MARKER.” On these grounds, the emergence of complex prepositions has been considered grammaticalization.

komplexe Adpositionen [können] sich in Richtung auf den Prototyp der primären Präposition entwickeln. Dazu wird zunächst die Worteinheit hergestellt. Dies ist ein Prozeß der Lexikalisierung, der Reanalyse der zugrundeliegenden syntaktischen Struktur erfordert. [...] Des weiteren wird die Adposition nötigenfalls in der Stellung angeglichen, d.h. zur Präposition, und übernimmt auch die Rektionseigenschaften einfacher Präpositionen. Lexikalisierung geht hierbei in Grammatikalisierung über (Lehmann & Stolz 1992: 42–43).⁴

In a recent study (Ruf & Smirnova 2025), we analyzed complex prepositions (and diachronically closely related structures) containing 20 different nouns based on the diachronic data from the DTA-corpus, 1600–1899 (see Table 3).

The selection of the 20 nouns is based on the three most frequent nouns that occur in the syntagmatic pattern [*mit* (DET) N P/GEN] in the 19th century: *Hilfe* “help” (n=338), *Rücksicht* “consideration” (n=217), and *Bezug* “reference” (n=106). In addition to these three nouns, their contextual synonyms were considered, i.e. other deverbal nouns that are attested with the pattern [*mit* (DET) N_{dev} P/GEN] in our data and, in these uses, are semantically very close to the frequent nouns *Hilfe* “help,” *Bezug* “reference,” and *Rücksicht* ‘consideration’.

4 “... complex adpositions [can] develop in the direction of the prototype of the primary preposition. To do this, the word unit is first created. This is a process of lexicalization that requires reanalysis of the underlying syntactic structure. [...] Furthermore, if necessary, the adposition is harmonized in its position, i.e. it becomes a preposition, and also takes on the governmental properties of simple prepositions. Lexicalization is turned into grammaticalization.”

Table 3. The dataset for the study of complex prepositions (Ruf & Smirnova 2025).

Noun	N
<i>Hilfe</i> “help”	416
<i>Anbetung</i> “worship”	1
<i>Anrufung</i> “invocation”	4
<i>Beihilfe</i> “assistance”	8
<i>Beistand</i> “support”	12
<i>Beziehung</i> “consultation”	1
<i>Heranziehung</i> “reference”	2
<i>Rat</i> “advice”	5
<i>Unterstützung</i> “support”	18
<i>Zuziehung</i> “consultation”	19
<i>Bezug</i> “regard”	104
<i>Aufsicht</i> “attendance”	1
<i>Berücksichtigung</i> “consideration”	26
<i>Beziehung</i> “relation”	21
<i>Einsicht</i> “insight”	6
<i>Ersuchen</i> “request”	1
<i>Hinsicht</i> “regard”	3
<i>Rücksicht</i> “consideration”	223
<i>Schein</i> “appearance”	5
<i>Zusatz</i> “addition”	17
TOTAL	895

Similar to the study of verbonominal constructions discussed in Section 3.1, we could distinguish between two groups of constructions. On the one hand, there is the structure *mit Hilfe* “with help,” which considerably increases in frequency (from 0.5 to 5.1 per million words). Its form gradually becomes fixed, as any intervening material between the preposition and the noun, such as determiners or modifiers, disappear from this structure towards the end of the 19th century, compare (13) and (14).

- (13) *di fvl̄n wir leſchen vnd vertiligen mit der heiligen hilfe der tvlt* (REM, 13_1-bair-PV-G > M409-G1)⁵
 we shall extinguish and destroy them with the holy help of forbearance

⁵ This example is taken from the REM corpus, the diachronic corpus of Middle High German (<https://www.linguistics.rub.de/rem/>).

- (14) *Indem die italienischen Mächte mit Hilfe fremder Nationen eine die andre zu überwinden fuchten* (Ranke, 1834)

As the Italian powers tried to overcome each other with the help of foreign nations

From a semantic point of view, *mit Hilfe* started in contexts with animate referents, but it gradually spread to abstract and inanimate referents in the course of time, thus acquiring instrumental semantics, see (15).

- (15) *der Dieb war mit Hilfe einer Feuerleiter in das oberste Giebfenster eingestiegen* (Fontane, 1873)

the thief had climbed into the top gable window using a fire escape

Remarkably, none of the combinations of the simple preposition *mit* ‘with’ with the synonymous nouns such as *Zuziehung* ‘consultation,’ *Unterstützung* ‘support,’ *Beistand* ‘support,’ *Rat* ‘advice,’ and *Anrufung* ‘invocation’ reached the same conventionalization status as *mit Hilfe*. In contrast, these structures have remained relatively low in token frequency, most of them are regularly used with determiners or modifiers, and they are restricted to contexts with animate referents. That is, they do not show any signs of being involved in a change similar to *mit Hilfe*. It is only *mit Hilfe* that shows a steadily increasing token frequency, reduced syntactic variability and semantic broadening along with syntactic context expansion. The syntagmatic structure is fixed, articles and modifiers are hardly used in these structures. Though the present semantic value of *mit Hilfe* can be considered as pertaining to the procedural and thus grammatical functional domain, its non-schematicity (= highly conventionalized status) and non-productivity make its categorization as a clear case of grammatical constructionalization rather difficult, see the discussion in Section 4.

On the other hand, we detected a schematic and rather productive pattern in the data, with several different nouns, which we called *mit Bezug auf*-type. This structure shows an even more pronounced increase in token frequency, especially in the course of the 19th century, where we observe a very steep increase up to almost 7.0 tokens pMW. On the type level, we observe a steady increase in type frequency of nouns that occur in the pattern. With respect to formal changes, we clearly see a decrease in syntactic variability and the development of one adjacent dominant pattern [P_N], without any determiner or modifier between the preposition and the noun, see (16)–(18). Semantically, constructions of this type all share a general and rather abstract meaning of reference (“with regard to,” “with reference to,” “considering”).

- (16) *Mit Rücksicht auf die Sylvesterfeier beginnt die Vorstellung schon um 6 Uhr Abends.* (Mährisches Tagblatt, 1896)
 In consideration of the New Year’s Eve celebration, the performance will begin already at 6 o’clock in the evening.
- (17) *fank [...] zu einem Niveau herab, das mit Bezug auf die Erkenntniß der Wahrheit nur als Barbarei bezeichnet werden kann.* (Haeckel, 1899)
 sank [...] to a level which, with regard to the recognition of truth, can only be described as barbarism.
- (18) *und zuletzt sang Klein, mit Beziehung auf das warme Wetter sein schönes Frühlingslied.* (Parthey, 1871)
 and at the end Klein, with reference to the warm weather, sang his beautiful spring song.

The five nouns *Rücksicht*, *Hinsicht*, *Bezug*, *Berücksichtigung*, and *Beziehung* that participate in this construction show very similar behavior, with respect to syntactic and semantic characteristics as well as with respect to frequency changes. This strongly supports the idea of the abstract schema [*mit* N P] with the open N-slot that attracts semantically related nouns. The rapid increase in token frequency and the shift towards a fixed pattern corroborate this idea. Additional evidence comes from what we know about the time of coining of these nouns. Indeed, they stem from different historical periods of German: *Bezug* has existed since Old High German, *Beziehung* was coined in the Early New High German period, and the nouns *Berücksichtigung*, *Hinsicht*, and *Rücksicht* are of rather recent origin between 1750 and 1780. With this chronology in mind, one could imagine that *Bezug* would have been the first to establish the relevant structure and the others would follow its lead. And still, all of these nouns appear in the pattern [*mit* N P] at about the same time.

Table 4 summarizes the two types of structures described above.

Table 4. Two types of complex prepositions in German.

<i>mit Hilfe</i> -type	<i>mit Bezug auf</i> -type
fixed individual types (no general schema)	loss of syntactic variability (schema)
non-productive	productive
loss of compositionality	abstract semantics (loss of compositionality)

From these observations, it can be concluded that the development of *mit Hilfe* very much looks like a case of lexical constructionalization, whereas the development of *mit Bezug auf*-type constructions very much resembles grammatical constructionalization, whereby a schematic productive schema with abstract semantics emerges.

In the next section, I will discuss in more detail the implications of this purely construction-based view of lexicalization vs grammaticalization.

4. DISCUSSION

I first return to the verbonominal constructions described in Section 3.1, namely to the *zur Anwendung kommen*-type, which was provisionally categorized there as a case of grammatical constructionalization, according to the criteria proposed by Traugott & Trousdale (2013). I would like to argue that the development of this construction can indeed be considered a case of grammaticalization (and not only of grammatical constructionalization), if some further criteria are taken into account, paradigmaticity being the most important one, as I believe. Indeed, the construction type *zur Anwendung kommen* is systematically paradigmatically related to constructions with the verb *bringen* ‘bring’, on the one hand, and to the base verbs from which the nouns are derived, on the other. These paradigmatic relations are depicted in Table 5.

Table 5. Paradigmatic relations of *zur Anwendung kommen*-type of constructions.

Construction type	zur N kommen	zur N bringen	Base verb
individual realizations	<i>zur Anwendung kommen</i> come to the application <i>zur Verwendung kommen</i> come to use <i>zur Wirkung kommen</i> come into effect <i>zur Erfüllung kommen</i> come to fulfillment	<i>zur Anwendung bringen</i> bring to the application <i>zur Verwendung bringen</i> bring to use <i>zur Wirkung bringen</i> bring to effect <i>zur Erfüllung bringen</i> bring to fulfillment	<i>anwenden</i> apply <i>verwenden</i> use <i>wirken</i> have an effect <i>erfüllen</i> fulfill
argument structure	X [<i>kommt zur N</i>] X = Theme Subj	X [<i>bringt zur N</i>] Y X=Agent_Y=Theme Subj_Obj	X VERB Y X=Agent_Y=Theme Subj_Obj
valency operation	valency decreasing	valency increasing	neutral, base valency
function	passive	causative	neutral

In fact, we can model the *zur Anwendung kommen*-construction type as participating in paradigmatic relations in the sense of semantic contrast and opposition. As compared to the base verb as for example *anwenden* “apply,” the verbonominal construction with *kommen* displays passive reading and reduces the valency of the originally transitive base verb to one participant. The *bringen*-construction, on the other hand, increases or restores the valency frame of the verb, and additionally conveys causative semantics. At this point, I would like to argue that the *zur Anwendung kommen*-construction can be seen as entering and establishing paradigmatic relations in the sense modelled in Table 5.

This integration into a tight network of paradigmatic relations constitutes the fourth and final stage in grammaticalization according to the grammaticalization scenario proposed in Diewald & Smirnova (2012). Importantly, the construction has not yet reached a highly grammaticalized status in present-day German, but the dynamics of the development of this construction can be seen as a case of grammaticalization because there is a target grammatical domain or category into which it has the potential to be integrated as a paradigmatic choice.

This target category is the category of voice, which can be realized by different means in German. First, there are canonical verbal constructions with the auxiliaries *werden* “become” (= *Vorgangspassiv*), *sein* “be” (= *Zustandspassiv*), and *bekommen/kriegen* “get” (= *Rezipientenpassiv*) and past participles of lexical verbs. In addition, there are other forms which are more restrictive, as they cannot be applied to the whole range of German verbs as e.g. the *werden* passive, such as *lassen* + infinitive with causative semantics, reflexive constructions with middle semantics, and the *be*-prefixation as morphological applicative constructions. I suggest that the schematic and productive verbonominal constructions with *kommen* and *bringen* are on the way to be paradigmatically integrated into the German category of voice and therefore their diachronic development can be considered a case of grammaticalization.

In contrast, if we look at the diachronic development of complex prepositions from the perspective of paradigmaticity, a totally different picture emerges. The target category for the development of complex prepositions in German is those of (simple) prepositions, and there have been some rare successful additions to this category in the history of German which go back to structures similar to those described in Section 3.2 (*statt* < *anstatt* < *an Statt*, *wegen* > *von Wegen*, see Lehmann & Stolz 1992). One of the important distinctions between younger complex prepositions, and older, simple prepositions is case assignment. While younger prepositions typically assign the genitive case, older simple prepositions tend to prefer the accusative and dative cases. In the case study presented in Section 3.2, it appears that it is the preposition *mit Hilfe* NPgen which has gradually been integrating into the target

paradigm, not the *mit Bezug auf*-type, where case assignment still functions via a simple preposition *auf* motivated by the inherited government of deverbal nouns.

Note, however, that from the perspective of constructionalization, the development of *mit Hilfe* was categorized rather as a case of lexical constructionalization (see Section 3.2), and *mit Bezug auf*-type was considered emerging via grammatical constructionalization. That is, the application of different criteria results in two conflicting interpretations.

At this point, I would like to refer back to the quote from Lehmann (2002: 18) cited in the beginning of this paper that states that “prepositions [...] come about not by grammaticalization, but by lexicalization. [...] From among all the new prepositions [...], only a fraction is grammaticalized. All the others are abandoned and replaced by other neologisms.” The *mit Bezug auf*-type of constructions nicely exemplifies the establishment of a pattern facilitating the coining of new items such as [*mit Hinblick/Hinsicht/Beziehung* etc. *auf*]. That is, a productive schema is established, and then only some individual instances of this schema might be involved in the process of grammaticalization towards the target category of prepositions. Apparently, this is what happened to *mit Hilfe*, which has been slowly approaching the target class of simple prepositions.⁶ However, this has not happened (yet) to the members of the *mit Bezug auf*-type, as they still remain very close to the syntactic structures they originated in.

To summarize, the discussion in this section has shown that the application of the concepts *lexical* and *grammatical constructionalization* as they have been defined in Traugott & Trousdale (2013) leads to conclusions that are at least partly in conflict with the more traditional accounts to grammaticalization (and lexicalization). In particular, it has been shown that in case of verbonominal constructions, it is the schematic construction that has been grammaticalized. In contrast, in case of complex prepositions, it is the individual lexically specified construction and not the schematic one that qualifies as a case of grammaticalization.

CONCLUSIONS

By means of conclusion, I would like to emphasize that the concepts of (grammatical, procedural) constructionalization and grammaticalization are not identical, even if sometimes they can overlap and even coincide. The case studies presented in Section 4 have demonstrated that both, individual items as well as complex constructions may be involved in processes of grammaticalization and lexicalization. The discussion in Section 5 revealed that the concept of grammatical construction-

⁶ Additional evidence for this process comes from spelling variant *mithilfe*, which is present in the corpus data from the beginning of the 20th century.

alization suffers from the problem that it encompasses processes which would not be considered grammaticalization in the more traditional sense of this term.

The central criterion I relied on to classify the individual cases as grammaticalization processes was the notion of paradigmaticity. Paradigmaticity was originally defined by Lehmann (2002 [1982]: 110) as follows: “The cohesion of a sign with other signs in a paradigm will be called its paradigmaticity, that is, the degree to which it enters a paradigm, is integrated into it and dependent on it.” What counts in this view is the integration of a new construction or a newly emerging item into an existing grammatical paradigm or category, and this is what essentially pertains to the notion of grammaticalization, and what is essentially lacking in the definition of (grammatical) constructionalization.

It is important to consider at this point that the paradigm of a grammatical category is something that is not universally given. Instead, paradigms and categories exist in individual languages and may be structured in very different ways. In this respect, I would like to refer to an observation on diversity of grammaticalization processes made by Breban (2014):

In the English noun phrase, different functions are syntactically arranged on the basis of word order rather than by means of inflections; hence, it seems only natural that changes in function involve word order changes rather than increased boundedness. [...] Tense and aspect in Hebrew, by contrast, are structurally realized as verbal morphology. [...] it seems to have some leverage to think that individual realizations of morphosyntactic change are dependent on the morphosyntactic structure, and for instance, differ in inflectional or analytically organized structural environments (Breban 2014: 490–491).

In line with this idea, I would like to conclude with two general thoughts on paradigms. First, paradigms should be seen as domain-specific phenomena. With respect to semantics and function, verbal and nominal grammatical paradigms can differ from each other. With respect to the form and structure, they may be different as well. For example, verbal analytical constructions differ from prepositions and/or complementizers in that the former are more tightly organized in paradigmatic oppositions, whereas the latter are more loosely organized in word classes. Therefore, grammaticalization processes will differ across domains as the target paradigms are structured differently.

Second, grammatical paradigms are language specific. With respect to semantics and function, languages may differ from each other with respect to the set of grammatical functions they tend to grammaticalize (e.g. evidentiality is a category that is grammaticalized only in a few languages in the world). As concerns form and structure, languages differ with respect to the inventory of grammatical forms and constructions they possess: they make use of highly diverse syntactic, morphological,

morphophonological, etc. means of marking grammatical relations. Therefore, grammaticalization processes will differ from each other across languages. In this connection, ultimately, in a unity of the theoretical criterion of paradigmaticity and paradigmaticization we will always find a diversity of its realizations across individual domains and languages.

ACKNOWLEDGMENTS

Research reported in this paper partly results from the research project “Zusammenspiel von Wortbildung und Syntax: Nominalisierungsstrategien in verbonominalen Konstruktionen und sekundären Präpositionen” (2021–2025) supported by the Swiss National Science Foundation, Grant number 197,124. I would like to thank the two anonymous reviewers for their invaluable comments and constructive feedback on the first version of this article. They have significantly contributed to improving the clarity and quality of this work.

REFERENCES

- Aijmer, Karin. 1997. *I think*—an English modal particle. *Modality in Germanic Languages. Historical and Comparative Perspectives*, ed. by Toril Swan & Olaf Jansen Westvik. Berlin & New York: Mouton de Gruyter. 1–47.
- Auer, Peter & Susanne Günthner. 2005. Die Entstehung von Diskursmarkern als Grenzfall der Grammatikalisierung. *Grammatikalisierung im Deutschen*, ed. by Torsten Leuschner & Tanja Mortelmans. New York & Berlin: de Gruyter. 335–362.
- Autenrieth, Tanja. 2002. *Heterosemie und Grammatikalisierung bei Modalpartikeln: eine synchrone und diachrone Studie anhand von eben, halt, e(cher)t, einfach, schlicht und glatt*. Tübingen: Niemeyer (LA 450).
- Barth-Weingarten, Dagmar & Elizabeth Couper-Kuhlen. 2002. On the development of final *though*: A case study of grammaticalization? *New Reflections on Grammaticalization*, ed. by Ilse Wischer & Gabriele Diewald. Amsterdam & Philadelphia: John Benjamins. 345–361.
- Berlin, Brent & Paul Kay. 1969. *Basic color terms*. Berkeley: University of California Press.
- Breban, Tine. 2014. What is secondary grammaticalization? Trying to see the wood for the trees in a confusion of interpretations. *Folia Linguistica*. 469–502.
- Brinton, Laurel J. 2011. The grammaticalization of complex predicates. *The Oxford Handbook of Grammaticalization*, ed. by Bernd Heine & Heiko Narrog. Oxford: Oxford University Press. 556–569.
- Bybee, Joan L. 2003. Cognitive Processes in Grammaticalization. *The New Psychology of Language. Cognitive and Functional Approaches to Language Structure*, vol. 2, ed. by Michael Tomasello. Mahwah, NJ: Erlbaum. 145–167.
- Bybee, Joan L., Revere D. 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. 2001. What’s wrong with grammaticalization? *Language Sciences* 23. 113–161.

- Campbell, Lyle & Richard D. Janda. 2001. Introduction: conceptions of grammaticalization and their problems. *Language Sciences* 23. 93–112.
- Coleman, Linda & Paul Kay. 1981. Prototype Semantics: the English Word LIE. *Language* 57. 26–44.
- Diewald, Gabriele. 2006a. Discourse particles and modal particles as grammatical elements. *Approaches to discourse particles*, ed. by Kirstin Fischer. Amsterdam: Elsevier. 403–425.
- Diewald, Gabriele. 2006b. Context types in grammaticalization as constructions. *Constructions. Special Volume 1: Constructions all over—case studies and theoretical implications*, ed. by Doris Schönefeld. [<http://www.constructions-online.de/articles/specvol1/>]
- Diewald, Gabriele & Alexander Bergs. 2008. *Constructions and Language Change*. Berlin: de Gruyter.
- Diewald, Gabriele & Elena Smirnova. 2012. “Paradigmatic integration”: the fourth stage in an expanded grammaticalization scenario. *Grammaticalization and Language Change: New Reflections*, ed. by Kristin Davidse, Tine Breban, Lieselotte Brems & Tanja Mortelmans. Amsterdam & Philadelphia: John Benjamins. 111–134.
- Di Meola, Claudio. 2000. *Die Grammatikalisierung deutscher Präpositionen*. Tübingen: Stauffenburg (Studien zur deutschen Grammatik Bd., 62).
- Eisenberg, Peter. 2006. Funktionsverbgefüge – Über das Verhältnis von Unsinn und Methode. *Grammatische Untersuchungen: Analysen und Reflexionen. Festschrift für Gisela Zifonun*, ed. by Eva Breindl, Lutz Gunkel & Bruno Strecker. Studien zur deutschen Sprache: Forschungen des Instituts für deutsche Sprache, 297–317.
- Geeraerts, Dirk. 1989. Prospects and problems of prototype theory. *Linguistics* 27(4). 587–612.
- Givón, Talmy. 1979. *On Understanding Grammar*. New York: Academic Press.
- Günthner, Susanne. 1999. Entwickelt sich der Konzessivkonnektor *obwohl* zum Diskursmarker? Grammatikalisierungstendenzen im gesprochenen Deutsch. *Linguistische Berichte* 180. 409–446.
- Heine, Bernd. 2003. Grammaticalization. *The Handbook of Historical Linguistics*, ed. by Brian Joseph & Richard D. Janda. Oxford: Blackwell. 575–601.
- Heine, Bernd, Ulrike Claudi & Friederike Hünemeyer. 1991. *Grammaticalization: A Conceptual Framework*. Chicago: University of Chicago Press.
- Heine, Bernd & Mechthild Reh. 1984. *Grammaticalization and Reanalysis in African Languages*. Hamburg: Buske.
- Helbig, Gerhard. 1979. Probleme der Beschreibung von Funktionsverbgefügen im Deutschen. *Deutsch als Fremdsprache* 16: 273–285.
- Heringer, Hans Jürgen. 1968. *Die Opposition von kommen und bringen als Funktionsverben. Untersuchungen zur grammatischen Wertigkeit und Aktionsart*. Düsseldorf: Schwann.
- Himmelmann, Nikolaus P. 2004. Lexicalization and Grammaticalization: Opposite or Orthogonal? *What Makes Grammaticalization? A Look from its Fringes and its Components*, ed. by Walter Bisang, Nikolaus P. Himmelmann & Björn Wiemer. Berlin & New York: de Gruyter. 21–42.
- Hopper, Paul J. 1990. Principles of Grammaticization: Towards a Diachronic Typology. *Language Typology 1987. Systematic Balance in Language. Papers from the Linguistic Typology Symposium. Berkeley, 1–3 December 1987*, ed. by Winfred P. Lehmann. Amsterdam & Philadelphia: John Benjamins. 157–170.
- Hopper, Paul J. 1991. On some Principles of Grammaticalization. *Approaches to Grammaticalization, vol. I*, ed. by Elizabeth C. Traugott & Bernd Heine. Amsterdam & Philadelphia: John Benjamins. 17–35.

- Hopper, Paul J. 1998. The Paradigm at the End of the Universe. *The Limits of Grammaticalization*, ed. by Anna Giacalone Ramat & Paul J. Hopper. Amsterdam & Philadelphia: Benjamins. 147–158.
- Hopper, Paul J. & Elizabeth C. Traugott. 2003 [1993]. *Grammaticalization*, second edition. Cambridge: Cambridge University Press (Cambridge Textbooks in Linguistics).
- Hüning, Matthias, Elena Smirnova & Anatol Stefanowitsch. 2020. Complex Adpositions in Three West Germanic Languages: German, Dutch, and English. *Complex Adpositions in European Languages. A micro-typological approach*, ed. by Benjamin Fagard, José Pinto de Lima, Dejan Stosic & Elena Smirnova. Berlin & New York: De Gruyter (Empirical approaches to language typology, 65). 65–138.
- Janda, Richard D. 2001. Beyond “pathways” and “unidirectional”: 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(2–3). 163–186.
- Kuryłowicz, Jerzy. 1975 [1965]. The Evolution of Grammatical Categories. *Diogenes* 51. 55–71. Reprinted in *Esquisses Linguistiques*, vol. II. Munich: Fink. 38–54.
- Lehmann, Christian. 2002 [1982]. *Thoughts on Grammaticalization: A Programmatic Sketch*, vol. I. Munich: LINGCOM Europa (Arbeiten des Kölner Universalienprojekts, 49).
- Lehmann, Christian. 2002. New Reflections on Grammaticalization and Lexicalization. *New Reflections on Grammaticalization*, ed. by Ilse Wischer & Gabriele Diewald. Amsterdam & Philadelphia: John Benjamins. 1–18.
- Lehmann, Christian & Christel Stolz. 1992. *Bildung von Adpositionen im Deutschen*. Erfurt: Seminar für Sprachwissenschaft der Universität (Arbeitspapiere des Seminars für Sprachwissenschaft der Universität Erfurt, 6).
- Lehti-Eklund, Hanna. 2003. The grammaticalization of *alltså* and *således*: Two Swedish conjuncts revisited. *Cognitive Approaches to Lexical Semantics*, ed. by Hubert Cuyckens, René Dirven & John R. Taylor. Berlin & New York: de Gruyter (CLR 23). 123–162.
- Meillet, Antoine. 1912. L'évolution des formes grammaticales. *Scientia: Rivista internazionale di sintesi scientifica* 12. 384–400.
- Mervis, Carolyn B. & Eleanor Rosch. 1981. Categorization of natural objects. *Annual Review of Psychology* 32. 89–115.
- Newmeyer, Frederick J. 1998. *Language Form and Language Function*. Cambridge, MA: MIT Press.
- Newmeyer, Frederick J. 2001. Deconstructing Grammaticalization. *Language Sciences* 23(2–3). 187–229.
- Meibauer, Jörg. 1995. Komplexe Präpositionen. Grammatikalisierung, Metapher, Implikatur und division of pragmatic labour. *Implikaturen: grammatische und pragmatische Analysen*, ed. by Frank Liedtke. Tübingen: M. Niemeyer (Linguistische Arbeiten 343). 47–74.
- Norde, Muriel. 2001. Deflexion as a Counterdirectional Factor in Grammatical Change. *Language Sciences* 23. 231–264.
- Polenz, Peter von. 1987. Funktionsverben, Funktionsverbgefüge und Verwandtes: Vorschläge zur satzsemantischen Lexikographie. *Zeitschrift für Germanistische Linguistik* 15(2). 169–189.
- Rosch, Eleanor. 1978. Principles of categorization. *Cognition and Categorization*, ed. by Eleanor Rosch & Barbara B. Lloyd. Hillsdale, NJ: Lawrence Erlbaum. 27–48.
- Rosch, Eleanor. & Carolyn B. Mervis. 1975. Family resemblances: Studies in the internal structure of categories. *Cognitive Psychology* 7. 573–605.
- Ruf, Regina & Elena Smirnova. 2025. Mit Hilfe von Kreativität? How German complex prepositions are shaped. *Dynamics at the lexicon-syntax interface: Creativity and routine*

- in word-formation and multi-word expressions*, ed. by Sabine Arndt-Lappe & Natalia Filatkina. Berlin & New York: de Gruyter.
- Smirnova, Elena & Vanessa Stöber. 2022. Verbo-nominal constructions with *kommen* “come” in German. *Constructions and Frames* 14(1). 121–149.
- Sweetser, Eve. 1988. Grammaticalization and Semantic Bleaching. *BLS* 14. 389–405.
- Traugott, Elizabeth C. 2003. Constructions in Grammaticalization. *The Handbook of Historical Linguistics*, ed. by Brian Joseph & Richard D. Janda. Oxford: Blackwell. 624–647.
- Traugott, Elizabeth C. 2007. Discourse markers, modal particles, and contrastive analysis, synchronic and diachronic. *Catalan Journal of Linguistics* 6. 139–157.
- Traugott, Elizabeth C. & Graeme Trousdale. 2013. *Constructionalization and constructional changes*. Oxford: Oxford University Press.
- Trousdale, Graeme. 2008. A constructional approach to lexicalization processes in the history of English: Evidence from possessive constructions. *Word Structure* 1(2). 156–177.
- Trousdale, Graeme & Muriel Norde. 2013. Degrammaticalization and constructionalization: Two case studies. *Language Sciences* 36. 32–46.

