

Germanic Future Constructions

A usage-based approach
to language change

Martin Hilpert

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Introduction

This study aims to open up new perspectives on the development and modern use of Germanic future constructions such as English *be going to* or German *werden*. Previous research on these constructions has been extensive, to say the least, necessitating an explanation of how this study will set itself off against the tradition and what new insights the reader may expect to find in it.

1.1 Converging approaches

To begin with, the present study adopts a relatively recent theoretical stance. Linguistic theory in the past decades has seen the emergence of three mutually compatible approaches. First, the framework of CORPUS LINGUISTICS has developed from a mere methodology into a theory of grammar in its own right (Sinclair 1991, Stubbs 1995, Hunston and Francis 2000). Usage-based models of grammar (Barlow and Kemmer 2000, Bybee and Hopper 2001) have shown that frequency effects permeate every area of grammar.

Also, GRAMMATICALIZATION THEORY has become one of the most productive research paradigms in historical linguistics (cf. Traugott and Heine 1991, Heine *et al.* 1991, Pagliuca 1994, Ramat and Hopper 1998, Wischer and Diewald 2002, *inter alia*). Grammaticalization is the change of lexical items and constructions into grammatical markers, and from there into more grammatical markers (Hopper and Traugott 2003: 18). As this change is thought to proceed gradually, the framework merges easily with usage-based corpus approaches, and the mutual benefit of combining the two fields has been pointed out occasionally (Krug 2000, Lindquist and Mair 2004).

Lastly, CONSTRUCTION GRAMMAR has evolved as a full-fledged cognitive theory of syntax (Lakoff 1987, Fillmore *et al.* 1988, Goldberg 1995, 2006, Fried and Östman 2004). A basic tenet of Construction Grammar is that constructions, as conventionalised sequences of morphemes, have direct semantic representations. In the present study, future constructions are thus taken to be more than mere paradigmatic alternatives to past and present tense markers. Rather, they are viewed as linguistic forms that are endowed with rich meanings that include, but may well go beyond, future time reference.

It stands to reason that the semantics of a construction is subject to diachronic change, much as the semantics of lexical items. Studies of grammaticalization have often focused on the semantic developments of items at the word level, so that a shift in perspective towards the constructional level promises new insights and a refined view of the workings of grammaticalization. Like Grammaticalization Theory, Construction Grammar has proven a fruitful theoretical framework for corpus-based studies (Goldberg 1996, Boas 2003, Stefanowitsch and Gries 2003). The combination of Corpus Linguistics, Grammaticalization Theory, and Construction Grammar makes it possible to discover and describe phenomena that earlier research programs, and each component framework on its own, were bound to miss.

1.2 New methods, new data

Besides a new theoretical orientation, this study offers methodological innovations that put its findings on a solid empirical basis. A central claim of Grammaticalization Theory is that the Saussurean dichotomy of synchrony and diachrony has to be abandoned – historical developments and present-day usage need to be studied conjointly. The advent of larger historical and modern corpus resources for the Germanic languages makes it possible to study grammaticalizing constructions in their historical and present-day usage on the basis of primary data. Exclusive reliance on secondary sources is, at least for these languages, no longer necessary.

Crucial tools for the present study are so-called DIACHRONIC CORPORA. These text collections represent successive periods of time, allowing the direct study of meaning and use of a construction over time. Diachronic English corpora include the ARCHER corpus (Biber *et al.* 1994), the HELSINKI corpus (Kytö 1991), the PENN PARSED CORPORA OF MIDDLE ENGLISH AND EARLY MODERN ENGLISH (Kroch *et al.* 2004), and the CORPUS OF LATE MODERN ENGLISH TEXTS (De Smet 2005). Also, the OXFORD ENGLISH DICTIONARY (OED) has been used fruitfully as a corpus in a number of studies (Israel 1996, Mair 2004, Hoffmann 2005). The present study follows an approach that combines historical analyses with the study of modern corpora. Large present-day corpora of English such as the BNC (Leech 1992) complement diachronic corpora by providing rich representations of synchronic usage.

For the other Germanic languages studied in the present investigation, corpus resources are less extensive. At the time of writing, few diachronic corpora exist, and most annotated modern corpora are not as large. In order to apply the same methodology to all investigated languages, this study assembles different available historical sources into diachronic databases. These databases are not as balanced for genre, and they do not cover successive periods of time as seamlessly as the

English diachronic corpora. However, if used cautiously, these databases can provide valuable insights into developments that would otherwise go unnoticed. The present study is eclectic in its use of diachronic and present-day sources from different languages to maximize data coverage and empirical support.

Along with the development of better corpus resources, corpus linguistic methodology has become more sophisticated in its use of statistics and the incorporation of linguistic theory. The present study makes extensive use of the family of methods known as COLLOSTRUCTIONAL ANALYSIS (Stefanowitsch and Gries 2003, 2005, Gries and Stefanowitsch 2004a, 2004b), a data-driven analysis of collocations that is embedded in the theoretical framework of Construction Grammar. Collostructional analysis allows fine-grained semantic descriptions of grammatical constructions on the basis of co-occurring lexical material. While collocations have been studied a long time in corpus linguistics, collostructional analysis recognizes the theoretical importance of the constructional level and focuses on collocations that are construction-specific.

Collostructional methodology, as is explained in more detail in chapter 2, requires the exhaustive extraction of all tokens of some grammatical construction from a corpus. Such a concordance allows the analyst to determine the lexical items that occur most frequently in the construction that is studied. This has been a standard procedure in corpus-linguistic studies. Many corpus-based studies within the framework of Construction Grammar (Goldberg 1996, Boas 2003, Mukherjee 2003, *inter alia*) analyze constructions through raw frequencies of co-occurring elements, which usually provide a robust indication of the constructional semantics. However, as pointed out by Stefanowitsch and Gries (2003), a second step is necessary to establish whether a lexical element is significantly attracted to the construction that is studied. The overall corpus frequency of any given lexical element needs to be taken into account to calculate whether its frequency inside the construction is significantly higher than expected. As some lexical elements are highly frequent across a wide range of different constructions, these items will be less typical of the construction under investigation than some other, less frequent elements that occur more often than expected within the construction. The strength of association between a lexical item and a grammatical construction – called COLLOSTRUCTIONAL STRENGTH – can be measured through a statistical test such as the FISHER EXACT test.

The results of a collostructional analysis do not necessarily contradict findings based on raw frequencies, but experimental studies (Gries *et al.* 2005) suggest that in cases of conflict speaker performance is guided by collostructional strength, rather than raw frequency. Collostructional analysis may thus lay a stronger claim to psychological reality than approaches based on raw frequencies. The present study extends the collostructional approach by applying it to the analysis of diachronic

developments. It will be shown that the analysis of shifting collocational preferences provides a new, empirically grounded perspective on constructional change.

1.3 Long-standing controversies

The present study combines extensive, newly available data with new methods of analysis. These innovations are not used for their own sake, but in order to address existing hypotheses about Germanic future constructions in an empirical fashion. Since the topic of this book is a fairly well-researched one, there is no shortage of claims that have been made and controversies that have been waged. The following paragraphs outline a few of these – largely unresolved – issues and discuss how they relate to the present study.

Most basically perhaps, the question whether a given form is a future tense marker or a marker of modality has been asked many times (Vater 1975, Haegeman 1983, Davidsen-Nielsen 1990, Janssen 1989, Itayama 1993, *inter alia*), and a number of different answers have been proposed. Comrie (1989) summarizes common arguments and counterarguments in the recurring debate about what exactly qualifies as a future construction. One source of controversy is the commonly observed multifunctionality of future constructions. The fact that a given language does not have a grammatical form with the sole function of future time reference has led many researchers to deny that the language has a future tense at all (Fleischman 1982, Trask 1993, *inter alia*). Linguists with a wider definition of future tense tend to arrive at the opposite conclusion, namely that any given language can have several expressions of future tense (Bybee *et al.* 1994). The present study endorses the latter view, and acknowledges that grammatical constructions usually cannot be reduced to a single function. On a constructional view, forms such as English *be going to* or German *werden* can be viewed as markers of future tense, without denying or downplaying their modal characteristics. Quite to the contrary, the modal overtones of future constructions lie at the very heart of the present analysis. Collocational patterns can be used to show how strongly a given meaning is conventionally expressed by a given construction. This, in turn, can shed light on the question which functions of the construction investigated are to be viewed as semantic or pragmatic, i.e. as strongly or only weakly conventionalized.

From the perspective of grammaticalization theory, the multifunctionality of constructions is a natural consequence of their diachronic development (Kemmer 2001). Hopper and Traugott (2003) observe that grammaticalized auxiliaries typically still carry traces of their original meaning, a phenomenon known as PERSISTENCE (Hopper 1991: 22). Persistence of lexical meaning can be observed in virtually all future constructions under investigation. Besides future time reference,

these constructions frequently express obligation, volition, intention, or an epistemic quality of the predicated event. In their study of English future auxiliaries, Bybee and Pagliuca (1987: 115) state that these meanings are directly related to the erstwhile lexical sources:

We claim that the contemporary modal nuances of *shall* and *will* are direct continuations of their lexical meanings – those of *shall* are related to obligation and those of *will* are related to desire.

While the modal overtones of future constructions constitute a phenomenon that arguably evades objective description (Abraham 1989: 380), statistical trends in co-occurring lexical material provide empirical evidence to flesh out the claim made by Bybee and Pagliuca. If an auxiliary has grammaticalized out of a verb of obligation, we expect it to co-occur with main verbs that semantically relate to this lexical source, even several centuries after the initiation of the grammaticalization process. These verbs may fall into clusters that are suggestive of different subsenses of the construction. We also expect the construction to co-occur with grammatical subjects that are animate, conscious agents, rather than inanimate entities who cannot experience obligation. If we nonetheless find inanimate subjects, it could either be the case that these examples represent a later stage in the grammaticalization of the construction, or it could be that our assumptions regarding the underlying grammaticalization path are in fact flawed. Such questions can be targeted through the analysis of historical collocational data. This study aims to show that the collocational profile of a construction and its preferences regarding participants are useful tools for the investigation of semantic change. The study of collocates can also address the potential time depth of persistence. Even after centuries of semantic development, certain collocational patterns may still betray the lexical source of a grammatical construction.

Cross-linguistically, future constructions develop from a small set of lexical sources whose developmental paths are highly restricted. Bybee *et al.* (1994) discern a small number of grammaticalization paths along which future constructions develop. Typologically, the main lexical sources of future constructions are on the one hand verbs of ability, obligation, and desire, and on the other hand motion verbs such as *come* and *go*. When these sources grammaticalize into future markers, they converge into highly similar paths. One important step in these paths is the notion of intention. Bybee *et al.* (1994: 254) argue that ‘all futures go through a stage of functioning to express the intention, first of the speaker, and later of the agent of the main verb.’ This is a strong hypothesis that will be tested against historical data in this study. Heine (1995) also subscribes to this hypothesis and presents a diagram that graphically captures the main grammaticalization paths that are associated with future meaning. An adaptation of that diagram is shown in Figure 1, which visualizes the diachronic changes of meanings from top to bottom.

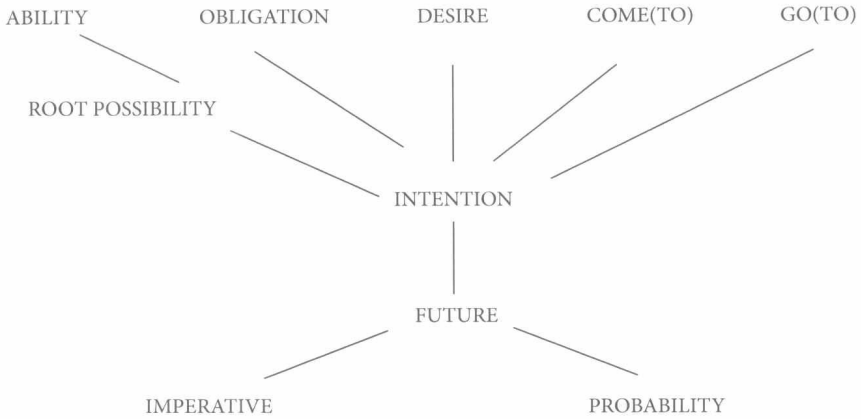


Figure 1. The main grammaticalization paths of future markers
(Adapted from Heine 1995: 124)

All lexical sources, with the exception of ability, directly become markers of intention. Verbs of ability take the intermediate step of indicating root possibility. From the expression of intention, the constructions acquire the meaning of future time reference. Some constructions then move on to acquire other functions, such as for example imperative or epistemic uses. The study of grammaticalization has the goal of establishing cross-linguistic tendencies in the development of grammatical markers. The diagram above should thus be applicable to any language and make accurate predictions about diachronic processes on the basis of synchronic data.

A problematic case for the above diagram is the development of de-venitive future constructions. Dahl (2000: 322) compares several European future constructions that derive from verbs meaning ‘come’ and finds that – contrary to the outlined developments in Figure 1 – none of these involve the notion of intentionality. Traugott (1978: 378) suggests that de-venitive motion verbs first develop into ingressive, inchoative, or resultative expressions before turning into future constructions. To explore these hypotheses, this study investigates historical data from Swedish, which has a de-venitive future construction.

Another illustrative problem concerns the English future marker *shall*, which has counterparts in Danish, Dutch, and Swedish. All of these future constructions derive from the same lexical source of obligation. From that, Bybee and Pagliuca (1987: 117) conclude that these future constructions should have developed into similar patterns of present-day usage:

Since obligation, desire and movement are commonly occurring sources for future morphemes in the languages of the world, we expect similar sequences of developments to be repeated across languages.

However, a comparative analysis of synchronic corpus data shows that the constructions behave very differently in present-day usage. While the Danish, Dutch and Swedish constructions are frequently used to express epistemic modality, this is not the case with English *shall*. Danish, English, and Swedish use their obligation-based future constructions to convey intentions, but this is rare in Dutch, where the future marker *zullen* primarily refers to abstract processes that happen to inanimate entities, thus ruling out the semantic component of intention. In Swedish, *ska* is the most common expression of the future, while English *shall* is a marginal construction that is restricted to specific genres in British English and is even less common in American English. These synchronic differences raise the question of when and how they emerged diachronically, and whether the purported grammaticalization paths are really as general and uniform as it has been assumed.

Another point of interest is the development of future constructions that do not derive from the five major sources that are shown in Figure 1. Heine (1995) presents an analysis of German *werden*, which derives from a verb of change that has become an inchoative marker. In agreement with the claim made by Bybee *et al.* (1994: 254), Heine (1995: 127) argues that German *werden* came to be a marker of intention before acquiring its present-day semantics. This would mean that Figure 1 can even be used to explain the grammaticalization of future constructions from other lexical sources. As Heine's claim is based exclusively on synchronic data, it is worthwhile examining it on the basis of historical data.

Apart from the grammaticalization paths mentioned above, Bybee *et al.* (1994: 275) also find that aspectual forms, under which they include perfective and imperfective markers along with the present tense, can acquire future time reference. This holds true for the Germanic languages under investigation, all of which have a futurate use of their present tense forms. These ASPECTUAL FUTURES (Bybee *et al.* 1994: 275) are said to differ from LEXICALLY BASED FUTURES, i.e. future constructions that develop from lexical sources, since future time reference is not considered their primary function.¹ Instead, it is argued that future time reference is only achieved as a contextual effect. Supposedly, there is no component of future time reference in the semantics of these constructions (Bybee *et al.* 1991: 21). Besides differing in meaning, aspectual and lexically based futures also differ in form. Due to their longer history of grammaticalization, aspectual futures tend to have less phonetic substance than lexically based futures. This is borne out by the Germanic languages, in which the present tense is expressed morphologically or is even zero-marked, whereas all other future constructions are periphrastic.

While the phonetic differences between aspectual futures and lexically based futures are probably uncontroversial, it is a matter of debate whether they actually warrant a different treatment of these constructions. The present study includes a discussion of aspectual futures because in some Germanic languages the futurate

present tense is the default expression for future events. Brons-Albert (1982) and De Groot (1992) report for German and Dutch respectively that more than 75% of all utterances with future time reference are formally in the present tense. A usage-based approach to language must honor this fact and discuss aspectual futures together with lexical futures. The central task of this study is to elucidate the factors that govern speakers' choices to employ one particular future construction and not another. Ignoring the most frequent choice would inevitably lead to an unsatisfactory account. This study therefore attempts a unified treatment of lexically based futures and aspectual futures in order to understand more thoroughly the semantic division of labor between different future constructions in each respective language. This perspective may capture generalizations that individual accounts of either lexically based or aspectually-based future constructions would not have noticed.

1.4 Scope of the present analysis

To summarize what has been said so far, this study aims to present an account of the grammaticalization and synchronic use of etymologically related future constructions in Danish, Dutch, English, German, and Swedish. It embraces synchronic and diachronic perspectives, as well as typological and language-internal considerations. The study of grammaticalization, as pursued for example by Bybee *et al.* (1994), is a typological enterprise. The proposed grammaticalization paths in Figure 1 have been proposed on the basis of extensive cross-linguistic data. Research of this kind aims to discern cross-linguistic universals that can be viewed as empirically testable hypotheses. The present study is couched in the framework of grammaticalization theory, but focuses on the level of individual languages in direct comparison.

The investigated languages are not a representative sample of the world's languages, but they have been specifically chosen because they lend themselves to an intra-genetic comparison (Greenberg 1969) of future constructions that developed out of cognate lexical items. Through the analysis of cross-linguistic similarities and differences in the grammaticalization of cognate constructions, the present study aims to find a middle ground between broad-based typological studies (Ultan 1978, Dahl 1985, Bybee *et al.* 1994), comprehensive studies of future tense in individual languages (Wekker 1976, Thieroff 1992, Christensen 1997), and contrastive studies of individual future constructions across two different languages (Brisau 1977, Janssen 1989, Cate 1991, Danchev and Kytö 2002). Another prolific strand of work has been the language-internal comparison of two different future constructions, such as English *will* and *be going to* (Binnick 1971, Aijmer

1984, Haegeman 1989, Declerck and Depraetere 1995, Berglund 1997, *inter alia*). The present study adopts a similar perspective with respect to language-internal comparison of future constructions, but goes beyond previous works by framing these comparisons within the cross-linguistic context of cognate future constructions in the other Germanic languages. To illustrate, cognate obligation-based future constructions, such as English *shall*, Dutch *zullen*, and Swedish *ska* share a common etymology, but differ in their roles in the respective synchronic grammars. To take another example, the futurate present is highly restricted in English, where it can only refer to scheduled activities and processes that are governed by natural laws, whereas it is used for a wider array of future events in German. The combination of these perspectives allows for an empirical reassessment of claims that have been put forward within grammaticalization theory.

1.5 Assumptions and hypotheses

To conclude the introduction, this section summarizes the assumptions that the present study adopts from previous theoretical work and states the hypotheses that will be tested against synchronic and diachronic data in this study. The assumptions are stated here as such, but references are provided that present independent evidence for each assumption. The hypotheses are also stated along with their references. They should be understood as null hypotheses that the present study aims to falsify and to replace with new hypotheses.

1.5.1 Assumptions

#1: Knowledge of grammar is knowledge of constructions

This study assumes that grammar is mentally represented as a large, structured inventory of symbolic form-meaning pairs of varying schematicity (Langacker 1987a, Barlow and Kemmer 1994). Future constructions, the subject matter of the present study, are taken to be precisely such form-meaning pairs. These constructions do not need to be described relative to a paradigm of other tense markers, but should be investigated as symbolic units in their own right.

#2: Knowledge of grammar is usage-based

It is assumed that the mental representation of grammar is usage-based (Kemmer and Barlow 2000, Bybee and Hopper 2001). The grammars of speakers will change through every spoken and written usage event. This assumption allows the study of future constructions through modern and historical corpus data.