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ON THE VARIABLES DETERMINING THE LIFE SPAN OF ENGLISH PREFIX CONSTRUCTIONS

A case study of the two prefixes *be-* and *to-* (NHG *zer-*)

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For Men change both their old words for new, and their former manner of speaking for another manner, in their own lifetimes, and not only in the first learning of speech; and this change comes above all from the very changefulness of Eä; or if you will, from the nature of speech, which is fully living only when it is born, but when the union of the thought and the sound is fallen into old custom, and the two are no longer perceived apart, then already the word is dying and joyless, the sound awaiting some new thought, and the thought eager for some new-patterned raiment of sound.

J.R.R. Tolkien (*The Peoples of Middle-Earth*, p. 396)

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Abbreviations and Symbols

⁊	Conjunction (‘and’) in OE
3SG	Third person singular
ACC	Accusative
ACT	Active
AOR	Aorist
CG	Construction Grammar
DAT	Dative case
DU	Dualis
EMdE	Early Modern English (1500-1710)
EME	Early Middle English (1125-1350)
EMPH	Emphatic particle
EOE	Early Old English (ca. 600-900)
FUT	Future
GEN	Genitive
ICV	Inseparable complex verb
IMP	Imperative
INST	Instrumental case
LM	Landmark (equivalent to *ground*)
LMdE	Late Modern English (1710-1920)
LME	Late Middle English (1350-1500)
LOE	Late Old English (ca. 900-1125)
ME	Middle English (1125-1500)
NHG	New High German
NOM	Nominative
OBJ	Object
OBL	Oblique
OE	Old English (ca. 600-1125)
OF	Old French
OHG	Old High German (ca. 600-1100)
ON	Old Norse
PDE	Present Day English (1920-)
PL	Plural
PRES	Present
RV	Rig-Veda
SCV	Separable complex verb
SEM	Semantics
SUBJ	Subjunctive
SUBJ	Subject
SYN	Syntax
TR	Trajector (equivalent to *figure*)

For abbreviated titles used for the identification of the corpus excerpts, I refer to appendix 2.

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1 Introduction

1.1 Stating the problem

When leafing through a dictionary of Old English (OE), one will inevitably come across a large number of verbs that are prefixed by inseparable prefixes derived from Germanic. Any such dictionary will contain pages and pages of derived verbs containing an inseparable prefix like *abrecan* '*a*-break', *bebeodan* '*be*-bid', *gecnawan* '*ge*-know', *onfeohtan* '*on*-fight, *toberstan* '*to*-burst'. In dictionaries of Middle English (ME), the number of prefixed-verb entries is considerably smaller; in Present-Day English (PDE), it has dwindled to an almost insignificant number. However, there is one prefix which is a notable exception, namely, the prefix *be-*. It is the only one from the above list which has not disappeared from the English language and which is still somewhat productive today (cf. such neologisms as *the unbesocked nations*).

Much diachronic research has already been done on (the disappearance of) inseparable prefixes. While many studies have dealt with the gradual decline of these prefixes in Old and Middle English (e.g. De la Cruz 1975; Hiltunen 1983; Brinton 1988; Lutz 1997), some have focused on their synchronic distribution in OE (e.g. Horgan 1980; Ogura 1995). All of them assume that inseparable prefixes were singing their swan song at the beginning of the written tradition. In the present study I would like to take issue with these traditional views. The productivity of some prefixes has only declined very gradually. According to the OED *be-* and *mis-* are productive even today.[1] The most intricate issue appears not to be why the English inseparable prefixes disappeared, but rather why some of them have resisted disappearance for so long. In these earlier studies, this issue has not yet received a lot of attention. Actually, most of them do not fully appreciate the difference in semantic content and syntactic structure between the prefixes, or do not sufficiently unravel their highly complex internal structure (cf. Hiltunen 1983: 53; Brinton 1988: 199). Instead of reconciling myself to the difficulties met with in interpreting the data, I will try to show how the internal structure of these prefixes has an important effect on their life span. This will be done by analysing this structure in detail within the constructional framework of Goldberg (1995). Prefixes can be shown to consist of networks of constructions, each of which has its own

[1] It should be noted that *on-*, also productive according to the OED, is not identical to the *on-* of OE, which is etymologically related to Gothic *and-*, German *ent-* and Dutch *ont-*.

specific characteristics in terms of semantics, syntax, aspectuality and frequency. These characteristics can be more salient in some prefixes than in others and this degree of salience is directly related to the life span of a particular prefix.

1.2 Scope

Inseparable prefixes are defined as morphemes which may be prefixed to independent words but which are not themselves words with an independent existence (cf. Hiltunen 1983: 47, Marchand 1969: 129). To the purpose of showing the effect of salience on their life spans, the semantics and syntax of two such prefixes will be examined in detail. The first inseparable prefix examined is *be-*, which has always remained productive; the second *to-* (the etymological cognate of New High German [NHG] *zer-*), which has disappeared relatively late. The following are some typical examples of these prefixes.

Old English (OE; ca. 600-1125)

(1) *dimitte illam et hoc anno usque dum **fodiam** circa illam et **mittam** stercora* (Vulgate, Lk: 13.8)
*læt hine gyt þis gear, oð ic hine **bedelfe** ⁊ ic hine **bewurpe** mid meoxe* (Wsgosp, Lk [WSCp])
'let it [a fig tree] alone this year also, till I shall **dig about** it, and **dung** it' (King James Version)

(2) *þæs ne wendon ær witan Scyldinga þæt hit a mid gemete manna ænig, betlic ond banfag, **tobrecan** meahte, listum **tolucan**.* (Beo: 778-782)
This not expected previously wise of the Shieldings that it ever with power of men any, magnificent and bone-decorated, ***to*-break** might, with cunning ***to*-lock**
'Never before had the wise of the Shieldings expected that any man by any means might **break** it [= the hall] **asunder**, magnificent and decorated with bones, or **destroy** [it] with cunning.'

Middle English (ME; ca. 1125-1500)

(3) *Þa seide Hemeri þe duc; þe his alde fader **bi-swake**.*
Swa ich eæuere beo on liue; ne scal he habben beote fiue. (Brut I: 91-92)
Then said Henry the duke: "[he] who his old father **betrayed**
As I ever be a-live, shall not he have but five [retainers]."

(4) *ac me þe sculde nimen and al **to-teon** mid horse oðer þe al **to-toruion** mid stane.* (LambX1: 9.95)

but one you should take and completely ***to*-pull** with horse or you completely ***to*-pelt** with stone

'But people should take you and **pull** you **asunder** completely by horse or **tear** you wholy **apart** by stone.'

Early Modern English (EMdE; ca. 1500-1710)

(5) *Shall I **beseech** the Scribes and Interpreters of the law, to **become** my teachers?* (Hooker*, Two sermons upon part of s. judes epistle, 1614*: 9)

Late Modern English (LMdE; ca. 1710-1920)

(6) 'Will the noble Ione,' said she, in a soft and low voice, 'deign to speak, that I may know whither to steer these **benighted** steps, and that I may lay my offerings at her feet?' (Bulwer-Nytton, *The last days of Pompeii*: ch. VI)

Present-Day English (PDE; 1920-)

(7) The flush of achievement had long passed and as Cecil sat, eyes on the television screen, not even the napkin tucked into his neck could prevent lamb-chop gravy from carelessly **bespattering** the table he had risked so much to obtain. (Matthew Finch, *Solo Fiddle*)

The prefixes *be-* and *to-* are only two of the members of a larger group of English inseparable prefixes inherited from Germanic. Like most studies dealing with the diachronic development of Germanic inseparable prefixes in English, I take the prefix system of OE as starting point. In the OE period inseparable prefixes can be divided into two classes. The first class has been labelled 'pure prefixes' by De la Cruz (1975) and can be defined as follows. Pure prefixes are 'without an etymological prepositional counterpart or with an etymological prepositional counterpart which, however, differs widely in function' (p. 47). According to this definition, which I will adopt here, the class of pure prefixes consists of those given in table 1.1 (cf. de la Cruz 1975: 49). As a mnemonic I have added suggested etymological spatial meanings (which are not always undisputed), as well as some fairly transparent examples.

Of these, *be-*, *for-* and *of-* have prepositional counterparts, but have come to perform their own specific functions, widely diverging from those exhibited by their prepositional cognates. A number of less frequent prefixes like *ed-* 'again' and *mis-* 'mis-' also belong to this list, but they are of no great importance. By contrast, the second class can be defined on

Table 1.1: Old English pure prefixes

OE prefix	Meaning	Example	Gothic cognate	German cognate
a-	out, away (Gmc. **ar-*)	*adrifan* 'drive out/away'	*uz-, ur-*	*er-*
be-	around	*berowan* 'row round'	*bi-*	*be-*
ge-	on, to (cf Lehmann 1986, Hiltunen 1983: 49-50)	*gecuman* 'come together, arrive'	*ga-*	*ge-*
for-	?round about, all over	*forfaran* 'pass away, perish'	*fair-*	*ver-*
of-	away from	*ofhealdan* 'withhold, retain'	*af-*	*ab-*
on-/and-	against	*andswarian* 'answer'	*ana-*	*ent-*
to-	apart	*tobrecan* 'break asunder'	*dis- (?), twis-*	*zer-*

the basis that they still have etymological prepositional counterparts with similar functions. An example of a prefix belonging to this second class is *ofer-* 'over, excessively', where the meaning of its prepositional counterpart *ofer* is still clearly related. The prefixes I will discuss belong to the class of 'pure prefixes', and it is in first place to the life span of other members of this class that the unusual conservation of *be-* should be compared.

Trying to determine the factors involved in the life span of prefixes is paramount to studying the factors involved in determining their productivity. The present study therefore is basically a study in MORPHOLOGICAL PRODUCTIVITY. On the whole, a prefix can be considered productive as long as it continues to attach itself to new verb roots and new derivations are formed. There are many factors at work in determining a morpheme's productivity. An exhaustive list of factors mentioned in the literature is presented in Dalton-Puffer (1994: 248-249). Among the factors she lists are phonological and syntactic characteristics, frequency, degree of generalization, transparency, etc. Productivity, then, can be defined as the 'product of the interplay of these factors not all of which are in force in a particular case' (Dalton-Puffer 1994: 249).

The problem with productivity factors, of course, is that we have only their combined outcome to go on, i.e. the actual derived verbs resulting from a certain morphological derivation. Reconstructing the factors involved on the basis of this outcome is a highly complex task and it is probably impossible to take all factors into consideration. Therefore I will confine myself to the following four: semantics, frequency, syntax (verb valence and argument structure) and aspectuality (Aktionsart). I will argue that initially Germanic prefixes often had basically different functions, being either like predicates, prepositions or adverbs, and thereby fulfilling different communicative (pragmatic) goals. As a consequence of these different functions, they also differ considerably with regard to these four factors.

Until the early OE period, this difference in function does not seem to have an immediate effect on the life span of these prefixes. However, an external factor, namely the shift from OV to VO (or more in general the analytictendency of English), will serve as a watershed in putting pressure on the OV-structured inseparable prefixes (e.g. Traugott 1982: 250; Hiltunen 1983: 98ff, 125, 144-6). During this shift, it is mainly the combination of the four internal factors (semantics, aspectuality, syntax and frequency), being the result of an original difference in function, that will determine to what extent each prefix will be preserved in ME and afterwards.

1.3 Methods and material

1.3.1 Methods

To account for these productivity factors in a coherent way, I will make use of what I would like to call the three Cs: construction grammar, cognitive grammar and corpora. I will return to the methodology of the present study in greater detail in chapter 3, but at this point, I will restrict myself to the general motivation for these choices.

The framework of construction grammar (CG) (Goldberg 1995, Croft 2001, Croft – Cruse 2004) was originally applied to constructions in which verbs operate, the focus being mainly on how these constructions influenced the valence patterns of these verbs. For instance, the intransitive verb *sneeze* received a transitive reading when used in the caused motion construction: *he sneezed the napkin of the table*. Assuming a construction at work provides an elegant way to account for such a sentence, because it is no longer necessary to posit a very implausible transitive sense for the verb *sneeze*. Constructions, then, are basically form-meaning correspondences that exist independently of particular lexemes such as the verb *sneeze* (cf. Goldberg 1995: 1). This definition and hence the constructional approach can also be applied to morphemes. In the case of verbal inseparable prefixes, this means seeing a prefix as a phonological representative of a construction, which has a greater impact than merely changing the phonological outlook of a verb. Not seeing a prefix as being representative of a construction would mean seeing each prefix-verb derivation as an item of a list. This is a highly uneconomical way of looking at prefix-verb derivations, because prefixed verbs clearly show some regularity (e.g. *benight* 'cover with night' and *bespatter* 'cover with spatters' in (6) and (7) above). In addition, an important issue in construction grammar is the interface between syntax and semantics. Prefix constructions are clearly prototypical examples of this meeting place. For instance, example (1) shows a clear meaning of *be-*, namely 'around', and also involves syntactic phenomena, in particular the shift of the semantic role of the direct object from theme (*hit weorpan ymbe þone treow* 'to

throw it around the tree') to location (*þone treow beweorpan mid it* 'to surround the tree with it').

The different paths of development of the pure prefixes moreover invite using a cognitive approach. Unlike many formal theories based on generative grammar, which try to find the single underlying syntactic or semantic schema for a grammatical structure like verbal prefixation, cognitive grammar pays attention to the internal structure of such structures. It holds that these structures are comprised of networks of subordinate structures, differing in frequency and semantics and often radiating around a prototype (cf. Lakoff 1987). As will be shown, this internal structure can help explain why OE prefixes, which at first sight have very similar functions, have such different life spans.

While generativist theories try to reduce the abundance of language phenomena to as few general principles as possible, construction grammar and cognitive grammar share an interest in non-core phenomena, often involving only one word. These latter frameworks are in other words encyclopaedic in nature (Geeraerts 1988: 222), because they believe that the theoretical machinery that accounts for these non-core phenomena can also be used to account for core phenomena (cf. Goldberg 1995: 6). In the same vein, by unravelling the semantics and structure of two morphemes, I hope to clarify the part played by cognition in morphological productivity in general.

The third C finally does not need much explanation. When dealing with historical data one has no choice but to make use of a corpus of existing text material. For the purpose of this study I have used a corpus divided into five subcorpora, each covering on average 200 years. By partitioning the corpus in 200-year chunks, the broad evolution should be clearer. Admittedly, this partitioning also runs the risk of missing the locus of an innovation appearing between two samples. But if the prefix were followed up from year to year, the changes would probably be so slight from one period to another that it would be a lot more difficult to pin them down. The first period covers data from ca. 800-1000 A.D., the second from 1150-1350. From these two periods samples will be analysed of both *be-* and *to-*. For the two last periods, 1470-1640 and 1780-1850, the analysis is restricted to *be-*, as *to-* no longer occurs.

1.3.2 Materials

To provide sufficient data for the five periods defined above, the following corpora were used: *The York-Toronto-Helsinki Parsed Corpus of Old English Prose* (henceforth YCOE) and *York-Helsinki Parsed Corpus of Old English Poetry* (YPC) for sample 1, the *Penn-Helsinki Parsed Corpus of Middle English, 2nd edition* (PPCME2) and the *Helsinki Corpus*

of English Texts: Diachronic Part (HC) for sample 2, the HC for sample 3 and the *Corpus of Late Modern English Texts* (CLMET) for sample 4.

Table 1.2 provides an overview of the general layout of the sample subcorpora. More detailed information (e.g. about their respective lengths) is given in Appendix 2. Details concerning the samples taken from these corpora will be given in chapter 3.

Table 1.2: Composition of the database

Name	Period Covered	Corpus used	Number of Texts	Number of Authors	Words
Subcorpus 1	ca. 800-1000		46	?	424 554
Prose		YCOE	(17)	(29)	(353 056)
Poetry		YTH	(29)	(?)	(71 498)
Subcorpus 2	ca. 1150-1350		35	?	420 631
Prose		PPCME2	(16)	(?)	(348 871)
Poetry		HC	(19)	(18)	(71 760)
Subcorpus 3	1470-1640	PPCME2 + HC	94	91	414 014
Subcorpus 4	1780-1850	CLMET	28	28	1 180 088

1.4 Structure of the study

The aim of the present study is to clarify the factors at work in the unusually long conservation and productivity of the inseparable prefix constructions *be-* and *to-* throughout the recorded stages of the English language. Various scholars have described several characteristics of inseparable prefixes in general and of OE prefixes in particular. The second chapter gives an overview of different approaches and solutions of the last century (sections 2.1-2.5). This overview is not meant as a mere description, but as a critical evaluation of their arguments. While many of these studies are inspiring, not a single one of them in the end proves to be satisfying. In particular, all these approaches share the characteristic that they deal with the prefixes as a whole and tend to underestimate the semantic and structural differences between them. It has to be said that one recent study in particular, the one by Blom (2004), is a promising exception. Conceptually, an important distinction that she establishes is the one between predicative and non-predicative prefixes. The first class of prefixes shows similarities with predicates (*he* ***A****stigeð* 'he comes (and is) DOWN'), the second mainly with prepositions (*he* ***BE****rideð þone cyning* 'he rides ROUND the king'). However, Blom's account too leaves many questions unanswered.

In a third chapter therefore I will describe the development of different kinds of prefixes in OE in a more systematic way and develop a methodology to describe the differences between the pure prefixes in detail, without losing generalizations. Methodologically, this

involves in first place the introduction of construction grammar to make a finer-grained classification of (the properties of) prefixes possible (section 3.1). A second part (section 3.2) discusses the diachronic development of the two types of prefixes (now reformulated as prefix constructions), the predicative and the non-predicative construction. Finally I will develop a methodology to measure constructionhood and constructional salience. This involves making the concept of salience operational by defining it in terms of four parameters, which make it possible to account for the different histories of the different prefix constructions (sections 3.3-3.4). These parameters are: semantic salience, salience by frequency, syntactic salience and Aktionsart salience.

Before it is possible to compare the prefixes *be-* and *to-* in terms of the four parameters established in chapter 3, it is necessary to examine the internal structure of these two prefixes in detail. This detailed description is the subject matter of chapter 4. It concentrates on the OE period, because it is the parameter settings of this period which will determine whether the prefix will be preserved in ME or whether it will gradually decline. However, the later periods will be described briefly as well, to be able to verify if the diachronic development indeed correlates with the settings of these salience parameters in OE. A first part of chapter four, then, provides a detailed analysis of the prefix *be-*, determining the different constructions and the whole constructional network which this morpheme represents in OE and beyond (sections 4.2-4.5), a second part discusses the prefix *to-* in a similar way (section 4.6-4.8). What will mainly become clear in this analysis, is that many derivations containing the prefix *be-* display non-predicative properties, which involve shifts in affectedness, from unaffected to affected (semantic salience), valence, e.g. from intransitive to transitive (syntactic salience) and Aktionsart, from atelic to telic (Aktionsart salience). By contrast, derivations containing the prefix *to-* exclusively display predicative properties, which in most cases only involve a shift in Aktionsart, from atelic to telic.

Only after this detailed analysis of both prefixes in terms of the constructions they represent, a proper comparison of the two in terms of salience parameters is possible. This comparison, carried out in chapter 5, is the crucial test for the methodology developed in chapter 3, as it examines whether the difference in degree of salience between *be-* and *to-* indeed correlates with the difference in frequency history (section 5.1). The results of this comparison turn out to be promising. On all four salience parameters, the prefix *be-*, and more specifically the non-predicative constructions within the constructional network *be-* represents, proves to be more salient than the prefix *to-*, and this correlates perfectly with the different frequency histories of *be-* and *to-*. Following this comparison, it is described what

kinds of insight the methodology of this study may provide in grammaticalization processes in general.

A concluding chapter, chapter 6, mainly asks some questions. How general are the results of this study? And which threads of research need further examination? Statistically, the most promising parameters for further research are the syntactic one and the one regarding Aktionsart, because these can be quantified and standardized, and be applied not only to prefixes in general, but to other verb-related constructions as well. However, data from other prefixes or related constructions will be needed to further test the methodological value of these parameters.

2 Previous accounts: a critical overview

There exist several earlier studies that describe the semantics and structure of the Germanic inseparable prefixes in English and that account for the differences and similarities between them. Not all of these studies deal with the problem of the life spans of these prefixes, but all of them have the OE period as their starting point. This study will not depart from this practice, because it does not make much sense to describe the Germanic prefix system starting from PDE, where only a few relics are left, and certainly no system. Because the OE period is pivotal, studies not dealing with the decline of the prefixes also contain much information that is relevant to the explanation of this decline. The following is meant as a critical evaluation of the literature concerning (OE) prefixes.

Several types of answers and solutions have been put forward in addressing the issue of the decline of (OE) prefixes. Section 2.1 investigates external influences at work in this decline. Section 2.2 looks at phonotactic strength as an explanation for the different life spans of prefixes. A third section discusses some early encyclopaedic or 'lexicographical' accounts, which are the first unsystematic attempts to clarify internal structure and factors at work. The two groups of studies that have influenced the present study most however, are the last two: the interchangeability approach, which attributes the loss of prefixes to their increasing interchangeability in OE (section 2.4), and the functional approach, trying to lay bare the ultimate function(s) of prefixes (section 2.5), which may have different effects on the life spans of the prefixes displaying these functions.

2.1 External influences: Old Norse and Old French

One way to explain the disappearance of English prefixes is in terms of external influence. Two types of such an influence are commonly referred to. The first, which is still quite common among non-specialists, and which is probably less important than commonly accepted in the case of inseparable prefixes, consists of the influence of Old French. The second, on whose degree scholars do not agree at all, is the influence exerted by Old Norse.

The influence of Old Norse is not easy to assess. In light of the fact that Old Norse had given up prefixation in an early stage and took to phrasal verbs instead (cf. Hiltunen 1983: 42-44), it is likely that the prefixless dialects of the Norse invaders have influenced those of the Anglo-Saxons. But this influence is very difficult to estimate, in particular because there are no written documents in Old Norse from the period of the Norse invasion of East-

England (9th and 10th centuries). It may have been substantial though, considering for instance the wide influence of the Danelaw (Baugh 1959).

The French connection is less contentious. It cannot be denied that Old French exerted a sweeping influence on the English language. According to the Cambridge History of the English Language, the amount of lexemes from native origin decreased from 91.5 % in EME to 78.8 % in LME. This fall was mainly due to French influence, which means that thousands of words were borrowed from it during the ME period (cf. CHEL I: 423-439; also cf. Baugh 1959).

Yet, in the case of prefixes, the influence of this vocabulary influx should not be overestimated. Various scholars have pointed out that the OE prefix system had already lost much of its vigour in the tenth and eleventh century, so before the battle of Hastings and certainly a long time before the French borrowing had set in on a wide scale in the fourteenth century (Hiltunen 1983: 97, Lutz 1997: 260). So instead of French exerting pressure on the system itself (a push chain), the decline of the prefixes might therefore have at most worked as a drag chain, French filling up the expressive gap left by the weakening of prefixes. It is therefore not surprising that after the Norman Conquest some Romance and Latin prefixes were introduced (such as *re-, co-, de-, circum-*) with a more specific semantic content. These still exist in Present Day English (PDE), but it should be kept in mind that they are often confined to academic or intellectual registers.

Neither the influence from Old Norse nor from French can explain any difference in life spans between the inseparable prefixes. While the absence of prefixes in Old Norse at most affected the whole English prefix system uniformly, French did never have the chance to exert any influence at all. In finding a proper explanation for the differences between inseparable prefixes, it is therefore indispensable to look at language-internal factors.

2.2 The phonological approach: consonantal strength

One way to look at the prefix system internally is by comparing the phonological structure of the inseparable prefixes. In a detailed study making use of phonotactics, Lutz (1997) arranges the speech sounds of language on a scale of consonantal strength, ranging from the voiceless plosives as the consonants resisting reduction most strongly to the open vowels as the least consonantal, least stable and therefore weakest speech sounds. From the set of pure prefixes, the only two whose onset is a plosive are precisely *to-* and *be-*, which would explain why they were conserved longer than the other prefixes.

Clearly, the phonological approach already provides a better account for the differences in life span between prefixes than did the account in terms of external influence. However,

the explanation it gives is at most partial, because the phonotactical explanation cannot account for all differences in life span. *Be-* and *to-* for instance, though phonologically very similar, did not share the same development: *to-* remained in use only until Early Modern English (EMdE), *be-* remains in use to this day. Even if phonotactics can adequately account for the pace with which phonological reduction proceeds once it has started, it cannot explain why reduction has come to a complete standstill in a prefix like *be-*. Therefore, other and arguably more fundamental language-internal factors, in particular semantics and syntax, will have to be taken into account to provide an adequate explanation for life span differences between prefixes (cf. Hiltunen 1983: 52).

2.3 The lexicographical approach: listing prefix properties

The internal structure of prefixes was first dealt with in lexicographical descriptions, such as those in the first edition of the OED, and in some detailed studies on individual prefixes. The most relevant for the present study are the one on *be-* (*bi-, big-*) by Lenze (1909) and the one on *to-* (*te-*) by Bechler (1909).

As a starting point for his discussion, Lenze begins with a lengthy etymological explanation, relating *be-* to the IE meaning 'toward' and (by intensification) 'around' (cf. Latin *ob*). Following this etymological discussion, he provides a lexicon and a concordance of all prefix-verb derivations he could find in the OE sources, grouping these derivations in classes. However, this classification is carried out in an unsystematic manner, sometimes grouping derivations on a semantic basis (§C, Ch. 1 '*be-* as exponent of a certain spatial conception', as in *bestyman* 'cover with steam, bedew'), sometimes on a syntactic basis (e.g. §C, Ch. 2 '*be-* as transitivizing particle', as in transitive *bewepan* 'mourn over' versus intransitive *wepan* 'weep'). While he does not attempt a more systematic classification, apparently because he does not feel that such a classification is feasible, he still observes that the exceptions to the transitivizing nature of *be-* are not arbitrary, but are usually derived from verbs of inherently directed motion (*becuman* 'come', *befeallan* 'fall').

As Lenze's study is basically a synchronic analysis of *be-* in OE, it does not provide many direct clues why the productivity of the prefix declined at a slower pace than that of other prefixes. By contrast, Bechler's study is diachronic and makes some interesting suggestions concerning the decline of *to-*. Like Lenze, he also gives a lexicon and a concordance. Within this lexicon, a fairly extensive class is the one where *to-* 'asunder' combines with verbs already containing its meaning, thus merely reinforcing the verb's semantics (*tobrecan* 'break asunder' instead of *brecan* 'break'). It is therefore not very surprising that the semantics of *to-* itself is rather weak. Bechler observed that *to-* increasingly combined

with intensifying *(e)al* 'completely' into *eal to-* 'completely asunder'. In LME the prefix is hardly found without the accompanying *al* (cf. already the EME example of (4)). In the end, the overlap of meaning between *al* and *to*, both of them intensifying the semantics of the verb, made *to-* completely redundant (also cf. section 4.8).

These studies are invaluable sources of information. Compared to the phonological account, these studies shed light on the possible semantic and syntactic properties of the inseparable prefixes *be-* and *to-*, and these properties, such as transitivization in the case of *be-* or redundancy in the case of *to-*, may have had different effects on the respective life spans of these prefixes. At the same time, these studies are limited, as they are no more than a collection of poorly related observations applying to one prefix only, without looking for a more coherent and principled way to account for differences within one prefix and between prefixes.

2.4 The interchangeability approach: semantic generalization

Another approach wanted to provide a more objective alternative for the lexicographical one by analysing the degree and the different types of interchangeability between prefixes to see what is left of their specific character and function (for instance Horgan 1980, Hiltunen 1983, Ogura 1994, Ogura 1995). It is true that the inseparable prefixes originally had concrete, spatial meanings, such as 'around' in the case of *be-*, 'asunder' for *to-*, 'out' for *a-* etc. However, by the time of OE the original semantics of these prefixes was extremely generalized and sometimes considerably weakened. Therefore, according to Hiltunen, a lexicographical approach, which tries to fix the internal structure of the prefixes, is far too messy (cf. Hiltunen 1983: 95). The alternative he suggests is to look at the interchangeability between prefixes. As a result of the weakened semantics of prefixes, in the same context a verb may often occur with two or more different prefixes. This interchangeability of prefixes can be seen as an index of their decline.

That prefixes are highly interchangeable becomes particularly clear when examining two or more manuscripts of the same text, as for instance the following example from different versions of Gregory's Dialogues (GD) show (taken from Hiltunen 1983: 79):

(8) *... sola nominum praenotatione* ***DIStinguo*** (L: 15.19)
gif ic ***Asceade*** *mid mearcunge þara namena* (GD [O]: 7.2)
gyf ic mid mearcunge ***TOsceade*** *þara naman* (GD [H]: 7.2)
... ***GEsceade*** *...* (GD: 7.fn.1)
'If I **DIStinguish** by marking their names'

In his study, Hiltunen systematically looks for this kind of variation between manuscripts of the same texts and comes to the following conclusions. The prefix *ge-* has the highest degree of interchangeability. It either alternates with a simplex verb (e.g. *geniman* vs. *niman* 'take') or with another prefixed verb (*gecnawan* vs. *oncnawan* 'know'). The prefix with the second highest degree of interchangebility is the prefix *a-* (e.g. example (8): *asceadan* vs. *gesceadan* vs. *tosceadan* 'distinghuish'). Other prefixes are less interchangeable and preserved their original spatial semantics better. Semantic attrition is thus more a feature of *ge-* and *a-* than of the other inseparable prefixes, but the other prefixes are also subject to semantic generalization, only to a lesser extent.

An important mechanism at work here is 'pragmatic inferencing'. By means of pragmatic inferences, the semanticization of a pragmatic effect not originally part of a word or morpheme (cf. Hopper – Traugott 1993: 65ff), all prefixes had developed secondary meanings in addition to the original spatial ones. One example of this is the negative connotation of *for-* (*forlicgan* '*for*-lie, i.e. commit adultery'). Another example is the development of aspectual meanings, as for instance the rise of a perfectivizing connotation in many prefixes, which can be illustrated by *ge-* developing partially into ME *y-/-i* as a marker of a past participle (which *ge-* is still in Dutch and German) (Brinton 1988: 212). Third, as we have seen, a prefix like *to-* merely intensifies the meaning of a root verb like *tobrecan*. This pragmatic effect of intensification was eventually semanticized as well, giving rise to a new function of the prefix system, namely to furnish the verb with more expressive power. The alternation with an intensifying adverb in some manuscripts sometimes brings this out nicely:

(9) ... *manibus* ***EXcederit*** (L: 24.1)
hands.DAT-PL **down-threw.3SG**
þæt he hine mid his handum ***FORbeah*** (GD 1 [CO]: 20.25)
that he him with his hands ***FOR*-bent**
þæt he hine mid his handum ***HETELICE beot*** (GD 1 [H]: 20.24)
that he him with his hands **VIOLENTLY beated**

On top of this increase in the polysemy of prefixes through pragmatic inferencing, prefixes could perform different syntactic functions too. For instance, Lenze had already pointed out for *be-* that it sometimes had a transitivizing effect. This function is shared by all prefixes in an apparently unsystematic way. In the end then, the functional load of most prefixes became too much and the system started to break down.

The high degree of interchangeability in OE reveals that the prefix system had already reached its peak before LOE. From OE to ME (Hiltunen 1983: 94) prefix-variation decreases considerably and is almost lost in the manuscripts of the EME *Ancrene Riwle* (ca. 1225-1230), suggesting that the most generalized usages of the prefix were exchanged for their most general alternative, being the zero-alternative.

However, this replacement did not uniformly take place for all prefix functions. Often prefixes were replaced by phrasal particles instead. Hiltunen (1983) and Ogura (1994; 1995) for instance, show how, as early as OE, especially purely spatial usages of prefixes appear to be to some extent interchangeable with adverbial particles. Ogura (1995: 79) illustrates this with renderings of Latin *descendere* 'descend', all taken from three different OE translations of the gospels (Lindisfarne [ca. 950 A.D.], Rushworth [ca. 950-1000] and West-Saxon Corpus 140 [ca. 1025]). All versions use the derivations *ofstigan* or *astigan*, containing inseparable prefixes, along with phrasal verbs such as *stigað niðer*, *gá nyðyr/nyðer*, *ofdune stag*. In the case of Latin *ascendere* 'ascend', all OE versions use the derivation with inseparable prefix *astigan*, but here it is OHG Tatian which uses a phrasal verb *stígit úf*. Interestingly, all the examples of Hiltunen and Ogura involve verbs of inherently directed motion, precisely the same class that remained intransitive if combined with *be-*.

The combination of such motion verbs and particles moreover always results in a telic situation: moving up results in being 'up', etc. Brinton (1988) has shown how this kind of combination is extended to aspectual telicity as well. She describes how aspect is increasingly encoded by phrasal verbs in the ME period, and this is still the case in PDE. In this way OE *afyllan* is now translated by 'fill up', *fulbrecan* by 'break entirely' etc. (p. 204ff.).

In conclusion, by seeing the degree of interchangeability as an index of the survival potential of each prefix, the interchangeability approach has offered an interesting account for their decline. This account covers the data more systematically than does the lexicographical one, because it offers an explanation for the decline of the prefix system as a whole, and at the same time answers the question why these prefixes do not decline at the same pace. However, the interchangeability index that should explain the pace of the decline of each prefix, and hence the differences in life span between them, is not very accurate. *Ge-* and *a-* are clearly the most flexible prefixes of all, and one would therefore expect them to have disappeared earlier than the other prefixes, but compared to *on-* or *of-* this is simply not true. The reason why the index is inaccurate seems the following. By confining itself to instances of alternating prefix-verb combinations between different manuscripts of the same text, the interchangeability account only presents one part of the prefix system. There still

remains a group of prefix-verb derivations where the prefix is never exchanged for another prefix in the manuscripts. This holds in particular for usages where the prefix still retained to a high degree its spatial sense, as for instance in the verbs *beridan* 'to ride round' (not interchangeable with *aridan, geridan* or *ridan* 'to ride') or *tolicgan* 'to extend in different directions'. It is only by taking into account these instances of prefixes, which are not interchangeable with other prefixes, that it will become possible to determine all factors that have an effect on the life span of the prefixes, and account for the differences between them adequately.

2.5 The functional approach: predicative or non-predicative

2.5.1 Introduction

Together with the semantic generalization of prefixes, one of the main reasons given by the interchangeability approach for the increased interchangeability and ultimate loss of the inseparable prefixes was the increase of functions that the prefixes could perform. However, sometimes a high functional load appears to have the opposite effect, causing an item to be maintained rather than lost in the language. PDE phrasal verbs for instance show the same range of functions as OE prefixes, and for some centuries now they have been highly productive. Moreover, none of the studies presented so far discusses many of these functional differences systematically, nor the kind of effect they have on maintenance or loss in the language. A functional approach is therefore necessary.

At first sight, the range of functional variation within the group of pure prefixes is quite baffling. Consider the following OE examples:

(10) a. *Hæfde ða* ***FORsiðod*** *sunu Ecgþeowes under gynne grund* (Beo: 1550ff)
Had then ***FOR*-travelled** son of Ecgtheow under spacious ground
'Then the son of Ecgtheow **traveled AMISS** [i.e. perished] under spacious ground'

b. *hi heom sylfe ælc oðerne* ***forfore***. (ChronC [Rositzke]: 1052.34)
they themselves each other ***for*-fare**
'they **destroyed** each other.' (cf. De la Cruz 1965: 52-53)

(11) a. *þa us help* ***bicwom*** (Christ: 858)
then us.DAT help.NOM ***be*-came**
'Then help **came** to us'

b. *ond [he] þone bur utan* ***beeode*** (ChronA [Plummer]: 755.10)
and [he] the.ACC chamber.ACC from outside ***be*-went**
'And he **surrounded** his chamber from outside'

In all these cases, the matrix verb is an intransitive verb of inherent directed motion, *siðan* 'go, travel' in (10a), *faran* 'go, travel' in (10b), *cuman* 'come' in (11a) and *gon* 'go' in (11b). Despite this homogeneous input, the resulting derived forms are very heterogeneous. The prefix-verb derivation in (10a) is, like the simplex verb, intransitive, whereas in (10b) and (11b) it is transitive and in (11a) it seems to have a dative object.

A first systematic analysis of the different functions between pure prefixes has been provided by De la Cruz (1975). Among others, he distinguishes four not mutually exclusive functions: a) adding the literal spatial meaning of the prefix, b) adding perfective/intensive aspect, c) transitivization or another change in valence structure, d) specialization as markers of past participles (mainly *ge-, for-* and *of-*). He then goes on to describe which functions are actually performed by each prefix. *For-*, for instance, by the time of OE no longer seems to add any spatial meaning to the matrix verb, but can perform each of the three other functions. The examples of (10) seem to confirm this to some extent: *for-* in (10a) as well as (10b) can be seen as adding perfective aspect and in (10b) it has a transitivizing effect. *Be-* in the sense of 'around' can even perform the functions b) and c) and add concrete spatial meaning as well, as for instance in (11b). However, it is still not clear why *for-* as well as *be-* have a transitivizing effect in (10b) and (11b) but not in (10a) and (11a), nor does de la Cruz offer an explanation why *be-* does not have the same type of transitivizing effect in (11a) as in (11b), but instead in (11a) seems to license a dative object *us*.

De la Cruz gives some clues though, by pointing to the equivalence between *be-* and a preposition (recall that *be-* translated the Latin preposition *circa* 'around' in (1)), an equivalence not pertaining to the other prefixes, which are more adverbial in nature (cf. the translation of *to-* as the adverb 'asunder' in (2, 4)) (also cf. Hiltunen 1983: 23). Within the more systematic account of Blom (2004), the group of adverbial-like prefixes falls within the class of predicative prefixes (though not all types of adverbial prefixes belong there; see below) and the group of prepositional-like prefixes within the larger class of non-predicative prefixes. Both these classes have recently been used to explain semantic and syntactic characteristics of prefixes, among others within the framework of lexical functional grammar (LFG: Booij 1992; Blom 2004), within a more general generative framework (Van Kemenade – Los 2003), and within that of cognitive linguistics (cf. Brinton 1988; Bellavia 1996; Dewell 1996; Dąbrowska 1996; Tabakowska 2003). In the next two sections I will present some general syntactic and semantic properties of these classes found in the literature.

2.5.2 Predicative prefixes

First, prefixes can be functionally equivalent to secondary predicates (SP). Secondary predicates can be defined as "verbal constructions in which an embedded predicate denotes the result of the action of the verb" (Van Kemenade – Los 2003: 86). In addition to the core predication (the verb), the SP is predicated of the theme of the clause (usually an NP), which may be the subject in the case of intransitive motion verbs or the object in the case of transitive verbs.

To clarify how prefixes function this way, I will first make use of examples with adjectival SPs and phrasal particle SPs, which show essentially the same structure as predicative prefixes. First, adjectival SPs can occur in transitive and in intransitive clauses. In transitive clauses, the adjective is often combined with a 'light verb', as in example (12a), but it also occurs with more lexical verbs, as in (12b).

(12) a. He made his papers **available** on the internet. (From Van Kemenade and Los 2003: 86)
b. John paints his bike **orange**. (From Blom 2004: 17)

The examples of (12) have matrix verbs that are transitive in their own right. Apart from being a direct object however, *papers* and *bike* can also be seen as subjects of small clauses, consisting of these NPs as subjects together with the secondary predicates assuming the function of adjectival subject complements. With their double functions as object and subject, these NPs pivot between two separate events. The first event is a causative event, causing the object to change by the action denoted by the verb ('by painting it, John causes the bike to change'), whereas the second event is an inchoative change of state event of which the secondary predicate denotes the result ('the bike starts to change and as a result is orange'). These sentences in other words contain an agent *causing* a **theme** to *become* **SP** {by *V-ing* that theme}. The situation as a whole is telic. By studies working within the LFG framework, the structure of the SP in sentences like these is called the Resultative Lexical Conceptual Structure (R-LCS) of the SP (cf. Booij 1992, Van Kemenade – Los 2003 and Blom 2004: 17; also cf. Brinton 1988: 176ff). Making use of this structure, (12a) and (12b) can be paraphrased as follows:

(13) a. He made it in such a way that his papers are **AVAILABLE** on the internet.[2]
b. His bike was **ORANGE** as the result of his painting it.

[2] I use small caps to render any paraphrase of the relevant element (SP or prefix) under consideration.

In the LFG-based analysis the verb is construed as a manner adjunct (hence the curly brackets above). This is particularly clear in the case of lexical matrix verbs: the bike becomes orange *by painting* (it). This suggests that the adjective is the real syntactic head of the verb-SP structure rather than the verb. As a predicate, this adjective needs a theme to be predicated over (the subject-like function of the NP), and this should explain the occurrence of so called unselected objects (objects not licensed by the valence pattern of the verb) or fake reflexives, as for instance *himself* in the following sentence, where the intransitive verb *cough* can be seen as being 'transitivized' by the adjective.

(14) He coughed himself **sick**.

However, transitivization of intransitive verbs does not always apply. Predicative structures can also occur within intransitive resultatives, in which case the theme over which the SP is predicated occurs in subject position. The matrix verb of such intransitive resultatives is either an ergative verb[3] or an intransitive verb of position.

(15) a. It broke **apart**.
b. He travelled **away**.

In conclusion, in PDE verbs with any kind of valence (intransitive or transitive) can combine with an adjectival SP resulting in the following argument structures: they can either be transitive (12, 14) or ergative (15), but not unergative (**He laughed apart*).

Second, phrasal particles of PDE, Dutch and German often show a structure similar to that of secondary predicates, as illustrated in the following sentences (with predicative paraphrases). They can therefore be called 'predicative particles', and are similar to the predicative prefixes that I will describe below.

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[3] In the formal literature these are called unaccusatives, which roughly consist of two verb classes. The first consists of intransitive verbs of position (*go, come, lie,* etc.). The second class consists of verbs that can appear in both a transitive and an intransitive sentence. But unlike optionally transitive verbs like *eat*, which have an agentive subject in the active voice regardless of transitivity, the unaccusative verbs have an agent as their subject in transitive sentences, but a theme as their subject in intransitive sentences:

(i) Sally opened the door.
(ii) The door opened.

Unergatives on the other hand are intransitive verbs that always have an agentive subject, like *I laugh* etc. (cf. Napoli 1993: 123, 292-293).

(16) a. They took their hat **off**. (cf. 12)

→ They took their hat + it is **OFF**.

b. They laughed their fear **away**. (cf. 14)

→ They laughed + their fear is **AWAY**.

c. They came **by**. (cf. 15)

→ They came + they are **BY**.

In the case of (16) the resultative and causative structure of the sentence can be synchronically recovered, which makes the predicative reading transparent.

In line with Booij (1992), Van Kemenade and Los (2003) draw a straightforward parallel between these predicative structures of adjectives or particles, and the structure of inseparable prefixes. For a considerable number of prefix usages, this parallel seems justified. Sentences (17a-b) illustrate the predicative analysis of prefixes for transitive verbs and sentences (17c-d) does the same for intransitive verbs (of motion).

(17) a. *Þa Maximianus geacsade þæt his sunu feng to þæm onwalde, he þa [...] þohte his sunu to beswicanne, ȝ him siþþan fon to þæm onwalde. Ac þa hit se sunu anfunde, þa* ***Adrœfde*** *he þone fæder.* (Or 6: 30.148.16)

When Maximianus discovered that his son came into the power, he then thought his son to supplant, and him after come into the power. But when it the son out-found, then ***a*-drove** he the father

'When Maximianus discovered that his son came into power, he thought to supplant him, and ascend the throne after him. But when the son discovered this, he **drove** his father **AWAY**.'

→ He **drove** his father + his father is **AWAY**.

b. *[Maximus] hæfde beboden þa clusan to healdanne. [...] Ac mid þæm þe he from þære clusan afaren wæs wiþ þara scipa, þa com Theodosius þærto ȝ funde þæræt feawa men, [...] ȝ he hie raðe aweg aþewde, ȝ þa clusan* ***TObræc***. (Or 6: 36.154.13)

Maximus had commanded the prisons to guard. [...] But with that that he from the prisons *a*-travelled was with the ships, then came Theodosius thereto and found thereat few men, [...] and he them quickly away *away*-drove, and the prisons ***to*-broke**

'Maximus had commanded to guard the prisons. [...] But after he had travelled away from the prisons with his ships, Theodosius arrived there and found there

only few men, [...] and quickly drove them away, and broke the prisons ASUNDER'

→ He **broke** the bars + the bars are **IN PIECES**.

c. *gif godes sune siæ **Astig** nu of rode* (Mt 27.40 [Ru1])
if god's son be ***of*-come.IMP-2SG** now from cross
'if you be god's son **come DOWN** from the cross now.'
→ You **come** + you are **DOWN**.

d. *ic ongite þæt ealla gesceafta **TOflowen** swa swa wæter [...] gif hi næfdon ænne God þe him eallum stiorde ȝ racode ȝ rædde.* (Bo: 34.94.8)
I understand that all creatures ***to*-flew.SUBJ-PRES-3SG** as like water [...] if they not-had one God who them all guided and ruled and counselled
'I understand that all creatures would **flow AWAY** [i.e. perish] like water [...] if they did not have one God who guided them all and ruled them and counselled them.'
→ All creatures **flow** + all creatures are **AWAY**.

While Van Kemenade and Los (2003) do not give the kind of examples given in (17), they do discuss the predicative structure of *for-*. For this prefix they posit the core meaning of 'away' and they give the OE examples *rotian* 'rot' vs. *forrotian* 'rot away', *lætan* 'let' vs. *forlætan* 'abandon [let away]' and *weorpan* 'throw' vs. *forweorpan* 'throw away'. The sentences given for *for-* fit this analysis in a straightforward manner. (10a), here repeated for convenience, can be seen as functionally equivalent to (15a-b), whereas (10b) is equivalent to (14), licensing a fake reflexive.

(10) a. *Hæfde ða **forsiðod** sunu Ecgþeowes under gynne grund* (Beo 1550ff)
Had then ***for*-travelled** son of Ecgtheow under spacious ground
'Then the son of Ecgtheow **travelled** and [as a result] was **AWAY** ...'

b. *hi heom sylfe ælc oðerne **forfore**.* (ChronC [Rositzke]:1052.34)
they themselves each other ***for*-fare**
'they **destroyed** each other.' (cf. De la Cruz 1965: 52-53)

It is not entirely clear whether *ælc oðerne* in (10b) is a real unselected object, because the matrix verb *faran* in OE also has a transitive meaning 'undergo, suffer', which does not seem inappropriate here. Clear-cut examples of such unselected objects are actually extremely difficult to find in OE. For instance *hliehhan* 'laugh' has a transitive variant *gehliehhan*

'laugh at', but the simplex itself can also be used transitively. A more or less straightforward example may be *forlicgan* in the transitive sense of 'screen (a thief)' versus intransitive *licgan* 'lie' (also cf. de la Cruz 1975: 52-53).

Van Kemenade and Los (2003) also apply the predicative analysis to the prefix *be-*, a case which is more difficult to account for. To preserve the predicative analysis for all usages of *be-*, they have to assume a very abstract meaning like 'completely affected', which they illustrate with the following pair of German sentences.

(18) a. Er **gießt** Wasser auf die Blumen.
'He **pours** water on the flowers.'
b. Er **BEgießt** die Blumen.
'He **waters** the flowers.'
→ He **pours** water + the flowers are **COMPLETELY AFFECTED**.
(cf. OE *geotan/begeotan*)

It is by no means clear how this meaning is historically related to the original spatial meaning of 'about, around'. Van Kemenade and Los are aware that there are prefixes that are not structured predicatively (2003: 93-94). But they do not discuss these other structures and therefore may have been over-eager to account for as much data as possible by means of the predicative analysis. As the next section will show, a non-predicative analysis of *be-* in sentences like (18) seems much more natural.

2.5.3 Non-predicative prefixes

Not all phrasal verbs or prefixes can be accounted for by a predicative analysis. For instance, the following Dutch complex verb cannot in any way be conceived of as containing a secondary predicate (cf. Blom 2004: 23):

(19) de jongen **aankijken**
'**look at** the boy'
*The boy is AT

As the English translation suggests, *aan* 'at' in this sentence is functionally equivalent to a preposition. If a prefix is functionally equivalent to a preposition or an adverbial of continuation, it is of a non-predicative nature, because the prefix is no longer the predicate of the theme of the transitive or intransitive sentence containing it. Four types of such non-

predicative prefixes can be distinguished (Blom 2004: 20ff; Dewell 1996: 111). A first type consists of destination path prefixes (Dewell 1996: 111; the same as Blom's orienting preverbs, 2004: 23), for instance (19) or *toe-* in *het publiek* ***toe****spreken* 'talk to the audience' (not **the audience is* TO) with the talking oriented toward the audience. Second there are route path prefixes (*dat Jan de brief* ***over****leest*, 'that John reads over/through the letter', and cf. below). A third type contains prefixes indicating an inferred reference point, as in *de groenten* ***voor****koken*, 'precook the vegetables', meaning 'before baking or frying them'. Finally there are continuative prefixes as in ***door****werken*, 'work on'. All these types occur with separable prefixes, but it is not clear if they all do with inseparable prefixes. I will only discuss the first two, because the latter two are absent in the usages of *be-* as well as those of *to-*.

Destination path prefixes (cf. Blom 2004: 23-24) introduce a LM[4] participant towards which the situation is oriented. Verbal derivations containing this type are usually activities (or states). Unlike predicative prefixes therefore they are atelic and do not involve any affectedness of the object of the prefix. Consequently, instead of the verb being merely a manner adjunct, it expresses the core event, the orienting prefix being conceptualized as an adjunct modifying the activity expressed by the verb. As we will see, this usage can also be seen in the data on *be-*, as for instance in *beseon* 'look at'.

Route path prefixes basically express a telic path through/over/around a LM. The shape of the LM together with the specific semantics of the route path prefix in this relation defines the path through/over/around which the subject referent (metaphorically) moves by performing the action denoted by the verb. Root verbs to which such path prefixes are attached are generally optionally transitive (*de brief overlezen* 'read through the letter') or intransitive (*het probleem doorspreken* 'talk the problem over') (examples from Blom 2004: 25; also cf. p. 27). The derivation in any case is transitive and it is the prefix that licenses the LM argument.

Assuming a non-predicative route path prefix reading of *be-* provides us with a natural paraphrase for (11b), here repeated as (20):

(20) *ond [he] þone bur utan* ***BEeode*** (ChronA [Plummer]: 755.10)

NOT

*?He went + The chamber was COMPLETELY AFFECTED

[4] To indicate the semantic role of a (metaphorically) moving agent/theme I will use the Langackerian term of Trajector (TR) (more or less coinciding with the notion *figure*), to indicate the patient/location Landmark (LM) (cf. the notion of *ground*) (cf. Croft – Cruse 2004: 56-58).

BUT

He **went COMPLETELY ROUND** the chamber

The non-predicative paraphrase makes the semantics of *be-* much more concrete and transparent than does the predicative one. The use of the preposition *ymb(e)* 'around' in similar sentences can corroborate this semantics of *be-*:

(21) a. ... *ȝ* ***BEsæton*** *ða burg* (ChronA [Plummer]:921.29)
... and ***BE*****-sat** the castle
'... and **occupied** the castle'

b. *sum* ***YMB*** *þa burg* ***sætt*** (Orosius 3:7.64.10)
some **AROUND** the castle **sat**
'One part **occupied** the castle.'

It should be noticed that the use of the preposition *ymb* plus *sittan* to render the meaning 'surround' is restricted to Orosius and probably due to Latin influence. *Be-* or the less frequent equivalent prefix *ymb-* is generally preferred in contexts like these, where the LM is clearly affected by the action. To occupy a castle or surround a chamber is rather more harmful for them and especially their inhabitants than to merely sit round it. The special relationship between *be-* and the LM, being affected by it, explains why I retained 'completely' in my translation of (20). A more detailed analysis of this special relationship however belongs to the detailed analysis of *be-* in chapter 4.

The alternative analysis of *be-* provides an elegant alternative for the forced predicative reading of *be-* and thereby warns against overestimating the importance of the predicative structure (present in Booij 1992 or Van Kemenade – Los 2003). However, Blom's study (2004) seems to make the opposite exaggeration. On the basis of Dutch diachronic data she concludes predicative structures are never found within the class of inseparable prefixes. Even if this holds for Dutch, the analysis of *for-* proposed above seems too elegant to abandon without further investigation. And in any case, it remains to be seen how we have to analyse (11a). In chapter 4, we will see that *be-* in (11a) is rather like a predicative prefix than like a non-predicative one, which means that a single prefix does not need to perform only a single function.

2.5.4 Summary

By focussing on the different functions of prefixes, the studies discussed in this section have unravelled the complexity of prefixes considerably. However, it is not clear in what way the distinction between predicative and non-predicative prefixes can account for any differences in life span between prefixes. The importance of this distinction for the productivity history of the prefixes *be-* and *to-* will only become clear in the following chapters. For the time being, assuming that this distinction really has a crucial effect on the life span of prefixes, it is useful to briefly summarize the differences between both types, focussing on the OE examples. This summary is given in table 2.1:

Table 2.1: Provisional list of properties of predicative and non-predicative prefixes

Predicative prefixes in OE	**Non-predicative prefixes in OE**
• Are predicated over the theme of the clause	• Constitute a prepositional relationship
• Denote the endpoint of a change of state, caused by the action of the verb	• Denote a route around/over/along a LM (route path prefixes) OR toward a LM (destination path prefixes, e.g. *beseon*)
• Add resultativeness	• Add telicity (route path prefixes) OR preserve atelicity (destination path prefixes)
• Form transitive (17a-b) derivations, BUT	• Form transitive derivations (20, 21a), AND
• Do not transitivize intransitive-ergative verbs (17c-d).	• Also transitivize ergative verbs, see (20)

The list is provisional, because I will return to these properties in chapter 3, where I will propose an alternative account based on the framework of construction grammar to account for the data in a more adequate way than the analyses so far have done.

2.6 Conclusions

Scholars of prefixes over the years have made many interesting observations, which give different types of information relevant for the study of the productivity history of prefixes. Studies on external influences reveal that neither the influence of Old Norse nor that of Old French are good candidates to explain differences in life span between prefixes. Phonological research has given a partial explanation for these differences, which are argued to depend on the phonological strength of the sounds of these prefixes. However, this explanation is not able to account properly for the difference in life span between *be-* and *to-*, which have very similar phonological structure. Looking for more fundamental causes, lexicographical studies contain many pieces of information that could be relevant, like the transitivizing effect of *be-* or the weak presence of *to-*, whose meaning is often already

implied in the root verb. The problem with these studies is that they are of a very unsystematic nature. Scholars looking for a methodologically more sound way of describing the decline of prefixes have made use of the degree of interchangeability between them. While the universally applicable *ge-* and *a-* were semantically nearly empty in OE, this was probably not the case for other prefixes, which were less interchangeable and often had clearly distinguishable meanings (*be-* 'around', *to-* asunder). Another interesting finding of these studies was that spatial usages of prefixes tended to be replaced by phrasal particles first, followed by their aspectual extensions. While the interchangeability approach provided the most detailed account of the decline of prefixes so far, the interchangeability index apparently does not correlate very accurately with the different life spans of prefixes. *Ge-* and *a-*, despite their higher degree of interchangeability, were not lost earlier than for instance *for-*. To account for this kind of differences more adequately, it was argued that we should examine the different functions and semantics of the non-interchangeable core of the prefixes. For this purpose, I have summarized the findings of recent studies, which distinguish different functions of prefixes, using the criterion of predicativeness or non-predicativeness. These functions have different effects. While both predicative prefixes and non-predicative route path prefixes add telicity to the prefix-verb derivation, a non-predicative destination path prefix preserves the atelic nature of the verb it is attached to. Both predicative and non-predicative prefixes can have transitivizing effects, but predicative preverbs do not have this effect in the case of intransitive-ergative verbs. Finally, it is important to bear in mind that, at least in principle, different funcions can occur with one and the same prefix.

However, many things are still unexplained. The distinction in predicative and non-predicative structures does not yet help to explain any difference in life span between prefixes. For instance, it does not yet offer an explanation for the observation made by the interchangeability approach, that some spatial prefix usages were replaced by phrasal particles earlier and at a larger scale than other prefixes. The reason for this is that the functional distinctions made so far do no justice to the full range of semantic distinctions at work. For instance, the functional studies do not try to account for semantic extensions based on originally predicatively or non-predicatively structured prefixes. The aim of this study is quite different. When trying to lay bare the causes responsible for the different life spans of prefixes, a general account of their functions cannot suffice. Instead, we ought to analyse every possible difference between them, structurally as well as semantically. Our approach has to be encyclopaedic and systematic at the same time.

3 The constructional properties of inseparable prefixes

In the previous chapter I described the distinction between predicative and non-predicative preverbs made in the literature. The question that so far has remained unanswered is: How does this distinction correlate with the differences in life span between *be-* and the other pure prefixes? Basically, the answer will be that non-predicative prefixes in OE could not be substituted as easily by any alternatives because of their specific syntactic and semantic properties. However, a dichotomous distinction between predicative and non-predicative cannot be a sufficient explanation, because there are seven prefixes, which all decreased at their own pace. Plotting non-predicative and predicative prefixes in OE on a scale of 'uniqueness' or salience may help solve this problem. In the introduction I already mentioned how the general shift of English from being an OV language to being a VO language put pressure on the prefix system (e.g. Traugott 1982: 250; Hiltunen 1983: 98ff, 125, 144-6). If the prefix was sufficiently unique it was able to resist this pressure and to remain productive during ME and afterwards.

The structure of chapter 3 is the following. To chart the parameters involved in this degree of 'uniqueness' a finer-grained classification than the dichotomous distinction between predicative and non-predicative prefixes is needed. Section 3.1 describes a theoretical framework that can provide such a classification, namely construction grammar (Goldberg 1995; Michaelis – Ruppenhofer 2001; Croft 2001). This theory essentially tries to reconcile the formal approach of generative theories, which adhere to a basic underlying syntactic template, with prototype theory of cognitive grammar, which sees the meaning of a linguistic element as a network of related meanings clustered around a prototype. Constructions, then, can be seen as interrelated templates, clustered around a prototype, with their own semantics and syntax that can be linked with lexical items. They have meanings independent of lexical items, as is illustrated by the aspectual meanings of phrasal particles participating in a verb-particle construction, which are not found with their prepositional or adverbial counterparts (e.g. *to look up the information* but **the information is up*; cf. Blom 2004: 15). If co-occurring frequently, grammatical templates and the lexical items filling them can fuse, giving rise to new constructions. Sections 3.2.1 and 3.2.2 explain how this happened with inseparable prefixes, which lost every link with their independent counterparts (as with OE *be-* vs. *be*), which even sometimes ceased to exist (as with *to-* 'asunder'). The emergence of such prefix constructions is further described in section 3.2.1 as the result of several diachronic processes of grammaticalization and reanalysis of Indo-

European (IE) prefixes. Section 3.2.3 describes how, later on, in Germanic, the shift from OV to VO put the OE prefixes under pressure so that many of them declined more rapidly than they would have done without this shift. Especially prefixes that have small constructional substance, like spatial predicative prefix-verb derivations whose compositional nature was still easy to detect, will suffer from this pressure earlier than less compositionally transparent predicative or non-predicative prefixes. Non-predicative prefixes in turn will remain productive longer than abstract predicative ones, because in an early stage of their grammaticalization, they were more salient. This initial salience advantage, it is assumed, was still present in OE, maybe because it inhibited any bleaching processes and grammaticalized at a slower pace. Finally, section 3.3 explains how a prefix can contain more than one construction, structured in a constructional network. This section also explains how the notion of constructional substance used in section 3.2 can be reformulated into the concept of constructional salience, by making use of insights concerning human cognition coming from cognitive grammar. The scale of constructional salience, then, will be made operational by seeing the position of a each of the nodes in the network of a prefix on this scale as the aggregate value for four salience parameters, semantic salience, salience by frequency, syntactic salience and Aktionsart salience.

My approach is in the spirit, and mainly tries to combine the merits, of the LFG-based study by Blom (2004) for Dutch, who also pays much attention to semantics and diachrony, and of the synchronic construction grammar analysis of present day German *be-* by Michaelis and Rupenhofer (2001).

3.1 A construction grammar approach

3.1.1 Introduction

In this section, I will set out some general characteristics of construction grammar and at the same time clarify why it can describe the different functions of prefixes in a more accurate way than was possible so far. What is needed to do this in the first place is a definition of a construction:

> C is a CONSTRUCTION iff$_{def}$ C is a form-meaning pair <F_i, S_i> such that some aspect of F_i or some aspect of S_i is not strictly predictable from C's component parts or from other previously established constructions (Goldberg 1995: 4).[5]

[5] The term 'construction' has acquired thus a technical sense different from the notion 'grammatical construction' in the cognitive framework of Langacker, who defines a construction as "the bipolar

It is assumed that inseparable prefix derivations are typical constructions in that they constitute form-meaning pairs not predictable from their component parts. a) Adding up the semantics of the input verb and those of the preposition which is the independent cognate of the prefix (like OE *of/of-* or *be* 'by'*/be-*) does not result in the semantics typical for the prefix derivation. b) The form of the prefix derivation is not derivable from anything else, because the prefix does not constitute an independent component. It only exists by virtue of the derivations it participates in (cf. also Goldberg 1995: 4).

Moreover, it is assumed that a single prefix can contain more than one construction, all of them being interrelated in a constructional network. In this respect, the distinction between predicative and non-predicative prefixes, which can be reformulated in a constructional framework, does not coincide with only two form-meaning pairings. Only by mapping in detail all different types of derived constructions, all with their own properties, it becomes possible to pin down the parameters at work in determining the life span of the productivity of a prefix. To distinguish which properties belong to a prefix construction and which ones do not, it is necessary to refine certain statements on the properties of predicative and non-predicative prefixes, as they were summarized in table 2.1.

3.1.2 Transitivization versus valence change

A theoretical motivation for using construction grammar lies with its power to account for the data in a more economical way than did the LFG-based analysis. Such a LFG-analysis is basically lexically based. Consider example (14), here repeated for convenience as (22):

(22) He coughed himself **sick**.

To account for the presence of the reflexive, the explanation given in section 2.5 interpreted the unselected object as licensed by a lexical item, namely the adjective *sick* (the LCS of LFG). It cannot be licensed by anything else than a lexical item, because it is the combination of two lexical items, the verb and the adjective, which results in sentences like (22). Since the verb is basically intransitive, the only candidate remaining is the adjective. However, it is unlikely that the argument structure of the sentence is provided by the adjective alone, because this leaves unexplained how a verb like *cough* attains a causative meaning. Instead of having to posit two different meanings for *cough*, construction grammar

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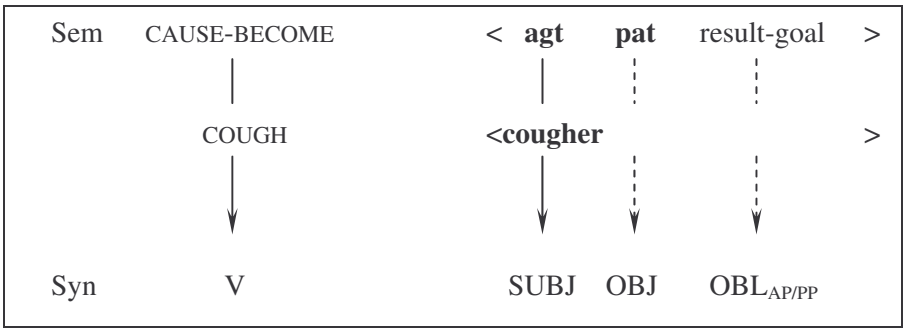
integration of two or more component structures to form a composite expression", a definition which seems broader than the one Goldberg gives (Langacker 1987: 409).

will treat sentences like (22) as instantiations of non-lexical constructions, which are like templates providing the basic structures of sentences, in this case resultative sentences (Goldberg 1995: 153-160). These templates have an existence independent of the lexical items that fill them[6].

In a CG framework, then, verbs have a valence as such (sometimes called minimal valence, cf. Michaelis and Ruppenhofer 2001: 39), different from the valence of the construction in which they participate. The valence of the verb consists of its semantic participants, whereas the valence of the construction consists of what are called arguments. Only after verb and construction have been unified, the valence of the verb will be fully specified. The participants of the verb can either be profiled or not. Profiled participants are those that are expressed as the subject, first or second object (more or less equivalent to the nuclear cases of nominative, accusative and dative). Non-profiled participants are expressed by obliques (prepositional phrases or other cases). The argument structure of a construction is also called its linking pattern (cf. Michaelis – Ruppenhofer 2001: 51). It links certain semantic roles (e.g. agent and patient) to certain syntactic slots (subject, object). In the case of sentence (22), which is, according to Goldberg, an instance of the resultative construction, this can be schematically represented as in figure 3.1 (in bold are the profiled arguments (on Sem) and participants (on COUGH, i.e. the input verb), respectively). The combination of the participants of the verb with the arguments of the construction is called fusion.

Figure 3.1: Predicative-resultative construction unified with the verb cough



In chapter 4 I will make some more use of structures like this.[7] However, these will only be given for the sake of illustration, as a complete and detailed formal analysis of each construction involved in the prefixes *be-* and *to-* is beyond the scope of this study.

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[6] For a reply to this kind of criticism from LFG, I refer to Blom (2005: 325-327), which, unfortunately, I received too late to take into account.

[7] Recently, these structures for constructions have become more detailed in texture. Their elaboration in first place is concerned with further distinguishing between different constructions at work in a sentence. For instance, the structure in figure 3.1 assumes that the sentence is active, hence the

In the case of predicative prefix constructions, the fusion of the verb's valence and that of the construction often has a transitivizing effect on the verb. The summary in table 2.1 suggested that such a transitivizing effect was shared by the non-predicative route-path prefixes. However, especially in the case of the non-predicative prefix *be-*, another type of shift occurs as well. The mere notion of transitivization therefore is insufficient, and it is in such a case that the CG concept of unification reveals its full potential. Lenze already noticed that there could occur a shift in the direct object of verb if combined with *be-* (see section 2.2). The comparison of sentence (1), here repeated as (23), with another corpus example can illustrate this.

(23) *dimitte illam et hoc anno usque dum fodiam circa illam et* ***mittam*** *stercora* (Vulgate, Lk: 13.8)
læt hine gyt þis gear , oð ic hine bedelfe ⁊ ic hine ***BEwurpe*** *mid meoxe* (WSCp)
'Let it [= a fig tree] yet this year, until I [shall] dig-about it, and **throw-ABOUT** it with dung.'

(24) *he þafode þæt hine man* ***wearp*** *ut on þa sæ* (HomS 34 [ScraggVerc 19]: 127)
he allowed that him.ACC man **threw** out on the sea
'He allowed them to **throw** him out in the sea.'

The addition of the prefix construction in sentence (23) has not the effect of transitivizing an intransitive verb like *cough*, because both *delfan* 'delve' and *weorpan* 'throw' are transitive already. Still, it is easy to see how the *be-* construction adds its own arguments to the verb. Whereas *weorpan* in (24) has a profiled agent participant (*he*), a profiled theme/patient participant (*hine*) and a non-profiled location participant (the PP *on þa sæ*), the profiled participants of *beweorpan* are an agent and a location, the theme being deprofiled and put in a PP with *mid* instead. This alternation (also known as the applicative alternation) makes it clear that constructions not only can add arguments to the verb's valence, but also can actually *override* it (cf. Michaelis – Ruppenhofer 2001: 35ff). This is a more economical way to account for the alternation between (23) and (24) than to posit that *weorpan* has a different valence and therefore a different sense when combined with *be-*. A more detailed description of the constructional properties of *be-* will be the subject matter of chapter 4, part

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profiling of the agent. However, this agent profiling is due to the transitive construction rather than to the resultative-predicative construction. A more elaborate version of construction grammar therefore treats several characteristics of constructions as defeasible constraints. The agent participant will show up in the resultative-predicative construction, but only as a default participant, which can be cut when combined, for instance, with the passive construction (cf. e.g. Michaelis – Ruppenhofer 2001: 51ff for examples of the present state of the art)

I, but already now it is possible to see how the profiling of the location to direct object-position also accounts for the transitivizing effect of *be-* in a case like *began* (cf. (11b, 20)), where the direct object is a location as well (*þone bur* 'the chamber').

3.1.3 Resultativeness versus telicity

Another domain where constructions can analyse the properties of sentences containing prefixes in a parsimonious way is the domain of aspectuality. What follows basically holds for predicative as well as non-predicative prefixes, but for the sake of brevity I will restrict myself to examples involving predicative prefixes only. As we have seen in the previous chapter, prefixes have often been seen as adding perfective aspect, as for instance in example (10a-b), the first sentence of which is here repeated as (25):

(25) *Hæfde ða* ***FOR****siðod sunu Ecgþeowes under gynne grund* (Beo 1550ff)
Had then ***FOR*****-travelled** son of Ecgtheow under spacious ground
'Then the son of Ecgtheow **travelled** and [as a result] was **AWAY** ...'

The LFG-based functional studies state that a predicative prefix like the one in (25) has a resultative meaning. If this holds, this is paramount to saying that such a prefix adds perfective aspect to the sentence. However, even if it is true that the predicative construction implies a resultative change of state, this change of state is only potential (cf. Goldberg 1995: 194). Brinton (1988: 182-183) has suggested that the notion of telicity (necessary goal or endpoint) needs to be distinguished from that of result. Though the predicative construction can be seen as contributing the notion of goal or endpoint, it says nothing about the achievement or realization of that goal. Rather, it is the 'grammatical aspect' of the expression which indicates whether or not the goal has been attained. Only by adding perfective grammatical aspect to (or unifying it with) the predicative construction, the expression will denote actual result. From a constructional point of view, this grammatical aspect covers a range of aspectual constructions, e.g. the simple past construction or the past participle construction, both adding perfective aspect. In general, perfective aspect expresses the realization of the goal, whereas the imperfective aspect does not. The perfective aspect views a telic situation, including its necessary endpoint, as a whole or as completed. This can create the illusion that the achievement of the goal is part of the resultative prefix construction itself (as suggested by many examples in the literature so far, cf. (12-16)), whereas it is in fact due to a simple past or past participle construction. The following example illustrates that the resultative and perfective constructions do not always overlap.

(26) They are using **up** the supplies. (Brinton 1988: 183)

The same distinction between telicity and perfectiveness can be made in the case of prefix constructions. In the following example, we should bear in mind that the present participle construction in OE is not entirely equivalent to the PDE construction, rather being durative in nature. *Todælan* nevertheless is clearly imperfective, the focus being on the repeated activity of distributing.

(27) *heo wæren* ***todælende*** *heora weoruldgood syndrigum monnum, swa æghwylcum þearf wæs.* (Bede 1: 16.66.1)
they were ***asunder*-dealing** their world-good sundry.DAT men.DAT, so each.DAT need was
'They kept **distributing** their worldly goods to various people, according to the need of each one'

The imperfective character of (27) suggests that sentences such as (25) and (27) are the combination of two constructions rather than one: the (predicative) prefix construction (adding an implied result, hence telic) and the past participle construction (adding perfectiveness, i.e. an actual result) respectively the progressive construction (adding ongoing activity, i.e. the result is not yet achieved). In other words, not only can constructions combine with lexemes, constructions can also combine with other non-lexical constructions. This combination of constructions Michaelis and Ruppenhofer call unification (2001: 39)[8].

The fact that predicative constructions are not necessarily perfective/resultative can be related to their origin. Goldberg suggests the whole range of predicative constructions is derived from caused-motion constructions through the metaphor CHANGE OF STATE IS CHANGE OF LOCATION (1995: 81-88; also cf. Brinton 1988: 194ff). This would mean that caused-motion constructions diachronically precede other predicative constructions. The OE

[8] They adopt this principle from generativist-based theories like Head-driven Phrase Structure Grammar (HPSG; cf. Sag, Wasow and Bender 2003), even if they do not mean exactly the same by it. In HPSG unification is basically unification of the properties of lexemes, whereas in construction grammar it is the unification of constructions. But the differences between construction grammar and HPSG are becoming smaller, Goldberg's refutation of the principle of unification on the basis of contradictory properties having made HPSG refine it by making some constraints of lexemes or grammatical structures defeasible.

prefixes *a-* and *to-* in sentences (17c-d) and *for-* in sentence (25), seem to provide some evidence for this. *Astigan* 'come down', *toflowan* 'flow away' and *forsiðan* 'go away' are indeed examples of the intransitive caused-motion construction[9]. This kind of construction does not need to be perfective at all. For instance, of 31 randomly picked occurrences of a similar verb, *becuman* 'come by', 5 are in imperfective future constructions (e.g. *for ðam men sculon þurh ða godcundan lare becuman to life* [HomS 40.3 [ScraggVerc 10]: 4] 'because men shall come to life through the divine doctrine'), 12 are in the present tense, whose aspectuality is not always clear, and only 14 are clear-cut perfectives in the preterite tense.

3.1.4 Conclusions

So far the construction framework has made it possible to isolate to a certain extent the specific contribution made by inseparable prefixes in terms of valence and aspect. With regard to valence, inseparable prefix constructions can be said to have a specific valence frame, which is not always adequately described by the term 'transitivization'. With regard to aspect, these constructions add telicity to the verb rather than perfectiveness. This analysis has already made it clear that inseparable prefixes involve different constructions. For instance, the valence frame of *be-* in *beweorpan* and *began*, and hence the prefix construction as a whole, is different from that of other prefixes. The distinction between predicative and non-predicative prefixes could easily be translated into a constructional distinction. However, the description of constructions involved was not carried out so far, because we lack as yet an important piece of information. The information I have in mind is that of a diachronic nature, and it is the subject of the next section.

3.2 The diachronic perspective: prefix constructions as grammaticalized preverbs

As chapter 4 will show, a detailed analysis of *be-* makes clear that a single OE prefix can be the phonological exponent of many constructions. Synchronically many different models of interrelating these constructions could be defended. For instance, synchronically, many constructions could be seen as either related to the predicative or to the non-predicative construction (as the predicative analysis of *be-* by Van Kemenade and Los shows, cf. section

[9] The way in which the motion is 'caused' in these constructions is a matter of dispute. Brinton argues explicitly against this notion (1988: 179), and I tend to agree with her (also cf. McIntyre 2003: 120). But this is largely a terminological matter, which does not change the relationship between the constructions.

2.5.2). The basic hypothesis that the predicative or non-predicative character of a prefix has a fundamental effect on its life span would not be easily corroborated. To avoid modelling the constructional network of a prefix in such a way that it fits this hypothesis (which would be circular), diachronic evidence can help, to the extent that it is true that a synchronic network reflects diachronic history, a view defended for instance by Sweetser (1990).

Diachronically, constructions can be thought of as the end result of a process of grammaticalization. The direction of this grammaticalization process, then, can corroborate the relation of derived constructions to the source construction (the prototype, as explained in section 3.3). The next sections will describe the two processes of grammaticalization that lead to the predicative and the non-predicative prefix constructions in Germanic prefixes. Because there is no material available for English earlier than the OE period, the earlier stages of these processes have to be reconstructed. This can be done by making use of similar developments in other IE languages with a longer written history, in particular Vedic Sanskrit, Hittite and for Germanic Gothic, assuming that these languages constitute sufficiently close parallels to the history of English to make the general picture clear.

To a great extent, the grammaticalization processes of predicative and non-predicative prefixes share the same evolution. In Vedic Sanskrit (ca. 1500 B.C.) and Hittite, and, presumably, in other early IE languages as well, the semantics of a simplex verb were often modified by adding an indeclinable word to it, which is traditionally known as a preverb (cf. Watkins 1964, Hopper 1975, Rousseau 1995, Booij – Van Kemenade 2003, Bubenik 2004). It is commonly assumed that many of these preverbs and adpositions originated in (spatial) adverbials. Initially the preverb position was relatively free, but due to the OV order of early IE languages, preverbs were frequently positioned adjacent to the verb. This adjacency caused preverb and verb to be reanalysed into one syntactic unit, first with the preverb functioning as clitic and later on, in Classical Sanskrit, developing into inseparable prefixes (for examples cf. Goldman – Goldman 1999: 145-151). A similar development has presumably taken place in other IE languages, in some of which prefixes were eventually lost completely. It is therefore possible to set up the following grammaticalization cline (adapted from Booij – Van Kemenade 2003: 4).

(28) independent preverb > left member of verbal compound > prefix > (zero)

Apart from the last stage, this process is known as univerbation (Watkins 1964, Hopper – Traugott 1993, ch. 6). Univerbation is a specific form of a more general process known as

morphologization (Hopper – Traugott 1993: 131). The last stage is an instance of morphological attrition, a process that frequently occurs in inflectional systems.

The morphological evolution reflected in this cline is accompanied by other evolutions typical of grammaticalization. Initially, preverbs were attached to verbs in spatial contexts, but in a further stage, ever more verbs could serve as a host to the preverb, and preverb-verb compounds were formed in new contexts that did not signal a spatial relationship. Sometimes, compounds led to new preverb meanings that had pragmatic effects as well, which could in turn semanticize. Context expansion (or host-class expansion, as Himmelman 2005 calls it) and semantic generalization led to an expansion in frequency, but also, inevitably, to a certain amount of bleaching. In later stages of grammaticalization, this eventually could lead to either specialization and paradigmatization (the development of *ge-* as a marker of the participle in German and Dutch) or loss.

All these characteristics apply to any grammaticalization process and do not explain in what way predicative and non-predicative prefix constructions grammaticalized differently. Constructions have been so far defined as synchronic form-meaning pairs not derivable from their component parts or other constructions. This is a categorical definition. The present section, by discussing the previously mentioned mechanisms in detail, will lead to the hypothesis that predicative and non-predicative prefix constructions grammaticalized at a different pace, due to some differences in their structure. This leads to a refinement of the definition of constructions: instead of being fixed into categories, constructions are gradable. A template can be more or less construction-like, depending on the number and character of elements in it that are not predictable from its component parts. Initially then, spatial adverbs adjacent to verbs were patterns which were completely predictable and derivable from their component parts. At this stage, which is an idealized starting point for which there is no historical evidence, adverb and verb constitute a configuration but not a construction. Only when certain developments in this preverb-verb configuration lead to productive formations no longer predictable from their independent meanings and functions, do they become constructions. In the case of predicative preverbs, this development will be different than in the case of non-predicative preverbs, as is explained below.

3.2.1 Pre-OE development

a) Predicative preverb constructions

Sanskrit preverbs can perform a broad range of functions, one of which is the SP function that I described in section 2.5.2. Consider the following examples, where P stands for 'preverb' and V for 'verb' (cf. Hiltunen 1983: 38-40, Hopper 1975: 40)[10].

(29) a. # ... PV# *tam cid eva **api gacchatāt*** (RV X: 154.2)
him one EMPH **also go**.FUT
'those (two) shall **join** them'

b. #P ... V# ***apa** tye tāyave yathā naksatra **yanti*** (RV I: 50.3)
away those stars like robbers **go**
'those stars **go away** like robbers'

c. #V ... P# ***gāmad** vājebhir **á** sá naḥ* (RV I: 5.3)
goes.AOR-SUBJ reward.INST-PL **to** he we.ACC/DAT
'may he (sc. Indra) **come** with rewards **to** us'

The latter two are functionally equivalent to secondary predicates (*the stars are AWAY as the result of their going* and *he is BACK by coming*). However, only the first pattern can give rise to prefixation, because only here preverb and verb are adjacent to each other. Since predicative prefixes are widely attested in Classical Sanskrit (for instance ***apa**nī-* 'lead away', ***apa**nud-* 'drive away'), I assume that structures like (29a), which are of the # ... PV# type, also frequently occurred with preverbs like *apa* 'away' and *á* 'back'. Evidence for this hypothesis can be found in studies from language typology. Indo-European as well as its daughters in their early stages were OV languages. In an OV language a specifying element has a tendency to precede the specified element or syntactic head. If we consider a preverb an element that specifies a certain verb, it follows that in a consistent OV language preverbs will frequently occur in a position adjacent to the left of the verb root.

On the assumption that such an adjacency was common, it is hypothesized that this PV-configuration has led to a closer unit between preverb and verb through structural reanalysis, a process affecting the internal structural make-up of an expression, but not involving an immediate modification in its surface manifestation (cf. Hopper – Traugott 1993: 40). Consider the following variant of (29b):

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[10] Examples (29a-b) are taken from Watkins 1964 (p. 1041-1042), (29c) (32a) from Delbrück (1888) and (32b) from Delbrück 1893 (Vol. I: 654-657). I have added intermediate translations to make the structure of the sentences clearer.

(30) *tye tāyave yathā naksatra* ***apa yanti***
those stars like robbers **away go**

In sentences such as (30) the original structure can be assumed to have been $[apa]_{sp}$ $[yanti]_{v}$, but as these elements were adjacent to each other, their structure was eventually rebracketed as $[apa\ yanti]_{scv}$[11], and a closer unit emerged. Stress patterns indicate that this process was already underway at the time of Vedic Sanskrit (Hopper 1975: 41). On the surface of it, the preverbs of (29) may look in no way different from adverbs. However, investigation of the stress pattern of preverb and verb has shown that in the case of the # ... PV# type preverb and verb already formed a syntactic unit of some kind in Vedic Sanskrit. In main clauses the preverb was normally stressed and the verb unstressed, e.g. *prá gacchati* 'he goes forth'. In subordinate clauses however, the verb received primary stress and the preverb lost stress: *yáḥ pra gácchati*, 'who goes forth'. By the time of Classical Sanskrit (c. 500 B.C.) this unit had developed into an inseparable prefix construction.

The difference in stress pattern is a first step away from the original independent status of preverb and verb. A second stage in the process of univerbation is found in Gothic. In this language preverbs have already lost their positional freedom and on the whole taken up a fixed position as the left elements of verbal compounds. This PV-structure could only be interrupted by a few particles, such as the interrogative *u* or *þau* 'then' (Van Kemenade – Los 2003: 97-98).

(31) a. ***GA-u-laubeis*** (John 9: 35)
GA-INT-**leave.2SG**
'do you **believe**?'
b. ***GA-þau-laubidedeiþ*** (John 5: 46)
GA-then-**leave.PRET-SUBJ-2PL**
'you then would **believe'**

(Note that more than one particle could intervene between preverb and verb root, e.g. *ga-u-hwa-sehwi*; for examples with another preverb than *ga-* cf. Hiltunen 1983: 42, Lenze 1909: 45). The transitional stage of Gothic is also cross-linguistically attested for other languages like Udi (Harris 2003) or the East Caucasion Akusha Dargi (Van den Berg 2002). In a final

[11] SCV = separable complex verb.

stage of univerbation, then, these clitics can no longer intervene between preverb and verb, which results in the inseparable prefixes found in all other Germanic languages.

This process of grammaticalization is accompanied by changes in the constructional status of the preverb. At the latest when the stress pattern of PV-combinations becomes specific, the preverb-verb structure satisfies the definition of a construction. However, predicative constructions of Sanskrit are not very noteworthy, in that they do not add very much to what is already provided by their component parts – and the same holds, as will become clear, for OE. Most PV-combinations still preserved their semantic compositionality to a large extent, with most preverbs preserving their concrete spatial meanings (as in (29)). Moreover the SP preverbs are all modifiers of inherent verbs of motion. Neither the component-independent syntax nor the semantics of these constructions is therefore very substantial. All PV-combinations are instances of the intransitive caused-motion construction (Goldberg 1995: 81ff). A derived resultative construction like PDE *he coughed himself sick*, showing a non-participant argument (unselected object) would make predicative constructions with preverbs much more substantial or 'visible'. The importance of this substance will become clear in section 3.3, where the synonymous and more technical term of salience will be introduced and made operational. To state it differently, the predicative construction in Sanskrit does not show a high degree of actualization, i.e. the gradual manifestation of the innovated structure at the observable level of language use (cf. Fanego 2004 on the similar case of *-ing* gerunds).

Still, the closer fusion of preverb and verb into a separable complex verb and eventually an inseparable complex verb makes sure that the preverb is no longer "derivable from anything else" (Goldberg 1995: 4), thus satisfying the condition for being a construction. More importantly, semantic changes that are consitutive of grammaticalization and which are concomitant with this process lead to abstract derivations through mechanisms such as metaphor, metonymy and pragmatic inference. This new semantics, which is not derivable from the components of the PV-combination, lends the PV-combination its constructional status, or, in other words, makes it semantically visible. An example of such an abstract derivation is ***prati****jānati* 'he promises' showing the originally predicative prefix *prati-* 'back' (as in ***prati****gacchati* 'he goes back') (Goldman – Goldman 1999: 150). This status is less clear from the syntax of the PV-combination, which is only visible in its independent stress pattern.

b) Non-predicative preverb constructions

Apart from the preverbs with predicative function, which developed into predicative prefixes in Sanskrit, we also find preverbs with different functions, as in the following kind of sentences:

(32) a. # ... VP# *pathā́ yamasya* ***gād upa*** (RV I: 38.5)
path.ACC-PL Yama.GEN-SG **goes towards**
'he **walks upon/approaches** the path of Yama'

b. # ... PV# *dasvasam* ***upa gacchatam*** (RV I: 47.3)
worshipper.ACC-SG **towards come**.IMP
'**approach** the worshipper (preverbal reading)**/come to** the worshipper (PP reading)'

c. *ubháu samudrā́v* ***ā́ kṣeti*** (RV VII: 1.14) (cf. Kulikov, to appear)
both sea.ACC-DU **at reside**.PRES-3SG-ACT
'He **resides at** both (eastern and western) seas.'

In these sentences, the preverbs are clearly the functional equivalents of adpositions governing adpositional objects, but their origin is probably adverbial. The first sentence makes it clear that the status of these preverbs is not that of real adpositions, since the preverb in this sentence is not adjacent to the NP it governs (*pathā́*). In (32b-c), *upa* and *ā́* could be argued to be adpositions, but they could equally be analysed as preverbs, being adjacent to the verb as well.

Probably, in sentences such as (32b-c), the preverb was originally an adverb, as is shown by the structure of (32b) in (33) (cf. Bubenik 2004, who shows this for Hittite). This kind of structure led to a double structural ambiguity and eventually to two types of reanalysis.

(33) [dasvasam$_{np}$] [upa$_{adv}$] [gacchatam$_{v}$]$_{vp}$

In early PIE, the prepositional relation of *dasvasam* was probably expressed by the case ending. In Vedic Sanskrit these case endings had lost this kind of distinctive function, and the need for a reinforcing element clarifying the direction of the verb (*towards the worshipper*) grew stronger (cf. Bubenik 2004). An adverb like *upa* met this need, but it was unclear whether it was more closely related to the verb or to the noun. In structures of the type of (33), two types of reanalysis were possible. Either *upa* was reanalysed as a postposition with the consequent rebracketing [dasvasam$_{N}$ upa$_{P}$]$_{PP}$ [gaccatam$_{V}$]$_{VP}$, or it was

reanalysed as a preverb ([dasvasam$_{NP}$] [upa gacchatam]$_{SCV}$. The first type of reanalysis is possible because the noun can be seen as specifying the adverb and therefore will precede it in an OV language like Sanskrit. Indeed, it is common in OV languages for adpositions to follow the nouns they govern (and be realized as postpositions). In the second type of reanalysis, the adverb is not interpreted as the element specified by the NP, but rather as the element specifying itself the verb.

Both types of reanalysis of the original adverb, either as a postposition or as a preverb, actually occurred in Sanskrit. The second one is similar to the one previously described for predicative preverbs. However, in the present case, the prepositional-like relation of the preverb with an NP, which is absent in predicative preverbs, leads to a non-predicative prefix construction. In a next stage, the reanalysis of adverb into preverb leads to a closer prosodic union between prefix and verb, which we already can see sometimes in Vedic Sanskrit:

(34) *víśvam* ***ā-bhā́si*** *rocanám* (RV 1.49.4)
whole.ACC **upon-shine**.PRES-2SG-ACT firmament.ACC-SG
'You **shine upon** the whole firmament.'
(Germ. 'Du **bescheinst** das ganze Himmelsgewölbe.')

Such a reanalysis of a preverb into a prefix is the first step towards the preverb's constructional status. In later Classical Sanskrit prefixation will become frequent (the verb of (32b) will become *upagam-*). As was explained for predicative prefixes, the construction becomes visible to the extent it is actualized. Actualization is realized in first place by the phonological fusion represented by orthography, but also by the generalization to contexts and verbs where it would be impossible if it were analysed as a (spatial) postposition (like *upadiś-* 'teach' or *upajīv-* 'live off, subsist on/by', cf. Goldman – Goldman 1999: 149). Concomitant with this development the function of the NP object changes. As long as *upa* functions as a postposition, the whole PP is a kind of adjunct of place, with *dasvaram* functioning as the LM of the action. However, after the reanalysis the NP adjunct becomes a direct object, participating in a transitive construction. Direct objects in such constructions are prototypically associated with affected entities ('patienthood'). Indeed we see that the objects of these constructions are often affected in some way (Kulikov, to appear; Blom 2004: 55-59; cf. examples (34, 20, 21, 23)). This characteristic may have tipped the balance in the direction of a reanalysis into preverbs and prefixes. However, initially (more specifically as long as a strong OV order obtains, cf. infra) this is only a tendency. It is only

later, through pragmatic inferencing that it turns out to be more than a tendency, as we will see in chapter 4.

The structure after the reanalysis of (33) is clearly different from that of the predicative caused-motion construction (cf. 30). The newly formed direct object is no participant of the matrix verb and can only be attributed to the prefix construction (like an unselected object, cf. Blom 2004: 25). In this respect, the sentences of (32b-c, 34) differ substantially from (30). The latter one, being a predicative caused-motion construction, does not transitivize the inherent verb of motion, while the former sentences do. Once the preverbs are reanalysed as prefixes, these prefixes retain the different functions (predicative or non-predicative) of the original preverbs.

It is important to keep in mind that this development did not happen at once. Kulikov (to appear) has shown that non-predicative preverb constructions are still different from ordinary transitive verbs. For one thing, they occur extremely rarely in the passive. Only when the spatial (directional) meaning is somewhat obscured, transitivity gains field. As Kulikov puts it: “Such an idiomatic change (Univerbierung) seems to be necessary to deprive a compound of its regular (semantic) links with the intransitive simplex and, as a result, to make it a true transitive.”

All these characteristics (valence change, transitivity etc.) make it clear that non-predicative preverbs have gradually become constructions and that their semantics is no longer predictable from the preverb’s combination with the verb. Moreover, the varying semantic and syntactic content of such a construction is the result of an ongoing process of grammaticalization. In the case of non-predicative prefix constructions this content, which cannot be traced back to the component parts, will become quite substantial, changing the valence of the verb (a gradual change from intransitive to true transitive) and adding affectedness of the goal argument.

In sum, though superficially both kind of preverbs have gone through a similar grammaticalization process, the results are quite different. The predicative preverb construction in Sanskrit differs from its components mainly semantically but does not change the valence of the verb, whereas the non-predicative preverb construction changes the valence of the verb as well, which makes the construction syntactically visible and therefore more substantial. To state it differently, the predicative preverb construction remains closer to its compositional origin and in this sense can be said to have grammaticalized to a lesser extent thant the non-predicative preverb construction.

3.2.2 The situation in English

Section 3.2.1 illustrated the development of preverbs into prefixes for Sanskrit. I assume a similar development has occurred in Germanic (the examples from Gothic point in this direction). Actually, in OE both predicative and non-predicative prefixes had already reached an advanced state of grammaticalization. As a result, both types generally meet several parameters of grammaticalization (cf. Heine – Kuteva 2002: 2; Van der Auwera 1999).

i) *Phonetic reduction* already obtained from an early stage in the development. Apart from loss of stress, such a reduction is manifested in the weakening of vowels (Gothic *ga-* vs. OE *ge-*, Gothic *bi-* vs. OE (WS) *be-* – but cf. ME *bi-* due to the dominance of the Anglian dialect) or the loss of consonants (Gmc. *ar-* vs. OE *a-*). This reduction had not reached its final stage yet, as the development of *ge-* into palatalized *y-/i-* in ME shows.

ii) A second characteristic is *generalization* and *desemanticization*. After the reanalysis and the addition of telicity and/or affectedness, an increase in frequency occurred because the spatial meaning of the preverb was extended to and repeated in ever more non-spatial contexts. This repetition can be compared to cultural ritualization (cf. Bybee 2003; Haiman 1994). It entails habituation, depleting a form of its original significance, automatization, the original configuration of two elements (preverb and verb) being reduced to a single processing chunk and reduction of form (loss of stress, shortening of vowels) (also called routinization, cf. Hopper – Traugott 1993: 64-65). The general result is a degree of semantic bleaching. In the extreme case, this bleaching will lead to complete loss, but the high frequency of prefixes in OE indicates this stage is not yet reached by a long way.

The bleaching tendency had proceeded sufficiently in OE, though, to make it possible for different prefixes to achieve the same effect and sometimes they could even be left out altogether. For instance, *oncnawan* and *tocnawan* both mean ‘know’, and so did the simplex *cnawan*. As a consequence many prefix constructions were in certain contexts interchangeable (cf. section 2.3). This variation blurred the concrete spatial meanings of the prefix constructions even more. The average prefix of OE then can be compared to a certain extent with the present-day prepositions *at, on* and *in*, for which a psycholinguistic experiment conducted by Rice showed that ‘abstract usages are more easily substituted by other prepositions. Sharp category contrast may only obtain for core senses’ (1996: 161).

Still, bleaching only was reaching its limits in OE for *ge-* and *a-*. Other prefixes retained their semantics better. As a result these prefixes were particularly suitable to express fine nuances and distinctions. Whereas at first sight *oncnawan* and *tocnawan* are synonyms, on closer scrutiny the former turns out to mean more precisely ‘(to get) to know by grasping the meaning’, and the latter ‘(to get) to know by discerning the meaning’s building blocks’.

Recently cognitive linguists have pointed out that the same is true for the Slavic languages, where prefixes have reached an advanced state of grammaticalization as well. *Pomalować* and *przemalować* in Polish both mean 'to paint' (adding at the same time perfective aspect), but the first more exactly 'to cover with paint' and the second 'to change the colour of LM by painting it' (Dąbrowska 1996: 481; also cf. Tabakowska 2003).

iii) A clear example of the *extension to ever more contexts* is the possibility of some prefixes in OE to derive verbs from nouns, as e.g. *behriman* 'cover with rime'.

iv) Lehmann (1985) hypothesizes that in an increased state of grammaticalization, grammaticalized items will tend to be distributed complementary, and acquire more and more characteristics of a paradigm. One way to achieve this is by specialization. During OE not many characteristics of specialization are apparent, but in ME for instance *ge-* will partially specialize as a marker of the past participle, whereas other prefixes will not productively perform this function.

v) *Decategorialization*: Apart from the obvious loss in 'adverbialhood' and positional freedom in the earliest stage of the grammaticalization of the IE preverbs, in Germanic sometimes prefix-verb derivations, due to the process of lexicalization, were no longer recognized as derivations at all. A clear-cut OE example is *blinnan* 'leave off' from **be+linnan* 'desist, lose' (cf. Van Kemenade – Los 2003: 112).

All these characteristics to a varying degree apply to the pure prefixes. If it is true, however, that predicative and non-predicative usages grammaticalize at a different pace, this should be visible in OE as well. Yet, due to their advanced state of grammaticalization, these differences will not be easy to detect. In extensions like the aspectual ones examined by Brinton (1988), the predicative paraphrase can no longer be used as a defining characteristic of the construction. For instance *afyl ða wunde* (Lch II [1]: 1.15.3) 'fill up the wound' cannot be paraphrased as **the wound is* UP. The fact that one and the same prefix can have predicative as well as non-predicative usages further complicates the matter. Section 3.3 will introduce a quantitative method to chart these differences.

3.2.3 The shift from OV to VO word order

Even though prefixes have become very abstract in OE, provided that the difference in degree of grammaticalization is nevertheless still present, this might explain the different reaction of prefixes on the shift from OV to VO.

It seems reasonable to view semantic bleaching and increasing interchangeability of prefixes as a factor leading to their loss in certain contexts (cf. De la Cruz 1975: 76; CHEL I: 377ff). Moreover, if the prefixes were allowed to die out without any factors interfering (as

the cline in (28) predicts), it may well be that the phonetic structure will have a part to play after they have become semantically empty (cf. section 2.2). However, if we assume Germanic languages all shared the same grammaticalization process of preverbs into prefix constructions, how can we explain that German (and to a lesser extent, Dutch) still have a productive prefix system even today? The reason for this is that in English an important structural change will take place that will put additional pressure on the prefix system. This change is the shift from OV to VO (e.g. CHEL I, Fischer et al. 2000: 138-139). All Germanic languages in general from their earliest attestations were shifting to VO, but did this at a different pace, English being the most progressive. For a summary of the factors involved I refer to Hopper and Traugott (1993: 50-52). Basically, the shift implied that specifying and specified elements switched places. This did not affect all specifiers in English (for instance, adjectives still precede the noun they specify), but it did affect those that are relevant here, namely postpositions, adverbs and prefixes. In the case of prefixes, the shift to VO serves as a watershed. Prefixes that survive this shift do so apparently because they are no longer perceived as specifiers of the verb.

First, postpositions shifted gradually to prepositions, and this had a direct impact on non-predicative prefixes. In an OV language, the frequent adjacency of [NP postposition] and [verb] next to that of [object NP] + [preverb-verb] gives rise to ambiguity, because in either one of these cases, postpositional as well as preverbal readings are possible. Indeed, in a strict OV language like Sanskrit, the distinction between postposition and preverb 'may always have been a fluid one in some cases' (Hopper 1975: 42), especially in those cases that preserve spatial-directional semantics. During the shift to VO in the Germanic languages, adpositions were increasingly realized as prepositions. In OE the situation concerning prepositions and postpositions is roughly the following (cf. Mitchell 1978; 1985: 448, §1079; Hogg 2002: 92-94):

(i) Prepositions precede nouns, demonstratives, and interrogatives.
(ii) Postpositions follow *her* 'here' and *þær* 'there'.
(iii) Either prepositions precede or postpositions follow personal pronouns.

It appears, then, that the weight of PP complements affects the word order: light elements generally precede the adposition they specify, while heavy elements generally yield to the VO tendency at an earlier stage, in OE usually already following the adposition. First signs of VO movement can already be seen in Gothic (Cf. Van Kemenade – Los 2003: 99-101). By the time of OE, the ambiguity between postposition and prefix was no longer allowed to

exist, and certain choices had to be made. Generally, it can be expected that those cases where the postposition/prefix only added a spatial relationship shifted to prepositions, while only those cases with an additional (constructional) link to the verb, would become non-predicative prefixes. The remaining non-predicative prefixes then lost their positional relationship with prepositions, which led to a new increase in constructional substance, because they could no longer be analysed as prepositional components.

Second, predicative preverbs, being equivalent to secondary predicates, appear to specify the verb or 'primary predicate' in that they generally denote the endpoint of this verb. In a VO language, verb specifiers typically follow the verb. This explains the rise of phrasal particles following the verb, which increasingly replaced OE prefixes. As Ogura (1995) has shown (cf. section 2.4), replacements occur particularly early in the case of spatial usages (see also Hiltunen 1983: 127). This is not surprising. These spatial usages were transparently verb specifiers, *go away* for instance being a more specific compound verb than simply *go*. The loss of these spatial usages however implied that the pace of bleaching and the concomitant decrease in productivity of these prefixes was increased. In other words, the loss of transparently verb-specifying predicative prefixes during the shift to VO made them grammaticalize at a higher pace. When phrasal particles developed aspectual meanings independently, the greater expressive power of these less-grammaticalized particles explains why they will gradually replace aspectual usages of prefixes as well (Brinton 1988, cf. section 2.4).

Paradoxically, the radical breaking of the prefixes with lexical verb specifiers due to the loss of their original spatial meanings also could have facilitated the development of new extensions. This may be one of the reasons why *ge-* developed its grammatical function of perfective marker relatively late. It is difficult to prove that *ge-* (Gothic *ga-*) once was a predicative prefix at all, but recent studies have suggested an original SP meaning 'on, to' for this prefix (cf. Hiltunen 1983: 49-50; Lehmann 1986, who points out that the older etymologies, connecting *ge-* with Latin *cum* 'together' violate some sound laws).

3.2.4 Conclusions

Like the phrasal verbs in English and the separable prefixes in Dutch and German, there is diachronic evidence that the prefix constructions in English have two different sources, a predicative and a non-predicative one. For predicative preverbs, the resulting constructional properties are smaller in number initially than for non-predicative preverbs. In both cases, the substance of these constructions may increase, when the preverb-verb construction is extended in different ways. At this point a constructional network emerges from the preverb-

verb construction, which initially strengthens the preverb-verb constructionhood, but eventually may weaken it if the network becomes too broad.

However, the initial distinctions between predicative and non-predicative prefix constructions were blurred by the increasing generalization of each construction. By the time of OE the situation is so confused that a simple qualitative dichotomy is not sufficient to describe the differences between these structures. Not only do they sometimes perform similar tasks, especially in the case of predicative prefix constructions there was often hardly any difference with simplex verbs either.

Still, it is assumed that these differences were preserved to a certain extent and that it is due to them that the shift from OV to VO has a different effect on different prefixes. More specifically, I hypothesize that prefixes which preserved the non-predicative structure best were least affected by the shift from OV to VO, because non-predicative prefix constructions had more substance (inherited from the non-predicative preverbs) and therefore were disconnected from their prepositional origin. By contrast, prefixes in spatial predicative prefix constructions were still transparently verb specifiers. Therefore they could be easily replaced by phrasal particles, which were better adapted to the new VO structure.

These observations once more raise the issue how we can calculate these differences in substance between predicative and non-predicative prefix constructions in a more precise way. To tackle this issue, it is helpful to combine the constructional approach with two central notions from cognitive grammar, that of prototypicality and salience.

3.3 Cognitive grammar and constructional salience

The previous section explained how preverbs with an independent lexical content developed into prefix constructions as the result of a process of grammaticalization process. This process had two different results, depending on the predicative or non-predicative nature of the preverbs. By the time of OE it had resulted in seemingly highly abstract prefix meanings. In order to 'rescue' a single meaning for *be-*, Van Kemenade and Los (2003) had to revert to an abstract meaning such as 'completely affected'. If this were all there is to say, it will be impossible to determine in what way *be-* is more unique than other prefixes.

However, not only have we seen that the resulting prefix constructions preserved their distinct semantic content to a certain degree, they also had acquired distinct syntactic properties. Sentences (10-11) show instances of non-valence changing as well as valence changing *for-* and *be-*. In particular the two sentences with *be-* also make it clear that these syntactic differences correlate with semantic differences (on the nature of such a correlation, cf. Langacker 1987: 12). In (11a) there is no trace of 'around' to be found in the *be-*

construction. Adopting some basic tenets from cognitive grammar, the relationship between these different constructions within the same prefix can be explained as follows.

Constructional semantic and syntactic change is assumed to be incited by changes in the mental representation of a certain construction or set of constructions (cf. Langacker 1987: 447). Originally the lexical preverbs that formed the basis of the OE inseparable prefix constructions had spatial meanings, but they gradually developed more abstract meanings, related to the original meaning. Cognitive grammar has shown that this development from spatial to abstract is not arbitrary and that different meanings of a particular lexeme are interconnected in a lexical network. In the case of prefix constructions, such a lexical network is more adequately called a constructional network. Such a constructional network reflects our cognitive structuring of the world. Many semantic nodes will therefore not represent objective relationships in the extralinguistic world. Instead, 'our cognition and hence our language operates metaphorically' (Sweetser 1990: 8; cf. also Lakoff 1987). Moreover, the resulting polysemous structure based on cognitive mechanisms is constantly liable to restructuring. While the actual outline of a constructional network is by necessity always a synchronic slice, simply because it is impossible to build the change itself in the representation of the network, by comparing synchronic constructional networks from different periods it should still be possible to detect the outputs of these conceptual changes and reconstruct the changes themselves. For the development prior to OE etymology, though it should be treated with care, can help in this reconstruction. Among other things this method will make clear that *be-* seems to have had predicative as well as non-predicative constructional nodes, both leading a life of their own, though mutually influencing each other.

Cognitive grammar further assumes that such a constructional network is clustered around a prototype. There are many ways to think of the prototype. The view adhered to in this study is what Geeraerts (1988) calls the psychological view (also cf. Geeraerts 1997). According to this view, 'it is cognitively advantageous to maximize the conceptual richness of each category through the incorporation of closely related nuances into a single concept because this makes the conceptual system more economic' (p. 208). More extensions are preferred to fewer extensions, as long as the extensions can be interpreted in an economical way in a single semantic schema. The easiest way to do this is by interpreting this schema in terms of a prototype, which can be defined as the central reference point of the network, i.e. the point to which all extensions in some way refer (cf. Rice 1996: 140-142). In a constructional network, such a prototype is not a single lexeme, but a certain prefix construction, from which many prefix-verb derivations can be derived.

A second important principle in cognitive science is the principle of salience. Salience refers to the degree to which something is noticeable in comparison with its surroundings or its alternatives (cf. Matlin 1989: 362). This psychological view of salience is more fundamental than the one sometimes met in cognitive language studies, where salience is directly related to prototypicality (cf. Geeraerts 1997: 20). In the present view, the prototype may typically be the most salient construction within the constructional network, but non-prototypical constructions may be salient to a varying degree as well, and one prototype construction may be more salient than another. To make the concept of salience operational, then, it is seen as the aggregate for four parameters (and in principle, more of them can be defined). A construction can be salient semantically, aspectually, syntactically and in terms of frequency (both type-wise and token-wise). These four types of salience are explained in the sections below. By encoding these types of salience for each instance of a certain prefix construction in the corpus, it is possible to obtain a quantitative picture of the salience of that construction. The salience of the whole constructional network of a prefix can further be seen as the combined salience of the constructions that this prefix contains. This kind of quantitative method is similar in spirit to recent corpus-based studies like the one on the different senses (or constructions) involved in the verb *run* by Gries (to appear).

This section further elaborates the types of salience listed above. The quantitative side of my analysis will be the subject matter of the next section, which deals with the relation between the approach advocated and the corpus.

3.3.1 Semantic salience

A first type of salience is the degree to which the prefix adds concrete (mostly, but not necessarily, spatial) semantic content of its own. One could compare this with the difference in salience between an expression like *he walked northeast in the direction of the bookshop* versus *he walked to the bookshop* (cf. Langacker 1987: 39). The first way to depict the direction of the walker has much more informative content than a mere *to* and is therefore much more salient. Semantic salience in the case of prefixes can be defined as the degree to which the construction adds semantic content to the verb's own semantics.

The prototype has been defined as the central reference point, and can therefore be viewed as the motor of productivity (cf. Geeraerts 1988: 218). As a consequence, many extensions are derived from it or at least cognitively related to it, though some peripheral extensions may be extensions of extensions. The analysis of the prototype and that of its relation to other constructional nodes, as well as these nodes themselves makes it therefore possible to acquire a better idea of the salience of the prefix as a whole. In general, two

tendencies apply: 1) the more salient the prototype, the more salient the constructional network; 2) the more closely related to the prototype a subnode is, the more salient it is. The second tendency is equivalent to the Principle of Maximized Motivation (Goldberg 1995: 67), which states that a construction A (e.g. an extension of the prototype) syntactically related to a construction B (e.g. the prototype) is *motivated* to the degree that it is related to construction B semantically.

Applying the first tendency on the two prefixes under consideration, tendency, assuming tentatively that *beridan* 'ride completely round' instantiates a prototypical use of *be-*, it is easy to see why it is more salient than *tobrecan* 'break asunder'. The verb *ridan* on its own does not contain any notion of 'around' and hence *be-*'s own meaning makes the derivation quite different from the simplex. This is obviously not true for *brecan* 'break' vs. *tobrecan* 'break asunder', because breaking already implies that the result will be 'asunder'.

Of course, whether a prototype is more or less salient is not always easy to decide. Counterexamples to the above ones occur: the simplex of *bebugan* 'bend round' already contains the notion of going round something, whereas in the case of *tolicgan* 'lie apart' *to-* adds essential information. The detailed analysis of both prefixes in the next chapters will show, however, in what way *be-* will be considered semantically more salient than *to-*. Basically, prefix usages of *be-* in the sense of 'completely around' will have a higher degree of cognitive relevance (will be more salient and more unique), because they solve a cognitive clash between the need for a transitive relation (the surrounded entity is prototypically affected) and the need for a prepositional relation (the path followed around the entity) (cf. Dewell 1996). The exact nature of this advantage though will be the subject of the following chapters.

The second tendency mentioned that the more closely related to the prototype a subnode is, the more salient it is. If an extension is no longer a 'closely related nuance' therefore, it becomes more and more peripheral and runs the risk of being lost altogether. This happened to the privative sense of *be-*, once very frequent, and now only preserved in PDE *behead*. Its sense is too far away from the central one and therefore more liable to disappear.

In chapter 2 we have met some arguments contra the semantic approach, the most important being that it is highly subjective and that it is often impossible to pin down the meaning of the prefix. This is the reason why a study based on semantics alone cannot be adequate. One way to solve the problem is by shifting the focus to another aspect of the prefix system, as for instance their interchangeability. The method used here is to make use of different indications in an inclusive way to gain a picture as detailed as possible. A second such indication is that of frequency.

3.3.2 Salience by frequency

In a network of constructions clustered around a prototype, the prototype as well as each of the extensions constitutes a certain portion of the overall amount of usages of the prefix. In other words, each construction in the network has a relative frequency relative to the absolute frequency of the prefix. The part played by these relative and absolute frequencies is quite different. In the present study I will see a prefix's absolute frequency only as an indicator of its conservation, not as a cause for it. The relative frequency of a construction within a network, however, plays a part in its conservation in a straightforward way: if a more salient member of the network is more frequent, the network as a whole will be more salient than if less salient members of the network were most frequent. This needs some explanation.

One indication of the grammaticalization of prefixes is, as we have seen, routinization and consequent desemanticization (cf. Bybee 2003). Desemanticization or bleaching makes a linguistic element less salient and therefore in some contexts liable to being lost in favour of another, more expressive element (a phenomenon known as innovation or renewal, cf. Hopper – Traugott 1993: 21-23). However, this truth is not very helpful in clarifying the part played by frequency in life span differences between prefixes, because all pure prefixes (as most morphological elements) were very frequent in OE. Moreover, abstract elements can be very robust in language, even if they are highly frequent and depleted of content (as for instance the verb *be*). Therefore, the innovative part played by absolute frequencies should be treated with care.

A more interesting use of frequency data consists of the relative frequency of each node of the network. I defined the prototype as the most salient member of the constructional network, and by this merit it is the central reference point, which forms a footing for our cognition to relate many extensions with. The prototype being the most frequent member is thus more a side effect and sometimes even does not apply. Nevertheless, if the prototype is also the most frequent node, its salience is increased considerably. Because it is the central reference point, the salience of the network in general will also be increased. The relative frequency of the prototype can be seen as the degree of entrenchment of the prototype within the network. The higher this entrenchment, the more salient, as each instance of the prototype will leave traces in the mind (cf. Bybee 2003; Langacker 1987: 59, 100). If the prototype is merely one subnode among many, who all occur equally frequently, the network becomes confused, and a semantic schema that could cover all these meanings will become increasingly abstract.

Complicating the issue of frequency even more in actual usage, some very frequent types such as *becuman* 'come' or *bebeodan* 'bid' can disturb the picture considerably. In these cases it is not the salient conceptual content of the prefix which shows up over and over again, but it is the frequent need for these concepts as a whole that makes *be-* occur frequently in non-prototypical usages. Verbs like *becuman* and *bebeodan* are examples of lexicalization. At a particular moment they will no longer be seen as instances of the *be-*construction and therefore will no longer be productively formed by language users. It is merely because of their high degree of entrenchment they are not lost in the same way the privative *be-* derivations were (cf. Bybee 2003: 619).

To minimize the disturbing effects of extreme lexicalization, I will sometimes make use of type frequencies instead of token frequencies, under the assumption that the number of types representing a certain construction reflects the degree of entrenchment of this construction's meaning and syntax in the mind of the language users (cf. Croft – Cruse 2004: 295-300; Bybee 1985). The data seem to justify this approach, as highly frequent lexicalized types like *becuman* and *bebeodan* do not seem to be the source of many new types in later periods, while nodes like the surrounding-construction (instances are (11b) and (21a)) or the covering-construction (cf. (23)), which have the highest number of types in OE, will also show the highest number of new formations in ME (cf. for instance (6-7)).

3.3.3 Syntactic salience

A third and central type of salience related to prefix constructions is the salience of the construction's argument structure. In section 3.1.2, it was explained that the argument structure of a construction could override the default syntactic slots of a verb. In doing this, a construction becomes syntactically visible and is therefore more salient than if its argument structure coincides with the participants of the verb in a default situation (e.g. in a transitive construction).

However, the argument structure of a construction is not always syntactically visible. Consider the following examples from Dutch:

(35) a. Hij **dekt** de tafel.
'He **lays** the table.'
b. Hij **BEdekt** de tafel.
'He **covers** the table.'

(36) a. Hij **dekt** de tafel met eten/?met een tafelkleed.
'He **lays** the table with food/?with a table-cloth.'

b. Hij **BEdekt** de tafel met een tafelkleed.
'He **covers** the table with a table-cloth.'

(37) a. *Het tafelkleed **dekt** de tafel.
'*The table-cloth **lays** the table.'

b. Het tafelkleed **BEdekt** de tafel.
'The table-cloth **covers** the table.'

The Dutch simplex *dekken* (equivalent to OE *þeccan*) for instance has the sense 'lay (the table with food)' and has three participants, an agent (in subject-position), a location (object) and a theme (oblique) (36a). Only the first two are profiled, which means that the theme participant can be left out (35a), if it is recoverable from context (a phenomenon known as NULL COMPLEMENTATION). The participants of the derived verb *bedekken*, which also means 'cover', are at first sight identical. *Bedekken* also licenses an agent (in subject-position), a location (object) and a theme (oblique) (36b). Whereas the predicative construction in (22) resulted in a syntax not possibly licensed by the verb *cough* on its own, here both *dekken* and *dekken* + *be-* construction license a subject, an object and a PP. In terms of valence differences the construction is not visible, but semantically it is. Whereas the theme in the case of *dekken* is food and service that is spread on the table, in the case of *bedekken* 'cover' the table is covered *completely*, which makes it possible (and actually) common for the theme to be a table cloth, an unusual theme in the case of *dekken*. This is at least a hint that *be-* has an argument frame of its own, with its own semantic restrictions. Another *be-* construction reveals its independent argument structure even more clearly. This is the two-participant construction of the prefix, where the theme replaces the agent of the simplex as subject (in which case there is no agent). Both the verb *dekken* and *bedekken* are transitive, but in the third pair of sentences *bedekken* has a valence structure not possible for the simplex. The *be-* construction in this case has changed the lexical profiling of the verb and actually deprofiled the agent by cutting it (cf. Goldberg 1995: 58).

I will mark an instance of a construction as syntactically salient only if it adds arguments to the participants of the simplex verb or if it redistributes these participants in other syntactic slots. Therefore, the difference between (36a) and (36b) will not be treated as a salient difference. Neither will the difference between (37a) and (37b) be treated as such, because language users are not confronted very often to negative evidence like the one of (37a), and in a corpus, the only basis we have, negative evidence does not occur at all. However, if sentences of the type of (37b) are more frequent than those of (37a) and vice versa those of (36a) more frequent than those of (36b), a relative salience of the construction

emerges, in that it needs a theme argument more often than does the simplex. The exact way in which this relative salience will be calculated will be discussed in section 3.4.

3.3.4 Salience of Aktionsart

In section 3.1.3 I have argued that predicative and route-path preverbs are essentially telic rather than perfective. In this respect the addition of a prefix changes a verb as well. For instance, the atelic *ridan* 'ride' becomes telic by adding the *be-* construction, *beridan* meaning 'surround'. Just like the syntactic differences, this shift in Aktionsart is a property of prefixes that increases the salience of the prefix construction. However, there are several cases where this shift remains invisible. First, the destination path preverb construction (cf. (19) *de jongen aankijken* 'to look at the boy') does not make atelic verbs telic, but leaves the atelic Aktionsart untouched. Second, the matrix verb could already have been telic in its own right (as for instance *weorpan* 'throw' vs. *toweorpan* 'throw apart', both being achievements). Third, some lexicalized derivations developed new meanings where the telic addition is lost again (e.g. *belimpan* 'belong to', whereas its original meaning was probably 'happen'). Finally, the Aktionsart of a sentence does not need to overlap with the inherent telicity of a verb. For instance, *todælan* 'divide', which is inherently telic (the action of dividing necessarily ends when everything is divided), can be conceived of as a state in certain contexts:

(38) *ða beorgas, þa* ***todælað*** *þæt wæsmbære land ȝ þæt deadwylle sand* (Or 1: 1.20.14)
'The mountains, which **divide** the fruitful land and the barren sand'

Because expression is the communicative unit with which people are confronted, I will therefore in this case make use of token frequencies instead of type frequencies to calculate the Aktionsart salience of the construction, assuming that shifts or non-shifts in telicity due to the context were passed on to the verb with its prefix construction. In this way, each expression deviating in telicity from a control group (to be defined in the next section) will be seen as a salient usage of the prefix construction.

By combining these 'tags' I hope to acquire a better picture of the influence of the constructional properties of the prefix as a whole. By making use of the concept of salience, I commit myself to a fundamentally cognitive view of language change. The more salient a certain linguistic element is, the more likely it is to be conserved.

3.4 Constructions and a corpus-based approach

The examples provided to clarify the construction account were partially invented by making use of the introspective access to native language. In this way we can isolate specific constructions without the disturbance of other constructions (like the passive construction for instance) combined with them. In this way, the examples given in (35-37) are similar to the minimal pairs known from phonology. When dealing with historical data, introspection is no option. It is impossible to predict the absence in OE of causatives of the type *sneezed the napkin off the table*. But the construed contrast of the difference between a sentence containing a construction and a sentence without it is not desirable either, because it would not provide any quantitative information on the salience of a construction at a certain point in time. Moreover, in actual language usage, a constructional 'minimal pair' is often blurred by other constructions combined with it.

However, the comparison of two alternatives is still a very interesting test. How can we transform this diagnostic to a corpus-based approach? In order to obtain an overview of the contrast felt by speakers of OE, I will make use of 'non-minimal' pairs found in the corpus itself. This means that I compiled samples of sentences from the corpus containing the prefix and control samples of sentences without the prefix, but with a cognate simplex verb. For some diagnostic tests (as for instance the syntactic salience of a construction), each sentence containing a prefix will be set off against such a sentence without the prefix. By calculating the number of times these sentences differ in certain characteristics (for instance in valence), we get an approximate idea of the salience of the prefix construction. The group of prefixless sentences thus functions as a control group, which checks the truth of single observations concerning the construction's salience.

The sample of prefix sentences should of course be as representative as possible in reflecting actual daily usage. The lexicographical approach cannot provide such a representative view, because it gives equal weight to all types, each type occurring once. It also would be wrong entirely to pick out interesting lexemes consciously, because it will be impossible in that way to acquire a representative constructional network. Therefore each sample is compiled of randomly picked excerpts, except for the control samples, which were conceived of as mirror samples.

Making use of random samples has another advantage, in that it yields a higher type/token frequency than taking chunks of excerpts.[12] In this way, the productivity of the prefix is magnified somewhat, which makes it easier to establish the different lexical nodes

[12] Thanks to Sofie van Gijsel for pointing this out.

and their strength. Even if this made the networks less representative, because this is done for all samples, the relative picture is not disturbed. For a similar reason and for additional, practical reasons the samples are relatively small, consisting of 235 sentences each.

A thorough analysis of the samples is confined to the OE period. It is also for this period only that control samples were compiled. The reason for this, as stated previously, is that OE can be seen as the pivotal period where everything is decided. The other samples then serve as a test how well the observations made for OE predict the development the prefixes actually went through.

3.5 Conclusions

In this chapter I have developed a methodology to determine the productivity factors at work in prefixes. To make this possible, I have treated prefixes as constructions in the sense of Goldberg (1995). She defines a construction as 'a form-meaning $<F_i, S_i>$ pair such that some aspect of F_i or some aspect of S_i is not strictly predictable from C's component parts or from other previously established constructions' (p. 4). At first sight, this definition makes a construction a categorical entity. Either something is or something is not a construction. This way of looking at a construction is not very interesting for a diachronic approach. A close investigation of the data has shown that prefix constructions arose out of non-constructional (or less constructional) combinations of preverbs and verbs. Only when the preverb is reanalysed as a bound morpheme the preverb becomes a prefix construction as a result of the loss of syntactic independence. After they have become prefix constructions, it becomes possible for them to extend their usage domain considerably and overall they acquire more and more grammatical features, like the possibility to add arguments or telicity. This process of grammaticalization will have different outcomes, depending on the input preverb and various other circumstances. As a result of this entire development, prefix constructions will share several constructional properties, but will display them to a different degree. The higher this degree, the more salient the construction will be. In the next three chapters I will examine how this constructional salience is related to the life span of prefixes and show how the prefix *be-* has a longer life span than the prefix *to-*, because the constructional network of *be-* is more salient than that of *to-*. Chapter 4 provides a detailed description of the constructional network of *be-* and *to-*, describing for each construction its different semantic and syntactic properties and evaluating their salience. Comparing these two constructional networks in chapter 5 will test the validity of the concept of constructional salience and its relationship to the degree of productivity of these prefixes.

4 The diachronic development of the constructional networks of *be-* and *to-*

4.1 Introduction

The previous chapter described in what way non-predicative prefixes had more constructional salience initially than predicative prefixes. It also developed a methodology to make this notion of salience operational in terms of four parameters (semantic salience, salience by frequency, syntactic salience and Aktionsart salience). For the prefix *be-*, this gives rise to the hypothesis that its unusually long conservation could be explained by assuming that *be-* shows a high degree of non-predicative usages initially and that its cumulative salience in terms of these four parameters has always been higher than that of other pure prefixes. However, before starting with the detailed analysis of *be-* in the pivotal period of OE in order to test this hypothesis, it may be interesting to zoom in on the productivity history of the prefixes *be-* and *to-*. So far we have only observed that *be-* has remained productive whereas the other prefixes have not. To give an idea of how substantial the difference really is, it is interesting to look at the actual frequency differences between *be-* and *to-* in the corpora used. The exact figures are given in tables 4.1-4.2, a more graphic representation in figure 4.1[13]. In addition to absolute frequencies, it is also interesting to look at the type/token ratio of the samples analysed. The higher this ratio is, the more types occur and the lower the amount of occurrences is deriving from entrenched lexemes, hence the higher the productivity of the prefix. This ratio is given in the second row of table 4.1 and 4.2 respectively.

Table 4.1: History of the frequency of be-

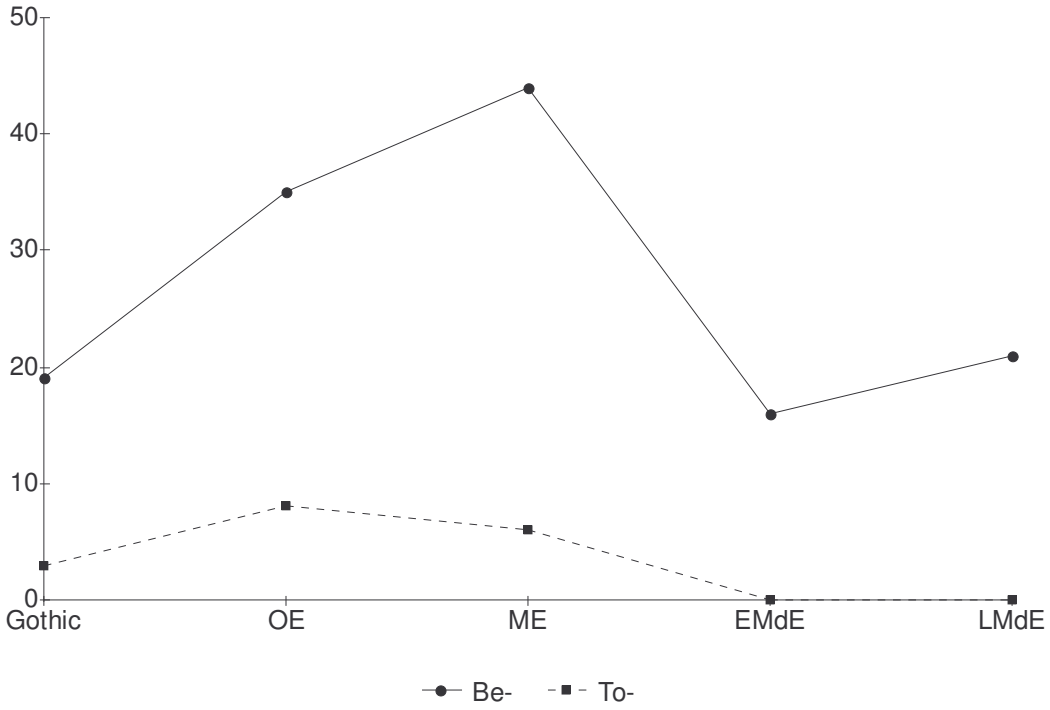
	Gothic ca. 350	**OE** 800-1000	**ME** 1150-1350	EMdE 1470-1640	**LMdE** 1780-1850
n. of be- per 1000 lexical verbs	*19*	35	44	*16*	*21*
(Prose)		(32)	(44)		
(Verse)		(45)	*(44)*		
Type/Token ratio per 235 token sample	(0.22)	0.32	0.30	0.11	0.11

[13] The figures in italics are projected figures. For more detailed information I refer to Appendix 2.

Table 4.2: History of the frequency of to-

	Gothic ca. 350	**OE** 800-1000	**ME** 1150-1350	EMdE 1470-1640	**LMdE** 1780-1850
n. of be- per 1000 lexical verbs	*3*	8	6	0	0
(Prose)		(9)	(5)		
(Verse)		(5)	*(8)*		
Type/Token ratio per 235 token sample	–	0.19	0.26	0	0

Figure 4.1: Prefix occurrences per 1000 lexical verbs



Tables 4.1-4.2 are quite revealing. Judging from the difference between Gothic and OE, a marked host-class expansion of *be-* occurred in the pre-OE period. At first sight this manifests itself both in the amount of tokens and the type/token-ratio. However, the type/token ratio of Gothic cannot be compared directly to that of OE, because the Gothic sample consists almost exclusively of the only substantial text available, Wulfila's bible. An OE text similar to Wulfila's translation from Greek is the Latin-based *Orosius*. The type/token ratio for this text is 0.23, and this suggests that the difference is due only to a difference in sample compilation. Whereas it is therefore not possible to compare the type/token frequency of Gothic with that of the English samples, the corpus frequencies of figure 4.1 can be compared. This leads to the surprising finding that *be-* has not only increased in OE as compared to Gothic, but also that it has even not yet reached its peak in

OE. While it was previously assumed by scholars that *be-* decreased from LOE onwards like the other prefixes but only at a slower pace, table 4.1 shows that *be-* was still moderately *increasing* in frequency during LOE towards EME, contrary to *to-*, whose decrease is representative for the remaining prefixes (cf. Hiltunen 1983: 116, whose statements concerning frequency should be treated with care though). Admittedly, the higher type/token ratio of *to-* in ME as compared to that of OE is somewhat puzzling, but the total disappearance of *to-* in samples from later periods nevertheless points at an imminent loss.

Now that these frequencies have proven once again that there is a marked difference in productivity history (and hence in life span) between *be-* and *to-*, it is time to examine the internal structure of both prefixes. The make-up of the constructional network of *be-*, then, is the subject matter of a first part of this chapter, comprising sections 4.2-4.5, while a second part, consisting of sections 4.6-4.8 discusses the constructional network of *to-*. These analyses will pave the way for a comparison between them in terms of the salience parameters set out previously, at the same time testing the hypothesis that non-predicative prefix constructions are more salient and therefore preserved longer. This comparison will be carried out in chapter 5.

I The history of the constructional network of *be-*

In section 3.3 I defined the prototype as the most salient member of the network and the central reference point from which most extensions are derived. Moreover, the more closely the extensions are related to this prototype, the more salient the extensions themselves are. However, the resulting network is by no means static. Extensions can give rise to new extensions and in this way move away from the prototype with possible loss as a result (even though this need not always be the case). Also, under certain conditions instances of a prototype can be replaced by other equivalent constructions, making this prototype less salient. These changes, among others, make the network liable to constant restructuring, eventually resulting in a significantly different one. The following sections describe this evolution for *be-* from the OE period to the ME period and afterwards.

The structure of this first part of chapter 4 is the following. Because of the pivotal importance of the OE period (cf. chapter 2, introduction), section 4.1 focuses on this period's constructional network, how it developed from the situation prior to OE and into the ME situation. Because of the lack of data, the first of these developments can only be partially reconstructed. Etymology (section 4.2.1) and the early attested language of Gothic could help here, though they must not be seen as straightforward evidence. Together with internal evidence from OE they constitute the materials on whose basis the prototype is

reconstructed, which is the central reference point of the extensions found in the OE period (section 4.2.2). The extensions of the OE network themselves are the subject matter of section 4.3. Section 4.4 finally zooms in on the ME network and its successors, and how they are the result from a restructuring already pending in the OE period.

4.2 The OE prototype

4.2.1 Etymology and orthography

It is assumed by etymologists that the prefix *be-* and its cognate preposition/adverb *be* do not originate in one PIE stem but instead are a conflation of two stems (cf. Lehmann 1986: 67). The first of these stems displays different vowel mutations, going back to the PIE series *$*eb^hi$*, *$*ob^hi$* and *$*b^hi$*, with meanings like 'at, against, by'. Some scholars moreover assume that this stem denoted an aggressive act against the (implicit) LM (cf. Lenze 1909: 5, 47, Philippa 2003: 308), an assumption which, though interesting, is hard to prove. The second stem lies at the basis of the second syllable of PIE *$*h_2\underline{m}b^hí$* (h_2 represents an IE laryngeal; cf. Rix 1970: 90), with meanings such as 'around, about'. Both stems might ultimately be related. Indeed, Lenze (1909: 5-8) suggests that the two meanings of *be* do not derive from two stems, but only from the first one *$*(e/o)b^hi$*, which developed the meaning 'around, about' independently. The second word, *$*h_2\underline{m}b^hí$*, would then be a kind of nasal strengthening of this second meaning of the first stem. In the end, it is unimportant for OE whether there were two stems or only one. What is important is the observation that right from the beginning two meanings are present, which can be for the present study conveniently be summarized as be_1- 'by' and be_2- 'about'.

Both meanings occur in several other Indo-European languages and often the second meaning is instantiated exclusively by a separate reflex of *$*h_2\underline{m}b^hí$*. This is, for instance, the case in Latin, which has the preposition and prefix *ob* (corresponding to be_1-), meaning 'with acc. 1. towards, to, in front of, against [...] 2. (goal, cause) because of, for, as a compensation for' (based on Aerts et. al. 1989: 282) next to the preposition/prefix *ambi* 'on both sides'(cf. Greek *amphi* 'on both sides, about, around'). In Sanskrit be_1- 'by' and be_2- 'about' have been conflated into a single reflex *abhí*. Basic meanings of the preposition *abhí* are 'by, towards, over; for, because of, with regard to (with acc.)'; of the adverb 'close by' (TITUS databank Frankfurt), and of the preverb or prefix *abhí* 'to, for, towards, fully, against' (Goldman – Goldman 1999: 148). Unlike Sanskrit, in the Germanic languages there are separate reflexes of PIE *$*h_2\underline{m}b^hí$*. OE *ymbe*, Middle Dutch *ombe* (Dutch *om*), OHG *umbi* (NHG *um*). However, both be_1- 'by' and be_2- 'about' also show up in the Germanic blend *$*bī$*. In Gothic for instance, the preposition and prefix *bi* have meanings ranging from 'by, at' to 'round

about, about, over' and metaphorically 'concerning' as well as 'within the time of, because of' among others (Köbler 1989: 86; cf. also Braune – Ebbinghaus 1981: 134-135). **Bī* seems therefore to be equivalent to the Sanskrit blend *abhí*, which is a curious parallel (cf. Rix 1970: 90; 103, note 43). Abstract meanings such as 'fully' exhibited by the Sanskrit prefix and indicating complete affectedness of the object also illustrate the similarity between Sanskrit and Germanic.[14]

Finally, the two meanings can also be distinguished in the OE prefix. De la Cruz counted OE *be-* among the pure prefixes on the basis that it differed widely in function from its prepositional/adverbial cognate. While this assumption, commonly made by scholars, holds by and large, it is also misleading, because it could lead to the wrong conclusion that their semantics also differed widely in OE. This tacit assumption can be detected in most dictionaries, when they give as the primary meanings of the preposition and adverb 'by, near, in, on, upon, with, along, at, to' (Clark 2002: 33, also cf. OED) and for the prefix 'about' (OED). However, in OE collocations exist like *writan be mengeo* 'write about the crowd' (cf. Alex: 8.5), where *be* clearly has a semantics usually ascribed to the prefix (as for instance in *bewepan* 'weep about'). And a closer look at some of the uses of the prefix which are traditionally labelled as not (perceptibly) altering the meaning (Clark 2002: 33, s.v. *be-*, sense 4, Bosworth-Toller: 69, s.v. *be-*, sense 3), such as *becuman* 'come by' reveal semantics close to its adverbial counterpart. It is interesting to note that the last example seems to be an instance of a predicative construction ('come and be BY'). Indeed, the following sections will show that *be-* not only displays two distinct groups of meanings, but that *be-* also has developed predicative and non-predicative constructions, sometimes correlating with one of these meanings. In this respect *be-* will prove far more complex than *to-*, which exclusively displays predicative structures (cf. part II).

This section is also the proper place to say something on the orthographical difficulties met in analysing the data on the inseparable prefix *be-*. Basically, the data show four different spellings: <be>, <bi>, <big>, <by>. Only the first spelling occurs in all periods of English. The second one, which is Anglian in origin, occurs in OE and ME, the third one only in OE, and the last one only in ME. In addition, the prefix is not always orthographically attached to the verb. Actually, the use of spaces in OE and ME manuscripts was not very systematic at all, and sometimes this gives rise to ambiguities. The problem is less grave in the West-Saxon (WS) dialect, since in this case two different morphemes

[14] The parallel becomes even more striking after the observation that there is a peripheral meaning of *abhí* 'without (with abl.)' similar to the privative meaning of *be-* in Germanic (*behead* as 'cause to be without head').

developed for *be*, an unstressed and a stressed one. In WS *bi(g)-* usually is the stressed (separable) form whereas *be-* is the unstressed (inseparable) one. However, in Anglian, both of them are usually written *bi-*, and occasionally *bi(g)-*. So if a text has elements of the Anglian dialect, as for instance the translation of Bede's *Ecclesiastical history* (sentences (i, ii)) or the Alexander letter (iii), ambiguities can occur. Consider the following sentences:

(i) *Ða eode se bisscop ðyder in to him ȝ hiene neah forðfore geseah, [...] ȝ ða þruh him* ***biggesette****, in ðære he to bebyrgenne geseted beon scolde.* (Bede 5: 5.396.26)
Then went the bishop thither in to him and him near death saw, [...] and the chest him by set, in which he to bury set be should.
'Then the bishop went in there to him and saw him near death, [...] and the chest set close by him, in which he would be set to be buried.'

(ii) *Þa se biscop þæt þa geseah, þe him* ***big sæt****, þa licode him seo arfæste dæd þæs cyninges;* (Bede 3: 4.166.8)
When the bishop that then saw, who him by sat, then pleased him this worthy deed of the king
'When the bishop, who sat by him, saw that, he was pleased by this worthy deed of the king'

(iii) *Wæs seo burh mid þy hreode ȝ treowcynne þe on þære ea ofre weox ȝ we ær* ***biwriton*** *ȝ sægdon asett ȝ geworht.* (Alex: 15.2.128)
Was the fort with the reed and tree-kin that on the river's shore grew and we before *be*-wrote set up and wrought.
'The fort was erected and made with the reed and the species of tree that grew on the river shore and about which we wrote earlier on.'

In the York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE) *big-* in (i) is parsed as an inseparable prefix, *big* in (ii) as a postposition (governing *him*), and *bi-* in (iii) as a separable prefix. All of these analyses are disputable. In particular parsing the analysis of *big-* as an inseparable prefix in (i) is unlikely, because there is already another inseparable prefix attached to *settan*, namely *ge-*. Functionally, *big* in (i) does not differ from *big* in (ii). Both of them could therefore be postpositions (governing *him*), but also separable prefixes, because *bigsittan* 'set by' also occurs as an SCV in OE. The only reason why *big-* in (i) traditionally is seen as an inseparable prefix is its spelling. But can we trust the orthographic practices of scribes who did not bother to spell a word in two or three different way within the same paragraph? Scribal practices were undoubtedly influenced by Latin tradition too,

since as a rule scribes were members of the clergy and were well up in Latin. As for (iii), the only reason why *bi-* is not parsed as an inseparable prefix here, analogous to the frequent derivation *bewritan* in West-Saxon, is that this inseparable complex verb is rare in Anglian. In the end, it should be emphasized that ambiguous cases such as (i-iii) are very infrequent. Still, for lack of intonation patterns, a single undisputable analysis for every prefix occurrence will never be possible.

4.2.2 The prototype

The prototype of a constructional network has been defined as its central reference point. An important assumption in cognitive linguistics is that this prototype is often spatial. Spatial meanings are believed to precede abstract ones historically (and also in language acquisition), the latter being derived from the former by means of metaphor, metonymy and pragmatic inference. From this it can be inferred that the spatial meanings will often be the prototypical ones. For many prefixes, this does not seem to be any different (cf. also Michaelis – Ruppenhofer 2001: 67, Bellavia 1996 for German *über*; Tabakowska 2003 for Polish *za*). Similarly a spatial prototype can still be distinguished for *be-* in OE, even if abstract meanings were already highly entrenched in its constructional network.

However, the precise nature of this prototype is a complicated matter. Etymology suggested that *be-* started as a conflation of two spatial meanings, be_1- 'by' and be_2- 'about'. There are some indications in OE that these meanings originally constituted two separate prototypes. However, as two prototypes are less economical and therefore cognitively less advantageous than one (cf. Geeraerts 1988: 218), our cognitive apparatus will try to incorporate both their characteristics into one single cognitive schema, and because the properties of both prototypes may sometimes be contradictory, one of them may be more dominantly present in the resulting schema than the other one. This is indeed what appears to happen in OE, where a central reference point of non-predicative constructions with be_2-semantics, which is apparently more productive, is the source for a single schema in ME, rather than the less frequently instantiated central reference point of predicative constructions with be_1- semantics. The latter one, perhaps partially due to pressure from the higher productivity rate of the former one, has bleached considerably and is sometimes difficult to detect on semantic grounds only. There are slight indications that OE language users (and certainly ME language users) analysed more and more derivations as instantiations of a single schema (which I will call the core grammaticalization, cf. section 4.4), and that this schema predominantly preserves properties of the non-predicative construction. Still, some syntactic phenomena strongly suggest that the prototype with be_1- semantics has not yet

completely vanished in OE and there are a number of extensions that can be derived from either *be$_1$-* or *be$_2$-*. Therefore I will treat both original spatial meanings together as a complex prototype, internally articulated on the basis of semantic and functional grounds.

More precisely, the prototype or central reference point seems to consist of a conglomerate of three constructions, the PROXIMITY construction, the SURROUNDING construction and the COVERAGE construction. The first displays the semantics of *be$_1$-* together with a predicative function, the latter two are semantically related to *be$_2$-* and show non-predicative functions. The PREDICATIVE PROXIMITY construction has lost most of its productive capacity already in OE, whereas the other two are very much alive. This difference in structural and semantic strength will lead in the ME period (sample 2) to a complete loss of the spatial meaning of proximity. The COVERAGE construction on the other hand is probably a very early metonymic extension of the SURROUNDING construction, but because many extensions are based on it and it is highly frequent from the first OE data, it is treated here as a part of the prototype.

4.2.2.1 THE PREDICATIVE PROXIMITY CONSTRUCTION

By comparing IE languages, etymological studies have reconstructed one stem of *be* as meaning 'at, against, along, by' (*be$_1$*) and the OE preposition can still convey each of these meanings. When used as an adverb though, its semantics is mainly restricted to 'along, by' or 'proximous to an unexpressed LM'. This adverbial meaning, for brevity the PROXIMITY meaning, can be found in predicative prefix derivations based on ergative verbs of motion like *becuman* 'come by' with the theme expressed as subject, or on reflexive verbs of motion like *bestelan* 'move oneself stealthily BY', where the mover as agent (***who*** *moves himself*) and the mover as theme (*who moves* ***himself***) are expressed as subject and object respectively. The first one can be seen as an instance of an intransitive motion construction (cf. PDE *the fly buzzed in*), the second one as a caused motion construction (cf. PDE *he moved himself in*).

This usage of *be$_1$-* is parallel to that frequently found for *abhí-* in Sanskrit verbs like *abhí-tṛ* 'come near (intr.)', *abhí-dru* 'rush up (intr.)', *ahbí-vah* 'travel away, lead by', *abhí-plu* 'ship in to', *abhí-sru* 'flow away', *abhí-i* 'arrive (at), walk up (to), reach', etc. (cf. Lenze 1909: 47). It can also be found in Latin verbs like *obire* 'approach, make one's way (to)', *oppetere* 'go towards', *obvenire* 'come close by', *occumbere* 'fall down', *occidere* 'beat down', etc. (*ibid.*: 48). However, in OE the presence of the PROXIMITY construction is not easy to establish because, by then, it had almost disappeared. As a consequence dictionaries tend to label *be-* in a verb such as *becuman* as 'not perceptibly altering the meaning' (Clark

2002: 33). Indeed, on the basis of the lexemes alone it is impossible to establish the existence of a PROXIMITY construction. There are however two types of evidence that point to this direction: the translation patterns in Latin-based texts (section A) and the difference in linking patterns between *be$_1$-* and *be$_2$-* lexemes (section B).

A To come or to become? On the semantics of the predicative PROXIMITY construction

A first piece of evidence, suggesting that the prefix *be-* in OE still added an endpoint predicate 'by' to the inherently directed motion verb it was attached to comes from the comparison of *cuman* and *becuman* in Latin-based OE texts with the Latin verbs they translate. At first sight, the differences in meaning between *cuman* and *becuman* are slight to non-existent. *Cuman* basically has a telic allative meaning 'come, approach (intr.)'. This means that an intransitive use of *cuman* already entails the endpoint of the action (the point that is approached), even if it remains unexpressed, which means that the PROXIMITY sense is part of its root semantics, and that it is not independently contributed by the prefix. But, in view of the fact that meanings of linguistic items in an utterance are not discrete (cf. Langacker 1987: 14ff), this does not prevent the prefix from adding the meaning 'by' to the verb, making the endpoint explicit, and therefore not merely intensifying the meaning of *cuman*, but also focussing on that endpoint. The comparison of the Latin original of Bede's *Ecclesiastical History* with its OE translation provides a first indication that this was precisely the part played by the prefix.

The OE *Ecclesiastical History* is a more faithful translation than for instance Alfred's compilation of Orosius' work on history, and this makes the comparison more reliable. However, the translation also presents us with two difficulties, for which there is no solution. First, the mere presence of a prefix in Latin can trigger the use of a prefix in English, the translator merely wishing to provide a translation that uses the same morphological structure as the original (cf. Ogura 1995: 74ff). Second, Bede was an Anglo-Saxon himself, so his native tongue probably influenced his Latin. If he were the translator himself, the illustration below would become circular. However, this is not the case, and the translator will have treated this text like any piece of Latin, so this second drawback is to a certain extent neutralized.

In compiling the material I made use of six excerpts from Bede's *History* containing *cuman* together with six excerpts from the control group. The resulting twelve sentences are given in (39) and (40) (the Latin version is Beda (1997), with reference to book, chapter and page number). The Latin and Old English counterparts for the verb are in bold. A more or less word for word translation should clarify the relationship between them.

(39) *cuman*

a. *ða **coman** hi sona mid sciphere **on** heora landgemæro* (Bede 1: 9.44.20)
then **came** they soon with fleet **on** their borders
*mox aduecti nauibus **inrumpunt** terminos* (Beda I: 12.52)
soon with transport ships they **in-broke** the borders
'Soon after they **passed** their borders with a fleet.'

b. *Betwioh ðas þing ða **upp comon** sume ðara þiostra gasta of ðere niolnesse* (Bede 5: 13.428.7)
In the mean time there **up-came** some of the dark spirits from the abyss
*Interea **ascenderunt** quidam spirituum obscurorum de abysso* (Beda V: 12.466)
In the mean time **up-rose** some of the dark spirits from abyss
'In the mean time some of the dark spirits **came up** there out of the abyss.'

c. *ȝ þæt folc, ðe **hider com**, ongan weaxan ȝ myclian* (Bede 1: 12.52.16)
and that people, that **hither came**, began wax and multiply
*grandescere populus coepit **aduenarum*** (Beda I: 14.60)
to wax the people began of the **to-comers**
'And the people that **arrived there**, began to grow and multiply.'

d. *Þa **com her** sæmninga micel weorud werigra gasta, ...* (Bede 5: 14.438.28)
Then **came here** suddenly a great host of miserable spirits, ...
*Tum subito **superuenit** exercitus malignorum et horridorum uultu sprituum, ...* (Beda V: 13.474)
Then suddenly **over-came** host of evil and horrible faced spirits, ...
'Then suddenly a great host of evil and horrible-faced spirits **appeared**.'

e. ***Com** se foresprecena hungur eac swylce **hider** on Bryttas* (Bede 1: 11.48.19)
Came the foresaid famine also likewise **hither** on Britons
*Interea Brettones fames sua praefata magis magisque **adficiens*** (Beda I: 14.56)
Meanwhile Brittons.ACC famine.NOM-F proper.NOM-F foresaid.NOM-F more more-AND **enfeebling.NOM-F**
'Meanwhile, the previously mentioned famine also increasingly **affected** the Britons.'

f. *Ærest he **cwom** to Hii þæm ealonde* (Bede 4: 4.272.24)
First he **came** to Iona the island
*primo **uenit** ad insulam Hii* (Beda IV: 4.332)
first **comes** to island Iona

(40) *becuman*

a. *Þa he ða se sweg me near wæs ⁊ to me **becom**, ...* (Bede 5: 13.426.31)
When he then the sound me near was and to me **BY-came**.
*Vt autem sonitus idem clarior reditus ad me usque **peruenit**, ...* (Beda V: 12.466)
When but sound.NOM-M same.NOM-M clearer.NOM-M back-come.PPLE-NOM-M to me completely **THROUGH-comes**.
'But when the sound became clearer and **reached** me, ...'

b. *⁊ þa eft wæs ham hweorfende on Scotland, þanon he ær **becom**.* (Bede Head: 5.22.25)
and then again was home turning to Scotland, whence he before ***be*-came**
*rursus in Hiberniam, unde **uenerat**, redierit* (Beda V, Head: 9.430)
again in Scotland, whence **came.3.SG**, returned
'And then he returned to Scotland, the land where he **came from**.'

c. *... sona ðæs ðe of lichoman gongað, **becumað** to ðam heofonlican rice.* (Bede 5: 13.432.16)
... immediately after they out body go, **BY-come** to the heavenly kingdom.
*... mox de corpore egressi ad regnum caeleste **perueniunt*** (Beda V: 12.470)
... immediately of body out-gone to kingdom heavenly **THROUGH-come.3PL**
'... immediately after they leave the body, they **arrive** at the heavenly kingdom.'

d. *Þa he þa Wigheard to Rome **becwom**, ær þon he to biscophade becuman meahte, wæs mid deaðe forgripen* (Bede 3: 21.248.14)
When he then Wighard to Rome **BY-came**, before then he to episcopate BY-come might, was by death short-cut.
*Verum Uighard Romam **perueniens**, priusquam consecrari in episcopatum posset, morte praereptus est* (Beda III: 29.304)
However, Wighard Rome.ACC **THROUGH-coming**, before consecrated in episcopate could, death.ABL short-cut.
'However, when Wighard was **travelling** to Rome, death cut him short before he could be consecrated as a bishop.'

e. *... gif he þære tiide ærmþa biswicade ⁊ to heannisse cynerices **becwome**. (*Bede 2: 9.126.9)
... if he this time misery.GEN-PL *be*-freed and highness.ACC kingdom.gen **BY-came.SUBJ**.
*... si temporis illius erumnis exemtus ad regni fastigia **peruenire**t.* (Beda II: 12.174)

... if timely he misery freed.PPLE to kingdom.GEN heights **THROUGH-come.SUBJ**.

'If he is timely freed from his misery and **will arrive** at the sublimity of the kingdom.'

f. *... þa gelomp þætte he to þæm seolfan mynstre **becwom** in þa tide þære miclan deaðlicnesse ⁊ wooles, þe ofer moncyn cumen wæs.* (Bede 3: 17.232.16)

... then happened that he to the same monastery **BY-came** in the time the.GEN great.GEN deadliness.GEN and pestilence.GEN, that over mankind come was.

*... casu contigit, ut ad ipsum monasterium tempore mortalitatis **aduenien**s, tactus ibidem infirmitate corporis obiret.* (Beda III: 23.274-276)

... chance.ABL happened, that at same monastery time.ABL mortality **BY-coming**, affected then decease body.GEN die.3SG.

'... Then it happened by chance, that he came to the same monastery, where at that time mortality **arrived**, and people died affected by the decease of their body.'

What is striking after a first reading is the variety of Latin source verbs translated in (39) vis-à-vis the uniformity in (40). *Cuman* serves to translate the following verbs: *inrumpere*, *ascendere*, *advena* (a deverbal noun from *advenire*), *supervenire*, *adficere* and *venire*; *becuman* on the other hand always translates a variant of the telic allative verb *venire*: one occurrence of *venire* and *advenire* and four occurrences of *pervenire*. Closer scrutiny reveals that this difference correlates with two other differences which indicate that *be-* is not semantically empty. First, not only does *becuman* always translate *venire*, in all sentences but one *be-* translates a Latin preverb with a meaning similar to that of be_1, either *ad-* 'at, by' or *per-* 'through'. The verb *pervenire* moreover is strongly telic and focuses on the endpoint, meaning 'come to, reach, arrive at LM' and perhaps more literally 'come through (*per-*) to LM'. The semantics of *be-* are further borne out by (40a), where *usque* 'completely' emphasizes the accomplishment of the endpoint of the action even more than a single *per-*, but the English translator felt that a single *be-* could translate *usque per-* adequately. Second, in all the excerpts with the prefix an explicit spatial endpoint shows up, usually expressed as the prepositional complement of *to* (40a, c-f) and once introduced by *on* (40b). The sentences using the simplex also contain explicit endpoints, but they are much less salient than in the case of *becuman*. The 'borders' in *inrumpere terminos* 'violate the borders' (39a) are not the real endpoint of the action, *upp, hider, her* in (39b-d) are only vague indications of endpoints and the 'Britons' in *on Bryttas* (39e) are no concrete spatial location. Together, these two observations, the presence in Latin of a preverb meaning 'by' or 'through' and that

of an explicit spatial endpoint, suggest that *be-* in OE was not semantically empty, instead adding a meaning 'by', which had the function of a secondary predicate.

B Linking pattern of the predicative proximity construction

If the predicative *be$_1$-* construction in verbs like *becuman* is the equivalent of an intransitive motion construction, the unification of verb and construction should result in an intransitive (ergative) derived verb if the root verb is an intransitive verb of inherently directed motion (cf. sentences (15b, 16c, 17b, 30)). Caused motion constructions with these inherently intransitive verbs are not possible (**he came it by*), because of constraints on the causer argument, which has to be an agent or a natural force, not a theme itself (cf. Goldberg 1995: 165). They are only possible if the motion verb is ergative, and can be used transitively with an agent in causer position (*he moved her (away)*). Only in non-predicative constructions can a verb of inherently directed motion become transitive.

In theory, one and the same motion verb can become intransitive or transitive, depending on the type of construction it participates in. For instance, in German *er kommt an (zu Hause)* 'he arrives' remains intransitive and can be seen as predicative 'he comes and he is ON/BY (at home)', while in the non-predicative construction *es überkommt ihn* 'it comes OVER him' *kommen* does become transitive.

In OE *be-*, this kind of overlap apparently does not occur. In general, *becuman* is predicative in nearly all its usages and hence remains intransitive. Indeed, all 31 instances of *becuman* in sample 1 are intransitive. Four of these do not have any complements or adjuncts, twenty-three have a PP adjunct of place of destination and four have a dative complement. This dative complement however is not contributed by the *be$_1$-* construction, but comes from an additional impersonal construction, as I will show below. The linking pattern of *becuman* therefore provides further evidence that this verb contains a predicative *be-* construction. In this respect *becuman* differs from another derivation based on a verb of inherently directed motion, viz. *beridan*. In the following sentence *berad* is traditionally translated (cf. Mitchell 1986: 291) as 'ride up to', and thus exhibits the semantics of prepositional *be$_1$* 'to, towards'.

(41) *ȝ þa geascode he þone cyning lytle werode on wifcyþþe on Merantune, ȝ hine þær* ***berad*** *ond þone bur utan beeode* (ChronA [Plummer]: 755.10)
and then discovered he the king with a small band in wife-company in Merton, and him there ***be-*rode** and the chamber from outside surrounded

‘And then he discovered the king with a small band in the company of a woman in Merantune, and **rode up to** him there and surrounded his chamber from outside’

Beridan is a transitive verb and this betrays its non-predicative semantics. The direct object is here the equivalent of a prepositional object (*he rode UP TO the king*) and not the subject of a predicate (**the king was UP TO*). What is striking about this difference is that *becuman* is never found in a transitive construction and *beridan* is always transitive in OE. More in general, OE seems to distinguish the predicative and non-predicative constructions lexically throughout. In the next section, I will advocate that this lexical difference in predicative and non-predicative constructions in OE correlates to a high degree with the difference between *be$_1$-* and *be$_2$-*. *Be$_1$-* is preserved in predicative constructions, but by the time of OE has been suppressed in non-predicative constructions by *be$_2$-*.

The semantic and syntactic analyses of *becuman* have shown that it is a prototypical example of a predicative construction, because it is always spatial, *be-* adding its endpoint, and it is (nearly) always intransitive. Apart from this verb, there are a few other verbs that display similar linking patterns and can be classified as instances of the predicative construction. One such a verb found in sample 1 is *belimpan*, meaning ‘belong or happen (to sb. (dat.))’, whose original meaning was ‘fall (and be) BY’ (Holthausen 1974, s.v. *limpan*), which fits the predicative pattern perfectly. Another verb is *befeallan* in the sense of ‘fall (and be) BY’, which has in combination with a PP usually a negative connotation, as for instance in (42):

(42) *nu se on ðæm rice on swelce synne* ***befioll*** (CP: 50.393.10)
now he in that kingdom in such sinn ***be*-fell**
‘now [that] he in the kingdom **fell** into such a sinn’

The fact that these two verbs of inherently directed motion have obtained a sense of happening is not exceptional. Many verbs in other languages used to express the occurrence of an event have a similar origin: *occurrere*, the Latin source of PDE *occur*, itself means ‘run BY’, and in Dutch for instance there are *voorkomen* ‘come FORE’ and *voorvallen* ‘fall FORE’. Finally there is one verb which fits the pattern of a transitive predicative caused motion construction, namely the reflexive *bestelan* (also cf. Lenze 1909: 53-54) ‘move oneself stealthily BY (to a goal)’, based on the ergative simplex *stelan* ‘move stealthily’ (whose transitive use ‘move st. stealthily’ naturally developed the meaning of ‘steal’).

With regard to this class of verbs, there are two further peculiarities to be noticed. First, some instances of *becuman* and *belimpan* take a dative complement (cf. sentence (11a) *þa us help bicwom* (Christ: 858) 'Then help reached us'). I would like to argue that these dative complements are not licensed by the *be-* construction, but rather by a separate impersonal construction. If this holds, (11a) could be structurally decomposed as: 'Help came. It was BY. It was so for us', where *us* is not the (direct) object licensed by the *be$_1$-* construction, but rather the recipient of an additional impersonal construction. A first indication in this direction is the fact that *becuman* + dat. usually means 'happen'. The above example is thus less prototypical than for instance the following:

(43) *þæm goodum* ***becymð*** *anfeald yfel on þisse weorulde* (Bo: 39.131.23)
to the good **happens** single evil in this world
'good people always **suffer** from unmixed evil in this world'

In the literature on impersonal constructions, the occurrence of an experiencer in the dative is usually related to the specific verbal semantics of experiencing or feeling. Mitchell defines a subtype of impersonal constructions involving "expressions for natural phenomena", a mould in which verbs of happening fit well (1985: 431; also cf. Van de Velde 2004 on Middle Dutch).

This type of impersonal construction can therefore be seen as an adjunct to a core event expressing a natural phenomenon. If the experiencer of this phenomenon is irrelevant, the impersonal construction is not needed either, as in *syþðan niht becom* (Beo: 115) 'since night happened/came (and was) BY (to no one in particular)'. The independence of the predicative *be$_1$-* construction and the impersonal construction can further be illustrated by comparing *limpan* and *belimpan* in different contexts. *Limpan* and *belimpan* basically convey the same meaning of 'happening' and therefore could both occur with or without the impersonal construction:

(44) a. *Þa* ***lamp*** *hit þurh Godes mildheortnysse, gemette he an þara muneca.* (LS 7 [Euphr]: 97 [not part of my corpus]) [Intransitive *limpan*]
Then **happened** it through God's mild-heartedness, he met one of these monks
'Then, through God's mercy, it **happened** that he met one of these monks.'

b. *Ac Agothocles [...] hiene on his warum beswac ȝ ofslog, swa him eac selfum siþþan æfter* ***lamp***. (Or 4: 5.91.23) [Intransitive *limpan* + impersonal construction]

But Agothocles [...] him in his pledges deceived and killed, as him.DAT also self afterwards **happened**.

'But Agothocles deceived him in his pledges and killed him, as also **happened** to himself afterwards.'

c. *Þa sona æfter þysan* ***belamp*** *þæt se arcebiscop Landfranc ferde to Rome* (ChronA [Plummer]: 1070.15) [Intransitive *belimpan*]

Then immediately thereafter ***be-*****happened** that the archbishop Landfranc traveled to Rome

d. *He ða mid þære sorhge, þe him sio sar* ***belamp****, gumdream ofgeaf, godes leoht geceas* (Beo: 2468-2469) [Intransitive *belimpan* + impersonal construction]

He then with that sorrow, PART him.DAT that grief ***be-*****happened**, man-joy off-gave, god's light chose.

'Then, wounded like that, he to whom that grief **happened**, gave up life and chose god's light'

Though superficially dative complements seem a puzzling and unsystematic characteristic of some verbs with *be-* prefixes, a constructional framework can provide an elegant and parsimonious way to account for them by seeing them as the experiencers of additional impersonal constructions.

A second peculiarity is the prominent presence of PPs making the final location, already vaguely denoted by *be-*, more explicit. I have already mentioned that 23 out of 31 instances of *becuman* carry a PP adjunct of place of destination. A comparison of the 25 prose instances of *becuman* in sample 1 with randomly chosen simplex equivalents provides some further evidence for the strong bond between *be-* and PP adjuncts denoting destinations. 20 of the sentences with *becuman* contain such a PP, half of them introduced by *on*, half of them by *to*. In the case of *cuman*, only 14 examples have adjuncts of destination: three PPs with *on*, 8 PPs with *to* and three adverbials (*her, upp, hider*). In addition, only one sentence with *becuman* has a source adjunct (*þanon* in 40b above), whereas the simplex has a source adjunct 8 times. It seems that *be-* + PP in the case of the root verb *cuman* has become a highly entrenched collocation. This corroborates the findings from section A, where comparison with Latin showed that the prefix was used in contexts where the spatial endpoint of the motion was emphasized.

The addition of a PP adjunct is not restricted to *becuman*. The other verbs belonging to this class show a similar pattern. If *limpan* or *belimpan* mean 'belong to', their more usual meanings, they always take a PP. The addition of the PP may originally have made possible

the change in meaning of the verb from 'happen' to 'belong to', but later on the collocation pattern *(be)limpan* + PP was semanticized and became a separate construction (cf. also section 4.4.1). The single example of *befeallan* in sample 1 has a PP adjunct of destination as well (cf. (42)). In the case of *bestelan*, such a PP adjunct accompanies the verb in 4 out of 7 cases. In a further two cases the adverbial *upp* performs the same function.

The strong entrenchment of the collocation of the predicative *be-* construction and a PP adjunct of destination can indicate beginnings of a possible grammaticalization where adding predicative be_1- to a motion verb made a PP expressing the target LM obligatory. Dufresne, Dupuis and Longtin (2001) made a similar observation for the Old-French preverb *a* (quoted in Dufresne, Dupuis and Tremblay 2003: 40). However, apart from some relics like *arriver à* 'arrive at', in both French and English this construction did not survive the general loss of predicative prefixes. For this *be-* particular construction, this loss can be explained as follows. The presence of PP adjuncts can be seen as a doubling of the endpoint semantics of the prefix alone. In the case of *cuman* this could have led to a bleaching of the prefix, as its presence became redundant. Indeed, in ME the spatial usage of *becuman* has largely disappeared.

In conclusion, the OE data suggest the existence of two kinds of predicative constructions found in the constructional network of *be-*: the intransitive motion construction (*becuman, befeallan* and metaphorically *belimpan*) and the caused motion construction (*bestelan*). Both constructions are apparently based on be_1- ('come by') and not on be_2- (?*'come around'). With respect to the salience of these constructions, the following can be inferred. Semantically, their content may be fading because of the frequent addition of PP adjuncts of destination. Syntactically, in neither construction is there valence change involved, from intransitive to transitive or otherwise. Both of them convey the endpoint of a motion verb (either literally or metaphorically) and their derivations are therefore telic, which means that atelic transitive-ergative input verbs like *stelan* 'move' become telic. Verbs of inherently directed motion are already telic and do not undergo any change in this respect. Because semantically and syntactically transitive and intransitive be_1- constructions are very similar, they have been treated together here as the predicative part of the spatial prototype. Their constructional salience is not high, because they do not score high on any of the four salience parameters.

4.2.2.2 THE NON-PREDICATIVE CONSTRUCTIONS OF SURROUNDING AND COVERAGE

While the predicative part of *be-*'s spatial prototype is only used with a small set of motion verbs, the OE data show the existence of an extensive set of non-predicative constructions. The semantics of these non-predicative prefix constructions is usually far more transparent than that of the predicative usage, and seems related to a high degree to the route path semantics of be_2 'around, about'. Indeed, the existence of two different cognitive representations of non-predicative *be* constructions would be highly uneconomical, and it seems that the only representation left in OE predominantly shows the semantics of be_2. It can be further divided in instances where it clearly means 'around' and in instances where its meaning has generalized somewhat to 'over'. The semantics of the first of these closely related groups, which I call the SURROUNDING/CONTAINMENT construction, is the subject of part A. The semantics of the second one, the COVERAGE construction, will be discussed in part B. Part C finally discusses the linking patterns involved in both constructions.

A Semantics of the SURROUNDING construction based on* be$_2$- *'around'

In theory there exists a non-predicative use of be_1- as a variant of the predicative be_1- intransitive motion construction illustrated in the previous section. Such a non-predicative be_1- construction underlies Mitchell's translation for the transitive verb *beridan*, namely 'ride up to the king (theme)' (cf. 41), which is clearly not predicative (**the king is UP TO*). The direct object instead of being equivalent to the subject of a predicate would then originally have been the destination of a destination path preverb be_1 'to, against' (*he rides (and is) CLOSE BY the king*), a construction similar to those in (19, 32b). In Sanskrit this construction seems to have been frequent and it is also present for *be*'s cognate *abhí* in some transitive derivations based on intransitive motion verbs (e.g. *abhí-gam* 'come towards (tr.)'). It has also been suggested for some German verbs containing *be-* by Michaelis and Ruppenhofer (2001: 126). It can further be compared to PDE *the fly buzzed against the window* (cf. Goldberg 1995: 3), where the SP is a prepositional phrase.

However, our data show that most non-predicative *be-* constructions added to motion verbs add the route path semantics of be_2, namely 'around, about'. The second verb of (41), *beeode*, already illustrated this, as did (21a), here repeated as (45) with a more literal meaning, as well as (46-48).

(46) ... ⁊ ***besæton*** *ða burg* (ChronA [Plummer]: 921.29)
... and ***be-*sat** the castle
'... and **sat COMPLETELY ROUND** [i.e. occupied] the castle'

(47) *Þa **befor** se here hie ðær* (ChronA [Plummer]: 905.11)

Then ***be*-fared** the army them there

'Then the army **went COMPLETELY AROUND** [i.e. surrounded] them there'

(48) *Þa wæron hie to þæm gesargode. þæt hie ne mehton Suð Seaxna lond utan **berowan*** (ChronA [Plummer]: 897.48)

Then were they to that afflicted, that they not might South Saxons' land outside ***be*-row**

'Then they were afflicted to such an extent that they were not able to **row COMPLETELY AROUND** [i.e. without having to stop] the land of the South Saxons from the outside.'

The dominance of be_2 in these non-predicative constructions makes it unlikely that *beridan* in (41) would be an exception. Indeed, *berad* in that sentence could very well be translated as 'rode round, surrounded'. The consequent repetition in *þone bur utan beeode* would not be an exception in the Chronicle and the whole could be translated as (49):

(49) *ȝ þa geascode he þone cyning lytle werode on wifcyþþe on Merantune, ȝ hine þær **berad** ond þone bur utan **beeode*** (ChronA [Plummer]: 755.10)

'And then he discovered the king with a small band in the company of a woman in Merantune, and **rode COMPLETELY AROUND** [i.e. surrounded] him there and **went COMPLETELY AROUND** [i.e. surrounded] his chamber from outside'

Sentences (47-49) show that in addition to the sense of 'around', adding a non-predicative *be-* construction also often entails a shift in telicity. Whereas *faran* 'travel', *rowan* 'row', *ridan* 'ride' and *gan* 'go' are atelic motion verbs, adding *be-* turns them into telic accomplishments [+TELIC]: the trajector's travelling around a landmark is telic because it ends when the LM is completely affected, which often (though not always) is when the TR is back where it started. To a certain extent this is also true for (46), where the 'sitting around' follows the telic action of marching around the castle.

In sentences (46-49), I represented *be-* in my translation as 'completely around' to convey this accomplishment sense. However, the component 'completely' does not per se mean that one finishes where one started (as in 46, 47 and 49). Rather, it adds the more abstract connotation of the LM being subjected to the activity expressed by the verb in all the (spatial) points of the path denoted by the prefix, whereby all of these points are subjected to the verb's activity **at once** (that is, not sequentially). In this sense, (48) does not imply that the

land of the South Saxons is an island, but rather that its vast shape forms no obstacle for the ships and their crew in terms of supplies etc. Similarly, (50) does not imply that the ship ended up where it had started, but that it 'conquered' the waves, which were thus fully subjected to the ship's actions, without having had the opportunity to intervene.

(50) *sume ða yða he* ***becerð*** *mid ðy scipe* (CP: 56.433.5)
some those waves he **BY-turned** with the ship
'Some of those waves he **avoided** with his ship'

The telicity conveyed by the derivation therefore does not derive from the agent coming to his/her starting position again, as Brinton assumed (1988: 209). Such an explanation makes the same mistake as Van Kemenade – Los (2003) in interpreting the *be-* construction as predicative here (*they went (and were) UP where they had started*).

Summarizing, the SURROUNDING construction basically denotes a TR following a path around a LM that is patient-like in being subjected to this action. *Be-* in this construction clearly has the semantics of the route path preverb be_2.

B Semantics of the COVERAGE construction

A third meaning which seems to be present from very early on is that of COVERAGE. Michaelis and Ruppenhofer convincingly derive this meaning from the surrounding one by comparing it to PDE *around* and NHG *um/herum*. These prepositions are "ambiguous between a sense of 'surrounding an enclosed space' and 'being distributed over a surface area'" (2001: 89) and they give the following examples:

(51) a. *Die Spieler versammelten sich* ***um*** *den Trainer.*
'The players gathered **around** the coach.'
b. *Die Spieler standen auf dem Platz* ***herum*** *und warteten auf den Schlußpfiff.*
'The players were standing **around** the pitch waiting for the final whistle.'
c. *Die Abwehrspieler liefen orientierungslos auf dem Platz* ***herum****.*
'The defense were running **around** the pitch disoriented.'

A typical OE example is the following:

(52) *mid þy Romani þa gyt Breotone* ***beeodon****;* (Bede 1: 15.62.2)

when Romans then still Britain ***be-*walked**.

'when the Romans still **occupied** (lit. walked about) Britain.'

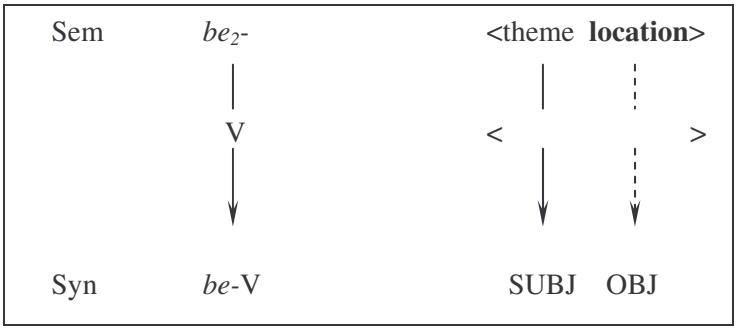
Other verbs belonging to this class are *beþeccan* 'cover over', *behelian* 'cover', *besettan* 'cover, adorn', *besmitan* 'soil, defile', etc. One set of OE verbs is not fully transparent in this respect: *befēolan, begrafan, bebyrgan*, are usually translated as 'bury', but they are probably more accurately rendered as 'cover with a mound' (cf. Lenze 1909: 83, s.v. *begrafan*). Finally, similar to the SURROUNDING class, what makes these verbs semantically salient, is that they often do not merely convey the coverage of the LM, but that the LM is subjected completely to this action and often affected by it in a negative way: *began* does not merely mean 'walk about', but rather 'occupy (by walking about)' and *besmitan* does not merely mean 'smear anything over LM' but rather 'smear filth over LM' and hence 'defile'.

C Linking patterns of the SURROUNDING and COVERAGE construction

In Michaelis and Ruppenhofer's view, the applicative *be-* construction in NHG "both adds a goal (location) argument to the verbal valence set and restricts the grammatical function to which the location argument can be linked" (2001: 62). The latter part of this definition comprises that the location (or LM) argument has to be encoded in a non-oblique case, which can be either the direct object in a transitive construction (as in examples (1, 3, 46-50, 52)) or the subject in a passive construction (as for instance the LMdE example of (6)). This characterization of applicative *be-* essentially holds for the SURROUNDING and COVERAGE constructions with be_2- semantics in OE as well.

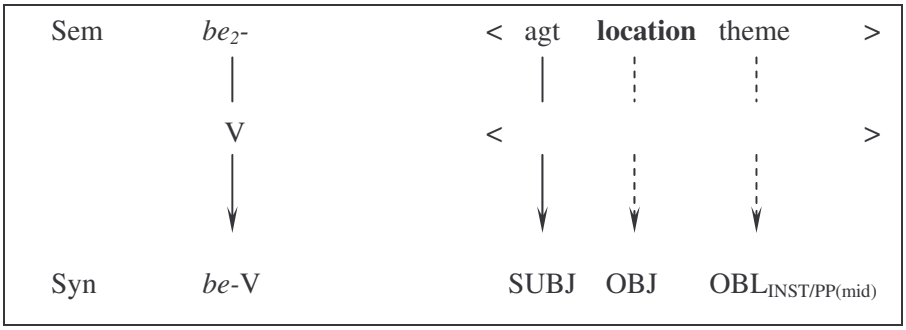
Moreover, Michaelis and Ruppenhofer divide the applicative *be-* construction into two syntactically different constructions, a bivalent one and a trivalent one. For the present study, they can be represented as in figure 4.2 and 4.3 respectively, assuming that they are used in a transitive construction, i.e. a regular active sentence (Michaelis – Ruppenhofer [2001: 61] provide a more accurate representation, which is underspecified with respect to voice):

Figure 4.2: Bivalent be_2- construction



The representation of figure 4.2 means that the addition of the construction arranges (and possibly overrides) the participants of the input verb in such a way that an active transitive sentence will have as its subject a theme (TR) and as its direct object a location (LM). Sentences (46-49) and (52) are all examples of this construction and some more will be given below.

Figure 4.3: Trivalent be_2- construction



The trivalent construction (figure 4.3) differs from the bivalent one in the encoding of the theme. Here it is an agent that fills the subject-slot, while the theme can be expressed either by a prepositional phrase introduced by *mid* 'with' or by an NP in the instrumental case (homomorphous to the dative case). An example of this construction is sentence (50), where the theme *ðy scipe* 'the ship' is expressed as the complement of a PP introduced by *mid*.

The resulting valence structure of a *be-* derivation will often, though by no means always, differ from that of the simplex verb. First, unlike the addition of a predicative *be-*construction, the addition of a non-predicative *be-* construction in the case of intransitive root verbs of inherently directed motion will result in a bivalent transitive construction with the addition of a location argument as a direct object (the trivalent pattern is not available for this type of verbs). I already noticed this shift for *beridan* (in sentence (41)), and most sentences given in A and B above contain similar input verbs (47-49, 52). The same holds for other types of intransitive verbs as well, as for instance *besittan* based on the unergative *sittan* 'sit' in sentence (46). If the simplex were used in these sentences, the location has to be encoded as a PP adjunct, as illustrated by sentence (21b) *sum ymb þa burg sætt* 'some around the castle sat'.

Second, if the root verb is already transitive, adding a non-predicative *be-* construction will often result in a syntactic alternation, sometimes called the applicative alternation (cf. Michaelis – Ruppenhofer 2001; Lenze 1909: 69-70, 96-97), comparable to the spray/load-alternation in PDE (cf. Goldberg 1995: 175-179). *Smitan* 'to smear' for instance, when used

in an active sentence, has a theme participant realized as a direct object (*what is smeared*) and a location realized as a prepositional object (*where it is smeared upon*).

(53) *Wiþ gongelwæfran bite,* ***smit*** *on isen swat.* (Lch II [2]: 65.5.9)
Against spider's bite, **smear** on iron sweat
'**Smear** sweat on iron against spider's bites'

The derived form *besmitan* arranges these arguments differently.[15] The instrument now is construed as an object in the instrumental case (or as the complement of a *mid*-PP) and the location as the direct object in the accusative, as for instance in (54).

(54) *þu ellþeodig usic woldest on þisse folcsceare facne besyrwan, synnum* ***besmitan*** (Genesis: 79.2680ff)
you foreign us wished.SUBJ in this nation treachery.INST *be*-plan, sins.INST ***be*-smear**
'You stranger wished to deceive us within this nation with treachery and **defile** us with sins.'

Instead of being encoded in the instrumental case, the theme can also appear as a prepositional phrase introduced by *mid* 'with', as for instance in the following sentence containing the verb *belecgan* 'put over'.

(55) *ȝ* ***belege*** *[þæt sar] æfter þære beþinge mid hatte wulle* (Lch II: 47.1.4.)
and ***be*-put** [this wound] after the heating with hot wool
'and **cover** [this wound] after the heating with hot wool.'

If the simplex *lecgan* 'put' were used, *hatte wulle* would be the DO of *lecgan* and *þæt sar* would be the complement of a PP.

This alternation of arguments is a consequence of the equivalence of be_2- to a preposition. What was originally a PP adjunct (**hatte wulle* ***lecgan*** *on þæt sar* 'put hot wool on that wound') is now construed as the direct object of the derivation, the function of the preposition taken over by *be-*. As a consequence, what was formerly the direct object should

[15] Leechbook also shows, apart from the simplex and the prefixed form, a third possibility, the one with a phrasal verb *smitan on* 'smear on'. More in general, in contexts where the sense is still predominantly spatial, phrasal verbs will increasingly take over the function of the prefix in LOE and ME (cf. Hiltunen 1983; Ogura 1994).

now be expressed differently, more specifically as the oblique theme, conveying the instruments used for covering the wound.

Sometimes however, the root verb already encodes the location participant as the direct object. In this case adding *be-* does not result in a valence change. For instance:

(56) *Seo Asia, on ælce healfe heo is* ***befangen*** *mid sealtum wætre buton on easthealfe* (Or 1: 1.10.26)
This Asia, on each half she is ***be-*****caught** with salt water except on the eastern half
'Asia now is **surrounded** by salt water on each side except the eastern one'

Still, the non-predicative structure of *be-* remains recoverable: 'water catches AROUND Asia' rather than merely 'catching Asia'.

Whereas the prepositional nature of *be-* seems to be recoverable regularly if the SURROUNDING sense is involved, this is not always the case with the COVERAGE sense. Already in OE the non-predicative, prepositional-like origin of be_2- was not always perceived any longer, the result being a loss of the syntactical properties of the prefix, only retaining the meaning of COVERAGE. This loss was probably made possible by the similarity of (55) to sentences like the following:

(57) *ȝ* ***wreoh*** *[hit] mid brede* (Lch II [3]: 2.1.3)
'and **cover** [it] with bread'

The valence structure of the verb *wreon* 'cover' in (57) is identical to that of a trivalent *be-*construction: an agent in subject-position, a location in object-position and a theme expressed by a *mid*-PP. Confusion between (55) and (57) gave rise to the following kind of structure:

(58) *ȝ* ***bewreoh*** *[þæt heals] fæste ufan mid leafum.* (Lch II [1]: 4.2.3)
and ***be-*****cover** that neck firmly from above with leaves
'and **cover** over that neck firmly with leaves'

In (58) the addition of *be-* is felicitous to the extent that its valence requirements are fulfilled. The lack of an alternation here at first sight seems similar to the one in (56), but this similarity is only superficial. Whereas in (56) the non-predicative nature of the prefix was retained, this is no longer the case in (58). A prepositional equivalent does not occur in OE

and seems ungrammatical: *?*he wrīhð leafa ofer þæt heals* 'he covers leaves OVER that neck' ('cover over' in the translation is a phrasal verb, not a verb + preposition). This broadening of the COVERAGE construction can be seen as an instance of pragmatic inferencing, whereby the semantics is isolated from the construction and analysed as the only contribution made by *be-*. This development will play an important role in making some other extensions possible, especially the one I will call COVERAGE ENTAILS AFFECTING (cf. section 4.3.3.1).

Finally, because the theme is a non-profiled argument of the construction, it can be left out if it is recoverable from the context, a phenomenon known as null complementation (cf. section 3.3.3). This allows the bivalent *be-* construction to participate in passive constructions, and similarly the oblique theme can be left out in trivalent *be-* constructions, as illustrated in the following two examples:

(59) *Forþon seo æ bibead [...] þæt he sceolde wætre aðwegen ȝ* ***bebaðad*** *beon* (Bede 1: 16.80.24)
Because the law commands [...] that he must water.INST washed and ***be*-bathed** be
'Because the law commands that he must be washed and **bathed** with water'

(60) *ne, þeah þe he* ***bibaðod*** *si, sona mot ingongan.* (Bede 1: 16.80.22)
not, although he ***be*-bathed** be.CONJ, immediately may in-go
'He is not allowed to enter at once, though he be **bathed**.'

As we can see, the theme 'with water' can be freely omitted, since it is common world knowledge that people wash themselves with water. However, in accordance with the Gricean principle of omission up to recoverability, the theme will still be syntactically realized if not recoverable from the context, i.e. in this case the type denoted by the base verb, as in *ȝ mid healfe [his sciccels] hine eft besweop* (VerHom, LS 17.2 [MartinVerc 18]: 59) 'and clothe him with half [of his coat]', where the verb does not specify that only half of the clothing should be applied (Michaelis – Ruppenhofer 2001: 59).

Summarizing, both non-predicative usages of *be-* (SURROUNDING and COVERAGE) make use of the semantics of be_2-, but the COVERAGE construction is semantically derived from the SURROUNDING one. The linking patterns of both constructions are very similar, making atelic [-TELIC] root verbs telic [+TELIC] and providing a bivalent or a trivalent argument structure, with a LM encoded as a direct object (or, in passive constructions, as a subject) and a theme either encoded as subject or as an oblique argument. The specificity of these patterns

often results in highly salient valence patterns, differing from those found in sentences making use of the simplex counterparts on which these derivations were based. However, sometimes valence does not change and this makes it possible for the semantic component of the prefix construction, i.c. '(completely) about, over', to separate itself from the syntactic component and provide a possible source for semantic extensions.

4.3 Extensions of the prototype in the OE period

Apart from the basically spatial *be-* constructions constituting the prototype, many more abstract extensions are found in OE. The following sections examine these extensions in detail and describe how they could have developed out of the prototype. This description is inevitably largely confined to a plausible reconstruction, because most extensions already were formed long before the first OE written data show up. Sometimes Gothic can help in establishing a terminus ad quo for a certain extension, but in that early language too *be-* was already associated with a complex constructional network.

One effect of this lack of diachronic data is that the extensions resulting from gradual developments often have the appearance of metaphors, even if many of them developed metonymically or in some other way (see Traugott – König 1991; Hopper – Traugott 1993: 86-87; Schwenter – Traugott 1995). Therefore I will treat many of these extensions as metaphors, and it seems at least possible that the associative memory of language users makes extensive use of such metaphorical links synchronically (Sweetser 1990: 8). However, even then it is important to become aware that these 'metaphorical' extensions are not metaphorical in the sense that the prefix provides the metaphorical reading of the derivation, but that the spatial meaning of the prefix is used in a context where space is perceived metaphorically (Brinton 1988: 198). Consider the following example:

(61) a. *ȝ ða wunda nu mid micle sare tintrego togædre* ***swicað*** *in ða innoðe mines lichoman* (Bede 5: 14.440.13)
And the wounds now with much pain torture.DAT together **recede** in the inner mine.GEN body.GEN
'And all wounds now **recede** with much pain for the torture in the inside of my body.'

b. *He angan sierwan mid þæm folce þe he ofer wæs, hu he hiene* ***beswican*** *mehte* (Or 1: 12.32.19)
He began plot.INF with the folk that he over was, how he him **deceive** might.

'With the people above whom he was, he began to plot how he might **deceive** him.'

Example (61a) illustrates the original meaning of the simplex 'to recede, i.e. not to go straight' (probably related to the OE word *wican* 'yield, give way, fall down', Dutch *wijken*, German *weichen* [Philippa 2003: 302-303, s.v. *bezwijken*]). The thing avoided by receding or giving way is expressed in the dative (*tintrego* 'torture'). Related meanings are 'wander, depart, give way'. I assume that the derived form in (61b) was originally based upon this meaning of the simplex, the derived sense being 'depart from a straight course around somebody', which in its entirety is then used as a metaphor for 'deceive or circumvent somebody'.

Derivations where only the prefix is perceived metaphorically do not occur. Instead, derivations where only the prefix has lost its original constructional semantics are treated as instances of pragmatic inferences, a process that can be defined as a type of conceptual metonymy, whereby a certain pragmatic (side-)effect of an expression is reinterpreted as the only proper meaning of this expression (cf. Hopper – Traugott 1993: 81). In the previous section we already saw one example of this process, namely the isolation of the semantic component 'over' together with affectedness.

Extensions treated as metaphorical are discussed in section 4.3.1, extensions caused by pragmatic inferences in section 4.3.2. Finally, section 4.3.3 discusses some special cases, in particular the privative *be-* construction (e.g. *behead*). This overview owes much to the synchronic study on NHG *be-* by Michaelis and Ruppenhofer (2001). Obviously NHG *be-* still preserves many of the original meanings of the prefix, presumably shared by all West Germanic languages. This does not mean there are no differences. Some uses traced by Michaelis and Ruppenhofer simply do not occur in English, other uses I will link in an alternative manner to one of the prototypical meanings, which seems more in line with the data. Of course OE is different from NHG, but maybe these diachronic investigations can also shed light on some of the more obscure extensions in present-day German or Dutch use.

4.3.1 Metaphorical extensions not specific to *be-*

Some metaphors that occur among the uses of *be-* are not specific to it. They will not be separately analysed, but are considered as instances of the prototype. There are two types of such metaphors. In a first type the simplex can synchronically no longer be analysed as spatial (e.g. *limpan* 'happen', which originally probably meant 'fall down'; *belimpan* 'happen to sb. (dat.)'). In this particular case *be-*, which is seen as basically spatial, shows

the capacity to combine with abstract root verbs to produce non-spatial senses through the frequent metaphor TIME IS SPACE.

In a second type, the non-spatial reading emerges from the broader context in which the prefixed form occurs. Metaphors that can change the meaning of the verb from concrete to more abstract are: EVENTS ARE LIKE OBJECTS (count nouns), PROCESSES AND STATES ARE LIKE STUFFS (mass nouns) (Brinton 1988: 48). In these cases however, it is not the prefix in itself that shows an ability to occur in non-spatial contexts, but the derivation as a whole. With this type of metaphors, it is not always very clear whether they are present at all. For instance, sentence (40c) from Bede, here repeated as (62), could equally be seen as purely spatial or as temporal.

(62) *sona ðæs ðe of lichoman gongað,* ***becumað*** *to ðam heofonlican rice.* (Bede 5: 13.432.16)
... immediately after that from body go, **BY-come** to the heavenly kingdom.
'... immediately after they leave the body, they **arrive** at the heavenly kingdom.'

Even if in the religious context of early English Christianity it is not very likely such a statement is meant metaphorically, it gives a good idea of the possible confusion between literal and metaphorical meaning of clauses containing *be-*.

4.3.2 Metaphorical extensions of Proximity, Surrounding and/or Coverage

4.3.2.1 SEEING IS CONTACT WITH THE PERCEPT

In both the SEEING construction and the next one the distinction between predicative and non-predicative constructions is blurred to the result that these constructions display some unique properties of their own. As the second one is probably derived from this one, I discuss the SEEING construction first.

There are two lexemes in Sample 1 expressing the visual inspection of a percept, *behealdan* and *beseon*, both meaning 'look at'. More of them can be found elsewhere in OE (*belocian* 'behold', *behawian* 'see clearly', *besceawian* 'look round upon', and (already shading into the next extension) *begiman* 'look after'). Lakoff observed that tactile metaphors are often used in expressing seeing. One sees whatever one's gaze touches (Lakoff 1987: 437), as the following sentence illustrates: *she wasn't able to take her eyes off him* (taken from Michaelis – Ruppenhofer 2001: 73). This metaphor is particularly well detectable in the verb *behealdan* 'behold', whose simplex *healdan* is PDE *hold*. More precisely, *behealdan* could thus originally have meant something like 'to grasp at/touch

something with one's eyes'. *Beseon* as well could have this connotation of grasping at, even if the simplex only means 'see'. However, the following examples, taken from the Metrical Psalms, show that these types not only metaphorically denote a punctual contact with what is seen, but that there is an additional sense present of thoroughly covering a two-dimensional surface with one's gaze:

(63) a. *þa of heofenum **beseah** halig drihten ofer manna bearn* (MetrPs: 52.3)
'There from the heavens the Holy Lord **looked** over the children of men.'

b. ***Beseoh** on þine scealcas swæsum eagum and on þin agen weorc, ece drihten, and heora bearn gerece bliðe mode.* (MetrPs: 89.18)
'**Look** on your servants with gentle eyes and on your own work, eternal Lord, and take care of their children good-tempered.'

Michaelis and Ruppenhofer make similar observations for NHG and therefore assume this usage type is an extension of be_2 and more specifically of the COVERAGE construction (2001: 73-74). Semantically it could be an extension of the sense of be_1 as well though, which was still productive in OE (unlike NHG). A verb as *besceawian* 'look round upon' moreover makes it clear that the basic meaning of be_2- 'around' is also present (the SURROUNDING construction). Therefore I classified this node in the constructional network (figure 4.4 on p. 119) as an extension of the complex spatial prototype.

This extension together with the next one constitutes an aspectually as well as syntactically separate case. Aspectually it forms a unity in that its instances basically are atelic. The Holy Lord's looking over the children of men can either be seen as an activity or as a state, but it does not fit very well the requirements for telic Aktionsarts (*?to look over the children in three hours*). In this respect they resemble Blom's class of orienting preverbs (cf. section 2.5.3). Syntactically, with these verbs, the covered theme is always expressed by a prepositional object. This prevents a purely non-predicative reading, because there is already a preposition present (**to look at over the children*), but a predicative reading is not very plausible either (?**to look by over the children*).

4.3.2.2 ATTENDING TO A PERCEPT IS CONTACT WITH IT

Several verbs share a core meaning of 'attending to' or 'having to do with'. The following sentences can serve as illustrations.

(64) a. *ðæt eall sio gioguð ðe nu is on Angelcynne friora monna, ðara ðe ða speda hæbben ðæt hie ðæm **befeolan** mægen* (PrefCura: 49)

[and] that all the youth who now is in the English kind of healthy men, of them those who have the opportunity, that they to this **devote** may

'and that every young man who is now a healthy man of the English people and who has the opportunity, that they may **devote** themselves to this learning.'

b. *Nu mæg þa cristenan gescomian þe swelc deofolgild lufiað ȝ* ***bigongað*** (Or 4: 12.111.16)

Now may the Christian.pl shame that such devil-worship love and ***be*****-go**

'Now the Christian people who love and **practise** such idolatry can be ashamed.'

This extension does not seem to exist independently from the former one (SEEING IS CONTACT WITH THE PERCEPT). The meaning of the verb *behealdan* for instance can extend to this lexical node, taking the meaning 'take care (of oneself)'. The above example of *begiman* 'look after' is another borderline case, as is *bewitan* 'keep, watch over', whose simplex counterpart is *witan* 'be aware of, know, observe, perceive' (also cf. Lenze 1909: 140). On the other hand we find verbs that belong to this class independently from these looking verbs. One such verb is *began* in the sense of 'attend to, take care of; worship, honour'. Lenze (*ibid*.: 82) explains this as follows. The original meaning of *began* was 'go round, surround'. If one is concerned about someone and taking care of him or her, one is often in their neighbourhood, moving diligently around them. Michaelis – Ruppenhofer (2001: 74-75) explain this metaphor yet in other words. To them attending something is like directing one's attention to it. Once again, there is some truth in all these observations and therefore this node is seen – just as is the one above – as an extension of the broad prototype.

In spite of its superficially heterogeneous origins, I still construe it as a homogeneous lexical node, not only because of its semantic similarities, but also because verbs belonging to this class are generally atelic activities. Syntactically these verbs are often reflexive and license a theme in an oblique case (*hine befēolan* + dative 'to apply oneself to st.', *hine behatan* + genitive 'pledge oneself to st.'), or they take a prepositional complement (*befon on* 'have to do with'). The combination of the prefix with an obligatory prepositional complement shows that the distinction between predicative and non-predicative function in this extension has been lost.

4.3.2.3 DISCOURSE IS TRAVEL ACROSS A TOPIC

A minor extension of the COVERAGE node consists of *verba dicendi* via the TRAVEL METAPHOR: 'mental activity and conversation are both movement through some metaphorical space, the space being identified with the subject-matter of thought or speech'

(Michaelis – Ruppenhofer 2001: 75; cf. Sweetser 1990). The following sentences contain examples of *besprecan* 'to speak about' and *bewepan* 'mourn over'.

(65) *Ond nu ure Cristne Roma* ***besprićð*** *þæt hiere wealles for ealdunge brosnien* (Or 2: 4.44.12)
And now we Christians Rome ***be*-speak**, that her walls for age crumble
'And now we Christians **speak about** Rome, [saying that] her walls are crumbling from age.'

(66) *ac æfter þam tearum þa ilcan þe he ær* ***beweop****, he eft þurhtyhð.* (HomS 11.2 [ScraggVerc 3]: 52)
but after the tears the same [sins] that he before ***be*-wept**, he again through-carries.
'but after his tears he carries through once again the same [sins] he had **wept over**.'

In derivations like these, the trajector usually covers the landmark (or theme) comprehensively. This comprehensive coverage is a natural extension of the sense of affectedness found within the COVERAGE prototype (cf. section 4.2.2.2.B, where *began* was analysed as 'cover completely by walking and hence occupy). Compare this with the prototypical simplex use, which is either intransitive or has a direct object already implied in the meaning of the verb (like *speak a language, weep a weeping*) and is not at all a comprehensively covered topic.

(67) *Þa Finnas, him þuhte, ⁊ þa Beormas* ***spræcon*** *neah an geþeode.* (Or 1: 1.14.27)
The Fins, him thought, and the Biarmians **spoke** almost one language.
'The Fins, he thought, and the Biarmians almost **spoke** the same language.'

(68) *we ne þyrfen* ***wepan*** *in ecnesse þone biterestan wop.* (HomU 7 [ScraggVerc 22]: 207)
we not need **weep** in eternity the bitterest weep.
'We need not **weep** our most bitter weeping in eternity'

Other verbs from sample 1 included under this node are *hine bereccan* 'justify oneself' and *beweopan* 'mourn over'. These verbs share the same characteristics as those from the former node: they are atelic activities. Syntactically they are transitive and derived from usually intransitive, though optionally transitive simplexes. The construction then, being derived from the COVERAGE construction, is an illustration of the non-predicative path usage of be_2-. A predicative reading is not possible (**The Christians speak and Rome is* PRESENT).

One could argue these three verbs are a rather narrow basis to distinguish a separate node. I included it though, because it is quite productive both in Gothic and in modern Dutch and German. Gothic contains the following discourse verbs: *bidomjan* 'judge, condemn', *bihlahjan* 'laugh at', *bilaikan* 'ridicule, mock', *bimampjan* 'mock, deride', *biswaran* 'swear to'. German examples can be found in Michaelis – Ruppenhofer (2001: 115-116).

Apart from the implication of comprehensive coverage, a sense it shares with productive usage in Dutch and German, the above example with *besprecan* shows that sometimes *be-* seems to add a negative connotation as well. Although this connotation is not present in the other two verbs classified under this node, it is always present in Gothic. These are indications that *be-* experienced what Traugott calls subjectification (e.g. Traugott 1989) if combined with *verba dicendi*, a process which is made possible precisely by the salient focus on the affectedness of the direct object. By a process of pragmatic inference, in LOE a new construction will arise, containing exclusively verbs of deceiving. This class only preserves the negative semantic prosody of the prefix, while its non-predicative syntax is lost, as I will explain in section 4.4.4.

4.3.2.4 HAVING A PROPERTY IS BEING PROXIMOUS TO THE POSSESSED

On semantic grounds, it is possible to distinguish a class of verbs expressing (potential) possession, based on the metaphor HAVING A PROPERTY IS BENG PROXIMOUS TO THE POSSESSED (cf. also Hopper – Traugott 1993: 42-43). This extension is therefore based on the semantics of be_1-. Its syntax is somewhat confused, but there are some indications that it is predicative in structure.

A Semantics

By means of the PROPERTY metaphor, it is possible to use motion verbs or position verbs to express possession, as for instance in the following example:

(69) *an is ðara dæla hu he on ðone folgoð* ***becume*** (CP 0: 23.20)
one is these.GEN parts.GEN how he on the retinue ***be*-come**.SUBJ
'one of these parts is how he would **come by** his followers'

The possessive sense in this OE example is weak if there at all, but this use of the verb to express possession is common in PDE, as in *how did you came by that money?* Verbs of (potential) possession belonging to this group are *behealdan* 'to possess' and *begietan* 'to get, obtain; to receive; to find, meet'. The latter verb has no simplex counterpart in OE, *get* being reintroduced through the Scandinavian invasion towards the end of OE, but can be

contrasted with another derivation like *ongietan* 'to grasp, understand'. In a broader sense, *beðurfan* 'have need of' and *behofian* 'be needed by' also belong to this class. These two verbs express some kind of required property, where it is not the proximity to the possessed that is brought to the fore, but rather the needed proximity. Therefore, in all these verbs the semantics of the prefix is assumed to be derived from *be$_1$-*.

B Linking patterns

Syntactically, there are some indications that *be-* is used predicatively in these derivations. Apart from semantics, the main basis for this assumption is that verbs belonging to this class do not always take accusative objects, a necessary condition in the case of non-predicative *be-* constructions, because the accusative is the case assigned for the LM by the non-predicative *be-* construction (cf. section 4.2.2.2).

In the case of *becuman*, the arguments for this analysis are identical to those used to account for its spatial usage ('come BY'). Sentence (16), then, can be paraphrased as *He comes + he is BY/PRESENT on to his retinue*, where *on ðone folgoð* is not a real prepositional object, but rather an adverbial of place, metaphorically used to express the possessed.

A verb like *begietan* is less straightforward to analyse, and *be-* here is ambiguous between a predicative and a non-predicative prefix. Previously, I contemplated the possibility of a non-predicative *be$_1$-* reading for the verb *beridan*, which could then be translated as 'ride up to (*be$_1$*) LM'. A similar perspective is possible with *be-* in *begietan*:

(70) *ȝ ðurh ðone hie* ***begeaton*** *welan* (CPLetWærf: 31)
And through that they ***be*-got** wealth
= And in that way they **got AT** wealth

However, a predicative reading is equally possible: *And in that way they got wealth BY (i.e. close to them)*, which could be decomposed as *they got wealth + wealth is BY (i.e. in their possession)*.

Whereas *begietan* allows two readings, in the case of *behealdan* the structural equivalence with the simplex makes a predicative paraphrase more likely:

(71) a. *Sona þæt onfunde se ðe floda begong heorogifre* ***beheold*** *hund missera* (Beo: 1497-1498)
Soon that discovered he who floods'.GEN region fierce ***be*-held** hundred half-years.GEN

‘Soon the fierce one who had occupied the region of the waters a hundred half-years discovered that’

b. *hie gesawon swylce twegen micle mearcstapan moras* ***healdan*** (Beo: 1347-1348)
they saw such two big outskirt-prowlers moors **occupy**
‘they saw two of such big prowlers of the outskirts **occupy** the moors’

Both *healdan* ‘hold’ and *behealdan* ‘possess’ take a direct object in the accusative. A predicative paraphrase, with the prefix denoting the result of the ‘holding’, seems straightforward: *The fierce one held the region of the waters + the region of the waters is BY.* Additional evidence for a predicative reading comes from Dutch, where *behouden* with the inseparable prefix *be-* and *bijhouden* with the separable prefix *bij* are near synonyms, the second being clearly predicative. *Hij houdt het bij* ‘he holds it BY/he keeps it with him (and does not give it away)’, which can be paraphrased as *he keeps it + it is with him (BY).*[16] A non-predicative reading, with the prefix being equivalent to a preposition, seems less natural here: *The fierce one held BY the region of the waters.*

If the predicative analysis of *behealdan* is correct, a kind of lexical diffusion within this lexeme is taking place. In a previous section (4.3.2.1) we have seen that *behealdan* in the sense of ‘behold’ always takes a PP complement and displays some characteristics typical of orienting preverbs. It is apparently this meaning of *behealdan* which prevails (even if it adapts the syntax of the *behealdan* ‘possess’), the possessive becoming extremely rare (it does not occur in any other sample) to disappear totally by the end of the 16th century.

The remaining verbs belonging to this class, *beþurfan* and *behofian* provide a different kind of evidence for a predicative reading. Both these verbs usually take a partitive genitive as object. This complementation pattern however is not possible if *be-* were non-predicative. In that case the object of *be-* obligatorily is a direct object in the accusative, because non-predicative *be-* fits a LM, which would otherwise be a prepositional object, into a transitive pattern. On the other hand, possible unselected objects like *the napkin* in Goldberg’s *sneezed the napkin off the table* are in OE also construed as accusatives, as for instance in the

[16] Dutch possesses a few of these near-synonymous pairs. Apart from *behouden/bijhouden* there is *bekomen/bijkomen* ‘recover, come round’ (cf. OE *becuman*) and *bewerken/bijwerken* ‘revise’. It is noticeable that in each case the variant with the inseparable prefix is slightly more archaic than the one with the separable prefix. This is an indication that in a mixed OV-VO language like Dutch, a predicative inseparable prefix is sometimes replaced by an equivalent separable prefix, which is more adapted to the mixed status of Dutch, following the verb in VO main clauses (*hij komt bij* ‘he comes round’) and preceding it in OV subclauses (*wacht tot hij bijkomt* ‘wait till he round-comes’). It also indicates that, at least in Dutch, *be-* is not as pure as de la Cruz (1975) assumed for English, because the relationship with the preposition/adverb *bij* (the source for the separable prefix) was apparently still felt with these verbs.

possible example (10b) *hi heom sylfe ælc oðerne* ***forfore*** 'they destroyed themselves', i.e. *fared themselves away*. However, it is still possible to conceive *be-* as predicative in the case of *beþurfan* and *behofian*, if it is assumed that the genitive object is licensed by the simplex and not by the prefix. Because **hofian* is not found in English and *þurfan* is a modal auxiliary usually taking an infinitival complement, this is difficult to test. The following pair could be an indication in this direction though:

(72) *þa micles* ***bedurfon*** *þe micel agan willað ȝ þa* ***þurfon*** *swiþe lytles þe maran ne wilniað þonne genoges.* (Bo: 14.31.20)
those.NOM-PL much.GEN **need** who much possess wish and those.NOM-PL **need** very little.GEN who more not want than enough.GEN
'Those who wish to possess much **need** much and those who don't want more than enough **need** very little.'

The simplex form suggests that the partitive genitive is licensed by the verb itself, not by the *be-* construction. A predicative *be-* would then add a kind of irrealis proximity, similar to the one we find in a Dutch sentences like *ik wil haar erbij* 'I want her BY (i.e. with me)'. If this is true, a predicative paraphrase would be something like *those need of much BY*, i.e. *those need (a part of) much + this part is BY (with them)* in their mind/the future.

It is not impossible that *þurfan* merely is an aphetic form based on *beþurfan* earlier in (72), in which case it does not prove anything. Even then, the semantics of these verbs make a predicative reading at least possible, which is far more insightful than saying that *be-* would be merely 'intensifying' here. Moreover, if the genitive case of the object of *beþurfan* does play a part in restricting the possible prefix constructions, case assignment is important to account for certain semantic and syntactic phenomena and this raises questions with regard to Mitchell's decision to have the term direct object embrace 'accusative, genitive, and dative, objects of verbs which in MnE are regarded as transitive or which take a direct object not found in MnE [...]' (§1565).

In conclusion, these verbs seem to form a semantically and partially syntactically coherent group, even if the basis to group them together is not always very firm. If they really are predicative extensions of be_1, their general appearance provides evidence that predicative constructions with be_1-semantics are gradually suppressed by non-predicative constructions with be_2-semantics. Not only has this metaphorical extension already in OE ceased to be productive, the instances of the PROPERTY extension are probably no longer associated with their predicative origin either. Because all instances of this extension are all

highly lexicalized, it is even unlikely if they are still perceived as derivations. Indeed, two of them do not have a simplex counterpart any longer in OE (*begietan* and *behofian*), and the simplex counterpart of a third one, *beþurfan*, has grammaticalized into a modal auxiliary. The same holds for the only verb belonging to this class in sample 2 and not present in sample 1, namely *biliven* 'to preserve a certain condition'. It was already present in OE as *belifan*, and did not have a simplex counterpart either. In other words, it seems that verbs derived from the PROXIMITY sense or extensions of it, gradually lose ground, especially if they are predicatively structured (I will come back on this in section 4.4.1).

4.3.2.5 BEING CONCEALED IS BEING COVERED BY SOMETHING

Meaning changes that arise out of the contiguity of a certain linguistic element to other elements in certain contexts are known as instances of conceptual metonymy (Hopper – Traugott 1993: 80-86). In its sense of 'coverage', it is not surprising that *be-* derivations were often used in contexts dealing with matters that cannot stand up to the light of day. The contiguity of *be-* to such verbs led to a separate class of derived verbs whose root verbs already mean 'hide'. The verb *helan* for instance means 'cover', and with the intensifying addition of the coverage *be-* construction *behelan* means 'cover over'. But in a phrase like *þe ær under hoðman biholen lægon* 'who were covered/hid under darkness before' (Christ: 44), the sense is predominantly one of concealment. If it was one of coverage, the poet would probably have said *mið hoðman biholen* 'covered with darkness'.

As a consequence of *be-*'s conceptual contiguity to contexts of hiding, *be-* was attached with intensifying meaning to a considerable number of verbs which already had a sense of 'hiding', at the same time losing the coverage sense: *bedyrnan* 'hide' < *diernan* 'keep secret', *bedīglian* 'hide' < adj. *diegol* 'hidden, secret', *bemiþan* 'hide' < *miþan* 'hide, remain concealed', *behȳdan* 'hide, shelter' < *hȳdan* 'hide' among others. Because in these derivations *be-* only intensifies the sense of the root verb, the prefix does not preserve the basic accomplishment Aktionsart which the COVERAGE construction inherited from the SURROUNDING construction. Often, these verbs are states or activities and therefore atelic [-TELIC].

To the extent that most of them can also be rendered as 'keep away from (sight)', they also seem to share some characteristics with the Removal construction (section 4.3.4), which has however a different linking pattern. Removals usually have an instrumental or genitive to denote a removed theme, whereas what is hidden (removed from sight) in the present class is a direct object in the accusative. Therefore the two should not be confused.

In itself, this extension is of small importance: it is temporary and will vanish in ME. But it could have added to the general subjectification process of *be-* as conveying 'dark and

hidden circumstances'. I have already briefly mentioned (in section 4.3.2.3) the existence in ME of a considerable amount of derivations clustering around a core sense of deceiving (e.g. *bilirten* 'mislead', *bipechen* 'deceive'; cf. section 4.4.4). It is not difficult to see that the actions of hiding something (from someone) and deceiving are semantically close to each other.

4.3.3 Partially metaphorical and Non-metaphorical extensions

4.3.3.1 COVERING ENTAILS AFFECTING: DEVERBAL CONSTRUCTIONS

A meaning often ascribed to *be-* is that of intensification. For instance, the second sense of *be-* in the OED reads "Forming intensive verbs, with sense of 'thoroughly [...], soundly, much, conspicuously, to excess [...]". A typical example of such an intensive verb in OE is *beswingan* 'flog', whose simplex counterpart *swingan* is clearly weaker, meaning 'beat'. Lenze calls this sense of *be- Verstärkung der Transition* 'strengthening of transitivity' (1909: 104), a strengthening which is acquired because *be-* focuses on the affectedness of the direct object. Derivations where *be-* has this sense remain in use to PDE, as for instance *belabour, beshit* (OE *bescitan*)*, bewilder, bewitch.* The present section discusses deverbal constructions displaying these semantics.

The development of this sense of affecting seems to be a classical example of pragmatic strengthening (Hopper – Traugott 1993: 75ff). Recently, Croft has rebaptized this process 'metanalysis', a subtype of reanalysis where "the listener swaps contextual and inherent semantic values of a syntactic unit" (2000: 130). This process consists of the simultaneous occurrence of two other types of reanalysis, hyperanalysis and hypoanalysis. In hyperanalysis, "the listener reanalyses an inherent semantic/functional property of a syntactic unit as a contextual property (usually, a property of another syntactic unit of the construction)" (p. 121), resulting in the loss of some semantic component of the syntactic unit. In hypoanalysis on the other hand, "the listener reanalyses a contextual semantic/functional property as an inherent property of the syntactic unit" (p. 124). The result of this process is exactly the opposite of that of hyperanalysis, namely a gain in semantic content.

The first process involved, that of hyperanalysis, consists of the sense of 'coverage' being ascribed to the root verb instead of the *be-* construction itself. The basis for this inference is often the trivalent COVERAGE pattern. In section 4.2.2.2.C I explained how the COVERAGE construction broadened to contexts where the root verb already had the sense of coverage itself. Recall examples (55) and (58), here repeated for convenience as (73-74):

(73) ⁊ ***belege*** *[þæt sar] æfter þære beþinge mid hatte wulle* (Lch II [2]: 47.1.4)
and ***be-*put** [this wound] after the heating with hot wool
'and **cover** [this wound] after the heating with hot wool.'

(74) ⁊ ***bewreoh*** *[þæt heals] fæste ufan mid leafum.* (Lch II [1]: 4.2.3)
and ***be-*cover** that neck firmly from above with leaves
'and **cover** over that neck firmly with leaves'

Whereas (73) is a default example of the trivalent construction, with the oblique LM of the simplex *lecgan* now being construed as the direct object of *belecgan*, *bewreon* 'cover' in (74) unifies the valence frame of the trivalent construction with a root verb (*wreon* 'cover') that already licenses a location as a direct object and a theme as a prepositional phrase. Every constraint on the arguments of the trivalent *be-*construction is met, but the construction is no longer syntactically visible (or salient), because there is no valence alternation between the root verb and the derivation. Moreover, the *be-* construction in (74) loses its structural similarity to a prepositional construction, *be-* no longer conveying a spatial relationship between a theme and a location (**he covered leaves over that neck*). This loss of prepositional-like structure means that the basis for *be-*'s coverage semantics, the route path sense 'over' of the prefix becomes 'invisible'. The listener, then, has no longer any clue to detect this route path sense. Because the sense of coverage is already conveyed by the root verb itself, the listener will associate this sense exclusively with the root verb, and consequently the prefix loses the semantic component of describing a route along a path with the sense 'over'.

At the same time, through hypoanalysis, the prefix gains in semantics, as its sense of affectedness of the direct object LM is strengthened. Both the SURROUNDING and the COVERAGE constructions already entailed a change in the semantics of the landmark. Instead of being a prepositional object, unaffected by the action of the verb, the LM is construed in these constructions as a profiled participant (together with the agent) of the situation. Moreover, fitted into a transitive pattern, the LM is construed as subjected to the activity expressed by the verb in all the (spatial) points of the path denoted by the prefix, whereby all of these points are subjected to the verb's activity **at once** (that is, not sequentially). In practice, this usually boils down to a high degree of affectedness of the LM. For instance, in sentence (46) ⁊ *besæton ða burg* 'and occupied the castle', the castle and its inhabitants are affected, because they are running out of supplies and eventually will starve. However, being profiled and subjected to the action is not identical to being affected. In (50) *sume ða yða he*

becerð mid ðy scipe 'Some of those waves he avoided with his ship', the waves are by no means affected by the action of the shipmaster.

Still, if extensive covering is involved, affectedness of the direct object will often be the result. Extensive covering correlates with a number of semantic components which make pragmatic strengthening possible. For German, these components are described by Michaelis and Ruppenhofer (cf. 2001: 109-110), and they are essentially the same in OE. First, extensive coverage is often achieved through the ITERATION of a certain action. This is for instance the case in (74), where repeated actions of covering are necessary before the neck is totally covered over with leaves (or totally affected by the leaves). This sense of iteration in turn entails INTENSIFICATION and AFFECTEDNESS. Hitting someone in the face a dozen of times is a more intensive and affecting action than just hitting once. In the same vein, covering something completely is more intensive than only covering it partially. Frequent coverage, too, often entails affectedness. For instance, if one walks frequently over a floor with heavy boots, after a while the floor will be affected by the boots and wear out. Together, these three components of iteration, intensification and affectedness lead to pragmatic strengthening in the semantics of *be-*. In combination with the loss of the coverage sense, this made it possible for *be-* to combine with typically transitive root verbs with highly affected patients (cf. Hopper – Thompson 1980), as in (75a).

(75) a. *we scylen beon on ðisse ælðeodignesse utane* ***beheawene*** *mid suingellan* (CP: 36.253.17)
we shall be on this pilgrimage abroad ***be-*****hewn** with whips
'We have to be **beaten all over** with whips on this pilgrimage.'

Here the addition of *be-* entails the repeated whipping of the pilgrims. In a way, the sense of covering is still present: the pilgrims will be covered by whiplashes. Also, the expression of the theme by means of a PP introduced by *mid* 'with' satisfies the constraints of the trivalent construction. The persistence of the trivalent valence frame of the covering construction within the affecting construction enhances the syntactic salience of this constructional node as compared to simplex verbs, even if they have very similar semantics. Consider for instance (75b).

(75) b. *ȝ bilwitlice we* ***heawað*** *ðone wudu, ðonne we ðara gyltendra scylda mid arfæsðdes ingeðonces lare anweg aceorfað.* (CP: 21.167.5)

Calmly we **cleave** the wood, when we sinners' sins with merciful.GEN mind.GEN advice away *away*-cut

'Calmly we **cleave** the wood, when we cut away with the advice of the merciful mind the sins of the sinners.'

Abstracting from the component 'iteration', the semantics of *heawan* and *beheawan* are fairly similar, but *we heawað ðone wudu* 'we cleave the wood' in (75b) does typically not have a PP phrase expressing the instrument of cutting (a phrase which could be easily conceived as for instance *mid acsum* 'with axes'). Syntactically therefore, the AFFECTING node often preserves some typical properties of the COVERAGE construction. Nonetheless, the metanalysis becomes apparent because the relationship with a route path preposition is lost.

In other cases, the higher degree of affectedness added by the prefix becomes apparent from the context. Consider the following two sentences, (76a) containing the simplex *swingan* 'beat (lit. swing, brandish)', (76b) containing the derivation *beswingan* 'flog, scourge'. Notice that here too the valence frame of the trivalent *be-* construction is preserved: the theme is expressed by a *mid*-PP (*mid ðæm swiðan welme hatheortnesse*).

(76) a. *For ðan symle God her wundað ȝ **swingð** ða þe he wile habban ȝ to þam ecan life gelædan.* (HomU 7 [ScraggVerc 22]: 81)

Because always God here wounds and **beats** those that he wishes have and to the eternal life lead.

'Because God always wounds and **beats** here [on earth] those whom he wishes to have and wishes to lead to eternal life.'

b. *Ic gereccan mæg þæt of ungemete ælces ðinges, wiste and wæda, wingedrinces, and of swetmettum, swiðost weaxað þære wrænnesse wodðrag micel; sio swiðe gedræfð sefan ingehygd monna gehwelces, þonan mæst cymeð yfla ofermetta, unnetta saca. þonne hi gebolgene weorðað, him wyrð on breostum inne **beswungen** sefa on hraðre mid ðæm swiðan welme hatheortnesse, and hreðe siððan unrotnesse eac geræped, hearde gehæfted.* (MetBoe:192.25.37-45)

I narrate can that of excess each.GEN thing.GEN, feasting and dressing, wine-drinking, and of dainties, exceedingly grows the.GEN wantonness.GEN madness great; she [i.e. wantonness] strongly drives-out mind.GEN conscience men.GEN-PL each.GEN, whence mostly comes evil.ACC-PL pride.ACC-PL, useless.ACC-PL conflicts.ACC-PL. When they angry become, them becomes in breasts within

scourged mind in heart with the strong ardour of rage, and heart afterwards restlessness.GEN also fettered, violently arrested.
'I can tell the following of the excess in any matter, in feasting and in dressing, in drinking and dainties, that the madness from this wantonness grows exceedingly great; it strongly drives out of each man his conscience, and mostly evil pride and useless strife are the result. When men become angry, within their breast their mind in their heart is scourged with the strong ardour of rage, and the heart is afterwards fettered and violently arrested by restlessness.'

Even if God's beating in (76a) is probably no small beer, the context of (76b) suggests that *be-* intensifies the affectedness of the beating considerably. The route path semantics of *be-* in (76b) is completely lost, the primary meaning being the intensity of the action and the affectedness of the patient.

The above description of the grammaticalization cline from the COVERAGE construction to the present AFFECTING construction is inevitably a reconstruction, because the different senses exist next to each other from the earliest OE data. However, Gothic provides evidence that the AFFECTING construction is diachronically later than the COVERAGE construction. Whereas there are many examples of the covering construction in Wulfila's bible, like *bikukjan* 'kiss all over', *bisaufjan* 'soil, besmirch', *bismeitan* 'spread, smear', there are no clear examples of verbs where the sense of 'coverage' is lost, which would signal the first stage of the actualization of the reanalysis of the COVERAGE construction as an AFFECTING construction.

The final stage of this actualization in OE is shown by the consequent extension to transitive patterns, which do no longer possess the trivalent valence frame (cf. 77). In particular, a subclass arose where *be-* was combined with verbs of communication to express the AFFECTEDNESS OF THE CONTENT OF A MESSAGE (also absent in Gothic). This class contains verbs like *bebeodan* 'command' (< *beodan* 'bid, offer'), *becweðan* 'declare' (< *cweðan* 'speak'), *benemnan* 'declare' (< *nemnan* 'name'). The verb *becweðan* in (77) might serve as an illustration of the way in which *be-* conveys affectedness of the content (or theme) of the message of the communication verb here.

(77) *God cwæð be ðe cynincg, þæt þu* ***becweðe*** *þine ðincg, forðan þe ðu sweltan scealt, and þu soðlice ne leofast.* (ÆLS [Book of Kings]: 412)

God said to the king, that you **bequeath**.SUBJ your property, because that you die shall, and you truly not live.SUBJ

'God said to the king: you should **leave** your property **by will**, because you will die and truly will not remain alive.'

When someone has written the document containing a description of one's possessions, one has really already given away the actual possessions, even if only in the future. An accurate translation of *becweðan* in the OE *Charters and Wills* is the one given by the DOE 'to announce (the disposition of) a will'. By indicating the affectedness of the message through *be-*, the affectedness of the content of the message is implied and hence the proper discourse effect is achieved. This also made it possible in a sentence like (77) to construe the content of the message as the direct object (*þine ðincg* 'your property') rather than the message (the will) itself.[17]

In this section, I have tried to reconstruct the path of grammaticalization ending in the affecting construction within *be-*'s constructional network. The precise path of development of this extension cannot be traced, but its absence in Gothic provides evidence that it is derived from the prototype in some way not long before the first written documents of OE. Schematically, it can be described as a process of pragmatic inferencing or metanalysis, consisting of the loss of *be-*'s route path semantics of 'over' (and hence its similarity to a preposition) and the concomitant strengthening of the sense of affectedness of the direct object, which now no longer needs to be related to a landmark which defines a path around/over which a TR (theme) proceeds. In many cases the valence frame of the trivalent construction was preserved, but it was lost (probably) in a later stage, when ordinary transitive patterns became possible, especially with communication verbs.

4.3.3.2 COVERING ENTAILS AFFECTING AND FURNISHING: DENOMINAL AND DEADJECTIVAL CONSTRUCTIONS

The constructional node presented in this section, that of AFFECTING AND FURNISHING, initially focussed on the affectedness of the LM, a property which it shares with the previously described node. However, whereas the previous section dealt with the

[17] It should be noted that this subnode of the Affecting node, which I called Affectedness of a Message, is different from what Michaelis and Ruppenhofer (2001: 77) call COMMUNICATION AS TRANSFER. This node, which is productive in NHG, by default contains denominal derivations, like *benachrichtigen* 'inform' (< *Nachricht* 'news'), *beglückwünschen* 'congratulate' (< *Glückwunsch* 'congratulations'). In this respect it resembles the development described in the next section (4.3.3.2).

development of the sense of affectedness of the prefix in deverbal derivations, the present section concentrates on the phenomenon of denominal and deadjectival derivations. Examples of the denominal type are OE *behriman* 'cover with hoarfrost/affect in a hoarfrost-like manner' (< *hrim* 'hoarfrost'), OE *beebbian* 'affect with/transfer ebb on LM' (< *ebba* 'ebb') and ME *bispusen* 'furnish with spousehood' (*spus* 'spouse'), a rare OE example of the deadjectival type is OE *befæstan* 'to make firm; to put sb. in safe keeping' (< *fæst* 'firm'). My tentative hypothesis is that the deadjectival derivations are derived from the denominal ones. I will therefore concentrate on the latter.

A Affecting

Initially denominal derivations share the affectedness semantics of the previous constructional node of affecting. What makes them different is the required change in *be-*'s COVERAGE construction to make denominals possible. Deverbal derivations denoting affectedness of their direct object were made possible by the extension of the prefix to simplex verbs already meaning 'to cover' without any valence alternation involved (cf. (74)). The *be-* construction could then be reanalysed as only adding the semantics of affectedness to the verb, which was strengthened through the correlation with the iteration component. By contrast, in the case of denominals, the covering scenario of the *be-* construction is strengthened initially. The prefix construction will now not only express the static prepositional relation of 'over', but also the event-like semantics typical of verbs itself. As a consequence, the slot where the prefix construction should be attached to does not need to be filled by a verb any longer and instead, a noun can fill it.

From a constructional point of view, what is involved in the case of denominals is a kind of valence creation. A noun or adjective in itself has no (verbal) valence. To acquire the appropriate valence, the verbal syntactic feature of the construction[18] overrides the nominal or adjectival syntactic feature of the input noun, in accordance with the override principle (cf. section 3.1.2; Michaelis – Ruppenhofer 2001: 46). This makes sentences possible like the following:

(78) *þæt min freond siteð under stanhliþe storme* ***behrimed****, wine werigmod, wætre beflowen on dreorsele.* (Wife's Lament: 48-49)

[18] Because OE has still an infinitival ending *-an*, the question arises to what extent this development is an indication that the *be-* construction is more precisely a *be*-X-*an* construction. At present, I have no answer to this question.

that my.GEN friend sits under stone-cliff storm.INST ***be*-rimed**, water.INST *be*-flown in dreary-hall.
'that my friend sits under a cliff of stone, **behoarfrosted** with storm, doused with water in a dreary hall'

This example suggests that the parent nominal of the derivation originally was not referential (as is still the case in NHG, cf. Michaelis – Ruppenhofer 2001: 47). The parent nominal in this sentence does not denote the theme (or TR) covering the LM, which is instead separately expressed by means of the instrumental *storme* 'with storm'. In an active sentence, this storm would be the subject of the sentence, the whole of which can thus be seen as an instance of the bivalent COVERAGE construction. At this stage, the valence frame of the construction, together with its sense of affectedness, is still preserved. The storm does not merely 'blow around the man', it 'affects him in a hoarfrost-like manner'. Because the verb provides the manner in which a certain effect is transferred on the object, the component of affectedness is preserved.

B Furnishing

However, usually the parent nominal renders the actual theme argument recoverable, and this recoverability makes the expression of the theme redundant. As a consequence the theme becomes more and more associated with the parent nominal of the derivation itself. Consider a sentence like (79):

(79) *þa eodan ða Deniscan from þæm þrim scipum to þæm oðrum þrim þe on hira healfe* ***beebbade*** *wæron* (ChronA [Plummer]: 897.39)
Then went the Danish from the three ships to the other three that on their half ***be*-ebbed** were
'Then the Danes went from the first three ships to the other three, which **the ebb tide had caused to strand** on their side.

It would be entirely redundant to say that the ships were *beebbade mid ebban* 'be-ebbed with eb'. After a while, the property of the parent nominal of making the theme recoverable seems to give rise to the loss of the coverage scenario and the semantic component of affectedness. The only semantics that are now provided by the construction are those of the transfer of the theme upon the direct object, or the 'furnishing' of the object with the theme. In a sentence

like (79), the ships are still affected by the ebb tide, but in later formations, this component seems to be lost (see examples (81-83) below).

Synchronically, the link between the affecting scenario and the furnishing scenario can be described in terms of a series of metaphors. The trivalent COVERAGE construction often involves the transfer of objects. For instance, the covering of one's neck with leaves in (58/74) comprises the transfer of the leaves from one place to another. The previous section also showed that the coverage scenario often entailed the affectedness of the object, as in (76b) *beswingan mid ðæm swiðan welme hatheortnesse* 'scourge with the strong ardour of rage (i.e. agony)'. What is transferred in such a case is not an object like 'leaves', but an effect like 'ardour of rage'. Synchronically it is possible to see a metaphorical relation with the leaves through the metaphor EFFECTS ARE TRANSFERABLE OBJECTS. Goldberg describes this metaphor as a metonymous subcategory of the metaphor CAUSAL EVENTS ARE TRANSFERS (1995: 148-151; cf. also Michaelis – Ruppenhofer 2001: 77-79). The development as a whole is one of bleaching, where a more specific constructional semantics (EFFECTS ARE TRANSFERRABLE OBJECTS) is replaced by a more general one (CAUSAL EVENTS ARE TRANSFERS). Thus, in (79), the ebb causes the ship to be 'be-ebbed', i.e. strand. Whereas in this sentence affectedness is still apparent, in ME the extension has broadened to contexts where a highly affected patient is no longer a condition, as in (80):

(80) *Nis na stude to istreone bicumelic butan ða þe istreonieð beon* ***bispused*** *rihtliche to gedere.* (LambX1: 133)
No place to procreate is fitting except if those who procreate are ***be*-spoused** rightly together.
'It is not becoming to procreate anywhere except if those who have intercourse are **married** properly together.'

What is meant by the verb *bespoused* is that someone (a priest) furnishes a couple with 'spousehood'. It can be assumed that this couple is usually willing to receive this effect, a condition which cannot be reconciled with the profile of a highly affected patient. The loss of the component of affectedness is even more apparent in later derivations, like the following:

(81) *He is [...] my Lord Bedford's only favorite, who promises that nothing shall hinder it for joyncture if his estate will make it good. I thinke it's not to be slighted [...] considring how he is* ***befreinded****.* (Letter, 1629 A.D.)

(82) *The neighbouring Villages turn out: their able men come marching, to village fiddle or tambourine and triangle, under their Mayor, or Mayor and Curate, who also walk* ***bespaded****, and in tricolor sash.* (Carlyle, *The French Revolution*, 1837)

(83) *the* ***unbesocked*** *nations* (Krug, 2005)

Other clear examples of the wearing out of the coverage and affectedness scenario are deadjectival derivations. A possible example of an early deadjectival derivation is OE *befæstan* 'to make firm; to put sb. in safe keeping' where the effect – firmness – is transferred upon the theme. A ME example is *bifilen* 'befoul' (< *fil* 'foul').

The loss of the theme due to its recoverability from the denominal derviation may also explain why this constructional node is increasingly combined with the passive participle construction. For instance, *þæt min freond siteð under stanhliþe storme behrimed* 'my friend sits with storm hoar-frost-covered' in (78) has a cognate active structure *storm hoar-frosted my friend*. From the moment on where the denominal derivation makes the theme recoverable, the subject slot becomes redundant: *(storm) be-stormed my friend*. There is thus no longer any reason to express it, and consequently the LM (patient) is promoted to subject by means of a passive construction. This promotion also correlates with a focus on the landmark. It is the friend who is the most profiled participant of the event, not the storm. The storm is only important because it affects the friend. This focus on the LM can be seen as a kind of continuation of a similar focus already acquired by construing the LM as a direct object instead of a prepositional object in the original spatial SURROUNDING construction.

In sum, the prevalence of the *be-* construction with its own semantics and valence frame made it possible for the construction to be unified with non-verbal roots to develop into a construction of transfer, furnishing or causing. Such a construction is semantically weaker than the original COVERAGE construction, but its broad field of possible applications made it increasingly popular. In OE only very few instances of this construction are found, like *behriman* (preserving the coverage scenario) and *beebbian* (with an already bleached coverage scenario). However, in ME and later on many instances of it can be found, like ME *bispused* 'maried (tr.)', *biwedded* 'maried (tr.)', *beshit* 'beshit' (already in OE), EMdE *bywymbled* 'bewimpled', *befriend* etc. Because the subject-theme is more and more incorporated into the verb and the focus is on the landmark/patient furnished with something, many of these new verbs are only found in the past participle. It is this combination of the *be-* construction with the past participle which provides most conspicuous new coinages in LMdE or PDE, like *bespaded* 'furnished with spades', *bespectacled* or *unbesocked*.

4.3.4 Removal and Separation

Somewhat isolated is the *be*-construction that displays the semantics of REMOVAL and, to a lesser extent, SEPARATION. In PDE this construction to a large extent has disappeared, the only relics of it being the verbs *behead* (OE *beheafdian*) and *bereave* (OE *bereafian*). In OE however, it was fairly productive, with verbs as *beleosan* 'be deprived of, lose', *bedælan* 'deprive of' (< *dælan* 'divide'), *beniman* 'take away from' (< *niman* 'take'; already in Gothic *biniman*), etc. Basically, these verbs show the following linking pattern: [$\text{AGENT}_{\text{SUBJ}}$ *be*-V $\text{PATIENT}_{\text{OBJ}}$ $\text{THEM}_{\text{INST|GEN}}$], as for instance in the following sentence:

(84) *þæt wæs an cyning, æghwæs orleahtre, oþþæt hine yldo* ***benam*** *mægenes wynnum, se þe oft manegum scod.* (Beo: 1885-1887)
That [i.e. Hrothgar] was a king, everything.GEN blameless, until him old-age ***be*-took** strength.GEN joys.DAT-PL, that that often many.DAT-PL hurt
'He was some king, blameless in everything, until old age, which has always done injury to many, **deprived** him of the joys of strength.'

In this sentence, the patient deprived of something is encoded as a direct object in the accusative, and the things (the theme) of which he is deprived are in the instrumental plural. Indeed, the instrumental case is probably the original case to encode the theme, which shows that the same applicative alternation underlies the REMOVAL construction as the one found in the non-predicative prototype: *niman wynn.ACC Hrothgares.GEN* 'take joy from Hrothgar' vs. *Hrothgar.ACC wynne.INST beniman* 'deprive Hrothgar from joy' (cf. Lenze 1909: 113). In later OE, however, the theme is also very often encoded as a genitive, and exceptionally as a prepositional object (as in *berædan at þam rice* 'deprive of the kingdom' [ChronA [Plummer]: 887.3]).

Several explanations for the origin of this class have been given in the literature. First, the OED states that it probably originated in words like *bescieran* with original be_2-semantics 'to cut all round' (cf. the sense of 'give the tonsure'), whence 'cut off or away'. Whereas this is not impossible, it does not seem very likely either. For one thing, it leaves unexplained what has happened with the theme in the instrumental case, which in the removal construction is no longer an instrument as might be expected, but the thing removed or, in the case of *bescieran*, cut off. An alternative way of explaining this is by combining Bechler's observation that many simplex verbs in this class are already ablative in their own right with Michaelis and Ruppenhofer's observation that there is a similarity between removal and

transfer, sharing both the entailment of causing change of location (2001: 71). The meaning of *be-* (Removal or Transfer) would then be a combination of its transfer entailment with the ablative semantics of the simplex verb. From this combination a privative or ablative sense emerged. A similar sense appears to have developed in the Sanskrit use of the preposition *abhí* with ablative, meaning 'without'. In Sanskrit, the ablative case itself already denotes removal, so that the preposition initially merely added the connotation of change of location.

Only when derivations with ablative verbs gained in frequency and in degree of entrenchment, it became possible for the prefix to borrow the privative meaning inherent in the base forms attached to it and develop a privative meaning of its own. This kind of non-metaphorical development can be seen as an example of pragmatic inferencing (Hopper – Traugott 1993: 75-77). A clear example where the base is not privative in itself, is the denominal verb *behorsian*, derived from the noun *hors* 'horse'.

(85) *ȝ hie wurdon þær* ***behorsude*** (ChronA [Plummer]: 885.4)
and they were there ***be*-horsed**.
'And they were there **deprived** of their horses'

Because the exact way in which this node developed is not very important for the further history of *be-*, I will not elaborate these explanations any further. More relevant for the further history of *be-* is the following issue. Already from the beginning, some privative verbs show clear signs of a pejorative connotation, as for instance *berædan* in the sense of 'betray', which can be more literally be translated as 'to deprive of/lead away from the truth and lead into falsehood'. Syntactically *berædan* usually takes a theme in the genitive, as in the following sentence, describing the cannibalistic behaviour of the inhabitants of the island Mermedonia: *hwylcne hie to æte ærest mihton æfter fyrstmearce feores berædan* (Andreas: 132-133) 'whom they for food first could after period-of-time of (his) life deprive'. Syntactically this derivation differs from a verb belonging to the SURROUNDING construction, namely *beswican* 'circumvent', which takes an accusative object, being equivalent to the Latin verb *circumvenire* 'circumvent, lit. go around'. Semantically however, both share a pejorative connotation, which may have added to the development of a separate class of verbs of deceiving in ME.

In conclusion, the difficulties scholars have to account for this derived constructional node maybe reveal that this node had moved so far away from the prototype that it was no longer seen as belonging to the constructional network of *be-*. This may in its turn have influenced

the consequent loss of productivity of this construction in ME. The shift in case assignment for the theme from instrumental to genitive may have further added to this distance and consequent loss.

4.3.5 A problematic case

Most of the verbs found in Sample 1 can be fairly neatly classified under one of the preceding lexical nodes. Actually, only one really seems impossible to classify, namely one instance of *befeolan*. For the special usage of this verb involved, displaying the sense of 'bestow, impose st. (acc.) upon so. (dat.)', I refer to Lenze (1909: 139). It is not necessary to go into detail here. Basically, *befeolan* appears to have developed certain extensions independent from the prefix constructions marked by *be-*, which are no longer reconcilable with the constructional properties of the lexical node to which it belonged originally.

4.4 Evolution after OE

The preceding sections revealed that the internal structure of the prefix *be-* had reached a high level of complexity in the OE period (for a summary of the constructional network in OE I refer to section 4.5), which will never again be equalled in later periods. All parameters for the further evolution of the prefix were actually set, and most of its later history seems to arise out of the OE situation naturally. This is the main reason for analysing the OE period in such detail. It would be highly redundant to carry out such an analysis for all the periods coming after. This chapter will therefore focus on the few changes and new nodes found in the later periods.

In the OE period, the functional load of the prefix undoubtedly was reaching its limits. It is therefore not surprising that in later periods some simplification took place; the loss of the REMOVAL construction can be seen as an example. This simplification is still rather implicit in the ME period and it seems that somewhere in between sample 1 and sample 2 *be-* reaches its summit of semantic and constructional diversity as well as productivity. Still, some stages in the process of simplification can already be traced back to ME.

The most important aspect of this simplification is the emergence of a kind of superschema, accommodating the SURROUNDING, COVERAGE and AFFECTING and AFFECTING AND FURNISHING nodes, as well as the DISCOURSE IS TRAVEL ACROSS A TOPIC node, ending up to mean something like 'affect by transferring an effect'. I will call this kind of highly abstract superschema the core grammaticalization of the prefix, a term which I will also apply to the OE data as a kind of post hoc cover term. Indeed, this bleaching of semantic differences points towards a further grammaticalization of the prefix, its spatial origin as a

path preverb being lost almost entirely by the beginning of early modern English (EMdE). As will be explained in detail in chapter 5, the constructional properties of this core grammaticalization have made it possible for *be-* to survive the shift to VO, and they continue to play a part in its conservation after ME as well.

The structure of this section is the following. Section 4.4.1 explains how the predicative prototype is lost as a transparent spatial construction and is replaced by a specialized node containing verbs of happening and becoming. The following two sections give some examples of the constructional nodes which are continued in the ME period but given up later on, namely those of SURROUNDING and COVERAGE (section 4.4.2) and of SEEING AND ATTENDING (section 4.4.3). Section 4.4.4 concentrates on a new constructional node in ME, consisting of a class of verbs of deceiving (as for instance PDE *betray, beguile, bewray*). Section 4.4.5 discusses the state of the non-prototype members of the core grammaticalization in ME and after. Finally, section 4.4.6 briefly discusses the history of the remaining constructions found within the constructional network of *be-* in OE.

4.4.1 Loss of Proximity and emergence of verbs of Happening or Becoming

Already in Old English the predicative prototype of be_1- meaning 'at, against, along, by' had almost been lost. Assuming that it is the spatial nature of this prototype which transparently distinguished it from the non-predicative part of the prototype of *be-*, it becomes clear that already in OE this node was losing ground, as only *becuman* and *bestelan* were still used mainly spatially, whereas other derivations had semanticized their metaphorical meanings, such as *belimpan* and *befeallan*, both meaning 'happen'. In the ME period not a single derivation that probably originated in predicative be_1- preserves its spatial core meaning. The verb *becuman* 'approach', which had preserved this spatial meaning to a great extent in OE, in ME only rarely exhibits this meaning. Instead, it usually takes the sense of either 'happen' or 'belong to'. Less frequent predicative derivations with spatial semantics, such as *hine bestelan* 'move oneself stealthily BY', are lost altogether.

These spatial prefix constructions were probably lost because they were readily substituted for phrasal particle constructions (*becuman* > *come by*) – a phenomenon called 'intraference' by Croft [2000: 148]) – or sometimes by French loans (*becuman* > *approach*), without any substantial loss in semantics. The reason why they are easily substituted is precisely their predicative nature. Predicative preverb constructions in OE seem to have in common that they do not change the valence of the root verb (different from PDE resultative constructions, cf. section 2.5.2 on unselected objects, i.e. objects not licensed by the valence frame of the verb). Both *niht cumeþ* and *niht becumeþ* are basically intransitive. As we have

seen before, the optional dative object does not belong to the valence structure of the *be-* prefix construction, but rather to an additional impersonal construction, which could be added to simplex verbs as well. Apart from this, it is true that the prefix adds telicity (arguably resultativeness) to the verb (*Night comes. Night is* BY). But this meaning aspect is regular and predictable. The minimal impact of a predicative prefix on the verb and its arguments therefore entails a relative independence of prefix and verb. Therefore, when the shift to VO (cf. section 3.2.3) put pressure on any specifier – specified order, the prefix could be easily substituted for an adverbial particle, which could express telicity in exactly the same way, to achieve the preferred order. The prefix *to-* will reveal this tendency even more clearly, and the issue will be discussed further in the comparison between *be-* and *to-* in chapter 5.

The only verbs escaping this tendency were highly entrenched types with abstract meanings, which were no longer compositionally transparent. The two most firmly entrenched verbs meeting these requirements were *becuman*[18a] and *belimpan*, both sharing the double meaning of 'happen (intr. or with dative from impersonal construction)' or 'belong to (with PP)'. On the basis of these two verbs now was formed a new productive node, containing verbs of happening or belonging to.

This complex development can be explained as follows. First, the development from verbs of motion (*becuman* 'come along', *belimpan* 'fall by') to verbs of happening (*becuman* and *belimpan* 'happen') can be seen as a kind of metonymy. As an event comes to pass, it is close enough to affect the experiencer, in other words, to happen to him. This kind of metonymical relation can also be found in a PDE verb like *pass* in *come to pass* 'happen', which is derived from French *passer* 'come by'. Second, the combination of the meanings 'happen' and 'belong to' might seem far-fetched at first sight, and the direct relationship I suggest here remains open to falsification. Still there is some plausibility in it, if we take

[18a] Note that *becuman* was subjected to a very complex development, ending up as the PDE copula *become*. This development, however, which started probably already in late OE, falls out of the scope of this study, as it would require a considerable amount of space (see, for a not entirely accurate account the OED, s.v. *become*, which also mentions the likeliness of influence from Old French *devenir*).

cultural factors into account. In the mediaeval world view everything belonged to a natural order. If something happened to you, it did so because it had to happen, because it was a part of you or belonged to you, because you and what happens to you are two sides of the unfolding of God's creation (cf. Coppleston 1972: 320); another example of this world view was the feudal society of the Middle Ages (*ibid*: 296-297). This mediaeval way of experiencing things could explain the development of the sense of 'belong to', a development which can also be found in the Dutch and German cognates of English *pass*, namely *passen*, which means 'fit, belong to' and was borrowed in the Middle Ages as well.

The following are some typical examples of this new node:

(86) *Þe widewe nam hom hire best : and ne ȝeld it him nammore.*
*Þis Auntur **bi-fel** ofte siþe : ȝwane men him wolden bidde ouȝt;*
heriot of pouere men : he ne wilnede riȝht nouȝht. (SELeg: 445)
The widow took home her beast and not paid it him nomore.
This accident **befell** often since: when men him wished offer something
payment of poor men; he not wished right nothing.
'The widow took home her animal, and did not pay it to him anymore.
This accident **occurred** often since. When men wanted to present him in any way
the payment of poor men, he [= St. Edmund] did not want anything at all.'

(87) *Come þou heuere in here londe, / Hy shulen don þe in prisoun stronge*
And þer þou shalt abide. / Þe lesinges þat þou hauest maked,
*Þer þou shalt hem forsake, And shome þe shal **bitide**.* (Thrush: 105)
Come you ever in their land, / they shall do you in prison strong
And there you shall abide / The promises that you have made,
there you shall them forsake, / and shame you shall ***be*-tide**.
'If you ever came in their land, they shall put you in a strong prison and there you shall abide, there you shall forsake the promises you made and shame will **come over** you'

(88) *Biforen euen þe **bilimpeð** to children. Mid-niht ðe **bilimpeð** to frumberdligges. hanecrau þe **bilimpeð** þowuene men. morgewile to alde men.* (Trinit: 39.545)
Because evening it **belongs** to children. Midnight it **belongs** to youth.
cockcrow it **belongs** adult people. Morning to elderly people.
'Because to the children **belongs** the evening, midnight to the youth, cockcrow to the adults and morning to the elderly.'

Verbs classified under this node occurring in sample 2 are: *bikumen* 'be fitting', *bifallen* 'happen', *birisen* 'be fitting to', *bitiden* 'happen, come to pass', *bilien* 'be situated at, pertain to', *bilimpen* 'belong to; happen', *bilongen* 'belong to'. After ME hardly any new derivations are formed (whether this is related to a changing world view is highly speculative). There are two verbs occurring in sample 3 that did not occur in sample 2, *beseem* and *befit*. The former clearly belongs to ME times, the latter is, according to the OED, first attested in the 16th century and probably the last new formation. Corroborating this, sample 4 does not contain any new formations.

If there is some truth in this analysis, it has several consequences. First, the Property node, which was originally derived from the Proximity node, loses the connection with the spatial idea of proximity to what is possessed, and hence is obscured. Verbs belonging to it are either gradually given up, like *behold* 'possess', or acquire a very specialized sense, like *beget*, mainly meaning in PDE 'procreate'. Second, a semantically highly restricted cluster was formed, which could survive for some time because of its token entrenchment (in verbs like *become, belong, befit*) and specific semantics.

4.4.2 Surrounding, Containment and Coverage

Like the predicative spatial prototype, the non-predicative spatial prototype, consisting of the senses of SURROUNDING, CONTAINMENT and COVERAGE also loses ground, but at a much slower pace. It still remains firmly present in ME. The sentences in (89) are illustrations of the SURROUNDING AND CONTAINMENT construction, those of (90) of the COVERAGE construction.

(89) a. *ȝ toward keningwurþe. aȝen is sone he drou.*
ȝ was hor beire porpos. to ***biclosi*** *hor fon.*
As wo seiþ in eiþer half . ȝ to ssende hom echon. (RobGlo: 762)
And toward Kenningsworth against his son he drew
and was their.GEN both.GEN purpose to ***be*-close** their foes
as who says in either half, and to destroy home each one
'And toward Kenningsworth against his son he marched and it was the purpose of both of them to **enclose** their [respective] foes, on either side that is, and to kill each other.'

b. *Strong castel he let sette, Mid see him* ***biflette***. (Horn: 63)
strong castle he let set, with sea him ***be*-flooded**.
'A strong castle he let build, and he **surrounded** it with the sea.'

(90) a. *Þere was many maym yked,*
*Many fair pensel **bibled**.* (Alisau, I: 215)
There was many maim famous
Many fair pennon ***be*-bled**
'There were many famous injuries and many **blood-stained** pennons'

b. *and þat burh folc hihten þe hege strete and **bihengen** it mid palmes. and mid oðre riche wedes. þer he wolde þurh faren to þe holi temple.* (Trinit: 89)
And that city people brightened-up the high streets and ***be*-hung** it with palms and with other rich garments. There he wished through-travel to the holy temple.
'And the people of that city brightened up the high streets and **covered** it with palms and other rich garments. He wished to travel through it to the holy temple.'

Due to the expansion of extensions derived from the coverage node, the surrounding node was lost after the ME period. The coverage node on the other hand is still present in newer formations as EMdE *beshit* 'to cover with shit' or LMdE *bespatter* 'to cover with spatters'. From EMdE onwards however, these constructional nodes increasingly merge with those having the sense of Affecting or Affecting and Furnishing into a kind of grammaticalized core, because the focus in these cases is always on the affectedness and much less on the spatial coverage of a location.

4.4.3 Seeing and Attending as Contact with the percept

Both of these extensions remain productive in ME but will cease to be so in Modern English, where they are however preserved in many lexicalized types. An example of a new formation belonging to the SEEING construction is given in (91), some examples of the ATTENDING construction in (92). (93) contains some examples of lexicalized types surviving in texts from EMdE (93a-b) – also cf. sentence (5), and LMdE (93c). Some of these, in particular *believe* and *behold* are still in use in PDE.

(91) *Þes keiser **bicapede** ham* (Kathe: 32.216)
This emperor ***be*-gaped** him
'The emperor **gazed at** him open-mouthed'

(92) a. *ȝ þe king scal arisen; and of þan cnihten cheosen.*
twa hundred cnihten; to leden to his fihten.
*þe sculen **biwiten** þene king; durewurðliche þurh alle þing.* (Brut1, I: 392)
and the king shall arise and of the knights choose

two hundred knights, to lead to his fight,
who shall ***be*-wit** the king dear-worthily through all things.
'And the king shall arise and choose 200 knights from these soldiers, to lead them to his battle, and they shall **look after** him with great care in all circumstances.'

b. *Ða sone be þes kynges ræd ȝ be his leue, sende se ærcebiscop Willelm of Cantwarbyrig ofer eall Englaland ȝ bead biscopes ȝ abbotes ȝ ærcedæcnes ȝ ealle þa priores, muneces ȝ canonias þa wæron on ealle þa cellas on Englaland, ȝ æfter ealle þa þet Cristendome hæfdon to **begemen** ȝ to locen, ȝ þet hi scolden ealle cumen to Lundene at Michaeles messe ȝ þær scolden sprecon of ealle Godes rihtes.* (Peterb: 51.288)
Then immediately by the king's counsel and by his leave, sent the archbishop William of Canterbury over whole England and bade bishops and abbots and archdeacons and all the priors, monks and canons who were in all the cells in England, and after all those that Christianity had to ***be*-care** and to look, and that they should all come to London at Michaelmas and there should speak of all God's rights.
'Immediately after, on the advice of the king and with his leave, the archbishop sent William of Canterbury over whole England and asked bishops, abbots, archdeacons and all the priors, monks and canons who were in all the cells in England, and then all those who **were in charge** of Christianity and had to look after it, that they all should come to London at Michaelmas and speak there of all God's rights.'

(93) a. *but afterward I was ynformyd by credable parsones that he had spente all hys monye, bothe hys velffete cote and also hys lyvere cote that he had of quene Mary, and so came home poore and bare, beynge verye syke and weake, and yn Holborne dyed moste myserably, full of lyse. **Beholde** hys end! God graunte he dyed hys sarvante. Amen!* (Mowntayne*, Autobiography*: 215-216)

b. *Wee will not ground vpon mans testimonie without an oath, and must we **beleeue** the bare worde of deuils?* (Gifford*, A handbook on witches and witchcraft*)

c. *"It is my last interview with you, Anne," said Wyat imploringly; "do not abridge it. Oh, **bethink** you of the happy hours we have passed together – of the vows we have interchanged – of the protestations you have listened to, and returned – ay, returned, Anne. Are all these forgotten?"* (Ainsworth, *Windsor Castle*)

4.4.4 Verbs of Deceiving

The most conspicuous new constructional node of ME has a core meaning of deception. This new node appears to be a classic example of the phenomenon of subjectification, which frequently accompanies the process of grammaticalization. According to Traugott (1995: 31; 1989: 35), subjectification is

(i) the pragmatic-semantic process whereby 'meanings become increasingly based in the speaker's subjective belief state/attitude toward the proposition.'

This is precisely what seems to happen with the prefix *be-* when it develops pejorative connotations in verbs like *bilirten* 'mislead', *biseyen* 'trip, trap' (< *seyen* 'sink'). Usually, the root verbs on which derivations of deceiving are based already have a sense of deceiving, as for instance *bigilen* 'betray' from Old French (OF) *giler* 'deceive' or *bidwelen* 'delude' from *dwelen* 'wander; be misled'. The verb that triggered the development of this extension was probably the frequent OE *beswican* 'deceive', which literally meant 'depart from a straight course around somebody' (cf. section 4.3.2.1). In a process of pragmatic inferencing, the deceiving sense of this verb was assigned to the prefix, which thus lost its spatial meaning and gained a much more subjective meaning, expressing the disapproving attitude of the speaker towards the proposition. In the case of *biswiken*, this sense was also copied to the simplex *swiken*, probably due to Old Norse influence.[19] Other factors which probably influenced the development of this subjective meaning of *be-* were already touched on: the pejorative connotation often found in speech verbs (section 4.3.2.3) such as *besprecan* 'speak about, speak against, accuse of' and Gothic *bimampjan* 'mock, deride' etc. as well as verbs like *berædan* 'betray' deriving from the privative verb class (section 4.3.4).

Some typical examples of this extension are the following (also cf. sentence (3)):

[19] An interesting side phenomenon is that of aphetic forms in general, like *lirten* 'mislead', which is later than *bilirten* 'mislead', *witen* 'bestow' < *biwiten* 'look after, take care of'. Whereas ON *svika* 'deceive' may be the source of ME *swiken*, the process of losing the prefix in a second stage is fairly common and my hypothesis is that it also applies to derivations like *bestow*, which would then not derived from the verb *stow*, but rather from the N *stow* 'place', with the verb *stow* being a later development. The loss of *be-* in these forms is not random. A first condition may be the previous non-existence of the simplex, which is by default met in the case of denominals. In the case of *bestow*, *be-* could be left out because the affectedness associated with the *be-* construction was no longer felt. The verb *bestow* had become so widely used that it was bleached somewhat and as a consequence the prefix could be dropped. Aphetic forms like these also occur with PDE phrasal verbs. For instance, the first attestation of the verb *pretty* is of a later date than the first attestation of the phrasal verb *pretty up* (cf. Van Kemenade – Los 2003: 93).

ME

(94) *"Dame, god þe forȝelde, / Bote on þat þou me nout* ***bimelde****,*
Ne make þe wroþ, / Min hernde willi to þe bede; /
Bote wraþþen þe for ani dede / Were me loþ." (Sirith: 3)
Lady, God you rewards, prevented on that you me not **denounce**,
nor make you wroth, my message wish I to you announce
But anger you for any deed were me hateful
'Lady, God rewards you, provided that you do not **denounce** me, nor get angry. My purpose I wish to announce to you, but to anger for any reason would be hateful to me.'

(95) *þe world bit mon ȝiscin worldes. weole ȝ wurchipe. ȝ oðer swich ginegaue. þt* ***bi dewolieð*** *canges to luuien anschadewe* (AncrRiw-1, II: 147)
The world asks man covet world's wealth and renown and other such treacherous gifts, that **delude** [L decipiunt] fools to love a shadow
'The world asks man to covet the world's wealth and renown and other such treacherous gifts that **delude** fools to love a shadow.'

(96) *To swiche fihte bedeð ure dlihten us. and þat we kiden þer one ure strengðe. and at ech fihte to-ȝenes þe alde neddre þe* ***bipehte*** *eue; and adam; and al ofspring.* (Trinit: 191)
To such fight bids our lord us, and that we perform there-on our strength, and at each fight against the old adder that **deceived** Eve and Adam and all offspring.
'To such a fight our Lord commands us, and that we show therein our strength, and in each fight against the old serpent which **ruined** Eve and Adam and all their offspring **through guile**.'

EMdE

(97) *Ther was neuer lyed a greter lesyng. ther wyth he hath vs alle* ***begyled****.* (Reynar: 54-55 [a late ME text])
There was never lied a greater promise therewith he has us all **beguiled**
'Never was there made a greater promise falsely, with which he **beguiled** us all.'

(98) (1 Prom.) Looke, looke, poore Foole, She has left the Rumpe vncouer'd too, More to **betray** her, this is like a Murdrer, That will out-face the deed with a bloody Band. (Middleton, *A chaste maid in Cheapside*: 24)

4.4.5 Core grammaticalization

The constructions belonging to the core grammaticalization are COVERING ENTAILS AFFECTING and COVERING ENTAILS AFFECTING AND FURNISHING, and also DISCOURSE IS TRAVEL ACROSS A TOPIC. Whereas the last one will gradually disappear, the first two are preserved through the whole period covered (they are also the two that retained the original valence pattern best in OE). Indeed, they seem to gradually suppress the spatial sense of surrounding and become the main source of productive usage from late ME onwards. Some examples are the following (also cf. (80-83)):

ME

(99) *Ic ne mai rimen ne tellen alle ðo sennes ne alle ðo unðeawes, ne alle ðo wundren ðe ich, wrecche senfulle, habbe idon and* ***beuolen****, seððen ic arst mihte seneȝin.* (Vices1: 15)
I not may rhyme nor tell all those sins nor all those bad-habits, nor all those marvels that I, wretch sinful, have done and **committed**, since I first could sin.
'I cannot rhyme or tell all the sins, nor all the bad habits, nor all the marvels that I, sinful wretch, have done and **committed** since I was first able to sin.'

(100) *Ða* ***beweddede*** *Cleophas Josephe his broðre Marian þæs Hælendes moder, þe wæs his steopdohter* (KentHo: 139)
Then ***be*****-wedded** Cleophas Joseph his brother Maria.DAT the Saviour's mother, who was his stepdaughter
'Then Cleophas **married** his brother Joseph to Maria, the mother of the Saviour, who was his stepdaughter.'

EMdE

(101) *Surely Gossip you say true, (quoth shee) and I am but a foole to bee bashfull: it is no shame to vse Gods gifts for our credites: and well might my husband thinke me vnworthy to haue them, if I would not weare them: and though I say it, my hood is a fayre one, as any woman weares in this countrey, and my gold chaine and bracelets are none of the worst sort, and I will shew them you, because you shall giue your opinion vpon them: and therewithall shee stept into her chamber and fetcht them foorth. When her Gossip saw them, she sayd: Now* ***beshrew*** *my fingers but these are fayre ones indeede. And when doe you meane to weare them Gossip?* (Deloney, *Jack of Newbury*: 70)

(102) (Bayly) *Nay canst not thou tel which way, that nedle may be found?*

(Diccon) *No by my fay sir, though I might haue an hundred pound.*
(Hodge) *Thou lier lickdish, didst not say the neele wold be gitten?*
(Diccon) *No hodge, by the same token, you where that time* ***beshitten****? Forfeare of Hobgobling, you wot wel what I meane, As long as it is sence, I feare me yet ye be scarce cleane.* (Stevenson, *Gammer Gvrtons Nedle*: 66-67)

LMdE

(103) *There is a pretty large portion of Bedlam in the composition of a poet at any time; but on this occasion I was nine parts and nine tenths, out of ten, stark staring mad. At first I was fixed in stuporific insensibility, silent, sullen, staring like Lot's wife* ***besaltified*** *in the plains of Gomorrha. But my second paroxysm chiefly beggars description. The rifted northern ocean, when returning suns dissolve the chains of winter, and loosening precipices of long-accumulated ice tempest with hideous crash the foaming deep, – images like these may give some faint shadow of what was the situation of my bosom.* (Burns, *Letters*: XX [1786])

(104) [on Mirabeau] *A questionable most blameable man; yet to us the far notablest of all. With rich munificence, as we often say, in a most blinkard,* ***bespectacled****, logic-chopping generation, Nature has gifted this man with an eye. Welcome is his word, there where he speaks and works; and growing ever welcomer; for it alone goes to the heart of the business: logical cobwebbery shrinks itself together; and thou seest a thing, how it is, how is may be worked with.* (Carlyle, *French revolution*: ch. 2.1.II)

There is an obvious relationship between the rather specific extension of verbs of deceiving and the more general ones where affectedness of the patient is central. Indeed, a pejorative connotation seems to become increasingly prominent in the rare LMdE and PDE new formations, such as *bespectacled* in (104), which have an obvious irony about them. Also today, *bespectacled* does not merely mean 'wearing spectacles', but rather is typically used for poor old wretches wearing thick glasses. More in general, the OED states that new verbs showing a sense of 'furnishing' are especially participial adjectives "in the notion of 'covered or furnished with', usually in a conspicuous, ostentatious, unnecessary, or overdone way. In modern use (e.g. with Carlyle) the force of the *be-* is often merely rhetorical, expressing depreciation, ridicule, or raillery, on the part of the speaker, towards the appendage or ornamentation in question; cf. *booted* and *bebooted*, *gartered begartered, wigged bewigged*." The neologism *unbesocked* (Krug 2005) seems no exception to this. My

tentative hypothesis therefore is that especially in the most recent history of the prefix, its strong subjectified sense has to a great extent taken over the conservatory influence from the non-predicative properties of the core grammaticalization. However, this hypothesis is open to falsification and needs further investigation.

4.4.6 Removal and individual extensions

Other usages and constructions of *be-*, especially the removal construction, are gradually lost or, if a type has a high token entrenchment, become lexicalized. They appear to be lost, at least partially, because their sense has moved too far away from the prototype (even if sometimes such nodes may lead a life of their own). In ME there are still six types belonging to the class of removal (*biflen* 'flee from', *biheden* 'behead', *bikerven* in *heafdes bikerven* 'behead', *bilimien* (< N *lim* 'limb') 'sever limb from limb; mutilate', *binimen* 'take away from' and *birēven* 'deprive of'). Of these, only *bilimien* is a new formation. In sample 3, only the three most frequent of these remain (*bereave, benim, behead*), while sample 4 does not contain any instances of the removal node at all. This shows that this node has ceased to be productive early on in ME.

4.5 Summary

Sections 4.2-4.4 have presented a detailed analysis of the constructional network of *be-* in the OE period and after. Such a detailed description is a necessary preparation to test the hypothesis developed in chapter 3 that from the start non-predicative prefix constructions have more substance (cf. section 3.2.1), which makes them more salient in terms of semantics, syntax and Aktionsart (cf. section 3.3). The previous description has made it clear that the non-predicative *be-* prototype with its be_2 'around (> over)' semantics is indeed the most salient member of the network, more salient than its predicative sister with be_1 'at, by, against' semantics. Because the constructional network of *be-* was predominantly non-predicatively based, it is not possible to compare the salience of non-predicative and predicative prefix constructions on the basis of this prefix alone. A thorough quantitative analysis of the different types of salience, e.g. the number of times a derived verb has a different valence frame from its simplex counterpart (syntactic salience), is therefore postponed to chapter 5, until after the discussion of the predicative prefix *to-*. However, it is useful to summarize the elaborate description of the previous sections, as such a summary should make the final discussion easier to follow. The present summary, then, is restricted to the constructional network in OE, because the later development follows naturally from this initial complex network. It consists first of a short description of the nodes involved in the

OE network and how they are related, and is followed by a schematic representation of the whole constructional network (figure 4.4 on p. 119).

4.5.1 Summary of the OE constructional network

Prototype

1. The predicative construction with *be*$_1$-semantics: this construction (abbreviated [*be*$_1$-V]) is not associated with a valence pattern of its own. The argument structure of the simplex verb is preserved.

   a. PROXIMITY. Example: *becuman* 'come by'; also found in Gothic, as in *bisnivan* 'run up to someone (PP)' (section 4.2.2.1).

2. The non-predicative construction with the semantics of the path preverb (*be*$_2$-): actually, there are two constructions involved here, a bivalent one and a trivalent one. The bivalent construction encodes a theme (TR) argument as the subject and a location (LM) argument as the object in the accusative (abbreviated [$\text{THEM}_{\text{SUBJ}}$ *be*$_2$-V $\text{LOC}_{\text{OBJECT.ACC}}$]). The trivalent construction also has the location in direct object position, but it has an agent in subject position, the theme now being expressed in the instrumental case or as a PP introduced by *mid* ([$\text{AGENT}_{\text{SUBJ}}$ *be*$_2$-V $\text{LOC}_{\text{DO.ACC}}$ $\text{THEM}_{\text{INST|PP(MID)}}$]). I do not distinguish between them in the following, because they occur in each of the following lexical nodes, and because they are not always clearly separated. Sometimes a bivalent construction can either contain a theme as subject or an agent. This kind of ambiguity typically occurs when the theme is omitted because it is recoverable from context (cf. section 4.2.2.2.C, in particular sentences (59-60)). The syntactic patterns of both bivalent and trivalent constructions override the argument structure of the root verb.

   The following lexical nodes preserve the core properties of the non-predicative construction

   b. SURROUNDING and CONTAINMENT. Example: *began* 'go round, surround'; also in Gothic, as in *bibindan* 'bind round' (section 4.2.2.2).

   c. COVERAGE. Example: *begeotan* 'pour over', also in Gothic, as in *bismeitan* 'soil, defile' (section 4.2.2.2).

Core grammaticalization

3. Extensions of 2: the following constructions, being related closely to the non-predicative prototype, together with that prototype, comprise the core of *be*-'s constructional network. Together with the non-predicative prototype they provide the highest number of types (see below). Moreover, e-f remain productive longest.

d. DISCOURSE IS TRAVEL ACROSS A TOPIC. Example: *besprecan* 'speak about'; also in Gothic, as in *bimampjan* 'mock, deride' (section 4.3.2.3).

e. COVERING ENTAILS AFFECTING. Deverbal Constructions. Example: *bedrifan* 'force to move, hunt'; not yet in Gothic (section 4.3.3.1; section 4.4.5).

f. COVERING ENTAILS AFFECTING AND FURNISHING: Denominal and Deadjectival Constructions. Example: *beebbian* 'leave aground by the ebb tide'; not yet in Gothic (section 4.3.3.2; section 4.4.5).

Other extensions

4. Extensions of 1. the predicative construction:

g. PROPERTY. Example: *behealdan* 'possess'; hardly present in Gothic, maybe *bigitan* 'find, acquire' (section 4.3.2.4).

h. The derived use of *becuman* 'become'. Not found in Gothic (section 4.3.5).

5. Extensions of either 1. or 2. or both, with loss of typical non-predicative properties:

i. SEEING OR ATTENDING TO A PERCEPT. Loss of telic Aktionsart. Example: *beseon* 'look at'; also found in Gothic, as in *bisaihvan* 'look at' (sections 4.3.2.1 and 4.3.2.2).

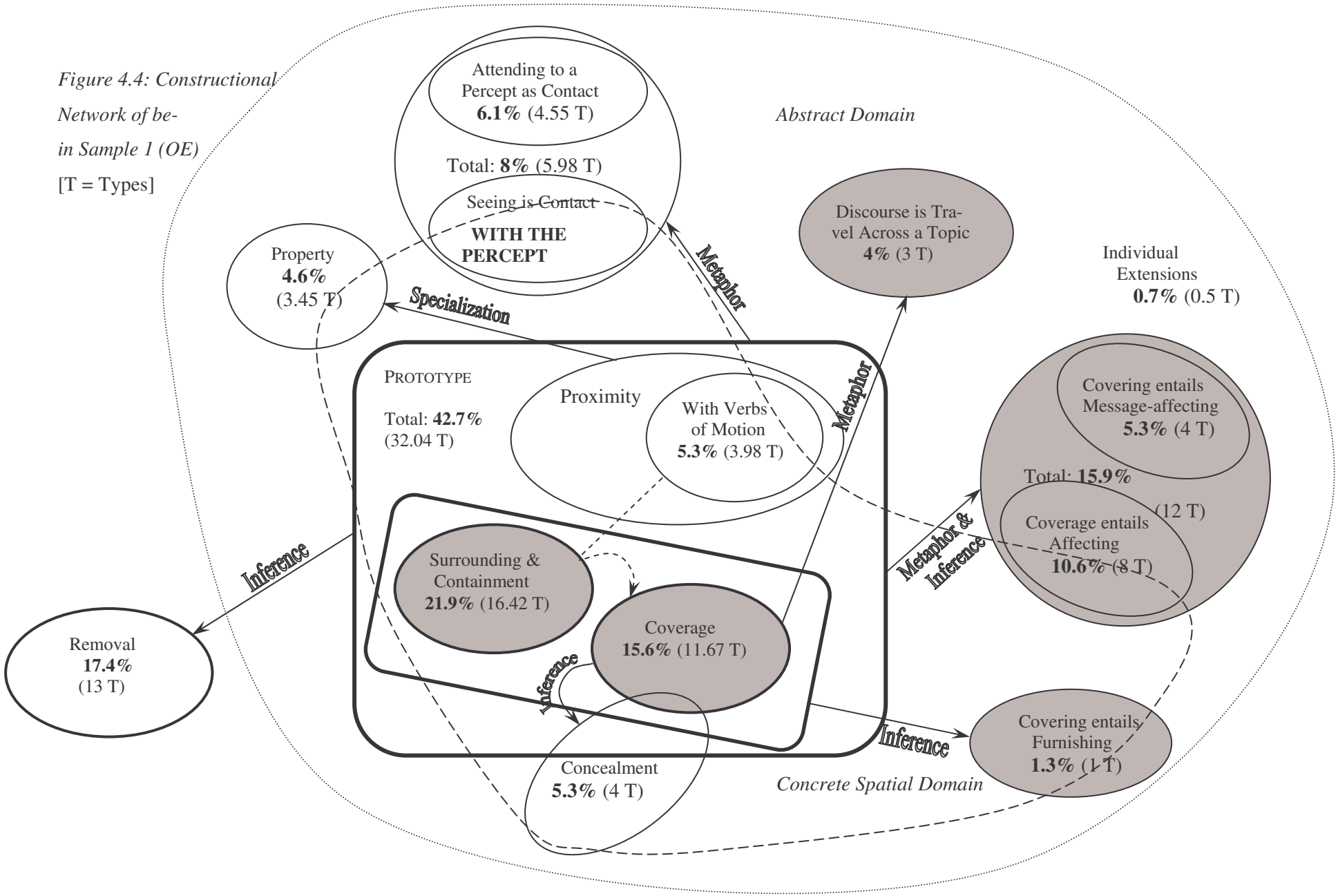
j. CONCEALMENT. This node is an inference of the Coverage node, in which however some typical properties of non-predicative be_2- are lost (as the obligatory valence change or telic Aktionsart). Example: *behelan* 'cover over, hide'; not in Gothic (section 4.3.2.5).

6. k. REMOVAL. Example: *bedælan* 'deprive of'; also in Gothic, as in *biraubon* 'bereave' (section 4.3.4).

4.5.2 The distribution of the meanings of be- in OE

Like every other sample, sample 1 consists of 235 randomly picked observations. For more details on the compilation of sample 1 and the other samples, I refer to section 3.4. Each observation was analysed separately and received a label carrying one of the meanings established in the qualitative analysis. By doing this, it was possible to calculate the frequency of the different lexical nodes. The figures in figure 4.4 represent the type frequency of each construction within the network. I have chosen to represent the type frequency of the constructional nodes to minimize the distorting effect of highly entrenched lexicalized derivations such as *bebeodan*. However, it is not always possible to draw clear boundaries between different extensions of the prototype. For instance, in the above

Figure 4.4: Constructional Network of be- in Sample 1 (OE)
[T = Types]



description of the network *behealdan* showed up under the extensions PROPERTY, meaning 'to possess', SEEING IS CONTACT WITH THE PERCEPT, meaning 'to see' and under ATTENDING TO A PERCEPT IS CONTACT WITH IT, meaning 'to take care (of oneself)'. These senses are all closely related and the lexeme *behealdan* was probably seen as one polysemous type rather than two or even three homonymous ones. It would therefore be inaccurate to treat the three different meanings of *behealdan* as three types. On the other hand all meanings should be present in the distribution overview. Therefore, if a type is polysemous, the relative frequency of each of its senses is calculated and used as a weighing factor. In the case of *behealdan*, 43% of its occurrences were classified under PROPERTY, the same amount under SEEING IS CONTACT WITH THE PERCEPT and 14% under ATTENDING TO A PERCEPT IS CONTACT WITH IT. Therefore, 43/100 of the type *behealdan* is classified under the first, the same amount under the second node, and 14/100 under the last node.

Figure 4.4 presents the resulting constructional network. From this figure it can be inferred that the combined share of the core grammaticalization (the grey nodes in figure 4.4) amounts to 58.7% of the types found in sample 1 (44.09 out of 75 types). These are the constructions typically involving the semantic addition of affectedness combined with the specific valence pattern of *be-*. They are the source for most new formations in later periods, and for instance still make up 49.5 % of the types in ME, 44 % in EMdE and 50 % in LMdE (cf. section 5.3 and table 5.3; also cf. Appendix 1). Initially they remain close to the non-predicative origin of be_2- and later on their type entrenchment will exert a conservatory effect, as is discussed in chapter 5. It is also interesting to see to what extent the OE period preserves mainly spatial usages of the prefix: 136 tokens of sample 1 are used spatially (57.9%), whereas only 99 tokens have abstract meanings (42.1%). Again, a more detailed discussion of the distribution of spatial and abstract usages is postponed to chapter 5.

II The diachrony of the prefix *to-*

The detailed analysis of *be-* revealed that its constructional network was dominated by the non-predicative construction with the route path prefix be_2- 'around' and its extensions. It was shown that the non-predicative *be-* construction, in its semantic and syntactic make-up, was highly salient. To make clear how substantial the contrast between *be-* and other Germanic prefixes really is, I will now discuss a different prefix, namely the inseparable prefix *to-* 'asunder'. Not only does *to-* display exclusively predicative usages, its constructional network is also much simpler than that of *be-*, because it always preserved its concrete semantics of 'asunder' to a high degree. These characteristics make it a useful

prefix to contrast the unique properties of *be-* with. But it also raises some questions, as for instance why *to-* is the only prefix which preserved its spatial semantics so well.

Part II of chapter 4 can be kept much briefer than part I. Section 4.6 discusses the etymological background of the prefix as well as its prototypical usage in OE and ME. Section 4.7 discusses the few extensions found in OE and ME. Finally, section 4.8 tackles some questions raised by the OE and ME data.

The literature on the prefix *to-* is scarce. The only detailed description for English is the one by Bechler (1909), which is lexicographical in nature (cf. section 2.3). A second source drawn on in the present study is the article on its Dutch cognate *te-* by Hüning (1997).

4.6 The prototype

4.6.1 Etymology and orthography

The unstressed, inseparable prefix *to-* should not be confused with the stressed, separable prefix *to-*. The latter is related to the English preposition *to* and still occurs as a separable prefix in Dutch (*toe-*) and German (*zu-*), and is cognate to Gothic *du-*; it will only be discussed to the extent that it influenced the history of the inseparable *to-* in ME. The cognates of the inseparable prefix are Middle Dutch *te-* and German *zer-*. This group is usually also connected with Gothic *dis-*, although phonetically this is not unproblematic. Apart from its phonetic association with *to-*, *dis-* shows exactly the same semantics and distributional characteristics as *to-*. There is also a prefix *twis-* in Gothic, which may be a more likely candidate as a direct etymological cognate, but which is only preserved in one verb (*twisstandan* 'separate') (cf. Hüning 1997: 29). The Latin cognate *dis-* 'two ways, in two' does not really add much to what we know from Germanic, but makes it particularly clear that there is probably a relationship with the Germanic word for *two* as well. *Dis-* is indeed related to Latin *bis-, bi-* and to Greek *dis-*, both meaning 'twice'. The original meaning of *to-* was therefore probably 'in two (ways)', which was already from early on broadened to 'apart, asunder (in any number of pieces)'.

Orthographically, *to-* is spelled sometimes as *te-* and in the earliest sources as *ti-* (cf. Bechler 1909: 10). Moreover, it is not always spelled adjacent to the matrix verb. In ME it is often spelled with a hyphen intervening (e.g. *to-bearst* 'to-burst'), a phenomenon which also occurred with ME *bi-* (and *be-*). Even more deviating from the expected pattern is the occurrence of a space between prefix and root verb. This phenomenon also occurred in the case of ME *bi-*, but it is far more common with *to-*, occurring occasionally already in OE. As such, it sometimes is very difficult to distinguish the prefix from the infinitival particle, as for instance in the following sentence:

(105) *A gret fiss at þe furste, / Mi net he gan* ***to berste****.*
Ihc wene þat ihc schal leose / Þe fiss þat ihc wolde cheose. (Horn: 30)
'A great fish at first, my net began **to burst/to *to*-burst**
I believe that I shall lose the fish that I would choose.'

It is not possible to make out what the status of *to-* is, because, unlike PDE *begin*, ME *ginnen* 'begin' could take either a to-inifinitive or a bare infinitive, and in poetry there is almost free variation between them, as the following examples from the same poem illustrate:

(106) *Heo louede so horn child, / Þat neȝ heo* ***gan wexe*** *wild;* (Horn: 12)
'She loved child Horn so much, that almost she **began (to) grow** wild.'

(107) *He smot him þureȝ þe herte, / Þat sore him* ***gan to smerte****.* (Horn: 40)
'He smote him through the heart, that wound **began to pain** him.'

In addition, the orthographical identity of inseparable and separable *to-* is also a source of confusion. However, because of their contradictory semantics – separable *to-* meaning 'to, towards', inseparable *to-* 'asunder' –, it is usually clear which prefix is at stake in a particular context. In the end, the situation is not different from the one *be-* displayed. Because we do not have access to intonation patterns, it is impossible to be certain of every instance of the prefix, but this problem is usually confined to certain exceptional cases.

4.6.2 The predicative prototype: Separation into (two or more) Pieces

A Semantics

By far the most frequent use of the prefix *to-* is to add the semantic component of 'being asunder', 'being apart' or 'being into pieces' to the root verb, which is functionally equivalent to a secondary predicate. In the OE sample this prototypical use is found in 24.80 out of 45 types, or 55 %. In the ME sample this number has even increased to 50.75 out of 61 types (83 %). Sentences (2) and (4) already provided some prototypical instances. Here are some more:

OE

(108) *[Maximus] hæfde beboden þa clusan to healdanne. [...] Ac mid þæm þe he from þære clusan afaren wæs wiþ þara scipa, þa com Theodosius þærto ⁊ funde þæræt feawa men, [...] ⁊ he hie raðe aweg aþewde, ⁊ þa clusan* ***TObræc****.* (Or 6: 36.154.13)

Maximus had commanded the prisons to guard. [...] But with that that he from the prisons *a*-travelled was with the ships, then came Theodosius thereto and found thereat few men, [...] and he them quickly away *away*-drove, and the prisons ***to*-broke**

'Maximus had commanded to guard the prisons. [...] But after he had travelled away from the prisons with his ships, Theodosius arrived there and found there only few men, [...] and quickly drove them away, and **broke** the prisons **ASUNDER'**

(109) *ȝ on Somnia þæm londe seo eorþe* ***TObærst*** (Or 5: 10.123.18)
and in Somnia the land the earth ***to*-burst**
'And in the land Somnia the earth **burst ASUNDER**.'

(110) *sona þæs þe heo onweg eodon þa ðe hine bundon, þonne* ***TOslupon*** *ða bendas ȝ* ***TOlesde*** *wæron.* (Bede 4:23.326.21)
immediately that.gen that they away went, those who him bound, then ***to*-slipped** the chains and ***to*-loosened** were
'Immediately after those who had bound him had gone away, the chains **fell TO PIECES** and were **dissolved**.'

ME

(111) *Nv, mine leoue sustren, þis boc ich* ***TOdeale*** *on achte destincciuns, þet ȝe cleopeð dalen* (AncrRiw-1: I.50.112)
Now, my dear sisters, this book I ***to*-deal** in eight distinctions, that you name parts'
'Now, my dear sisters, I **DIvide** this book into eight distinctions, which you name parts'

(112) *Þis mon hereþ me nout, þah Ich to hym crye;*
Ichot þe cherl is def – þe del hym ***todrawe****!* (Man in Moon: 117)
This man hears me not, though I to him cry;
Begad the churl is deaf – the devil him ***to*-draws**.SUBJ
'This man does not hear me, though I am shouting to him;
Damned! the churl is deaf – may the devil **draw** him **APART'**

As the examples show, the sense of 'being asunder' is sometimes already implied by the verb. *Dælan* 'share, divide' already implies separation, and so does *berstan* 'burst' and *brecan* 'break' (cf. Bechler 1909: 24ff for a complete list of these verbs). This is not always

the case: *slupan* ‘slip’ does not convey separation, nor does *drawen* ‘draw’ (Bechler 1909: 17-24).

With verbs of motion, the addition of *to-* adds telicity (cf. telic *tofaran* ‘disperse’ < atelic *faran* ‘travel’), but if it is combined with verbs of position, it does not (*tolicgan* ‘lie apart’ < *licgan* ‘lie’).

B Linking pattern

Syntactically, the predicative *to-* construction does not usually have a valence pattern of its own. Intransitive root verbs prefixed by *to-* remain intransitive (e.g. *tofaran* ‘be scattered, disperse’ < *faran* ‘go, travel’; *tohlidan* ‘split, open, spring apart’ < *hlidan* ‘come forth, spring up’) and transitive root verbs remain transitive (e.g. *tobregdan* ‘tear in pieces’ < *bregdan* ‘pull’; *toteon* ‘draw asunder’ < *teon* ‘draw’).

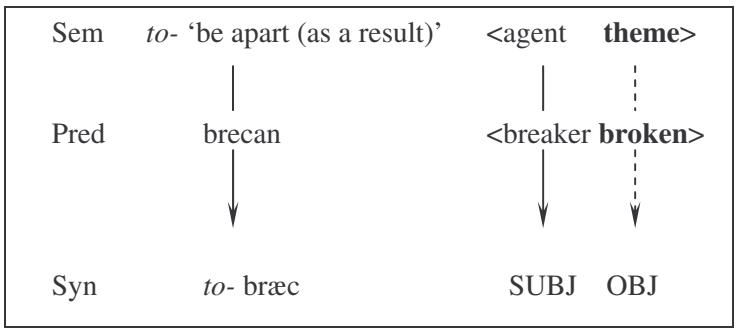
Sample 1 contains only one instance of a clear-cut transitivization, example (113), where the position verb *licgan* is transitivized by the addition of *to-*, and which thus comes close to present day resultative constructions such as *He sneezed the napkin of the table*.

(113) *Seo Wisle is swyðe micel ea ȝ* ***tolið*** *Witland ȝ Weonodland* (Or 1: 1.16.29)
The wisl is very big stream and ***to-*****lies** Witland and Weonodland
→ causes Witland and Weonodland to be **ASUNDER** by **lying** in between

However, the four other instances of *licgan* in sample 1 remain intransitive, as expected, and the ME sample 2 does not contain a single example of such a transitivization. So even if occurrences can be found of a transitivizing use of *to-*, this use seems to be an idiosyncrasy rather than a real constructional property.

Schematically, then, a sentence like (108) *ȝ þa clusan* ***TObræc*** ‘and [he] broke the prisons apart’ could be represented as in figure 4.5:

Figure 4.5: to-construction unified with transitive root verb brecan



4.7 Extensions of the prototype

In the OE period, the prefix shows three extensions. All of these are closely related to the prototype, and the relationship with it is straightforward. They will be briefly described below in the following order: OPENING and SPREADING (4.7.1), ADDING ABLATIVE CONNOTATION (4.7.2), and INDICATING ANALYTIC MENTAL ACTIVITY (4.7.3).

4.7.1 Opening and Spreading

Through metonymy in certain contexts, in a number of derivations *to-* slightly shifts its semantics from separation to a focus on being opened and spread. The following are some typical examples:

(114) *on ðære sculon hangian ða feower hringas on ðam feower hyrnum, ðæt sint ða feower hyrnan ðises middangeardes, binnan ðæm is* ***tobrædd*** *Godes folc, ðæt is utan begyrdd mid ðam feower godspellum?* (CP: 22.171.2)
on that shall hang then four rings in the four corners that are the four corners this.GEN middle-earth.GEN, within which is ***to-*spread** God's people, that is from-outside girded with the four gospels?
'Thereon will then hang four rings in the four corners that are the corners of this earth, in which God's people was **spread**, and which is girded with the four gospels from the outside?'

(115) *Nu wille we ymbe Affrica secgan, hu ða landgemæro* ***tolicgað****.* (Or 1: 1.19.22)
Now wish we about Africa say, how the land-borders ***to-*lie**
'Now we wish to tell how the borders of the countries of Africa **extend in different directions**.'

4.7.2 Adding ablative connotation

In another minor extension the focus is not on the semantic component of separation, but rather on the distance created by separation. Just like the first extension, this second extension is derived from the prototype through metonymy. The prefix in these cases can often be translated by 'away'.

(116) *ic ongite þæt ealla gesceafta* ***toflowen*** *swa swa wæter [...] gif hi næfdon ænne God þe him eallum stiorde ȝ racode ȝ rædde.* (Bo: 34.94.8) (ca. 890 A.D.)
I understand that all creatures ***to-*flew**.SUBJ-PRES-3SG as like water [...] if they not-had one God who them all guided and ruled and counselled

‘I understand that all creatures would **flow AWAY** [i.e. perish] like water [...] if they did not have one God who guided them all and ruled them and counselled them.’

(117) *Nihthelm **toglad**, lungre leorde leoht æfter com, dægredwoma.* (Andreas: 123)
Night-shades ***away*-glided**, quickly departed light after came, dawn
‘The shades of night **vanished**, they departed quickly; light of dawn afterwards came up.’

4.7.3 Indicating analytic mental activity

A minor extension within *to-*’s constructional network consists of a verb class denoting analytic mental activity, like *tonemnan* ‘distinguish by name’ (< *nemnan* ‘name’), *towritan* ‘describe’ (< *writan* ‘write’) and the verbs in (118-119). Apparently, this node was somewhat productive in OE, but the verb in (119) is the only instance found in the ME sample.

OE

(118) *Mid ðæm nosum we **tosceadað** ⁊ **tocnawað** gode stencas ⁊ yfele.* (CP: 56.433.21)
With the nose we **discern** and ***to*-know** good odours and evils.
‘With our noses we can **discern** and **know apart** good odours from evil ones.’

ME

(119) *Þeo me mei nempne wel hwas nome me cnaweð ⁊ beoð mare harm is al to monie icnawen ⁊ eke **tocuðe**. heoredome. eauwe bruche. Meidlure. ⁊ incest. þt is bituȝe sibbe fleschliche.* (AncRiw-1, II: 152)
Though one may call well whose names one knows and – more harm is – all to many known and also ***to*-known**: whoredom, adultery, maiden-deception, and incest that is between kindred fleshly.
‘Nevertheless one may well mention those whose names one knows and are – more is the harm – all too **known/familar** to many: whoredom, adultery, loss of virginity, and incest, which is between relatives.’

This extension can be conceived of as an instance of the metaphor UNDERSTANDING THINGS IS KEEPING THEM APART. This kind of metaphor is common to express analytic mental activity, as in PDE *unravel* ‘cause to be no longer ravelled, hence: solve (a mystery etc.)’ (cf.

Dutch *ontrafelen*) and the Greek based *analyse* itself, deriving from *analuo* 'unloose (a knot), hence: understand'.

4.8 Discussion

Because the constructional network of *to-* is not very complex, it is not necessary to summarize it in the same way as I did for *be-* in section 4.5. Instead, this section discusses some particularities of the prefix *to-*, which could have influenced the life span of the prefix. A more general comparison of how certain properties of *to-* and *be-* had different effects on their life spans belongs to chapter 5.

The description of the constructional network of *to-* make it clear that its semantics are far less complex than those of *be-* or any other prefixes. Compared to many other prefixes, the semantic transparency of *to-* seems to have slowed down its replacement by phrasal verbs somewhat. This does not mean replacement by phrasal verbs did not occur; it only did so relatively late (cf. section 4.4.1 and chapter 5 below). The result of this conservatory effect of *to-*'s specific semantics is that it disappeared around 1400, which is later than other predicative prefixes, but earlier than *be-*. Some relics even survived into Shakespeare's time (the last occurrences are: *totear* 1605, *torend* 1631 and *tobreak* 1688, cf. Hüning 1997: 29), but these are obviously lexicalizations, similar to PDE words like *forlorn* or *forbear* etc.

One reason why the specific semantics of *to-* could have exerted this conservatory influence is that it was rarely interchangeable with the semantics of other prefixes. Whereas most predicative prefixes added a meaning like 'away, out, on' (cf. table 1.1), which are simple destination paths, *to-*, basically meaning 'asunder', does not cause the trajector to be at one single destination, but rather to be split up and be eventually at two or more destinations at the same time. This kind of semantics is not the most prototypically predicative one, because in a way a prepositional relationship is established as well: one (part of the) trajector moves away *from* another (part). Maybe due to this specific property, the semantics of *to-* did not generalize very much, and the spatial prototype was always to a large extent preserved.

The ME data illustrate the persistence of the spatial prototype even more, in that it is precisely the prototypical sense of 'asunder' that is preserved longest. No less than 83 % of the types in sample 2 belong to the prototype, whereas this is only 55 % in sample 1. An additional reason why the prototypical sense remains so productive in ME may be the interference from the Old French (OF) prefix *dis-*. Indeed, some new formations with *to-* seem to be substitutions for already existing Old French derivations with *dis-*, like *tospoilen*

< OF *despoiller* ‘strip from one’s possessions’, *tosturben* < OF *destorber* ‘distress, interrupt’ and *tostroien* ‘destroy’ < OF *destroier*.

Another particularity of *to-* is that it does not necessarily add telicity. Things can lie apart without being directed to a goal, as long as the theme over which *to-* is predicated is already plural. This theme is either the subject of an intransitive verb, as in (115), where the borders lie apart (are situated in different directions), or the object of a transitive sentence, as in (120):

(120) *Þæt ealond* ***tosceadeð*** *Wantsumo stream fram þam togeþeoddan lande.* (Bede 1: 14.56.29)
That island ***to-*****parates** Wantsumes’ stream from the adjoining land
‘That island **separates** the stream of Wantsum from the adjoining land’

This lack of a shift in telicity suggests that the Aktionsart salience of the prefix *to-* is not high. Whereas the specific semantics of ‘asunder’ could have exerted a conservatory effect, this factor rather makes it easier to replace *to-* by a phrasal particle. It should be noticed, however, that there are more instances where *to-* does add telicity than not (for the exact figures, cf. chapter 5, table 5.4). Therefore, also taking into account the relatively long conservation of *to-*, the lack of a shift in telicity appears to have had only a minor effect on the life span of the prefix.

A factor that may have had a more strong effect on the eventual disappearance of *to-*, which otherwise might have been preserved even longer, is the fact that ‘dividedness’ often is already implied in the root verb (*brecan* already means ‘break and be asunder as a result’). This doubling of the semantics of the root verb seems to have led to the weakening of *to-* to a certain extent. To reinforce the force of the prefix, already in OE *eall* ‘completely’ was added occasionally. In ME its frequency increased, eventually leading to a reanalysis by some speakers of *all to-V* into *allto* V (cf. Bechler 1909: 67-68), as the following examples show:

OE

(121) *þa hie æt hiora theatrum wæron mid heora plegan, þa hit* ***eall tofeoll*** (Or 6: 2.134.29) (894 A.D.)
When they at their theatres were with their plays, then it **all *to-*fell**.
‘When they were at their theatre with their plays, it **collapsed completely**.’

ME

(122) *ac me þe sculde nimen and **al to-teon** mid horse oðer þe **al to-toruion** mid stane.* (LambX1: 9.95)

but one you should take and **completely *to*-pull** with horse or you completely *to*-pelt with stone

'But people should take you and **pull** you **asunder completely** by horse or tear you wholy apart by stone.' (cf. (4)) (ca. 1150 A.D.)

(123) *and ure helende brac þo þe irene herre and **alto shiurede** þe giaten. and in wende* (Trinit: 113) (ca. 1225 A.D.)

and our saviour broke then the iron hinges and ***alto*** **shattered** the gates, and in went

'And our Saviour then broke the iron hinges and **completely shattered** the gates, and went in.'

(124) *Seint Eadmund he nam bi þe hond : and is paumerie op drouȝh, So heiȝe and with so gret Eyr : ase he him wolde **al-to-driue**. Seint Eadmund lay and quakede : and drad was of is liue, For, ȝif he him smite ase he dunt drouȝ : he were ded a-non;* (SELeg: 437) (ca. 1300 A.D.)

Saint Edmund he took by his hand: and his stick up drew, so high and with so great vigor, as he him wanted **all-to-beat**. Saint Edmond lied and trembled: and afraid was of his life, For, if he him smote as he stroke drew: he were dead immediately

'He took Saint Edmund by his hand and raised his stick very high and with such a great vigor, as if he wanted to **beat** him **up completely**. Saint Edmund lied down and trembled, and was afraid of his life, because, if he smote him by dealing a stroke, he would be dead immediately.'

Another way to reinforce the meaning of the prefix was the addition of a PP denoting the number of pieces something was broken or divided into, which also made the presence of the prefix redundant (cf. also sentence (111)).

(125) *ȝuw birrþ witenn þatt te king || Þa fowwre ȝ twenntiȝ hirdess || **Todæledd** haffde þane o twa* (Orm, I: 16)

you should know that the king the four and twenty herds ***to*-dealt** had then in two

'You should know that the king then had the twenty four herds **divided** in two.'

(126) *ȝ warð his bone sone. swa þt his bodi **to-bearst** o midhepes o twa.* (Marga: 71)

and became his bones immediately so that his body ***to*-burst** in mid-hips in two
'And immediately his bones cracked in such a way that about his hips his body **burst** in two.'

Finally, there are some studies which mention confusion with the infinitival particle as a source of loss (e.g. Lutz 1997: 278-279). There is evidence that the infinitival particle in OE was not phonetically identical to the inseparable prefix. Apparently, the spelling of the prefix with an <o> was a kind of West-Saxon spelling convention, the actual pronunciation being more like an e. To avoid confusion in those cases when the prefix *to-* followed the infinitival particle in OE, it was spelled phonetically as *te-*, as in (127-128).

(127) *Swa sint **to teweorpanne** ærest ða ðe nan god ær ne dydon ðurh ðreaunge of ðære heardnesse hiora yfelnesse, to ðæm ðæt hi sien eft on firste arærde* (CP: 58.443.32)
So are to ***to*-throw** first those that no good ere not did through reproof of the hardness their.gen wickedness.GEN, to that that they be.SUBJ again in time up-lifted
'Therefore should those be **destroyed** first, who did nothing good before, by reproof of the hardness of their wickedness, in order that they will in time be lifted up again.'

(128) *hi bioð swiðe eðe **to tedælenne*** (Bo: 34.92.25)
They are very easy to ***to*-part**
'They can very easily be **divided'**

This systematic way of distinguishing between the infinitival particle and the prefix suggests that there was no confusion between them in OE. Moreover, adjacency between them did not occur very often, as there are only two examples in the OE 235 token sample. However, confusion may have existed in ME, when both the infinitival particle and the prefix may have been pronounced with a schwa (cf. sentence (105)) and where the prefix is also spelled *te-* more often. Due to a kind of *horror aequi*, this may have led to avoiding the prefix in *to-* infinitive constructions, to avoid a stuttering impression (cf. Lutz 1997: 279). But this does not mean that *to-* has to be given up at all. Already in OE, most occurrences of *to-* prefixed verbs are past or passive participles (32 %, as compared to only 0.9 % of *to-* infinitives), and even more will be so in ME, which makes confusion with the *to-* infinitive in ME not very likely.

The present section has discussed some particularities of the prefix *to-*, which may have influenced its life span. All these characteristics however are fairly peripheral and probably influenced the productivity history of *to-* only to a minor extent. A more general and principled way to account for its loss is elaborated in chapter 5, where I will compare *be-* and *to-* with regard to the different types of salience described in chapter 3.

5 Comparison of *be-* and *to-*'s constructional properties

Chapter 4 started with an overview of the frequency history of *be-* and *to-* in the corpora used for this study. This survey made it clear that *be-* has continued to be productive to the present day, whereas *to-* decreased, only to disappear completely at the end of ME – despite a puzzling high amount of neologisms in EME. The bulk of chapter 4 consisted of a description of the internal structures and their diachronic developments of the constructional networks of *be-* and *to-*. From this analysis it has become clear that in particular *be-* constructions of the non-predicative type were characterized by specific semantics, valence patterns and Aktionsart, not present in the network of *to-*. Although these different properties constitute a possible explanation for their different life spans, chapter 4 did not make it clear to what extent these properties are indexical of the salience parameters described in chapter 3. The present chapter first compares the different types of salience for both prefixes (section 5.1) and afterwards draws some conclusions on how this study in salience and productivity has bearings on the theory of grammaticalization in general (section 5.2). The structure of section 5.1 is the following. Section 5.1.1 describes how initially the non-predicative constructional properties make *be-*'s non-predicative prototype very salient in different respects and how this initial salience has a conservatory effect on the spatial prototype. Because of the non-predicative route path semantics of *be-*, the spatial prototype survived the pressure exerted on spatial verb-specifiers in the shift from OV to VO. Section 5.1.2 describes how at the same time the multi-usability of this prototype led to host-class expansion, grouped in different abstract extensions, an expansion that already was taking place in Gothic but only reached its peak in LOE. This expansion led to a high degree of entrenchment of the salient properties of the prefix, especially with regard to syntax (valence) and Aktionsart, which are discussed in section 5.1.3 and 5.1.4 respectively. This high degree of entrenchment of salient usages of the prefixes (supported by the high degree of entrenchment of some lexicalized verbs) replaced the conservatory effects of the spatial prototype after this was largely abandoned due to the natural 'wear and tear' of highly grammaticalized morphemes.

5.1 The constructional salience of be- *and* to-

5.1.1 Initial semantic salience and other constructional properties of the spatial prototype

In chapter 2, I discussed the grammaticalization paths of predicative and non-predicative preverbs in Sanskrit and assumed a similar development in Germanic. One of the observations made was that the resulting constructions in Classical Sanskrit differed in terms of constructional substance. Among other things, non-predicative constructions entailed a change in valence, which made them more salient than predicative constructions. This allowed us to formulate the hypothesis that the more salient non-predicative construction develops differently from the less salient predicative one, and to the definition of constructional salience in terms of four salience parameters. After the detailed analysis of chapter 4, it has now become possible to evaluate this hypothesis, by relating the four parameters to the different life spans of *be-* and *to-*. On the one hand, the detailed analysis of *be-* allows us to refine it, by making the distinction between highly salient non-predicative route path prefix constructions and other, less salient types of non-predicative constructions. Apart from this first refinement, the detailed analysis of chapter 4 also makes it possible to distinguish between more and less salient predicative constructions. For instance, the stronger resilience of *to-* compared to that of other predicative prefixes can be explained by its specific semantics ('asunder'), which deviate considerably from those of other predicative prefixes (typically meaning something like 'away') and which always preserved a high degree of transparency. Third, in the later stages of the conservation of the prefix *be-*, other factors may be at work as well, as for instance the strong degree of subjectification acquired in the ME period, where *be-* first developed a pejorative connotation in a class of verbs of deceiving.

The initial distinctive influence of predicative and non-predicative prefixes can be explained as follows. First, when the shift from OV to VO put pressure on prefixes, predicative usages could already be replaced from early on by a functionally and conceptually equivalent particle, without changing their valence or constructional semantics (a phenomenon called intraference by Croft 2000: 148). *He tobræc þa clusan* could be replaced by *he broke the prison apart* and in the case of *be-*, *hie bestælon hie on þa burh* could be replaced by *they stole in at the castle*. Consider the following examples:

OE

(129) *gif godes sune siæ* ***Astig*** *nu of rode* (Mt: 27.40 [Ru1]) (ca. 950 A.D.)
if god's son be ***of*-come**.IND-PR-3SG now from cross

'if you be god's son **come DOWN** from the cross now.'

versus ME

(130) *gyf þu sy godes sunu,* ***gá NYÞER*** *of þære rode* (Mt: 27.40 [WSCp]) (ca. 1025 A.D.)
if you are god's son, **come DOWN** of the cross

OE

(131) *[Maximus] hæfde beboden þa clusan to healdanne. [...] Ac mid þæm þe he from þære clusan afaren wæs wiþ þara scipa, þa com Theodosius þærto ⁊ funde þærǽt feawa men, [...] ⁊ he hie raðe aweg aþewde, ⁊ þa clusan* ***TObræc****.* (Or 6: 36.154.13) (894 A.D.)
Maximus had commanded the prisons to guard. [...] But with that that he from the prisons *a*-travelled was with the ships, then came Theodosius thereto and found thereat few men, [...] and he them quickly away *away*-drove, and the prisons ***to-broke***
'Maximus had commanded to guard the prisons. [...] But after he had travelled away from the prisons with his ships, Theodosius arrived there and found there only few men, [...] and quickly drove them away, and **broke** the prisons **ASUNDER'**

versus ME

(132) *he* ***broke*** *the cordes* ***AL ASUNDER*** (Caxton, Bl: 190.14) (1480)

Section 2.4 already mentioned that the verbs in sentences (129) and (130) are different, but equivalent translations from Latin *descendere*, and a similar equivalence was illustrated with the verb *ascendere*, translated in OE as *astigan*, but in OHG as *stígit úf*. Once these replacements were made, extensions based on this spatial predicative prototype lost their cognitive reference point and became unproductive. Their members usually first lexicalized (e.g. *beget, begin*) and often eventually disappeared (e.g. OE *beþurfan*). *To-* resisted this development better than other prefixes, maybe because it had no homophonous preposition or adverb available, but eventually was also replaced by *apart, asunder* etc. (cf. Bechler 1909: 76-77).

The prefix *to-* thus follows the same tendency as the other inseparable prefixes. Table 4.2 in section 4.1 described how the type/token ratio of *to-* showed a peculiar increase in sample

2. Closer observation however shows that it are precisely the core semantics of *to-* 'asunder' which will provide most new formations in sample 2. Derived nodes, especially the ablative and the analytic node, are lost in this period (cf. Appendix 1). For instance, sample 1 contains 7.66 out of 45 types (17.0 %) showing ablative semantics, while sample 2 only has 2.25/61 (3.7 %). The early loss of the ablative extension of *to-* fits well into the hypothesis of intraference in the case of predicative prefixes, as the ablative sense is more prototypically predicative than is the 'asunder' sense. It always adds telicity (*flowan* 'flow' vs. *toflowan* 'flow away') and shares its semantics with many other predicative inseparable prefixes, like *a-* or *for-* (cf. table 1.1 and e.g. sentence (10a)). Later on the prototype was replaced by phrasal verbs as well, especially with the particles 'asunder' and 'apart', as in (132).

In addition to the equivalence between a predicative prefix and a particle, many of these prefixes were semantically hardly noticeable. *Be-* in *becuman* for instance only makes explicit what is already implicit in the simplex, as *come* inevitably also means *come here*, and this holds for many usages of *to-* as well: *toberstan* is only a more intensive version of *berstan*, as is *todælan* of *dælan* etc. Whereas by adding non-predicative *be-* a previously unaffected location is altered into an affected location, affectedness of the direct object is completely determined by the semantics of the root verb in the case of *to-*.

One could object that predicative prefix constructions did display unique properties, which made intraference impossible and slowed decline down. Properties qualifying for such an inhibition of replacement are the change of an atelic verb into a telic verb or the addition of unselected objects. The first of these however is not unique, and a particle has exactly the same effect: atelic *he was moving* becomes telic if the SP particle *away* is added. The second property could have slowed decline down, because the equivalence with a particle in this case is possible, but cognitively less easy to achieve (*heo tolicgad þa island* versus *?she lies the islands asunder*, i.e. 'her position causes the islands to be separated'). However, unselected objects are extremely rare in OE (if they exist at all) and therefore their influence will have been minimal.

The non-predicative prototype of *be-* shows a completely different picture. In comparison with prefixes like *ge-*, *a-* or *for-*, the firm position of the spatial prototype is striking. Unlike *to-* however, this retention of a spatial core does not correlate with a lower degree of grammaticalization. On the contrary, there are a lot more grammaticalized extensions of *be-* than there are of *to-*. This combination of the conservation of a spatial prototype with a large number of grammaticalized extensions is unique to *be-* and I will try to show how it is precisely the many unique properties of the prototype construction that made this long-lasting network possible.

The main reason for the firm position of the spatial prototype lies with its retention of the original route path semantics of the *be*$_2$- preverb 'around'. *Be-* is not the only route path in OE. Other examples of route paths are *ymbe* 'around', *ofer* 'over' and *be* 'along (prep.); around, about, over' (all of them both as preposition and prefix). Contemporary examples of prepositions belonging to the route path group are the English group *over, under, around* and *through* and the German group *über, unter, um* and *durch*. ROUTE PATH preverbs or prepositions have a semantics of their own, which distinguishes them from DESTINATION PATHs and SOURCE PATHs, and which causes them to have different properties when used as a preposition than as a prefix (cf. Dewell 1996; also cf. Bellavia 1996). Generally, when a route path item is used as a preposition, the LM, which defines the route followed, is not the actual destination of the action and therefore not a profiled participant in the situation. However, when used as a prefix, the LM becomes a direct object and this entails a shift in focus, which is no longer on the destination but on the landmark itself around/over/along which the route goes.

Route path prefixes, then, continued to remain productive, because the specific constructional properties of a route path prefix makes it possible to solve a cognitive dissonance emerging when a speaker wants to make clear that the LM defining the path followed by a theme or TR is affected by the action, and is a patient-like profiled participant. To express this it is not possible to use a route path preposition, because the LM in such a construction remains unaffected (cf. sentence 133a). But it is not effective either to construe the LM directly as the object in a transitive construction, the prototypical way to express patients, because this would lose the spatial route-relationship between TR and LM (*?hie foron þa sæ* 'they travelled the sea' does not entail that they travelled *over* the sea). A route path prefix can solve this problem, because it combines the 'path' semantics of the preposition with the 'complete affectedness' semantics of a prototypical transitive construction. As such, the locus of the preservation of the non-predicative *be-* construction lies with its specific constructional semantics, combining 'path' and 'affectedness' (which correlates with other properties, such as the specific valence pattern of the construction). The following examples from OE can illustrate this (sentence (133c) being identical to (41)):

(133) a. *Þa forleton hie hie, ⁊ **eodon ofer** land þæt hie gedydon æt Cwatbrycge be Sæfern* (ChronA [Plummer]: 896.14) (896 A.D.)
Then left they them, and **travelled over** land till they arrived at Cwatbrycge by Seafern

'Then they left them and **travelled over** land till they arrived at Cwatbrycge by Seafern'

b. *Her on ðissum geare com Unlaf mid þrim ꝛ hund nigentigon scipum to Stane, ꝛ forhergedon þæt on ytan, ꝛ forð a ðanon to Sandwic, ꝛ swað anon to Gipeswic, ꝛ þæt eall **ofereode**, ꝛ swa to Mældune* (ChronA [Plummer]: 993.1) (993 A.D.)

Here in this year came Unlaf with three and hundred ninety ships to Stone, and harried.3PL that from outside, and travelled.3SG then thence to Sandwich, and so thence to Ipswich, and that completely **overran**, and so to Maldon

'In this year Unlaf came with hunderd ninety three ships to Stone and they harried it from outside and he travelled then from that place to Sandwich, and so to Ipswich, and completely **overran** it, and so to Maldon'

c. *ꝛ þa geascode he þone cyning lytle werode on wifcyþþe on Merantune, ꝛ hine þær berad ond þone bur utan **beeode*** (ChronA [Plummer], 755.10)

and then discovered he the king with a small band in wife-kinship in Merantune, and him there *be*-rode and the chamber from outside **surrounded/overran**

'And then he discovered the king with a small band in the company of a woman in Merantune, and rode up to him there and **surrounded/overran** his chamber from outside'

The preposition *ofer* and the prefix *ofer-* in sentences (133a) and (133b) perform quite different functions. In the case of the preposition *ofer*, the LM *land*, defining the path which the travellers followed, is not a profiled participant of the situation, unlike the final destination *Cwatbrycge*. In the case of the prefix *ofer-* however, both the LM *Gipswick* and the final destination *Maldon* are equally profiled. The action of overrunning Gipswick constitutes a goal in itself, and the LM is not merely crossed and left behind unaffected by the action of running. The prefix *be-* in (133c) is clearly the equivalent of (133b), not of (133a). Apart from the agent, in this case, the LM *bur* 'chamber' is even the only profiled participant. The final destination where the route leads to (the outer wall of the chamber) is not important at all. The focus is clearly on the chamber-LM (defining the path followed) and its contents (i.e. the king inside).

In construing this LM as a patient in a transitive construction, the non-predicative construction will also acquire some other properties in the field of semantics and Aktionsart,

which make the construction more salient or unique with respect to its prepositional counterpart. In a seminal article on transitivity, Hopper and Thompson (1980) described the prototypical transitive construction as one where the second participant (object) differs from the first (subject), the situation is telic, and the second participant moreover is completely affected, highly individuated and animate. Many examples so far have already illustrated that the *be-* construction prefers animate objects (cf. sentences (3, 5, 11a, 47, 49, 54, 59, 60, 61b, 63a-b, 75a, 76b, 78, 80-83, 89a, 91, 92a, 93c, 94-98, 100, 102-104), and, metonymically, sentences (6, 11b, 21a, 52, 58, 65)).

More importantly, the *be-* construction also is often used in perfective contexts, and thereby closes the gap between the 'path' semantics and the 'complete affectedness' even more. It is difficult to compare the prefix with its prepositional cognate in this respect, which had acquired specific semantics of its own in OE, but consider the Dutch route path preverb *op* (both as preposition and as prefix) in (134) and the OE route path preverb *ofer* (both as preposition and as prefix) in (133) above.

(134) a. *Peter zag dat Katrien de trap* ***opliep***[20]
Peter saw that Catherine the stairs **up/over went.PAST**
'Peter saw that Catherine **went up** the stairs'

b. *Katrien* ***liep op*** *de trap*
Catherine **went.PAST up/over** te stairs
'Catherine **was going up**stairs'

It can be argued that the separable prefix *op-* in (134a) could be traced back to a postpositional variant of the preposition *op* in a telic context (cf. Blom 2004: 51-68). In cases where the postposition was not reanalysed as a prefix, it shifted to prepositional position during the Dutch shift from OV to VO, as in (134b). The reason why the postposition sometimes was reanalysed as a prefix might be precisely to make the prepositional object (in this case *de trap* 'the stairs') into a profiled participant, because in that way it became the direct object in a transitive construction. In (134a), *de trap* could not felicitously be construed as the object of a prepositional phrase as in (134b), because the sentence is meant to express telic Aktionsart. In (134b) the focus is on the durative aspect of the activity verb *lopen* 'walk', and *Catherine* will actually have *op de trap gelopen* 'walked up the stairs',

[20] One could wonder whether *op-* 'up' in this case is a route path prefix at all. Its restricted use however indicates it is: while the sentence *Hij loopt op de grond* 'he is walking upon the floor' is perfectly grammatical, **Hij loopt de grond op* is not, because *de grond* 'the floor' cannot be construed as a bounded path *over* which one walks.

even if she does not reach the end of it. However, in (134a) *Catherine* will only have *de trap oplopen* 'mounted the stairs', if she reaches the endpoint of the telic action, which is the end of the stairs. By default, the action of 'mounting the stairs' is construed as one 'punctual' event.[21] The focus is on the undividedness and perfectiveness of the action of walking towards an endpoint. While both sentences use the simple past *liep*, only in (134a) this simple past will receive a perfective reading, due to the telicity added by the prefix. The simple past therefore, unlike in PDE, is not always perfective in Dutch. Something similar holds for OE, which means that sentence (133a) is only perfective due to the addition of *þæt hie gedydon æt Cwatbrycge be Sæfern* 'until they arrived at Cwatbrycge by Seafern'. *Hie eodon ofer land* could have an imperfective meaning in certain contexts and be accurately translated as 'they were travelling over land (when ...)', but this is not possible if *beforon* is used, where the combination of the telicity of the prefix and the simple past forces a perfective reading 'surrounded'. This focus on the undividedness of the action due to the telicity (and frequently concomitant perfectiveness) of the prefix is a second salient property of route path preverb constructions, which make them functionally different from their prepositional cognates.

Along with the undividedness of the action goes the individuation of the stairs, which leads us to a third prototypical property of the transitive construction adopted by the *be-* construction. The stairs of (134) are no longer seen as a series of steps that have to be walked over. The focus is on the stairs as one entity that is overcome by one act of walking. Unlike the LM in the position of prepositional object, where it is conceived of as a surface extending over a certain area, if the LM is construed as the direct object of a prefix construction, it is seen as a single entity 'affected' by the action of the verb.

Because of the properties acquired by the *be-* construction, any replacement by a prepositional construction would not be functionally and conceptually equivalent, because a prepositional phrase would lose the combination of 'path' with 'complete affectedness', and often also 'individuation'. This semantic salience of the *be-* construction (as compared to the prepositional construction), together with other types of salience (shift in Aktionsart, own valence pattern), is assumed to be an important reason why the spatial core of *be-* remained stable a long time without being subjected to semantic weakening or replacement by phrasal particles.

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[21] This does not mean that telicity and perfectiveness completely overlap, even though they tend to correlate with each other. The perfective readin can be undone by using a progressive construction instead, as was explained in section 3.1.3.

5.1.2 Salience by frequency: Host-class expansion

The salient properties of the non-predicative prototype made *be-* a good candidate for extensions where it has more abstract meanings. One of the differences described between the prepositional construction and the prefix construction was the individuation of the LM, which is now no longer seen as a surface of certain dimensions, but rather as an holistically construed entity affected at once (cf. Michaelis – Ruppenhofer 2001: 23-27). This effect makes it possible for the *be-* construction to extend to other complements, which do not define regular paths. Whereas *Breotone* 'Britain' in (52), here repeated for convenience as (135a), can still be seen as a regular path (a surface of certain dimensions), 'the moon' in (135b) seems to be a less prototypical path, and *hien* 'him' of (135c) is no longer a path at all. Something similar seems, though to a lesser extent, to hold for *ofer-*, with *lichaman* 'body' in (135d) being a less prototypical path than *Gipeswic* (a village which stretches out over a certain surface) in (133b).

(135) a. *mid þy Romani þa gyt Breotone* ***beeodon****;* (Bede 1: 15.62.2)
when Romans then still Britain ***be*-walked**.
'when the Romans still **occupied** (lit. walked about) Britain.'

b. *Her wæs se mona swelce he wære mid blode* ***begoten*** (ChronA [Plummer]: 734.1)
Here was the moon such he were with blood ***be*-poured**
'This year the moon was as if **doused** with blood'

c. *He angan sierwan mid þæm folce þe he ofer wæs, hu he hiene* ***beswican*** *mehte* (Or 1:12.32.19)
He began plot.INF with the folk that he over was, how he him deceive might.
'With the people above whom he was, he began to plot how he might **deceive** him.'

d. *Đonne ðu geedcucod byst.* ***ofergeot*** *ðinne lichaman mid fantwætere* (ÆCHom II: 22:197.238)
When you revived are.SUBJ **overpour** your body with font-water
'When you are revived, **douse** your body with baptismal water.'

We have seen in chapter 4 how this kind of extensions led to the AFFECTING construction and later on the Furnishing extension, where every trace of the original route path semantics is gone.

In other words, ever more verbs could serve as a host for the prefix construction. However, in during this host-class expansion, the prefix construction preserved to a large extent its separate valence pattern together with the sense of affectedness. The constructional nodes showing these core properties were labelled the core grammaticalization of the prefix, and the extension to the nodes within this core grammaticalization led to an enormous expansion of the number of types in OE, as can be inferred from the high type/token ratio in sample 1 (cf. table 5.1) and the several hundreds of types found in any OE dictionary.

Table 5.1: Number of tokens per type in Sample 1

Type	**Token frequency**							
becuman	31	bescierian	3	bewitian	1	belecgan	1
bebeodan	25	bebycgan	3	bebugan	1	bemiþan	1
begietan	18	begeotan	3	becierran	1	bereccan	1
besittan	9	berædan	3	beclyppan	1	berowan	1
befæstan	7	bereafian	3	becweðan	1	besellan	1
behealdan	7	bebaðian	2	bediernan	1	besencan	1
bestelan	7	befealdan	2	beebbian^{N}	1	besettan	1
bebyrgan	6	befeolan	2	befaran	1	besmitan	1
began	6	belucan	2	befeallan	1	besprecan	1
beniman	6	bemurnan	2	befeohtan	1	bestyman	1
bedælan	5	benemnan	2	begyrdan	1	beswælan	1
bedrifan	5	beridan	2	behatan	1	beswapan	1
befon	4	bescieran	2	beheawan	1	beswingan	1
belimpan	4	beslean	2	behelan	1	betæcan	1
beseon	4	betynan	2	behelian	1	bewepan	1
beswican	4	bewreon	2	behorsian^{N}	1	bewrecan	1
bewerian	4	beðyn	1	behriman^{N}	1	bewyllan	1
beþeccan	3	behofian	1	behydan	1	bewyrcan	1
beþurfan	3	beleosan	1	belean	1		

In total there are 75 types. This gives a Type/Token ratio of 0.32. The lower the ratio is, the higher the productivity of the construction. As a second indication we can look at those cases occurring only once. In the present sample this is the case with 40 of the types. Both this number and the Type/Token ratio seem to indicate a high degree of productivity. The Type/Token ratio in this sample as a matter of fact is the highest one of all samples, not only the later ones for the prefix *be-*, but also those for the prefix *to-* (cf. Appendix 1).

It is also interesting to see what the influence of lexicalized lexemes on the overall schema of *be-* could be. The cumulative percentage of the five most frequent lexemes in sample 1 is 38.3% (90/235). The higher this percentage, the higher the overall frequency of the prefix is determined by a few lexicalized items. In this sample it is at its lowest, lower for instance than in Gothic (113/227 or 58.6%). Looking at it from this perspective, this is a first

indication that the productivity of the prefix had not yet reached its peak in Common Germanic, and probably was higher in OE than it was in Gothic.

Indeed, in OE the number of types provided by the non-predicative prototype plus the core grammaticalization path was at its highest, as can be seen in table 5.3

Table 5.2: Share of core grammaticalization of be- *in each sample*

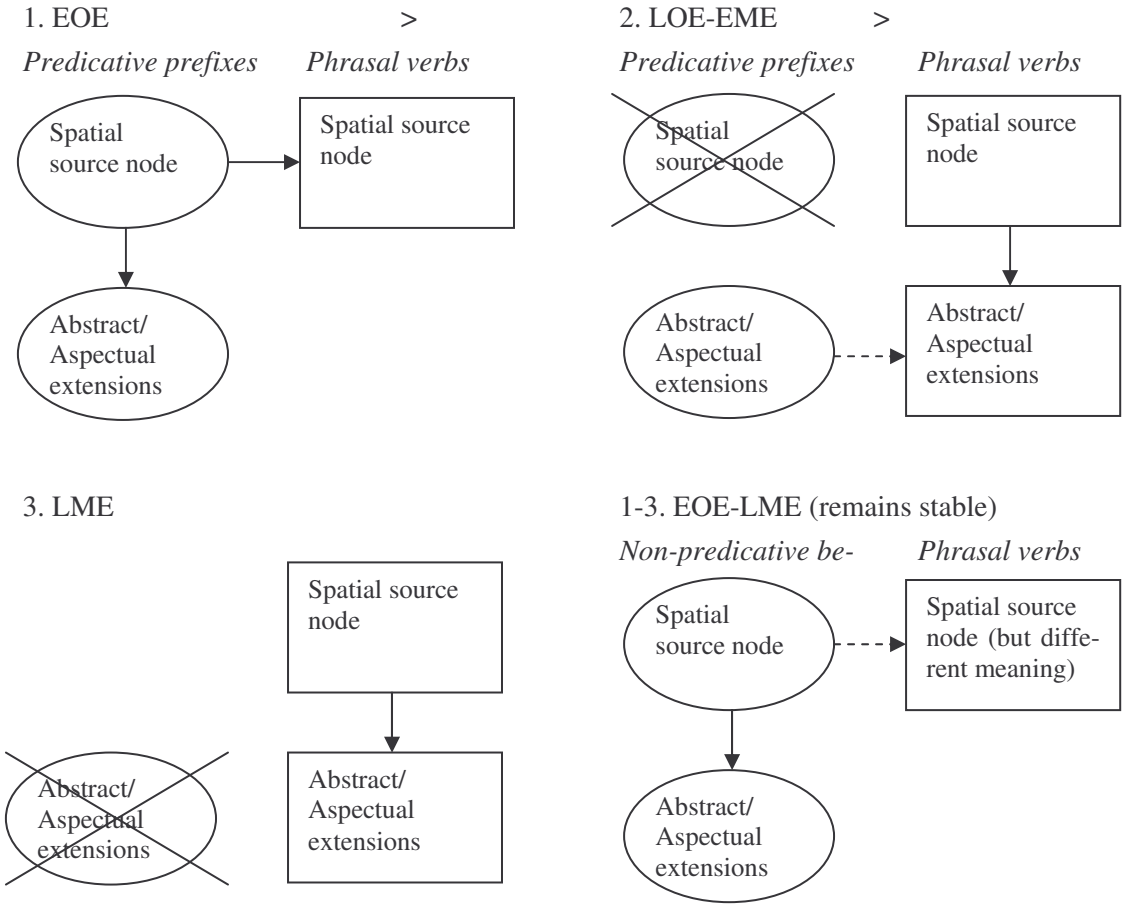
	Gothic	OE	ME	EMdE	LMdE
Types from *be-*'s core	22 (41.5 %)	44.09 (58.7 %)	24.7 (49.6 %)	11 (44 %)	13 (50 %)
Total amount of types	53	75	70	25	26

Together with the stability of the non-predicative prototype and its core grammaticalization and despite the more abstract nature of the AFFECTING and FURNISHING nodes, spatial usages remain prominent, thus providing a concrete basis for new formations. 136 tokens of sample 1 are used spatially (57.9%), whereas only 99 tokens have abstract meanings (42.1%). In sample 2, the number of spatial usages is even higher: 186 tokens are used spatially (79.1 %) as compared to 49 abstract tokens (20.9 %). In Modern English the spatial dominance of *be-* collapses due to a few highly lexicalized types such as *become* and *begin* (cf. Appendix 1).

The situation for predicative prefixes is completely different. Although predicative prefixes like *ge-* 'on, to', *a-* 'away' and *for-* 'away' also developed abstract usages, these became isolated after the replacement of their spatial prototype by phrasal particles (cf. section 5.1.1, 2.3). Many abstract usages therefore were only preserved as long as there was no good alternative available. This is particularly true for aspectual usages. Once the phrasal particles had developed an aspectual system of their own, aspectually used prefixes were replaced as well (cf. section 2.3; Brinton 1988). Replacement was not functionally and conceptually equivalent in the case of the route path *be-*. Therefore, *be-*'s prototype was often not replaced and kept fulfilling an important function as the source node of the network or as the point in terms of which extensions need to be understood. Actually, the prototype was preserved long enough to survive the most intense period in the shift to VO, the period of LOE to EME, due to the influence of both Old Norse and Old French, two languages that were strongly VO already then. Unlike the other prefixes that lost their source node, on which new extensions and derivations could be based, in this way *be-* retained its expressive power.

The different diachronic developments of the two types of prefixes can be schematically represented as in figure 5.1 (vertical arrows = extensions; horizontal arrows: replacements [intraference]):

Figure 5.1: Different developments of predicative prefixes versus be-



Presumably, in a next stage, the strong sense of affectedness of the core grammaticalization was the ideal source for a process of subjectification leading to a class of verbs of deceiving. Usually the affecting of humans is written about only if it is to their disadvantage, and this pragmatic tendency may have led to the inference that *be-* was the ideal prefix to express deceiving (cf. section 4.4.4).

The properties of the route path *be-* construction also help to clarify why a non-predicative destination path *be-* construction was suppressed by it, if it ever existed. For instance, the replacement of *ðone cyning beridan* in its destination path reading of 'ride up to' by *ridan up to ðone cyning* does not entail a shift in perfectiveness. In the past tense both expressions will be perfective. Neither does it entail a shift in salience. The goal of the action in both cases is the same. Replacement by a prepositional phrase was therefore possible without a semantic shift, a replacement not possible for the non-predicative route path construction.

At the end of the ME period then, when *be-* had acquired its special place in the new VO language, the spatial usages of *be-* were slowly pushed away by its many abstract extensions. At this point, towards the beginning of EMdE, the entrenchment of the construction, together with its syntactic and Aktionsart salience (and the lack of competitors) made it possible for it to survive a long time, up to PDE, even if slowly fading away.

5.1.3 Syntactic salience

The high degree of entrenchment of the core grammaticalization path became an important factor in the conservation of the prefix, when the spatial 'surrounding' prototype was gradually given up. An important reason why the high type entrenchment of this core grammaticalization path exerts this conservatory influence is that this core to a large extent preserved the specific valence patterns of the original non-predicative construction. There are basically two of them, the bivalent one, with a theme participant fused with a subject slot and a location participant fused with a direct object slot ([$THEM_{SUBJ}$ *be*-V LOC_{OBJ}]), and the trivalent one, where the theme is fused with an oblique slot ([$AGENT_{SUBJ}$ *be*-V LOC_{OBJ} $THEM_{INST|PP(mid)}$]). These valence patterns often differed from those of the simplex verbs in default transitive constructions, in which case they overrode these default syntactic slots for the verb's participants. By contrast, a predicative construction like *to-* almost always preserved the valence pattern of the verb it attached to.

In overriding the valence pattern of the root word it was attached to, the *be-* construction becomes syntactically visible. An extreme example of this is a denominal derivation like *bespaded*. A noun like *spade* has no valence pattern of its own, which makes the contrast with the derived verb particularly clear. Also, recall the valence pattern of *belecgan* in sentence (55), here repeated as (136), which was explained to be different from that of *lecgan*:

Derived verb with valence pattern of *be-* construction:

(136) ***belege*** *[þæt sar] æfter þære beþinge mid hatte wulle* (Lch II: 47.1.4)
and ***be-*****put** [this wound] after the heating with hot wool
'and **cover** [this wound] after the heating with hot wool.'

Versus simplex verb with its own valence pattern:

(137) *****lege*** *hatte wulle* ***on*** *þæt sar.*
'**put** hot wool **on** this wound'

The second example was invented in order to provide a 'minimal pair' to make the syntactic contrast particularly salient. Language users also make use of such techniques to establish the meaning of a certain word or phrase, for instance in second language acquisition. While it is not very likely that native speakers do this as consciously as linguists, if they are exposed to this type of difference in valence pattern frequently, it enables them to establish the particular contribution of the prefix construction to the verb's semantics and syntax more easily.

This syntactic salience may have a direct influence on the conservation of the prefix, and unlike the two other types of salience, its impact can be quantified identically for any prefix under consideration. First, each sentence containing a derivation with the prefix *be-* and with *to-* within the OE samples is matched with another sentence from the corpus containing the simplex counterpart of this derivation[22]. Second, each type occurring in the sample receives a highest value of 1. If all token pairings of the same type now show a shift in valence, the value for that type will be 1 in the row 'difference in valence' (cf. table 5.3 on p. 148). If not all tokens of a certain type show a shift, the total value of 1 for that type will be broken up. The amount of tokens showing a shift is divided by the total amount of tokens for that type, and the result is the value for the row 'difference in valence' for that particular type. The same is then done for the amount of tokens showing no shift. *Becuman* for instance is intransitive in 24 out of 25 and is transitive once. *Cuman* on the other hand is intransitive in all cases. Consequently, the type *becuman* receives a value for 'no valence change' of 24/25 and one for 'valence change' of 1/25. A type receives the value 'Unknown' if no simplex counterpart is found in the corpus, but it cannot be excluded that it existed.

The following are some examples of actual pairings:

The prefix be-

Excerpts with different valence patterns.

1. The simplex *smitan* 'smear' in the following excerpt licenses a theme as direct object and a landmark as a prepositional adjunct introduced by *on*:

(138) *Wiþ gongelwæfran bite, **smit** on isen swat.* (Lch II [2]: 65.5.9)
Against spider's bite, **smear** on iron sweat
'**Smear** sweat on iron against spider's bites'

[22] For practical reasons, the control group is confined to the prose part of the OE sample only.

The derivation *besmitan* 'soil, defile' in (32) however licenses a patient (equivalent to the landmark of the simplex) as a direct object and the theme (previously the direct object) in the instrumental case:

(139) *þu ellþeodig usic woldest on þisse folcsceare facne besyrwan, synnum* ***besmitan*** (Genesis: 79.2680ff)
you foreign us wished.SUBJ in this nation treachery.INST *be*-plan, sins.INST ***be*-smear**
'You stranger wished to deceive us within this nation with treachery and **defile** us with sins.'

2. The simplex *ridan* 'ride' in (33) is intransitive, whereas the derived form *beridan* 'surround' in (34) is transitive, the affected landmark being construed as the direct object:

(140) *Her* ***rad*** *se here ofer Mierce innan East Engle* (ChronA [Plummer]: 870.1)
Here **rode** the army over Mercia into East Anglia
'This year the army rode through Mercia into East Anglia'

(141) *& [he] hine [= þone cyning] þær* ***berad*** *ond þone bur utan beeode* (ChronA [Plummer], 755.10)
and [he] him [= the king] there ***around*-rode** and the chamber from outside *around*-went
And he **surrounded** the king there and surrounded the chamber from outside.

3. The simplex *geotan* 'flow' in (35) has a dative object as 'maleficiary', whereas the derivation *begeotan* in (36) is transitive and construes a patient-landmark as direct object and a theme as PP introduced by *mid*:

(142) *he nawuht ne wyrcð, ac sio slæwð him* ***giet*** *on ðone slæp, cwæð Salomonn* (CP: 39.283.6)
He naught not acquires, but the sloth him.DAT **flows** in the sleep, said Solomon
'He acquires nothing, but sloth flows into him during his sleep, said Solomon'

(143) *Þa yrsode he ond gebealh hyne ond het hig aðenian on yren bed ond hig* ***begeotan*** *myd weallende leade* (Mart 2.1 [Herzfeld-Kotzor]: De10, A.10.280) (1050-1075)
Then raged he and angered him and commanded them *out*-stretch on iron bed and them ***be*-pour** with boiling lead

‘Then he raged and became angry and commanded to stretch them out on the iron bed and to cover them with boiling lead’

Excerpts with the same valence pattern:

1. The example given previously (in (57) and (58)) with *wreon* vs. *bewreon*:

(144) *ȝ **wreoh** [hit] mid brede* (Lch II [3]: 2.1.3)
‘and **cover** [it] with bread’

(145) *ȝ **bewreoh** [þæt heals] fæste ufan mid leafum.* (Lch II [1]: 4.2.3)
and ***be*-cover** that neck firmly from above with leaves
‘and **cover** over that neck firmly with leaves’

2. Both *drifan* in (37) and *bedrifan* in (38) have a theme in direct object-position (and a prepositional adjunct of place):

(146) *Hu Orosius spræc ymbe Romano gielp, hu hie monega folc oferwunnon; ȝ hu hie monege cyningas beforan hiora triumphan wið Rome weard **drifon**.* (OrHead: 5.1.48)
How Orosious spoke about Romans’ glory, how they many people conquered; and how they many kings before their triumphs against-Rome-wards **drove**.
‘How Orosius spoke about the glory of the Romans, how they conquered many people; and how they **drove** many kings in front of their triumphal processions towards Rome.’

(147) *ȝ þær ofslogon monige Wealas, ȝ sume on fleame **bedrifon** on þone wudu þe is genemned Andredes leage.* (ChronA [Plummer]: 477.1) (ca. 890)
And there [Al and his three sons] slew many Britons, and some to flight ***be*-drove** to the wood that is called Andred’s lea.
‘And there Al and his three sons slew many Britons, and **put** some to flight to the wood which is called Andred’s lea.’

3. Both *swingan* ‘beat’ and *beswingan* ‘flog’ in (39) and (40) have a (highly) affected patient as a direct object:

(148) *For ðan symle God her wundað ȝ **swingð** ða þe he wile habban ȝ to þam ecan life gelædan.* (HomU 7 [ScraggVerc 22]: 81) (before 1000)
Because always God here wounds and **beats** those that he wishes have and to the eternal life lead.

'Because God always wounds and **beats** here [on earth] those whom he wishes to have and wishes to lead to eternal life.'

(149) *Gif hine mon **beswinge**, mid XX scillingum gebete.* (LawAf 1: 35.1)
If him people ***be*-swing**, with 20 shilling amend.
'If people **flog** him, amend it with 20 shilling.'

The prefix to-

Excerpt with the same valence pattern:

(150) *Gif se geswollena mon on þære lifre oðde se aþundena swa aswollen gebit oþ þone fif ȝ twentigeþan dæg swa se swile ne **bersteþ** þonne onginð sio lifer heardian* (Lch II [2]: 19.1.3)
If the swollen man on the liver and the swelling so swollen be until the five and twentieth day so the swelling not **bursts** then begins the liver harden.
'If a man has a swollen liver and the swelling is swollen for twenty five days and if the swelling does not burst, then the liver begins to harden.'

(151) *ȝ on Somnia þæm londe seo eorþe **tobærst*** (Or 5: 10.123.18)
and in Somnia the land the earth ***to*-burst**
'And in the land Somnia the earth **burst** ASUNDER.'

The results of the sample pairing are presented in Table 5.3:

Table 5.3: Syntactic salience of be- and to-

	be-			***to-***
	From core path[23]	*Other*	*Total*	
Difference in Valence	24.54	10.49	35.03*	6.03
No Difference in Valence	10.8	10.17	20.97	25.97
Unknown	0	1	1	8
Total amount of types	35.34	21.66	57	40

**Fisher Exact: The total probability for tables with larger value for * is < 0.001*

This table makes it clear that the behaviour of *be-* is the reverse of that of *to-*. For *be-*, 61.5 % of the types found in the sample have a different valence pattern opposite their simplex counterparts (Column 'Total'). The majority of these types derive from the core

[23] Even though it is the prefix that entails this classification, for the sake of comparison, the classification of the prefixed verbs is copied unto the simplex verbs. For instance, the verb *gan* for instance is classified four times under the node ATTENDING TO A PERCEPT, and once under SURROUNDING and COVERAGE each. This subclassification of *gan* is naturally carried out randomly since there is no rationale to distinguish between these nodes in the case of the simplex.

grammaticalization derived from the non-predicative prototype (Column 'From core path'), which also provided the highest number of types within *be-*'s lexical network (56 %). For *to-* this is only 15.1 %. A Fisher Exact test (leaving aside the row 'Unknown') shows that the chance that this difference is due to coincidence is less than 0.1% ($p < 0.001$). Moreover, this difference correlates perfectly with the different behaviour of the frequencies given in table 4.1. In other words, *be-*, being syntactically highly salient, even became increasingly frequent in ME, whereas *to-*, being low in syntactic salience, diminished.

5.1.4 Aktionsart Salience

A second type of salience which can be measured with the aid of the control group is the Aktionsart salience. The pairings are the same as those used to measure syntactic salience, but in this case tokens are compared, not types, because Aktionsart is much more sentence-dependent than argument structure. To determine the Aktionsart of a verb within a particular sentence, I made use of the criteria given in Brinton's thorough study on aspectuality in English (1988: Appendix A). All sentences used to illustrate the presence or absence of a valence shift are telic. For instance, in the pair (140-141), the first sentence is telic due to the addition of the destination *innan East Engle* 'into East-Anglia'. An example of a sentence pair where there is a shift in telicity is the following:

(152) *Þa wæron hie to þæm gesargode. þæt hie ne mehton Suð Seaxna lond utan* ***berowan*** (ChronA [Plummer]: 897.48)

Then were they to that afflicted, that they not might South Saxons' land outside ***be*-row**

'Then they were afflicted to such an extent that they were not able to **row AROUND** the land of the South Saxons from the outside.'

(153) *Eart þu se Beowulf, se þe wið Brecan wunne, on sidne sæ ymb sund flite, ðær git for wlence wada cunnedon ond for dolgilpe on deop wæter aldrum neþdon? Ne inc ænig mon, ne leof ne lað, belean mihte sorhfullne sið, þa git on sund* ***reon***. (Beo: 506-512)

Are you the Beowulf, who that against Breca contended, on broad sea about swimming competed, where you.DU for pride waters explored and for foolish-boast in deep water lives risked? Not you.DU any man, not friend nor foe, dissuade might perilous journey, when you.DU on sea **swam**.

'Are you the Beowulf who contended against Breca, had a swimming competition on the wide sea, in which you explored the waters out of pride and

risked your lives in the deeps because of a foolish boast? No-one, friend nor foe, could dissuade you from this perilous journey, in which you **were swimming** on sea.'

The results of the sample pairing are given in table 5.4.

Table 5.4: Aktionsart *Salience of be- and to-*

	be-		*to-*	
	Control group	*Prefix group*	*Control group*	*Prefix group*
[+TELIC]	101	152	112	181
[-TELIC]	46	19	27	20
Total[24]	147	171	139	201
Fisher Exact	< 0.001		0.010	

The table shows that, just as was the case with syntactic salience, the differences are significantly greater for *be-* than for *to-*, even though *to-* also shows a tendency to make verbs telic. In the case of *be-*, whereas 68.7 % (101 out of 147) of the sentences containing the simplex are telic, the sentences containing the derived verbs are telic in 88.9 % (152 out of 171). There is thus an increase in telic contexts of 20.2 %. In the case of *to-*, the increase is only half as big, namely 9.4 % (from 80.6 % to 90.0 %). In both cases the increase is very likely no coincidence (p-values of < 0.1 % and 1 % respectively), but the significance of *be-*'s Aktionsart salience is nevertheless considerably higher.

Moreover, a closer look at the internal structure of *be-* makes it clear that it is once more the core grammaticalization that is responsible for this high increase in telicity, as is shown in table 5.5.

Table 5.5: Aktionsart *Salience of core grammaticalization of* be- *versus rest of* be-

	From core path		*Other*	
	Control group	*Prefix group*	*Control group*	*Prefix group*
[+TELIC]	51	81	50	71
[-TELIC]	31	5	15	14
Total[25]	82	86	65	85
Fisher Exact	< 0.001		0.21	

In sum, the quantifiable and directly comparable factors of salience, the syntactic one and the Aktionsart one, both corroborate the first two salience factors, the semantic factor and the

[24] The different totals for the control group and the prefix group are due to the fact that not always enough simplex verbs were found. For instance, while sample 1 contains seven instances of the verb *bestelan*, subcorpus 1 contains only three instances of its simplex counterpart *stelan*.

frequency factor. The combination of all these four factors suggests that the overall salience of the prefix *be-* was very high and that it played an important part in its conservation.

5.2 Consequences for the theory of grammaticalization

The present study tried to unravel the complex networks typical for expressions that already have a long process of grammaticalization behind them. Grammaticalization studies usually focus on the early stages of grammaticalization and try to detect how the first extensions away from original spatial or other usages are made possible. The present focus on the end stages of grammaticalization, including the 'ideal' last stage of entire loss, suggests some interesting additions to the theory of grammaticalization.

First, both predicative and non-predicative preverbs can grammaticalize into inseparable prefixes, and this happened in Germanic, as the OE situation made clear. *Be-* clearly predominantly displays non-predicative structures and *to-* predicative ones. This observation is rather different from Blom's observation that only non-predicative structures developed into inseparable prefixes. Indeed, in her article on Dutch she traces the development of the present-day Dutch inseparable prefix *door-* to its post-positional origin in Middle Dutch (Blom 2004: 51-59) and observes that in the recent history predicative preverbs in Dutch have only grammaticalized into separable prefixes (like *af* in *hij springt van de trap af* 'he jumps from the stairs OFF (and as a result he is OFF, i.e. at the end)) or in an extended sense denoting telic aspect *hij maakt zijn huiswerk af* 'he makes his homework OFF'), and do not seem to show much signs of the next step in the development towards inseparable prefixes. How can these two observations be reconciled with each other? A first possibility is that the grammaticalization of the predicative prefixes proceeds at a slower pace and that it has not yet reached the stage of inseparability. However, this is unlikely in light of the advanced state of grammaticalization of the predicative prefixes in OE. An alternative explanation corroborates my assumption that the shift to VO put pressure on predicative prefixes in OE. This explanation consists of the assumption that a prefix like *af* only started to develop in Dutch after its shift to VO was largely completed. At this point predicative preverbs will be realized in main clauses (which are strictly VO in Dutch, whereas subclauses preserve an OV order) as specifiers following the verb and therefore will never be sufficiently enough adjacent to the verb to develop into inseparable prefixes. Germanic however could develop inseparable predicative prefixes, because they were in front of the verb in far more contexts, not only in subclauses, but also in main clauses. This means that the possibility to develop certain types of prefixes seems to depend on the type of language the grammaticalization process takes place.

Second, it became clear that grammaticalized extensions that are so entrenched as to lead a life of their own could develop meanings so widely deviating from the spatial reference point, that they are eventually lost. This happened to the removal sense of *be-*. Of course, this abandonment is not predictable, but as long as the spatial sense provides the prototype, there is some evidence that it keeps functioning as the central reference point, making the cognitive schema for the whole network less abstract and the network more economical. If the spatial prototype is lost, abstract extensions may lead their own life a long time (cf. for instance *but* from *butan* 'outside from'), but they will not easily resist external pressure like the one exerted by the shift to VO.

A further interesting field of research touched on in this study is that of grammaticalization pace. I am not aware at present of any study examining the speed of a grammaticalization process. Usually studies on grammaticalization confine themselves to a qualitative and/or quantitative description of one particular grammaticalization process, without comparing its speed to other such processes. The outcome of applying the constructional salience criteria in the present study suggests that this notion may also help in explaining why some grammaticalization processes proceed at a higher pace than others.

5.3 Conclusions

In this chapter I have tried to show how the original non-predicative constructional semantics of *be-* could have played a major part in its conservation. The spatial prototype construction, with its combination of 'path' and 'affected object', was highly salient in terms of semantics, syntax and Aktionsart. This initially slowed down a possible bleaching of the prefix and at the same time provided a good basis for useful extensions like 'coverage', 'affecting intensely' and 'furnishing'. The high degree of entrenchment of these salient extensions (the core grammaticalization) made it possible for *be-* to be conserved after the storm of the shift from OV to VO had calmed down.

In addition to this, I hope to have shown how the concept of constructional salience can provide interesting insights in language change. Constructions can be more salient than others and therefore resist tendencies others could not. Indeed, if properly developed and implemented, this concept may shed light on the factors that determine the pace and character of a particular grammaticalization process as compared to the grammaticalization of other constructions.

6 Concluding remarks and points for further research

The hypothesis that the salience of a construction influences its productivity history has not been falsified by the comparison of the prefixes *be-* and *to-*. Moreover, the distinction of predicative and non-predicative prefixes has made it possible to account for the data in an elegant way. However, there are several aspects of the salience hypothesis that need further elaboration.

First, the present study only has discussed two prefixes, and this raises the question whether the framework of constructional salience could also be used to account for other phenomena within the field of language change. In first place, it would be interesting to see if these salience parameters could account for the differences in life span between all inseparable prefixes of OE, not just *be-* and *to-*. In a next stage, it would be interesting to test the hypothesis on other constructions as well. Especially other morphological constructions, which represent late stages of grammaticalization, seem to apply for such a broader approach. I am thinking for instance of a case such as that of the competing infinitival particles in ME, such as *to, for to, at* etc. However, even in this case it is not easy to see how they differ, for instance, in Aktionsart salience. It seems likely, therefore, that the four salience parameters described in the present study are only a few of many possible such parameters. On the other hand, the syntactic and Aktionsart parameters could easily be used to measure salience of other verbal-related constructions. In this case however, it is not easy to find two good candidates for comparison. For instance, the resultative construction (*he coughed himself sick*) and the ditransitive construction (*he baked her a cake*) both show syntactic shifts, but semantically they differ to such a degree, that it is doubtful if they can be compared at all.

This leads to a second aspect of this study that needs further elaboration, namely the quantification of these parameters. If there are many of them, is there a way to standardize the influence they exert on the life span of a construction? The present study has treated them all separately and in their own way. Even types of salience such as syntactic salience and Aktionsart salience, which were both determined by pairing each sentence of the prefix sample to a sentence from a control group, have been treated differently, the first one on the basis of types, the second one on the basis of tokens. It would be interesting to apply a factor analysis on these salience parameters, to see how they are interrelated (cf. Gries, to appear, who has tried to do this for the different senses of the verb *run*), or a regression analysis, to see which of these parameters exerts the greatest influence. Unfortunately, for practical

reasons, it was not possible to implement such statistical analyses on the data of the present study. For one thing, inputting the data in a proper software application is a time-consuming activity, and for another, many more data would be necessary to make either of these statistic analyses reliable. Historical linguistics, I believe, still does not give statistics the place it deserves, and although the present study itself was restricted to some basic chi-square based tests, I still hope to have given an idea of how a more principled statistical account could look like.

Appendix 1: Verb classes with token frequency

Appendix 1 contains all types that occur in the samples. For each period, a table is provided with the types ordered from highest to lowest token frequency. Following this table there is a list with all tokens classified under the constructional node where they belong. In this list, preceding the diamond the meaning of the simplex is given, following it that of the derived form. Recall that all these classes represent constructional nodes of one and the same polysemous (or 'poly-constructional') prefix. In reality they are not always discrete, and sometimes one flows over in another without a clear boundary. Therefore certain items could also be assigned to another class, and class membership is not exclusive. I have tried however to list for each class its most representative members and have avoided double classification where justifiable for the sake of clarity.

A second figure following a plus indicates the number of observations that received a weight factor of 0.5 with respect to their membership of this particular verb class.

A. The prefix be-

Sample 1: ca. 800-1000

Table 1: Number of tokens per type in Sample 1

Type	Token frequency						
becuman	31	bescierian	3	bewitian	1	belecgan	1
bebeodan	25	bebycgan	3	bebugan	1	bemiþan	1
begietan	18	begeotan	3	becierran	1	bereccan	1
besittan	9	berædan	3	beclyppan	1	berowan	1
befæstan	7	bereafian	3	becweðan	1	besellan	1
behealdan	7	bebaðian	2	bediernan	1	besencan	1
bestelan	7	befealdan	2	beebbian^{N}	1	besettan	1
bebyrgan	6	befeolan	2	befaran	1	besmitan	1
began	6	belucan	2	befeallan	1	besprecan	1
beniman	6	bemurnan	2	befeohtan	1	bestyman	1
bedælan	5	benemnan	2	begyrdan	1	beswælan	1
bedrifan	5	beridan	2	behatan	1	beswapan	1
befon	4	bescieran	2	beheawan	1	beswingan	1
belimpan	4	beslean	2	behelan	1	betæcan	1
beseon	4	betynan	2	behelian	1	bewepan	1
beswican	4	bewreon	2	behorsian^{N}	1	bewrecan	1
bewerian	4	beðyn	1	behriman^{N}	1	bewyllan	1
beþeccan	3	behofian	1	behydan	1	bewyrcan	1
beþurfan	3	beleosan	1	belean	1		

Proximity with Verbs of Motion		**Total = 3.95 types**
becuman	30 + 1	to come ◊ come by/towards (PP); happen to sb. (dat.) (= 0.98)
befeallan	1	to fall ◊ fall into (PP)
belimpan	4	to happen ◊ belong to (PP); happen to sb. (dat.)
bestelan	7	to steal ◊ steal away (*in OE* oneself) to (PP)

Surrounding and Containment		**Total = 16.42 types**
bebugan	1	to bow, bend ◊ surround (referring to the ocean or stars as encompassing the earth); reach
becierran	1	to turn (to $st._i$) ◊ pass by ($st._j$ with $st._i$)
beclyppan	1	to embrace, clasp ◊ embrace, clasp
befaran	1	to go ◊ go round, surround (st.)
befealdan	2	to fold ◊ envelop
befon	3	to take (to st.) ◊ clasp, surround (st. with st.) (= 0.75)
began	1	to go ◊ surround (= 0.17)
begyrdan	1	to gird ◊ surround, fortify
belucan	2	to lock, close ◊ shut up, enclose
beridan	2	to ride ◊ ride round, ride up to
berowan	1	to row, go by water ◊ row round
besellan	1	to give ◊ surround (cf. Lat. *circumdare*)
besittan	9	to sit ◊ to sit round, beset, occupy
beswican	4	to wander, depart ◊ deceive, circumvent
betynan	2	to hedge in (st.) ◊ hedge in (st. with st.)
bewrecan	1	to drive, push ◊ drive or beat round
bewreon	1	to cover ◊ enwrap (= 0.5)
bewyrcan	1	to make, construct ◊ build around, surround with

Coverage		**Total = 11.67 types**
beþeccan	3	to cover ◊ cover over st.
bebaðian	2	to wash ◊ bathe (lit. put water over sb.)
bebyrgan	6	to raise a mound ◊ raise a mound to sb.
began	1	to go ◊ go over (= 0.17)
begeotan	3	to pour ◊ pour over/upon st.
behelian	1	to conceal ◊ cover
behriman	1	*the N* hrim ‘rime’ ◊ cover with hoar-frost
belecgan	1	to put ◊ cover
besettan	1	to set, place ◊ cover, adorn
besmitan	1	to daub, smear ◊ soil, defile
bestyman	1	to emit vapour (*or the noun steam*) ◊ bedew
beswapan	1	to sweep ◊ clothe, cover over
bewreon	1	to cover ◊ cover over (= 0.5)

Property (Attained or Desired)		**Total = 3.45 types**
beþurfan	3	*simplex is modal in OE* ◊ have need of
behofian	1	*simplex not found in OE* ◊ be needed by sb. (dat.)
becuman	0 + 1	to come ◊ come by st. (= 0.02)
begietan	18	*simplex not found in OE* ◊ get, find
behealdan	3	to hold ◊ occupy, possess (= 0.43)

Seeing as Contact		**Total = 1.43 types**
behealdan	3	to hold ◊ behold (= 0.43)
beseon	4	to see ◊ look (at st.)
Attending to a Percept		**Total = 4.55 types**
bewitan	1	to observe ◊ keep, watch over
befeolan	1	to cleave ◊ devote oneself to (dat.) (= 0.5)
befon	1	to take ◊ have to do with (PP) (= 0.25)
began	4	to go ◊ practise (follow a custom); worship, honour, profess (= 0.66)
behatan	1	to vow ◊ pledge oneself (acc.) to st. (gen.)
behealdan	1	to hold ◊ restrain/devote oneself (acc.) with regard to (PP) (= 0.14)
bemurnan	2	to care, be anxious about ◊ mourn, bewail
Discourse is Travel		**Total = 3 types**
bereccan	1	to explain ◊ justify oneself
besprecan	1	to speak ◊ speak about
bewepan	1	to weep ◊ mourn over
Covering entails Affecting: of the Content of Messages		**Total = 4 types**
bebeodan	25	to command; offer ◊ bid; commit, entrust
becweðan	1	to say ◊ declare; announce disposition of will
benemnan	2	to name ◊ declare
betæcan	1	to show ◊ make over, entrust
Covering entails Affecting: General		**Total = 8 types**
bedrifan	5	to force ◊ force to move, hunt, pursue (in)to a place (PP)
befæstan	7	to fast, (only in poetry) fasten (*or from the adjective fæst*) ◊ to fasten, put in safe keeping
beheawan	1	to hew ◊ cut, beat (st. with st.)
besencan	1	to sink/plunge st. (in water) ◊ submerge, immerse, drown
beswælan	1	to burn ◊ burn, scorch
beswingan	1	to beat ◊ flog
beðyn	1	to press ◊ thrust upon
bewyllan	1	to boil ◊ boil away
Covering entails Affecting and Furnishing		**Total = 1 types**
beebbian	1	to ebb/*the N* ebba ‘ebb’ ◊ leave aground by the ebb tide, strand (lit. to cover with ebb)
Concealment		**Total = 4 types**
bediernan	1	to keep secret ◊ hide, conceal
behelan	1	to conceal, cover ◊ cover over, hide
behydan	1	to hide (oneself) ◊ hide, shelter
bemiþan	1	to hide, remain concealed ◊ hide

Removal and Separation		**Total = 13 types**
beleosan	1	*simplex not found* ◊ be deprived of, lose
bescierian	3	*simplex not found* (cf. NHG *(be-)scheren*) ◊ separate from
bebycgan	3	to buy ◊ sell, give in exchange
bedælan	5	to divide ◊ deprive of
befeohtan	1	to fight ◊ take (life) away by fighting
behorsian	1	to provide with horses (*or the N* hors) ◊ deprive of horses
belean	1	to blame, reproach ◊ dissuade sb. (dat.) from st. (acc.)
beniman	6	to take ◊ take away from
berædan	3	to possess; advise ◊ deprive of; betray
bereafian	3	to rob ◊ deprive of
bescieran	2	cleave, hew, cut ◊ shear, cut hair (*hence* give the tonsure)
beslean	2	to strike ◊ cut off, take away
bewerian	4	to guard, ward off ◊ guard (keep away from)
Individual extension		**Total = 0.53 types**
befeolan	1	to cleave ◊ bestow, impose st. (acc.) upon so. (dat.) (= 0.5)

Sample 2: ca. 1150-1350

Table 2: Number of tokens per type in Sample 2

Type	**Token frequency**						
biginnen	29	bilimpen	3	biquethen	1	bimasen	1
bitoknen	15	bistriden	3	bidwelen	1	bimelden	1
biholden	13	biliven	2	bifasten	1	birisen	1
bicomen	12	biwiten	2	bifallen	1	bisamplen^{N}	1
bihoten	10	biclosen	2	bifilen	1	bisenchen	1
binimen	9	biclippen	2	biflen	1	biseyen	1
bisechen	9	befelen	2	bifleten	1	bishaden	1
bitechen	9	bigan	2	bifon	1	bishinen	1
biþincen	8	biheden^{N}	2	bigapen	1	bismitten	1
bihoven	8	bilien	2	bigemen	1	bispousen^{N}	1
biyeten	8	bilimen^{N}	2	bigilen	1	bisprengen	1
bileven	6	biloken	2	bigreden	1	bitaken	1
bisen	6	bireven	2	bihon	1	bitunen	1
bisetten	5	bispecen	2	bikerven	1	biwedden	1
biswiken	5	bistonden	2	biknouen	1	biwelden	1
biwepen	5	bilirten	1	bileden	1	biwinden	1
bicherren	4	bipechen	1	bilongen	1		
bitiden	4	bibleden	1	biloven	1		

Surrounding and Containment		**Total = 8 types**
bicherren (OE becierran)	4	to turn ◊ turn (sb.) away from the proper course; mislead
biclosen	2	to close (OF) ◊ surround, enclose
biclippen (OE beclyppan)	2	to embrace ◊ take hold of, embrace, surround
bifleten	1	to overflow, flood ◊ surround (as with water)
bilien	1	to lie (down) ◊ besiege (= 0.5)
biloken	1	to look ◊ look around (= 0.5)
bistonden	2	to stand ◊ beset, surround
bitunen (OE betynan)	1	to hedge in ◊ hedge in
biwinden	1	to revolve ◊ wind or wrap (sb. in a cloth)
Coverage		**Total = 8 types**
bibleden	1	to bleed ◊ bleed upon
bifilen	1	to render materially foul ◊ make dirty; befoul (a place)
bigon (OE began)	2	to go ◊ come upon; overwhelm, beset
bihon	1	to hang ◊ drape
bishaden	1	*the N* shade ◊ descend upon the Virgin (of Grace); cast a shadow on
bishinen	1	to shine ◊ shine upon
bismitten	1	stain; be contaminated ◊ soil; defile, corrupt
bisprengen	1	sprinkle ◊ besprinkle
Property		**Total = 2.44 types**
bihoven (OE behofian)	8	*simplex not found* ◊ be needed by sb.
biliven	1	*simplex not found* ◊ preserve a certain condition (= 0.5)
bigeten (OE begietan)	7 + 1	to get ◊ get; provide with (= 0.94)
Seeing as Contact		**Total = 2.83 types**
bigapen	1	to open the mouth ◊ gaze open-mouthed at
biholden (OE behealdan)	13	to hold ◊ behold, look at
bisēn (OE beseon)	5	to see ◊ look at (= 0.83)
Attending to a Percept		**Total = 11.67 types**
biþincen	8	to think ◊ remember; recollect
biwiten	2	*no simplex* (*witen* ‘to bestow’ being an aphetic form) ◊ look after, take care of
bifon (OE befon)	1	to seize ◊ be involved in
begemen	1	*yemen* ‘pay attention’ ◊ have charge of (st.), take care of
bihoten (OE behatan)	10	to call ◊ promise st. to sb.; charge
biknouen	1	*(i)knouen* ‘be aware of, know’ ◊ realize (st.), be aware of
bileden	1	to conduct, accompany ◊ guide, instruct
bileven	6	*simplex not found* ◊ believe (st.)
biloken	1	to look ◊ be circumspect or careful, look after (= 0.5)
biloven	1	to love ◊ like

bisechen	9	to seek ◊ beg for st.
bisēn (OE beseon)	1	to see ◊ take thought, see to (= 0.17)
biwelden	1	to reign, take control ◊ have power over; take care of

Discourse is Travel **Total = 3 types**

bigreden	1	to cry, call out ◊ shout at
bispeken (OE besprecan)	2	to speak ◊ speak out (against); discuss
biwepen (OE bewepan)	5	to weep ◊ mourn over

Covering entails Affecting: of the Content of Messages **Total = 5 types**

biquethen (OE becweðan)	1	to say ◊ dedicate
bisamplen	1	*the N* exaumple, saumple 'example' (OF) ◊ explain or offer excuses
bitechen (OE betæcan)	9	teach, show ◊ give, grant; bestow
bitaken	1	take (ON) ◊ give, grant
bitoknen	15	set a sign ◊ be a symbol of, symbolize

Covering entails Affecting: General **Total = 3.7 types**

bifasten (OE befæstan)	1	to make firm ◊ endow with, give
bisetten (OE besettan)	2 + 3	to set ◊ beset, encumber; invest; bestow; set (= 0.7)
bistriden	3	to move ◊ mount (or ride) a horse
befelen (OE befeolan)	2	to reach ◊ urge (sb.); commit (a sin)

Covering entails Affecting and Furnishing **Total = 2 types**

bispused	1	*the N* spouse 'spouse' ◊ married
biwedden	1	to marry *or the N* wedd 'pledge' ◊ marry sb. to sb.

Removal and Separation **Total = 6 types**

biflēn (OE befleon)	1	to flee ◊ flee from
biheden	2	*the N* hed 'head' ◊ behead
bikerven	1	cut, carve ◊ *heafdes bikerven* 'behead'
bilimien	2	*the N* lim 'limb' ◊ sever limb from limb; mutilate
binimen (OE beniman)	9	to take ◊ take away from
birēven (OE bereafian)	2	to rob ◊ deprive of

Verbs of Deceiving **Total = 8 types**

bilirten	1	*simplex not found* (ME *lirten* being an aphetic form) ◊ mislead, seduce
bipechen	1	*no simplex in ME* (OE *pæcan* 'deceive') ◊ deceive; ruin through guile
bidwelen	1	to wander; be misled, err ◊ delude, dupe
bigilen	1	to deceive (OF) ◊ betray
bimased	1	to confuse (or the N *mase* 'source of confusion') ◊ stunned, dazed
bimelden	1	to accuse, reveal ◊ inform against (sb.), denounce
biseyen	1	to sink, go ◊ trip, trap
biswiken (OE beswican)	5	to act deceitfully ◊ deceive

Happening or Be becoming **Total = 6.04 types**

bikumen (OE becuman)	5 + 3	to come ◊ come towards; be fitting to (sb.); become (= 0.54)
bifallen (OE befeallan)	1	to fall ◊ happen
birisen	1	to rise ◊ be fitting to
bitiden	4	to happen ◊ happen, come to pass
bilien	1	to lie ◊ be situated at, pertain to (=0.5)
bilimpen (OE belimpan)	3	to happen ◊ belong to, have reference to; happen
bilongen	1	to belong to ◊ belong to

Individual extensions and Lexicalized derivations **Total = 3.32 types**

biginnen	29	*simplex not found* ◊ begin
biliven	1	*simplex not found* ◊ remain (at a place) (= 0.5)
bikumen (OE becuman)	4 + 3	to come ◊ become (= 0.46)
bigeten (OE begietan)	0 + 1	to get ◊ procreate (= 0.06)
bisenchen (OE besencan)	1	to sink ◊ sink; submerge
bisetten (OE besettan)	0 + 3	to set ◊ set; invest (= 0.3)

Sample 3: ca. 1470-1640

The types in italics are additional types found in subcorpus 3 which did not occur in sample 3. They are added to provide a better idea of the possibilities of *be-* in this period.

Table 3: Number of tokens per type in Sample 3

Type	**Token frequency**						
begin	60	bestow^{N}	8	befall	2	beseem	1
beleve	49	bewitch	6	beguile	2	besee	1
beseech	32	belove	4	beset	2	beshit^{N}	1
behold	19	beshrew	4	besiege^{N}	2	beteach	1
belong	10	beget	3	betoken	2		
become	9	behave	3	bethink	1		
behead^{N}	9	betray	3	befit	1		

Surrounding and Containment

beset (OE besettan)	2	to set ◊ close round, hem in

Seeing as Contact

behold (OE behealdan)	17	to hold ◊ look towards, have regard to

Attending to a Percept

behave	0 + 3	to have ◊ conduct oneself; handle, manage (LME form with early stressed pronunciation)
bethink (ME biþincen)	1	to think ◊ *v.t.* bear in mind; *v. refl.* collect one's thoughts

beleeve (ME bileven)	49	*no simplex* ◊ believe
beloved (ME biloven)	4	to love ◊ dearly loved
beseech (ME bisechen)	32	to seek ◊ beg for st.

Affecting a Message

betoken (ME bitoknen)	2	to set a sign ◊ be a symbol of, symbolize
bequeath (OE bequeþan)		

Covering entails Affecting

beseen (OE beseon)	1	to look ◊ provided or furnished with; having an appearance
beshrew	4	to curse ◊ make wicked, deprave; curse, blame for a misfortune
betake (ME betaken)	1	to take ◊ have recourse to
belabour		

Covering entails Affecting and Furnishing

bestow	8	*the N* stow 'place' ◊ place, store, stow away; confer as a gift'
beshit (OE bescitan)	1	to shit ◊ deposit ordure on
besiege	2	*from assiege (< OF aségier); synchronically the N* siege ◊ lay siege to; assail
bewitch	6	to practise magic ◊ cast a spell over
befriend (N)		
bewimple (N)		

Verbs of Deceiving

beguile (ME bigilen)	2	to deceive *(from OF)* ◊ deceive, delude
betray	3	to deceive *(the simplex tray [< OF trahir] stopped being used in the 16th ct.)* ◊ deceive
belie (N?/Val Alt)		
bewray		

Removal and Separation

behed	9	*the N head* ◊ behead
benim		
bereave		

Property

beget (OE begietan)	1	to get ◊ get

Happening/Be becoming

become (OE becuman)	2	to come ◊ become, be fitting
befall (OE befeallan)	2	to fall ◊ befall
befit	1	to fit ◊ befit
belong (ME belongen)	10	to long ◊ belong
beseem	1	to seem ◊ beseem

Individual extensions and Lexicalized derivations

begin (ME biginnen)	60	*simplex not found* ◊ begin
become (OE becuman)	7	to come ◊ become (copula)
beget (OE begietan)	2	get ◊ procreate
behave	0 + 3	have ◊ behave
bemoan		

Sample 4: 1780-1850

Table 4: Number of tokens per type in Sample 4

Type	**Token frequency**						
become	64	bespeak	4	betray	3	bespatter	1
begin	47	bewilder	4	beseech	2	*bespectacled*	*1*
believe	45	*befall*	*3*	*befit*	*1*	*bethink*	*1*
behold	*16*	*behave*	*3*	*begone*	*1*	*betokened*	*1*
belong	*11*	*benighted*	*3*	*beguiled*	*1*	*bewitch*	*1*
bestow	*10*	*besieged*	*3*	*besetting*	*1*		
beloved	*4*	*betake*	*3*	*bespaded*	*1*		

Seeing as Contact

behold (OE behealdan)	16	to hold ◊ *cf. lexeme*

Attending to a Percept

behave	0 + 3	(to have)
believe (ME bileven)	45	*no simplex*
beloved	4	to love
beseech (ME bisechen)	2	(to seek)
bethink (ME biþincen)	1	to think

Discourse is Travel

bespeak (OE besprecan)	4	to speak

Affecting a Message

betokened	1	to signify

Covering entails Affecting

benighted	3	*theN* night
besetting	1	to set
besieged	3	*cognate to the N* siege
bespatter	1	to spatter
bestow (EME bestow)	10	to stow
betake (ME bitaken)	3	to take
bewilder	4	to wilder
bewitch	1	to witch

Covering entails Affecting and Furnishing

bespaded	1	*the N* spade

bespectacled	1	*the N* spectacle

Verbs of Deceiving

beguiled	1	*no simplex*
betray	3	*no simplex*

Happening/Be becoming

befall (OE feallan)	3	to fall
befit	1	to fit
belong	11	(to long)

Individual extensions and Lexicalized derivations

become (OE becuman)	64	to come
begin (ME biginnen)	47	*no simplex*
begone	1	to go
behave	0 + 3	(to have)

B. The prefix to-

Sample 1: ca. 800-1000

Table 5: Number of tokens per type in Sample 1

Type	Token frequency						
todælan	50	todrifan	4	totwæman	2	tostregdan	1
toweorpan	42	toberstan	3	toberan	1	toswellan	1
tobrecan	23	tocnawan	3	tocleofan	1	toteon	1
tosceadan	15	togangan	3	tofeallan	1	towrecan	1
toslupan	9	togeotan	3	tohnescan	1	towritan	1
toflowan	8	toliesan	3	tohweorfan	1	toswifan	1
tobrædan	7	tostencan	3	tolætan	1	towegan	1
toslitan	7	tobregdan	2	tonemnan	1	tosælan	1
tofaran	5	toiernan	2	toscænan	1	toweccan	1
toglidan	5	tolucan	2	toscirian	1		
tohlidan	5	toscufan	2	tostician	1		
tolicgan	5	toteran	2	tostingan	1		

Separation into pieces		**Total = 24.80 types**
toberstan	3	to bear, carry ◊ scatter, dissipate
tobrecan	23	to break ◊ break (in pieces), break up
tobregdan	2	to move quickly, pull ◊ tear in pieces, rend
tocleofan	1	to cleave, split ◊ cleave asunder, split
todælan	49	to divide, part ◊ divide, separate
todrifan	3	to drive ◊ scatter (= 0.75)
tofaran	3	to set forth, go ◊ be scattered, disperse (= 0.6)
tofeallan	1	to fall ◊ fall down, collapse
togangan	2	to go ◊ go away, pass away (= 0.67)
toglidan	3	to glide ◊ glide away, split (= 0.6)
tohlidan	2	to come forth, spring up ◊ split, spring apart (= 0.4)
toiernan	1	to run ◊ flow away, be dispersed (= 0.5)
tolicgan	2	to lie ◊ separate (= 0.4)
tolysan	1	to loosen, release ◊ dissolve (= 0.33)
tolucan	1	to lock, close ◊ pull apart, dislocate, destroy
toscænan	1	to break, wrench open ◊ break (in pieces)
tosceadan	10	to divide, separate ◊ part, separate (= 0.66)
toscirian	1	to ordain, appoint; allot ◊ divide, distribute; detach
toscufan	1	to shove, thrust ◊ push apart, scatter (= 0.5)
toslitan	4	to slit, tear ◊ tear asunder, rend
toslupan	4	to slip, glide ◊ fall to pieces (= 0.44)
tostencan	3	to scatter ◊ scatter, disperse; nullify
tostregdan	1	to strew, sprinkle ◊ scatter, dissipate
toswifan	1	to revolve, sweep; intervene ◊ separate
toteon	1	to draw ◊ draw asunder
toteran	2	to tear, ◊ tear in pieces, lacerate
totwæman	2	to divide into two ◊ separate, divorce
towegan	1	to carry; support ◊ disperse, scatter
toweorpan	39	to throw ◊ break in pieces (= 0.95)
towrecan	1	to drive, impel, push ◊ drive asunder, scatter

Ablative		**Total = 7.66 types**
todrifan	1	to drive ◊ drive away (= 0.25)
tofaran	2	to set forth, go ◊ disappear (= 0.4)
toflowan	8	to flow ◊ flow away
togangan	1	to go ◊ go away, pass away (= 0.33)
togeotan	1	to pour ◊ pour away/out
toglidan	2	to glide ◊ glide away (= 0.4)
tohweorfan	1	to turn ◊ go away
tosceadan	1	to divide, separate ◊ part (‘go away’) (= 0.07)
toscufan	1	to shove, thrust ◊ remove, do away (= 0.5)
toslitan	3	to slit, tear ◊ distract
toslupan	5	to slip, glide ◊ slip away, be relaxed (= 0.66)
tostingan	1	to sting, stab ◊ stab out
toweorpan	2	to throw ◊ cast down/away (= 0.05)
Analysis		**Total = 3.27 types**
tocnawan	3	to know ◊ know apart
tonemnan	1	to call ◊ distinguish by name
tosceadan	4	to divide ◊ discern (= 0.27)
towritan	1	to write ◊ describe
Spreading and Opening		**Total = 7.37 types**
toberan	1	to bear, carry ◊ scatter, dissipate
tobrædan	7	to make broad, extend ◊ spread abroad, open
togeotan	2	to pour ◊ spread
tohlidan	3	to come forth ◊ open (= 0.6)
toiernan	1	to run ◊ be dispersed (= 0.5)
tolætan	1	to allow (to remain), let, leave ◊ disperse
tolicgan	3	to lie ◊ extend in different directions (= 0.6)
tolysan	2	to loosen, release ◊ break open (= 0.67)
toswellan	1	to swell ◊ swell out
Individual Extensions		**Total = 4 types**
tohnescan	1	to become soft; make soft ◊ soften
tosælan	1	to happen, succeed ◊ be unsuccesful, fail
tostician	1	to stick, prick ◊ pierce
toweccan	1	to awaken, arouse ◊ stir up

Sample 2: ca. 1150-1350

Table 6: Number of tokens per type in Sample 2

Type	**Token frequency**						
tobreken	42	tokleven	3	toparten	1	tofrushen	1
todelan	39	toswellen	3	tostroien	1	togliden	1
todrawen	14	totighten	3	totwinnen	2	toscilen	1
toteren	14	towiðeren	3	towarplen	1	tosechen	1
tobersten	8	tostourben	2	toberen	1	toshiveren	1
toloken	8	tobellen	2	tobregden	1	toshrouden	1

totreden	8	togon	2	tobrisen	1	toskairen	1
totwemen	6	tokerven	2	tochewen	1	tospoilen	1
tolimen^{N}	6	torenden	2	tocrushen	1	toten	1
todreven	5	toresen	2	tocunnen	1	totuggen	1
tospreden	5	toriven	2	todon	1	toweven	1
todriven	4	totorven	2	tofaren	1	towringen	1
tohouen	4	towerpen	2	tofallen	1	towurþen	1
tobeten	3	toþristen	1	tofilen	1		
toblowen	3	toþrowen	1	toflatten	1		
tochinen	3	tofreten	1	toflen	1		

Separation into pieces **Total = 50.75 types**

toþristen	1	to thrust ◊ thrust apart
toþrowen (OE toþrawan)	1	to hurl, fling, throw ◊ separate, disperse
toberen	1	to bear ◊ be at variance, differ, quarrel
tobersten	8	to burst ◊ burst asunder
tobeten (OE tobeatan)	3	to beat ◊ beat up
toblowen (OE toblawan)	3	to blow ◊ blow to pieces
tobrecan	42	to break ◊ break asunder
tobregden (OE tobregdan)	1	to move quickly, pull ◊ tear in pieces, rend
tobrīsen (OE tobrysan)	1	to bruise ◊ injure
tochewen (OE toceowan)	1	to chew ◊ chew apart
tochinen (OE tocīnan)	3	to gape, yawn, crack ◊ burst apart, break asunder
tokleven (OE tocleofan)	3	to cleave ◊ cleave asunder
tocrushen	1	*from OF croissir* ‘gnash, crash’ ◊ smash
todelen (OE todælan)	39	to divide, part ◊ divide, separate
todon (OE todon)	1	to do ◊ divide, separate
todrawen	14	to draw, pull ◊ pull apart
todreven	5	to drive, pursue ◊ disperse, scatter (ships, people)
todriven (OE todrifan)	3	to drive ◊ beat/smash to pieces (= 0.75)
tofaren	1	to travel, go ◊ disappear, cease to exist
tofallen (OE tofeallan)	1	to fall ◊ fall apart
toflatten	1	to beat, strike (< OF) ◊ beat apart
tofreten	1	to eat, devour ◊ devour (sb.) ferociously, tear to pieces
tofrushen	1	*from OF froissier* break, smash ◊ smash, crush (also without obj.)
togon (OE togan)	2	to go ◊ disappear, go away, disperse
toheven (OE toheawan)	4	to cut, hew ◊ cut to pieces
tokerven (OE toceorfan)	2	to cut ◊ cut to pieces
tolimen	6	*the N* lim ‘limb’ ◊ dismember, tear apart
toloken (OE tolucan)	8	to lock ◊ pull apart, dislocate, destroy
toparten	1	to part, separate (< OF) ◊ divide, separate
torenden (OE torendan)	2	to tear ◊ tear apart
toresen	2	to run, rush ◊ fall down, collapse
toriven	2	*from ON* rifa ‘to rip’ ◊ rip out
toshillen	1	to peel ◊ separate
toshiveren	1	to shiver ◊ splinter, shatter
toskairen	1	to scatter ◊ scatter asunder
tospoilen	1	*from OF* despoiller ‘strip’ ◊ strip
tostourben	2	*from stourben, aphetic from OF destorber* ◊ distress, trouble, interrupt

tostroien	1	*from* OF *destroier* 'destroy' ◊ destroy
toten (OE toteon)	1	to pull ◊ pull asunder
toteren (OE toteran)	14	to tear ◊ tear apart
totighten	3	to stretch, draw, pull ◊ dismember, pull apart
totorven (OE totorfian)	2	to cast ◊ pelt (with turf or stones)
totreden	8	to tread ◊ trample on, crush, destroy
totuggen	1	to pull, tug ◊ pull apart
totwemen (OE totwæman)	6	to divide into two ◊ part company, split open
totwinnen	2	to part, part company ◊ divide, separate
towarplen	1	*werpen* 'throw' ◊ scatter (< frequentative of *towerpen*)
towerpen (OE toweorpan)	2	to throw ◊ break in pieces
towiðeren	3	*probably from ON, cf. Norw.* kvidra ◊ whirl around with sufficient force to break apart
towringen	1	twist ◊ distort, twist asunder
towurþen	1	become ◊ perish

Ablative **Total = 2.25 types**

todriven (OE todrifan)	1	to drive ◊ drive away (= 0.25)
togliden (OE toglidan)	1	to glide ◊ glide away
toweven	1	to float ◊ float away

Analysis **Total = 1 type**

tocunnen	1	to be able ◊ to know apart, discern

Spreading **Total = 4 types**

tobellen	2	to swell ◊ swell up extremely
toflen (OE tofleon)	1	to flee ◊ be dispersed
tospreden (OE tosprædan)	5	to spread ◊ spread out
toswellen (OE toswellan)	3	to swell ◊ swell out

Individual Extensions **Total = 3 types**

tofīlen (OE tofylan)	1	render foul, dirty ◊ render foul, dirty
tosechen	1	search ◊ strongly look for
toshrouden	1	dress oneself (*cf. OE* scrud 'dress') ◊ be completely clothed

Appendix 2: Subcorpus frequencies of *be-* and *to-*

In calculating relative frequencies of verbal *be-*, I take as a reference point not the total amount of corpus text, but rather the amount of lexical verbs. This means that for instance the relative frequency of *be-* in Bede is 359 (the absolute frequency of *be*-prefixed verbs) divided by 10 241 (the number of lexical verbs), or 0.035 (cf. table 2 below, column 'relative frequency'). This value is more reliable than the one obtained by dividing the absolute frequency by the total amount of text, because the amount of words will increase in time due to the analytictendency of English. This tendency mainly involves an increased use of auxiliaries instead of inflectional endings (for instance the replacement of *he dyde it* by *he has done it*) and of prepositional phrases instead of bare case endings.

Consequently auxiliary verbs are excluded from the verb count. For sample 1 they are mainly the following: *beon, habban*, *utan* and the modal verbs *cunnan, durran, magan, motan, sculan, þurfan, willan*. These are always tagged separately in the YCOE corpus (as BE, H for have, and AUX for auxiliary). Other verbs occasionaly tagged as AUX are not included either. If these auxiliary verbs were included, the decrease of *be*-derivations in time would be exaggerated. For sample 2 they are *have, be, do* as well as the modals *cunnen* 'can'*, durren* 'dare'*, meȝen* 'may'*, moten* 'must'*, schullen* 'shall'*, tharf* 'needs'*, uten* 'lets'.

For sample 1 and the prose part of sample 2, the exact amount of lexical verbs could be calculated in this way. For the other samples, which make use of untagged corpora, I have calculated a hypothetical average. The relative amount of lexical verbs in the first prose sample serves as a reference point. If we take for instance an amount of text containing 100 lexical verbs (=100%) from the prose of sample 1, an equal amount of text in prose sample 2 would contain only 93.32 lexical verbs (=93.32%), i.e. 100 plus the standardized difference (-6.68%) between sample 1 and sample 2 prose figures. As a first rough measure of this changed proportion lexical verbs/total number of words, I have projected the difference between the prose in sample 1 and 2 respectively and the tagged version of the PDE Lob corpus onto samples 3 and 4, assuming (on the basis of the data that I have) that the decrease slows down uniformly in time (cf. table 1). These approximations make it possible to have more representative relative frequencies of the prefixes than would be the case if I used the proportion prefixed words/total amount of words.

Table 1: Amount of lexical verbs

	Prose		Verse	
Gothic	ca. 17.16%	(136.51%)	–	
Subcorpus 1	12.57%	(100.00%)	13.84%	(+10.10%)
Subcorpus 2	11.73%	(-6.68%)	ca. 12.92%	(+2.78%)
Subcorpus 3	ca. 11.03%	(-12.29%)	–	
Subcorpus 4	ca. 10.59%	(-15.78%)	–	
Lob corpus	10.28%	(-18.22%)	(104,257 lexical verbs/1,013,768 words)	

A. The prefix be-

Subcorpus 1: ca. 800-1000

Table 2: Frequency of verbs containing be-/bi(g)- in the prose part of Subcorpus 1 (YCOE)

Name	Trans-lation	Abbre-viation	Prefixed verbs	Relative frequency	Lexical verbs	Words
Bede, *The ecclesiastical history of the English people*	yes	Bede	359	0.035	10 241	80 767
Boethius, *De consolatione Philosophiae* Body	yes	Bo	150	0.027	5 475	47 180
Head	?	BoHead	2	(0.016)	129	1 094
Proem	no	BoProem	1	(0.045)	22	169
Chronicle A (until 951)	no	ChronA	43	0.026	1 627	13 529
Cura Pastoralis	yes	CP	237	0.025	9 361	68 556
CuraC	yes	CuraC	8	0.028	282	2 119
Charters & Wills (*codocu1 & codocu2,* 6 documents)	no	According to Nr	12	0.048	248	2 110
Leechbook	?	Lch	84	0.015	5 433	34 727
Laws of Alfred	no	LawAf	16	0.039	415	3 314
Introduction to Laws of	no	LawAfInt	17	0.059	290	1 966
Orosius	yes	Or	310	0.055	5 671	51 020
Preface to CP	no	PrefCP	8	(0.089)	89	831
Vercelli Homilies	?	VerHom	191	0.037	5 104	45 674
Total			**1 438**	**0.032**	**44 387**	**353 056**

Table 3: Frequency of verbs containing be-/bi(g)- in the verse part of Subcorpus 1 (YTH)

Name	Abbre-viation	Prefixed verbs	Relative frequency	Lexical verbs	Words
*Andreas (*from the *Vercelli book)*	Andreas	35	0.054	645	4 860
Beowulf	Beo	87	0.034	2 555	17 310
Battle of Brunanburh	Brunan	3	(0.070)	43	371
Christ (Exeter book)	Christ	33	0.042	786	6 130
3 Poems by Cynewulf: *Elene, Juliana & Fates of Apostles (Vercelli book)*	Cyne	89	0.054	1 647	12 110
Dream of the Rood (Vercelli book)	Dream	15	(0.092)	162	1 108

12 Poems from *Exeter*: *Wanderer, Seafarer, Widsith, Fortunes of Men, Maxims I, The Riming Poem, The Panther, The Whale, The Partridge, Deor, Wulf and Eadwacer, The Wife's Lament*	According to Poem	49	0.052	937	6 416
Exodus (Junius manuscript)	Exodus	22	0.051	432	2 980
Genesis (Junius)	Genesis	26	0.041	630	4 840
Kentish Minor Poems: *Hymn & Psalm*	Kentish	6	(0.047)	128	1 075
Metres of Boethius	MetBo	16	0.025	639	5 272
Northumbrian verse: *Caedmon's hymn, Bede's death song, Ruthwell Cross, Leiden Riddle*	According to Poem	4	(0.129)	31	226
Phoenix (Exeter)	Phoenix	33	0.072	456	3 710
Riddles (Exeter)	Riddles	29	0.036	805	5 090
Total		**474**	**0.045**	**9 896**	**71 498**

Table 4: Total frequency of Subcorpus 1

Subtotal	**1 912**	**0.035**	**54 283**	**424 554**

Remark 1: Only 50 instances in the prose corpus are spelt *bi-*, only 1 *big-*. 42 of these alternative spellings come from *Bede*. The spelling in this case reflects the dialectical flavour of *Bede*, a manuscript which is a blend of the West-Saxon and the Anglian dialects. The Anglian dialect has the spelling *bi(g)-* throughout, both with unstressed inseparable and the stressed separable prefix. In the poems, which use an idiosyncratic blend of OE dialects, both spellings are well attested and have no special significance.
Remark 2: The following occurrences of double prefixes, all in the *(Introduction to the) Laws of Alfred* are also included in the count of the be-prefix: *inbeslea*, *onbestæled*, *onbestungen*.
Remark 3: Three occurrences of *becuman* (1 in *Andreas*, 2 in *Beowulf*) are tagged as auxiliaries. Since auxiliaries are not included in the number of verbs in general, they are not included among the number of prefixed verbs.
Remark 4: The verb *bism(e)rian* is not included, since it contains the *stressed* inseparable prefix *bi-* (evidenced in the loss of the vowel of the base verb as well as in the alternative spelling *bysmerian*), whereas the inseparable prefix analysed here is always *unstressed*. The fact that it also occurs with the additional inseparable prefix *ge-* (*gebismrian*) indicates it is not longer conceived as a derivation. The same obtains for the verb with prosodically fully integrated prefix *blinnan*, which was probably already reanalysed as a simplex as well.

Subcorpus 2: ca. 1150-1350

Table 5: Frequency of verbs containing be-/bi- in the prose part of Subcorpus 2 (PPCME2)

Name	Abbreviation	Prefixed verbs	Relative frequency	Lexical verbs	Words
Ancrene Riwle	AncRiw	301	0.042	7 232	50 926
Ayenbite of Inwyt	Ayenbi	175	0.037	4 700	48 368
Prose Psalter	EarlPs	66	0.012	5 498	45 035
Hali Meidhad	Hali	52	0.051	1 026	8 960
Juliane	Julia	62	0.055	1 128	7 257
Katherine	Kathe	70	0.055	1 275	9 171

Kentish Homilies	KentHo	51	0.109	467	4 316
Kentish Sermons	KentSe	23	0.060	385	3 546
Lambeth Homilies X	LambX1	118	0.054	2 172	20 882
Lambeth Homilies 1	Lamb1	60	0.088	678	6 549
St. Margaret	Marga	55	0.043	1 291	8 669
Ormulum	Orm	175	0.029	6 072	53 182
Peterborough Chronicle	Peterb	55	0.073	748	7 390
Sawles Warde	Sawles	30	0.057	529	4 388
Trinity Homilies	Trinit	312	0.069	4 547	41 874
Vices and Virtues	Vices1	209	0.066	3 166	28 358
Total		**1 813**	**0.044**	**40 914**	**348 871**

Table 6: Frequency of verbs containing be-/bi- in the verse part of Subcorpus 2 (HC)

Name	**Abbre-viation**	**Prefixed verbs**	**Relative frequency**	**Lexical verbs**	**Words**
Alisaunder	Alisau	36	0.026	*1 408*	10 900
Bestiary	Bestia	23	0.042	*548*	4 240
Bevis	Bevis	16	(0.095)	*168*	1 300
Layamon's Brut	Brut1	96	0.065	*1 468*	11 360
Fox and Wolf	FoxWo	10	0.043	*235*	1 820
Gloucester Chronicle	RobGlo	46	0.034	*1 323*	10 240
Havelok	Havelo	36	0.028	*1 290*	9 990
Man in the Moon	Man in Moon	0	0	*43*	330
3 Historical Poems	PoemH	16	0.041	*386*	2 990
3 Historical Poems	PoemS	5	(0.063)	*79*	610
Horn	Horn	49	0.052	*937*	7 250
2 Poems (*Sirith & Interlude*)	Sirith	20	0.051	*394*	3 050
St. Edmund	SELeg	47	0.055	*850*	6 580
Thrush	Thrush	3	(0.021)	*142*	1 100
Total		**403**	**0.043**	**9 271**	**71 760**

Table 7: Total frequency of Subcorpus 2

Subtotal	**2216**	**0.044**	**50 185**	**420 631**

Remark 1: The following particle + prefix-derivations are included: *tobilimpeþþ* (Ormulum), *unbesmitenen* (Kentish Homilies), *unbecnawe*, *unbiliefde* (Vices and Virtues), *unbileuet* (Ancrene Wisse), all but the first adjectival participles.

Subcorpus 3: ca. 1470-1640

Table 8: Frequency of verbs containing be-/bi- in the PPCME2 part of Subcorpus 3

Name	**Abbre-viation**	**Prefixed verbs**	**Relative frequency**	**Lexical verbs**	**Words**
The Siege of Jeruzalem	Siege	18	0.021	861	7 802
In Die Innocencium	Innoce	2	0.004	475	4 308
Richard Fitzjames' Sermo die Lune	Fitzja	7	0.011	614	5 569
Caxton's History of Reynard the Fox	Reynar	26	0.027	979	8 876

Gregory's Chronicle	Gregor	66	0.015	4 128	37 429
The Commonplace Book of Robert Reynes	Reynes	4	0.004	996	9 030
Total		**123**	**0.015**	**8 053**	**73 014**

Table 9: Frequency of verbs containing be-/bi- in the HC part of Subcorpus 3

Name	**Prefixed verbs**	**Relative frequency**	**Lexical verbs**	**Words**
Mowntayne, *Autobiography*	16	0.025	*633*	5 740
Forman, *Autobiography*	8	0.018	*454*	4 120
Roper, *The lyfe of Sir Thomas Moore, Knighte*	9	0.015	*600*	5 440
Perrott *(?), The History of that most eminent statesman*	15	0.028	*531*	4 810
Machyn, *Diary*	13	0.017	*748*	6 780
Edward *VI, Diary*	3	0.004	*693*	6 280
Madox, *An Elizabethan in 1582: the diary of*	16	0.022	*714*	6 470
Hoby, *Diary, 1599-1605*	0	0.000	*667*	6 050
Elyot, *The boke named the gouernour (1531)*	9	0.015	*611*	5 540
Ascham, *The scholemaster*	7	0.013	*540*	4 900
Brinsley, *Ludus literarius or the grammar*	15	0.025	*611*	5 540
Bacon, *The twoo bookes of the proficience*	9	0.014	*627*	5 680
A hundred mery talys, from the only perfect copy known	4	0.006	*709*	6 430
Harman, *A caveat or warening for commen cursetors vulgarely called vagabones*	10	0.018	*565*	5 120
Armin, *A nest of ninnies*	7	0.012	*570*	5 170
Deloney, *Jack of Newbury (1619)*	24	0.030	*807*	7 320
Fitzherbert, *The book of husbandry (1534)*	5	0.009	*568*	5 150
Turner, *A new boke of the natures and properties of all wines (1568)*	1	0.002	*535*	4 850
Gifford, *A handbook on witches and witchcraft*	27	0.040	*683*	6 190
Markham, *Countrey contentments, 1615*	10	0.015	*673*	6 100
More, *The history of king Richard III*	15	0.024	*625*	5 670
Fabyan, *The new chronicles of England and France*	16	0.027	*598*	5 420
Stow, *The chronicles of England from Brute unto this present yeare of Christ*	16	0.030	*531*	4 810
Hayward, *Annals of the first four years of the reign of queen Elizabeth*	10	0.017	*582*	5 280
Statutes (III)	1	0.001	*1 300*	11 790
Statutes (IV)	4	0.003	*1 299*	11 780
Tyndale, *New Testament*	88	0.072	*1 228*	11 130
Bedyll, *Thomas et al.* (8 letters), *Official Letters*	10	0.014	*695*	6 300
Conway, *Edward et al.* (6 letters), *Official Letters*	9	0.014	*624*	5 660
Tyndale, *Old Testament*	21	0.019	*1 114*	10 100
Udall, *Roister Doister*	5	0.010	*510*	4 620
Stevenson (?),*Gammer Gvrtons Nedle*	12	0.018	*656*	5 950
Shakespeare, *The merry Wives of Windsor*	13	0.019	*681*	6 170
Middleton, *A chaste Maid in Cheapside, 1630*	4	0.006	*622*	5 640
Plumpton, *agnes et al.* (11 letters), *Private Letters*	38	0.032	*1 174*	10 640
Everard, *joan et al.* (16 letters), *Private Letters*	27	0.021	*1 278*	11 590
Vicary, *The Anatomie of the Bodie of Man (1548)*	5	0.007	*682*	6 180

Record, *The Path-way to Knowledg*	2	0.003	*739*	6 700
Clowes, *Treatise for the artificiall Cure of Struma, 1602*	11	0.015	*730*	6 620
Blundevile, *A briefe description of the tables of the three speciall right lines belonging to a circle, called signes, lines tangent, and lines secant*	7	0.010	*708*	6 420
Fisher, *Sermons*	10	0.020	*492*	4 460
Latimer, *Sermon on the ploughers, 18 january 1549*	2	0.004	*553*	5 010
Hooker, *Two sermons upon part of s. judes epistle, 1614*	23	0.041	*564*	5 110
Smith, *Two sermons on "of usurie"*	4	0.007	*572*	5 190
Leland, *The itinerary of*	3	0.004	*757*	6 860
Torkington, *Ye oldest Diarie of Englysshe Travell*	6	0.008	*799*	7 240
Taylor, *The Pennyles Pilgrimage*	16	0.016	*976*	8 850
Coverte, *A trve and almost incredible report of an Englishman, 1612*	9	0.014	*654*	5 930
The trial of Sir Nicholas	10	0.006	*1 761*	15 970
The trial of the Earl of Essex	19	0.029	*660*	5 980
The trial of Sir Walter Raleigh	6	0.007	*910*	8 250
Total	**643**	**0.017**	***37 612***	**341 000**

Table 10: Total frequency of Subcorpus 3

Subtotal	**766**	**0.016**	***45 665***	**414 014**

Remark 1: PPCME2 = 1470-1500; HC: 1500-1640
Remark 2: The derived adjective *unbefitting* (Brinsley) is included in this table.

Subcorpus 4: 1780-1850

Table 11: Frequency of verbs containing be-/bi- in Subcorpus 4

Name	Prefixed verbs	Relative frequency	Lexical verbs	Words
Ainsworth, *Windsor Castle*	84	0.016	*5 185*	48 960
Austen, *Letters to her sister*	29	0.005	*5 569*	52 588
Beckford, *Dreams, waking thoughts, and incidents*	134	0.029	*4 544*	42 907
Borrow, *Bible in Spain*	146	0.026	*5 544*	52 355
Brontë, Agnes Grey	78	0.018	4 435	41 882
Bulwer-Lytton, *The last days of Pompeii*	124	0.020	*6 135*	57 934
Burns, *Letters 1780-1796*	68	0.013	*5 159*	48 720
Byron, *Letters 1810-1813*	53	0.026	*2 002*	18 907
Carlyle, *The French Revolution*	137	0.024	*5 767*	54 454
Darwin, Voyage of the Beagle	99	0.019	*5 335*	50 381
De Quincy, *Confessions of an English opium eater*	97	0.024	*4 100*	38 715
Dickens, *A Christmas Carol in prose*	65	0.021	*3 037*	28 681
Edgeworth, The parent's assistant	109	0.019	5 694	53 766
Galt, *Ayrshire legatees*	82	0.016	*5 285*	49 902
Gaskell, *Mary Barton*	60	0.017	*3 475*	32 817
Hazlitt, Liber Amoris	73	0.022	3 252	30 705
Hogg, *Private momoirs and confessions of a justified sinner*	160	0.031	*5 172*	48 836

Inchbald, *Nature and art*	137	0.028	*4 959*	46 823
Kinglake, *Eothen*	104	0.022	*4 634*	43 761
Lamb, *Adventures of Ulysses*	81	0.023	*3 492*	32 974
Malthus, *An essay on the principle of population*	48	0.009	*5 414*	51 126
Marryat, Masterman ready	47	0.010	*4 762*	44 971
Owen, *A new view of society*	82	0.023	*3 607*	34 061
Smith J. & Smith H., *Rejected addresses*	42	0.014	*3 012*	28 438
Southey, *Life of Horatio Lord Nelson*	107	0.026	*4 138*	39 074
Thackeray, *Vanity fair*	103	0.018	*5 593*	52 812
Wollstonecraft, *Frankenstein, or the Modern Prometheus*	241	0.043	*5 670*	53 538
Total	**2 591**	**0.021**	***124 971***	**1 180 088**

B. The prefix to-

Subcorpus 1: ca. 800-1000

Table 12: Frequency of verbs containing to-/te- in the prose part of Subcorpus 1

Name	Trans-lation	Abbre-viation	Prefixed verbs	Relative frequency	Lexical verbs	Words
Bede, *The ecclesiastical history of the English people*	yes	Bede	62	0.006	10 241	80 767
Boethius, *De consolatione Philosophiae* Body	yes	Bo	68	0.012	5 475	47 180
Head	?		0	(0)	129	1 094
Proem	no		0	(0)	22	169
Chronicle A (until 951)	no	ChronA	13	0.007	1 627	13 529
Cura Pastoralis	yes	CP	94	0.010	9 361	68 556
CuraC	yes	CuraC	5	0.017	282	2 119
Charters & Wills (*codocu1 & codocu2*, 6 documents)	no	According to Nr	1	0.004	248	2 110
Leechbook	?	Lch	26	0.005	5 433	34 727
Laws of Alfred	no	LawAf	3	0.007	415	3 314
Introduction to Laws of	no	LawAfInt	1	0.003	290	1 966
Orosius	yes	Or	70	0.012	5 671	51 020
Preface to CP	no	PrefCP	0	0	89	831
Vercelli Homilies	?	VerHom	36	0.007	5 104	45 674
Total			**379**	**0.009**	**44 387**	**353 056**

Table 13: Frequency of verbs containing to-/te- in the verse part of Subcorpus 1

Name	Abbre-viation	Prefixed verbs	Relative frequency	Lexical verbs	Words
*Andreas (*from the *Vercelli book)*	Andreas	7	0.011	645	4 860
Beowulf	Beo	7	0.002	2 555	17 310
Battle of Brunanburh	Brunan	0	(0)	43	371
Christ (Exeter book)	Christ	4	0.005	786	6 130
3 Poems by Cynewulf: *Elene, Juliana & Fates of Apostles (Vercelli book)*	Cyne	12	0.007	1 647	12 110
Dream of the Rood (Vercelli book)	Dream	0	(0)	162	1 108
12 Poems from *Exeter*: *Cf. table 3*	According to Poem	8	0.009	937	6 416
Exodus (Junius manuscript)	Exodus	0	0	432	2 980
Genesis (Junius)	Genesis	1	0.002	630	4 840
Kentish Minor Poems: *Hymn & Psalm*	Kentish	1	(0.008)	128	1 075
Metres of Boethius	MetBo	8	0.013	639	5 272
Northumbrian verse: *Cf. table 3*	According to Poem	0	(0)	31	226
Phoenix (Exeter)	Phoenix	1	0.002	456	3 710
Riddles (Exeter)	Riddles	4	0.005	805	5 090
Total		**53**	**0.005**	**9 896**	**71 498**

Table 14: Total frequency of Subcorpus 1

Subtotal	**432**	**0.008**	**54 283**	**424 554**

Subcorpus 2: ca. 1150-1350

Table 15: Frequency of verbs containing to-/te- in the prose part of Subcorpus 2

Name	**Abbre-viation**	**Prefixed verbs**	**Relative frequency**	**Lexical verbs**	**Words**
Ancrene Riwle	AncRiw	58	0.008	7 232	50 926
Ayenbite of Inwyt	Ayenbi	42	0.009	4 700	48 368
Prose Psalter	EarlPs	4	0.001	5 498	45 035
Hali Meidhad	Hali	4	0.004	1 026	8 960
Juliane	Julia	10	0.009	1 128	7 257
Katherine	Kathe	11	0.009	1 275	9 171
Kentish Homilies	KentHo	1	0.002	467	4 316
Kentish Sermons	KentSe	0	0	385	3 546
Lambeth Homilies X	LambX1	23	0.011	2 172	20 882
Lambeth Homilies 1	Lamb1	4	0.006	678	6 549
St. Margaret	Marga	16	0.012	1 291	8 669
Ormulum	Orm	9	0.001	6 072	53 182
Peterborough Chronicle	Peterb	6	0.008	748	7 390
Sawles Warde	Sawles	3	0.006	529	4 388
Trinity Homilies	Trinit	15	0.003	4 547	41 874
Vices and Virtues	Vices1	14	0.004	3 166	28 358
Total		**220**	**0.005**	**40 914**	**348 871**

Table 16: Frequency of verbs containing to-/te- in the verse part of Subcorpus 2

Name	**Abbre-viation**	**Prefixed verbs**	**Relative frequency**	**Lexical verbs**	**Words**
Alisaunder	Alisau	14	0.010	*1 408*	10 900
Bestiary	Bestia	3	0.005	*548*	4 240
Bevis	Bevis	8	0.048	*168*	1 300
Layamon's Brut	Brut1	19	0.013	*1 468*	11 360
Fox and Wolf	FoxWo	2	0.009	*235*	1 820
Gloucester Chronicle	RobGlo	1	0.001	*1 323*	10 240
Havelok	Havelo	15	0.011	*1 290*	9 990
Man in the Moon	Man in Moon	2	0.047	*43*	330
3 Historical Poems	PoemH	5	0.013	*386*	2 990
3 Historical Poems	PoemS	3	0.038	*79*	610
Horn	Horn	1	0.001	*937*	7 250
2 Poems (*Sirith & Interlude*)	Sirith	0	0	*394*	3 050
St. Edmund	SELeg	4	0.005	*850*	6 580
Thrush	Thrush	0	0	*142*	1 100
Total		**77**	**0.008**	**9 271**	**71 760**

Table 17: Total frequency of Subcorpus 2

Subtotal	**297**	**0.006**	**50 185**	**420 631**

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