

The functions of *weorðan* and its loss in the past tense in Old and Middle English¹

PETER PETRÉ

University of Leuven – Research Foundation-Flanders

(Received 4 December 2009; revised 21 May 2010)

In this article, I relate the loss of *weorðan* in the past tense to the loss of an Old English grammatical subsystem that encouraged the expression of narrative by bounded sentence constructions. This type of construction represents a situation as reaching its goal or endpoint, and serves to mark progress in a narrative (e.g. *then he walked over to the other side*). Instead of this system, from Middle English onwards a mixed system emerges with differently structured bounded sentence constructions as well as, increasingly, unbounded sentence constructions – which structure events as open-ended, usually by means of a progressive form (e.g. *he was walking*). I show how *weorðan* in Old English was strongly associated with the Old English system of bounded sentence constructions – an association with boundedness is not surprising given its meaning of ‘(sudden) transition into another state’. In the thirteenth century this rigid Old English system started to break down, as primarily evidenced by the disappearance of the time adverbial *þa* and the loss of verb-second. *Weorð*, being strongly associated with the old way of structuring narrative, decreased too and eventually disappeared.

1 Introduction

Throughout Old English (OE), *weorðan* ‘become, be’ is ranked the fifth most frequent verb overall, with about 1,500 occurrences per million words (pmw) (see Petré & Cuyckens 2008 for a more detailed frequency overview). The verb is particularly common as an alternative to the cluster *is/beon* (present – on their distribution, see Kilpiö 1993) and *wesan* (past). All of them were used mostly as copulas or as auxiliaries of the passive, but they could also be used intransitively, meaning ‘happen, occur’ or ‘exist’.² *Weorðan* denotes a change of state (as in (1)) while the various other verbs with which it alternated usually simply denote a state (as in (2)). However, in some cases there is no obvious semantic distinction between them, and both can be translated by *be* (as will be illustrated below).

- (1) Hi urnon on æfnunge ut of ðissere byrig, mid ðam ðe ða
They ran in evening out of this city at time-point that the

¹ The research reported on in this article has been made possible by the Research Foundation-Flanders (FWO Vlaanderen – project number 3H051170). I would like to thank Bettelou Los, Graeme Trousdale and two anonymous reviewers for their helpful comments on earlier drafts.

² Elsewhere (Petré & Cuyckens 2008, 2009) it is argued that if combined with participles, neither *is/beon/wesan* nor *weorðan* are really auxiliaries of the passive in OE, as they still show more characteristics of copulas combined with resultative adjectival participles. As this debate is not the main topic of this article, I will stick here to the traditional terminology in order to avoid unnecessary terminological confusion.

burhgata belocene **wurdon**.

city-gates closed **became**

‘They ran out of this city in the evening, when the city gates **were** [= change of state] closed.’ (c.1025. *Josh*: 2.5)

- (2) Se hælend become into his apostolum. & **wæron** þeahhwæðere þa
 The saviour become:SBJV into his apostles & **were** yet the
 dura belocene.
 doors closed

‘The Saviour got by his apostles, and yet the doors **were** closed [= no change of state].’ (a.1020(c.995). *ÆCHom* I, 16: 308.27)

In Middle English (ME), *weorðan* initially continues to be used, but already from the start decreases in use, and by the end of the fourteenth century its frequency has dropped to less than fifty occurrences pmw (see Petré & Cuyckens 2009: 355). Instead of *weorðan*, a variety of devices are used from ME onwards, among them newly developed copulas of change such as *become* or *wax*, as well as simply *be*, but also occasionally alternative expressions with *begin (to) V* and *be made/done XP*.

In this article, I present an account of this mysterious disappearance of *weorðan*. After a brief overview of some previous studies (section 2), section 3 sets out a new approach to the problem, taking as its starting point the importance of narrative language use, a genre that is particularly frequently realized in the past tense. Under the assumption that developments in the way a narrative is syntactically realized may eventually affect the behaviour of all past tense use and differentiate it from the present tense, the analysis focuses on the differences in distribution between the indicative past tense of *weorðan* and *wesan* (which will be referred to by the third-person indicative forms *wearð* and *wæs* respectively). Section 4 introduces the typological distinction between bounded language use, which typically divides up a narrative in completed temporal segments, and unbounded language use, which tends to express narrative action as ongoing within the frame of a prolonged now, and introduces the hypothesis that a crucial link exists between the breakdown of bounded language use in English and the loss of *weorðan*. Section 5 is devoted to testing this hypothesis through a detailed analysis of the distribution of *wearð* and *wæs*, on the basis of a corpus specially compiled for this purpose. Unlike *wæs*, *wearð* prefers main clauses, in which the main narrative action is usually represented. Also, *wearð* co-occurs significantly more often with time adverbials that mark progress in the narrative, and whose frequency drastically decreases during ME. Finally, *wearð* is used significantly more often in inverted clause constructions, a type of construction that is also typical of the bounded language use of OE. Together, these preferences show that the fate of *wearð* is tied up with that of an OE system of boundedness.

2 Previous studies

The only scholar so far who has focused on the loss of the copula *weorðan* (with adjectival and nominal subject complements) is Biese (1932, 1952), who explained the

loss of the copula *weorðan* rather succinctly as a consequence of competition with the much more frequent *beon* as well as its replacement – whenever *beon* was not suitable semantically – by more expressive verbs such as *wax* or *grow*.

By contrast, a wealth of studies exists that is devoted to *wesan* and *weorðan* in the passive construction, as well as to their differences and development (Frary 1929; Zieglschmid 1930; Kurtz 1931; Klingebiel 1937; Mitchell 1985; Kilpiö 1989; Green 2009; Müller 2009). Early on, Frary (1929) and (Kurtz 1931) argued that the two verbs are basically in complementary distribution: *wesan* was used for statal passives and expressed states resulting from previous actions with present relevance (resultative, as in (2)) or with past relevance (pluperfect); *weorðan* was used for actional passives, focusing on the event itself (as in (1)). In their view the functions of both verbs do not overlap at all. Because of this lack of competition between the verbs, these studies fail to give a language-internal account of the loss of *weorðan* – i.e. one that is not limited to interference by contact with another language but maps the mechanisms of change taking place within the language itself. Instead, they are forced to appeal to external influence from either Scandinavian or Latin. Zieglschmid (1929), however, points out that *wesan* and *beon* (perhaps not so much *is*; see Petré & Cuyckens 2009) were used in actional passives in all the older Germanic languages. On these grounds Klingebiel (1937) concludes that the uses of *wesan/beon* and *weorðan* do overlap and that these verbs are involved in some kind of language-internal competition in OE.³ Mitchell (1985: 324) goes even further, and maintains that the two were in free variation, as is illustrated by (3), where they both express an actional passive with seemingly no difference in context whatsoever.

- (3) (Annal 633) Her **wearð** Eadwine cing ofslagen . . . (Annal 642) Her **was**
Here **got** Edwin king slain Here **was**
Oswald ofslagen Norðhymbra cing.
Oswald slain Northumbrians' king
'In 633 king Edwin **was** slain . . . In 642 Oswald, king of the Northumbrians, **was**
slain.' (c.1107. *ChronF*: 633 & 642)

Under this assumption, a straightforward explanation for the loss of *weorðan* is that it was gradually ousted by the far more frequent *wesan*. This is, for instance, what is expressed by Wattie, who calls the 'redundant' presence of *weorðan* the 'only false start' in the OE tense system (Wattie 1930: 143). More recently, however, Kilpiö (1989: 85) shows that their existence side-by-side is not entirely redundant by pointing out the preference of *weorðan* for sudden changes, which are often negatively connoted (like dying, getting slain, angry etc.), or important actions, as pointed out by Müller (2009). Müller (2009) has also worked out the idea of loss through competition in more detail. His analysis deserves some attention because it assumes that the aspect of passive *weorðan* at some point shifted from perfective to imperfective (durative), contrary to my own analysis presented in this article, which relates the loss of *weorðan*

³ Still, Klingebiel does not go beyond the language-external approach either – the only difference from his predecessors is that he opts for French as the major player (a view recently revived by Green 2009).

precisely to its exclusively perfective use in bounded contexts. Müller's analysis goes as follows. *Wesan* was used mainly to express resulting states or pluperfects, in which cases it is arguably more like a copula (combined with an adjectival participle) than a passive auxiliary. However, it was also sometimes used in contexts that seemed to express durativity. This is made particularly clear if a durative adverb accompanies the passive construction, as in (4).

- (4) A þær he læg, he ... up to heofenum locade, þyder his modgeþanc
 Always there he lay he up to heavens looked thither his mind
a geseted **wæs**.
 always placed was
 'Always, where he lay, he ... looked up to heaven, to which place his mind **was always** oriented.' (c.1000(c.971). *LS* 17.1 (*MartinMor* (*BlHom* 17)): 227.288)

Weorðan did not occur in durative contexts such as these. However, at some point *weorðan* seemed on the verge of extending its scope to durative contexts as well. From this point onwards, according to Müller, *weorðan* was fated to disappear, as this extension brought about bleaching of its prototypical semantics of sudden change to such an extent that it lost its reason for existence vis-à-vis the much more frequent *wesan*. Müller gives the following examples in support of his claim (the first originally appeared in Denison 1993: 419).

- (5) Hi **wurdon** þa utan ymbsette mid romaniscum here **swa lange** þæt
 They **were** then outside besieged with Roman army **so long** that
 ðær fela þusenda mid hungre wurdon acwealde.
 there many thousand:GEN.PL with hunger were killed
 'They **were** then from outside besieged by the Roman army **so long** that many thousands were killed by hunger there.' (a.1020(c.995). *ÆCHom* I, 28: 411.39)
- (6) His ban **æfter langum fyrste wurdon** gebrohte to þære mæran byrig
 His bones after long period became brought to the famous city
 alexandria.
 Alexandria
 'His bones **after a long period were** brought to the famous city of Alexandria.' (a.1020(c.995). *ÆCHom* I, 32: 456.160)
- (7) **Fram þissere weorlde anginne ne wearð** nefræ ihyred þ æniȝ
 From this:GEN world:GEN beginning NEG became never heard that any
 mon mihte þone mon ihælen.
 man might that man heal
 '**From the beginning of this world it has never been** heard that any man could heal the man.' (c.1175(?OE). *Bod.Hom.*(Bod 343): 72/16)

None of these examples is particularly convincing, however. (6) is very doubtful, as it only involves durativity of the event preceding the *weorðan*-clause. In (5) the sense of 'get in the state of being besieged' might still have been the intended one, in which case *swa lange*, etc. could be interpreted as an afterthought concerning the duration of the siege (as already suggested by Frary 1929: 41). Finally, unlike the example with *wesan* in (4), the duration involved in (7) is limited by an opening boundary ('from the beginning of this world') and a terminal boundary (the time of speaking). Unlimited

duration, or real imperfectivity, as expressed in (4), is never expressed by *weorðan*. Moreover, closer scrutiny of the available OE material shows that *weorðan* expressing limited duration is not limited to the passive, and that its frequency of use does not increase over time but is found (equally rarely) from the earliest OE texts onwards. An early non-passive instance is given in (8). The earliest passive I have found dates to c.950 and is found in *Met*: 26.98.⁴

- (8) Hu Gaius **wearþ** casere iiii gear.
 'How Gaius **became/was/remained** emperor four years.' (c.925. *OrHead*: 6.3)

Finally, the phenomenon remains exceedingly rare throughout OE and early ME, with only 7 clear instances out of 1,334, or 0.5 per cent, in my corpus (an overview of the corpus is given in section 5.1). In sum, it seems very unlikely that a peripheral use such as the durative one could have had such a great effect on *weorðan* as a whole.

3 A different approach

All of the studies discussed in the previous section argue that (passive) *weorðan* was lost due to its (existing or developing) overlap and subsequent competition with the far more frequent *is/beon/wesan*. However, the way in which they use the notion of competition as an explanation is not very convincing. Even if overlap of use is not uncommon in the passive (compare the seemingly synonymous uses of *weorðan* and *wæs* in (3)), it is overall a peripheral phenomenon, as shown in particular by my discussion of Müller (2009) on durative uses of *weorðan*. While overlap between function words is found everywhere, the prototypical semantics of two competing items may still remain clearly distinct (Geeraerts 2000: 88–9), and this may help explain their existence side-by-side. My own approach is therefore almost opposite to these previous studies and assumes that functional overlap cannot fully explain why one form ousts another (even if it is a condition for one form to take over the functions of the other). Instead, I will show that a more important part in this process of replacement is taken by frequency of core uses of each form. The core uses, as will be seen, crucially correlate with a certain group of clausal structures or constructions, which together constitute a grammatical system of boundedness in Old English (as explained in the next section). These correlations entail that these core uses stick to these particular constructions, like cognitive chunks, and that their combined usage is equivalent to what Langacker calls entrenched structures (1987: 59). (A simple example of this phenomenon is an idiomatic expression.) While high frequencies have been evoked in explaining stability of function words or morphemes (e.g. Bybee 2003), a high degree of association between a frequent function word and a certain group of constructions can overrule this stability principle if these constructions are gradually lost from the language, a phenomenon that has been so far largely ignored in the literature. This is

⁴ Frary (1929: 47) gives a few additional examples – not mentioned by either Denison or Müller. Three of these contain time adverbs similar to 'four years' in (7) (they are *Judg*: 10.8, *Judg*: 6.2(1), *Intr*. 11. 35). Her other examples are less compelling, as they lack a time adverbial that makes the durative meaning explicit.

precisely what happened to *wearð*, when the Old English system of boundedness was all but lost by the end of the fourteenth century.⁵

A major reason why previous studies failed to perceive the importance of this association lies in their limitation to *weorðan* in either the passive or the copular use, and their treatment of the passive auxiliary *weorðan*, the copula *weorðan* and the intransitive verb *weorðan* as three different verbs. But in fact they are one. An elegant way of capturing their unity is provided by constructionist frameworks, in particular that of Croft (2000, 2001), but also Goldberg (1995, 2006). According to construction grammar, ‘syntactic categories . . . are derivative from the constructions that define them’ (Croft 2000: 85), with constructions being syntactic or morphological patterns that combine a certain form with a certain meaning. Thus a word is only a ‘passive auxiliary’ by virtue of its occurrence in a passive construction, and it is the construction as such which adds auxiliary status to the verb, and something similar holds for copula and copular construction (see Petré & Cuyckens 2009 for more details). In other words, *weorðan* need not be three different verbs only on the basis of its occurrence in three different constructions. Indeed, its prototypical semantics remains the same throughout these constructions and is simply ‘change of state’. This meaning is discernible most of the time in passive constructions, and it is the prevailing one in other uses. Examples of *wearð* as contrasted to *wæs*, which does not have this semantics, in a copular construction are given in (9) and (10) and in an intransitive construction in (11).

- (9) Þurh his agenne cyre & deofles tihtinge he **wearð** yfel.
Through his own choice and devil:GEN deceit he **became** evil
‘Through his own choice and the Devil’s deceit he **became** [= change of state] evil.’
(a.1020(c.995). *ÆCHom* I, 18: 322.159)
- (10) Yfel **wæs** Iudas ðe Crist becheapode.
Evil **was** Judas who Christ.ACC betrayed
‘Judas, who betrayed Christ, **was** [= no change of state] evil.’
(a.1020(c.995). *ÆCHom* I, 21 (B): 351.181)
- (11) **Næron** nane gesceafta . . . , ne hi ne **gewurdon** þurh
NEG:were:IND.3PL none creatures:GEN.PL, nor they not **arose** through
hi sylfe ac hi geworhte God.
them selves but them created God.
‘No creatures **would exist** [= no change of state] . . . , nor did they **come into being**
[= change of state] through themselves, but God created them.’
(c.995. *ÆHex*: 379)

Moreover, the pervasiveness of a single sense of *weorðan* is also reflected by the combined use of different constructions in which the verb is used, as for instance

⁵ In previous work (Petré & Cuyckens 2008, 2009), other mechanisms of change have been proposed which appealed to similar frequency effects, specifically in the domain of the passive construction (with the development of non-resultative passives), and of copular constructions (with the extension to a broader range of classes and gradually changing properties, which favoured the development of *become* (a teacher, etc.) and *wax* (old, etc.)). Even though not necessarily falsifying these correlations, the present article establishes a much more important correlation between *wearð* and certain clause types, and on this basis proposes a considerably different explanation.

Table 1. *Past and present tense of weorðan*

	1151–1350	1351–1500
Present indicative	221 (33%)	50 (45%)
Infinitive	167 (25%)	32 (29%)
Past indicative	228 (34%)	20 (18%)
Past participle	58 (9%)	7 (6%)
Total	674 (100%)	109 (100%)

the copular and the passive construction. While it might be expected that participles because of their adjectival properties can be freely co-ordinated with adjectives, such co-ordination in fact only occurs following *weorðan*, as in (12). This also suggests that the copular and passive uses of *wæs* were already separately represented in speakers' grammar of Old English (see Petré & Cuyckens 2009 for a more detailed account).

- (12) On þis gær **wærd** þe king Stephne ded & bebyried.
 In this year got the king Stephen dead and buried
 'In this year king Stephen **died** and **was buried**.' (?a.1160. *ChronE* (Irvine): 1154.1)

In the sample of indicative past tense *weorð* up to 1350, there are fourteen instances of adjective–participle pairs such as the one in (12), or 1.8 per cent of all instances, against not a single one in the case of *wæs*.

On the basis of these observations, a separate treatment of passive, copular and intransitive constructions involving *weorðan* does not seem justified. Instead, *weorðan* has to be treated as a single lexeme, and mechanisms have to be looked for that had an effect on all of its uses. Special attention will therefore be given to those properties that hold across all construction types in which the verb occurs.

This is not to say that the properties of *weorðan* cannot vary according to the context in which the verb occurs, but differences in complement type are arguably not very significant contextual parameters. A contextual distinction for which there is evidence that it is more likely very significant is that between the past and the present tense. Some studies mention this distinction, but it has never received due attention. Recently Wischer (2006) has discussed the emergence of the periphrastic future in English with *will/shall* + infinitive and the concomitant loss of *weorðan* as a marker of future tense, which is, naturally, confined to its present tense instances.⁶ Much longer ago, Wandschneider (1887: 7) – in a paper discussing the syntax of *Piers the Plowman*, and not about *weorðan* at all – pointed out that the past tense use of *weorðan* is lost earlier than the present tense use. The difference is also clearly revealed by my own corpus data. Table 1 shows the difference in tense distribution of the instances of *weorðan* in early ME and in late ME (for the latter period I have complemented the corpus

⁶ Interestingly, the MED fairly consistently distinguishes between senses of *worthen* that are found in both past and present tense, and senses related to future time that are found in the present tense only.

described in section 5.1 with texts found through the MED, s.vv. *worthen* and *iworthen* and the OED online, s.v. *worth*, v.²).⁷

Table 1 clearly shows that the past tense (indicative and participles) of *weorðan* fell into disuse more quickly than did the present tense. In early ME, *weorðan* was still distributed evenly between past and present tense, whereas in late ME the present tense is about three times as frequent as the past. The loss of *weorð* in the past tense, moreover, is fairly evenly spread among its functions, and passive, copular and intransitive uses were all lost roughly about the end of the fourteenth century. The last productive attestations of *weorð* both with a participle and in its copular use are found in John of Trevisa's *Higden*, a southern text which the MED dates to *a.*1387.

An explanation for the different behaviour of past and present tense is provided by genre studies. Past tense in written language is frequently used for the narration of a series of events, that is, for storytelling. The association between past tense and 'narrative action' has been shown to be statistically significant (Biber 1991: 108). Present tense is only rarely used for this purpose, and is used mainly in genres such as instruction or exposition. It is only to be expected that, when the communicative goals of past and present tense differ so widely, the mechanisms that have an impact on their use will differ as well. Together with the different pace with which *weorðan* is lost in the past and the present tense, these are sufficient reasons to restrict myself to an account of the loss of *weorðan* in the past tense.

4 Bounded and unbounded language use

An important distinction related to the narrative genre, and which will be highly relevant for explaining the loss of *weorð*, is that between bounded and unbounded language use. Basically, bounded language use construes situations with the inclusion of their goal or endpoint, and often serves to mark progress in a narrative (e.g. *then he walked over to the other side*). By contrast, unbounded language use construes situations as open-ended, often by means of progressive aspect (e.g. *he was walking about*) (Declerck 2007). In recent psycholinguistic studies (Carroll & von Stutterheim 2003; Carroll & Lambert 2003; Carroll, von Stutterheim & Nuese 2004), it is argued that both types of use are not freely available in a language-independent fashion. Grammatical form is not viewed as a separate system which is independent of meaning, but as one which incorporates a system of meanings which is treated in a given language as prominent in the conceptualization of states of affairs (Carroll et al. 2004: 185). Crosslinguistic diversity consists less in what it is possible to specify than in the relative ease with which meanings can be specified. Depending on the availability of certain grammaticalized constructions, some languages, such as German and Dutch, show a strong preference for bounded construal of events, while other languages, such as Present-Day English or Arabic, more easily make use of unbounded construal.

⁷ For a list of these texts, see http://perswww.kuleuven.be/~u0050685/Petre,_Functions_of_weorðan_and_its_loss_corpus.xlsx (no spaces). Scottish or Irish English texts have been disregarded, as the situation in these dialects differs considerably, and their discussion falls outside the scope of this article.

Indeed, speakers of either of these languages, when asked to describe a narrative sequence (when watching, for instance, a short animation film), tend to construe this sequence very differently. For instance, speakers of German divide the narrative action up into a sequence of temporal segments, each requiring an explicit temporal marker, like *Auf einmal, dann* in (13a) below. Temporal anchors like these serve to set the topic time (or temporal topic). Topic time is the time span about which an assertion is made (Klein 1994: 3). By defining topic time, these temporal adverbials co-bound (together with markers of perfectivity and/or goals/endpoints) the event described in the clause containing them: the action is construed as reaching its endpoint or goal within the time span defined by the topic time. These time adverbials also often provide a link to the preceding clause, and as such typically fill the first slot in their own clause. At the same time they also create a ‘time after’ the bounded event and with this the conditions for opening up a new interval on the time line (temporal shift). The effect of temporal shift is that a sequence in strict terms is created in which each situation is completed before the next one begins.

(13) (a) *Shift of topic time*

Auf einmal hört der Lehmann Wasser tropfen
On sudden hears the clay-man water drip
und dann gräbt er nach dem Wasser
and then digs he after the water
bis der Sand dann unter ihm nachgibt
until the sand then under him away-gives

(b) *Maintenance of topic time*

The man is hearing the sound of dripping water
and he is digging for the water
and the sand is caving in under him (von Stutterheim 2002: 25)

In the narrative sequence given in (13a), the first event is bounded by *auf einmal* ‘suddenly’, which sets a brief interruption of an unexpressed ongoing situation as the topic time of the event ‘hear the dripping of water’. The second one is bounded by *dann* ‘then’, which sets as topic time the time span starting after the hearing event and ending with the giving way of the sand. Following these time adverbials, the finite verb remains in second position (so-called verb-second syntax), and the subject usually follows this finite verb (inversion). This subject defines a second topic, which is usually the protagonist that remains constant throughout the narrative action. The perspective taken in bounded language use can be compared to a camera looking through the eyes of the protagonist, who experiences a narrative action as a series of bounded (complete) events.

By contrast, Present-Day English (PDE) makes abundant use of unbounded construal in describing narrative sequences, as is illustrated in (13b) above. Besides sequences such as those of (13b), Present-Day English preserves the possibility of construing an event as completed or bounded, depending on the viewpoint of the speaker (see Smith 1997: 92–4; Carroll & Stutterheim 2003: 378). For instance, bounded language

use remains the normal way of construing first person narratives (where by default the speaker is a participant in what happens). However, Carroll et al. (2004) show that the syntax and grammaticalized constructions of Present-Day English encourage unbounded language use. Unbounded language use typically makes use of a rigid subject-initial syntax, and the subject is the only structural topic available. It is usually identified with the most agentive participant (a natural topic) in the event expressed in each clause, which is not necessarily always the protagonist. There is no structurally required slot for defining topic time, and the events that are conceptualized are anchored to a single point in time which is maintained throughout the event. Each event is described in unbounded terms by means of progressive aspect (*hearing, digging, caving in*). Topic time implicitly remains the same throughout, and the time span covered by the events is either simultaneous with topic time or is included in it. In the example given in (13b), topic time is not conceptualized at all, but rather it is a prolonged now. All the events described are construed as being included in this now, and this is achieved by the use of the progressive, which denotes events that are ongoing in such a now. The perspective taken in unbounded language use, then, can be compared to filming from a bird's eye view (Carroll et al. 2004: 190).

In sum, the differences in present tense descriptions are the following. Speakers of Present-Day English opt for a progressive form in their descriptions, linking them to an implicit topic time. Speakers of German usually construe a narrative action as a series of bounded, perfectly construed events, and they may altogether lack an expression for the progressive. Instead, they prefer anchoring in time (and space), which is normally realized through adverbs like *dann* filling the first slot of the clause. Past tense descriptions less easily give in to unbounded construal strategies, because bounded construal is probably more accessible as a consequence of the completedness of the events in reality. Accordingly, German need not change its strategies and behaves exactly the same in the past tense. Present-Day English, however, makes use of a hybrid system in the retelling of an event: bounded construal is still fairly common, but unbounded strategies regularly creep in, for instance by making use of inchoative constructions (*start Ving*) or switching to unbounded progressives in the present tense (Carroll et al. 2004: 204–11). A preference for unbounded construal in real-time descriptions therefore also correlates to syntactic strategies in retelling past events that are different from default bounded construal.

OE was much like modern German. This is evidenced in a number of properties, which I will refer to as the BOUNDED SYSTEM OF OE. First, OE lacks a grammaticalized progressive construction. While OE already possessed the *be + Vende* construction, the predecessor of the PDE *be + Ving* construction, only in a minority of its occurrences did it express progressiveness (Killie 2008). Second, OE grammar is fine-tuned for the bounded construal of events. This is evidenced in its word-order rules and its stock of time adverbials to establish topic time. The most grammaticalized of these adverbials is *þa* 'then (particular point in time)', which (similarly to German *dann* and Dutch *toen*) chops up a narrative into temporal segments, foregrounding actions within that narrative (it has therefore been called an 'action marker' by Enkvist 1986). As in

German, time adverbs are often put in the first position in main clauses, the verb being in second position (verb-second syntax) and the subject inverted. In OE though, most time adverbials only trigger inversion if the subject is not a pronoun. The exceptions are *þa* (and *þonne*, which however mainly has non-narrative functions), which are the only two that consistently trigger inversion when in first position, even with pronominal subjects (Los 2009: 103; Westergaard 2009: 74).

The bounded system of OE is illustrated by the biblical fragment (from the Prodigal Son) in (14) – and note that there are no fewer than three occurrences of *wearð* in this fragment.

- (14) **Ða æfter feawa dagum** . . . se gingra sunu . . . ferde wræclice on feorlen rice, & forspilde þar his æhta lybbende on his gælsan. **Ða he hig hæfde ealle amyrrede þa** wearð mycel hunger on þam rice & he wearð wædla . . . **Þa** beþohte he hine & cwæð, Eala, hu fela yrðlinga on mines fæder huse hlaf genohne habbað . . . Ic . . . fare to minum fæder, & ic secge him, Eala fæder, . . . do me swa anne of þinum yrðlingum. & he aras **þa** & com to his fæder, & **þa gyt þa** he wæs feorr his fæder he hyne geseah & wearð mid mildheortnesse astyrod.
 ‘Then after a few days . . . the younger son . . . travelled abroad to a far country, and wasted there his possessions living a life of pleasure. **When he had wasted them all, then** a great hunger came over the country & he became a beggar . . . **Then** he thought to himself and said: “Why, how many servants in my father’s house have enough bread . . . I . . . will go to my father, and I will tell him: hey father, . . . take me as one of your servants.” And he arose **then** and came to his father, and **when** he was **still** far from him his father saw him and was stirred by mercy.’
 (c.1025. *Lk* (WSCp): 13–20)

In (14), a variety of time adverbials (in italics) serve to establish topic time and divide the story into segments: *ða æfter feawa dagum* ‘then after a few days’, *ða he hig hæfde ealle amyrrede*, *þa* ‘when he had wasted it all, then’ (causing inversion as well), etc.

PDE lost these time adverbials and verb-second syntax that encouraged bounded construal. Instead, it has the progressive, which encourages unbounded construal. Hence, a transition from one system to the other must have occurred somewhere in between. Van Kemenade, Los & Starren, in an ongoing project (started 2008, as described in van Kemenade et al. 2008), suggest that English develops its preference for unbounded construal in Early Modern English. It is at this time that both SVO word order and the progressive *be Ving* construction are established, two processes which largely seem to run in parallel (Denison 1993; Killie 2008). However, there is evidence that the rigid bounded system of OE had largely disappeared already by the end of the fourteenth century. First, the transparency between syntax and information structure originally present in the system of verb-second starts to break down from 1300 onwards (see van Kemenade & Westergaard 2008) – I will return to this in more detail in section 5.5. Second, there is the rapid decrease of the most typical bounding adverb *þa* and the obligatory inversion co-occurring with it. Already in the early ME of the thirteenth century, *þa* (realized as *tho* in ME) is significantly less frequent than in late OE, and in the course of the fourteenth century, its use becomes exceptional (van

Kemenade & Los 2006: 243–4; Westergaard 2009: 93–4, where it is shown how main clauses with initial *þa* (*tho*)/*þonne* decrease from about 36 per cent of all main clauses in OE to 15 per cent in early ME and 11.3 per cent in late ME).⁸

The breakdown of the bounded system of OE, and its immediate impact on *wearð*, can be illustrated by comparing the OE Bible fragment in (14) to the ME counterpart in (15), as found in the Wyclif Bible.

- (15) And not aftir many daies . . . the 3onger sone wente forth in pilgrymage in to a fer cuntre; and there he wastide hise goodis in lyuyng lecherously. And aftir that he hadde endid alle thingis, a strong hungre was maad in that cuntre, and he bigan to haue nede . . . And he turnede a3en to hym silf, and seide, Hou many hirid men in my fadir hous han plente of looues . . . Y schal . . . go to my fadir, and Y schal seie to hym, Fadir . . . make me as oon of thin hirid men. And he roos vp, and cam to his fadir. And whanne he was 3it afer, his fadir sai3 hym, and was stirrid bi mercy.
(c.1384). *WBible*(1) (Dc 369(2): Luke 15.13–20)

Narration in (15) still mainly proceeds by means of bounded construal, but bounding adverbials signalling topic time have decreased, and an unbounded construction (*he bigan to haue nede* ‘he began to have need’) has crept in. Importantly, the language of (15) illustrates that the highly grammaticalized way of construing bounded events has been lost. Specifically, *þa* ‘then’ and verb-second syntax are entirely absent in this late ME version – and so is *wearð*.

Simultaneously with this breakdown the construction *be Vende* starts to grammaticalize as an unbounded marker of progressiveness during ME. While it is true that the *be Ving* construction became fully grammaticalized in this function only in EModE, in which period it also became frequently used to set the topic time maintained throughout the description of the events (the framing use of the progressive, as in *while they were Ving*, . . .), a recent study by Killie (2008: 80) suggests that this function may have been already more fully developed by late ME than assumed by van Kemenade et al. (2008). Admittedly, the data in Killie (2008) still contain relatively few instances of the focalized use of the *be + Vende/ing* construction (the use in (13b)). However, this is probably due to its primary use in present tense (real-time) descriptions. As stated earlier, it is easier to maintain the use of unbounded structures in real-time descriptions (with the ongoing now as the topic time) than in retellings of past events. Unfortunately, real-time descriptions – or more accurately, since we are dealing with written material, imitations of such descriptions – are heavily underrepresented in the surviving ME material. Better evidence for the development of unbounded construal already in ME

⁸ Note that the decrease in frequency of *þa* seems to have taken place first in its clause-internal use, in which case it functions, according to van Kemenade & Los (2006), as a focus particle dividing the clause in a topic and a focus domain, and not so much as a time adverbial setting topic time. Clear figures for the overall frequency history of *þa* are lacking, however. Most importantly, the collocational strength between *wearð* and *þa* in clause-internal position was also very high, and there does not seem to be a significant difference between the two *þa*-s in that respect (see below for more on collocational strength). Ultimately, I think this kind of focalizing use of a temporal adverb is also a typical part of the bounded system (and is indeed also found in Dutch and German). The precise link between the uses is outside the scope of this article but is definitely interesting material for further research.

is found in the changes taking place in what I call the *ginnen*-class, containing the verbs *onginnan*, *aginnan*, *beginnan* and *ginnan*. In OE *onginnan* (and, less frequently, *beginnan*) with bare infinitive probably did not have an ingressive meaning but instead was primarily used as a perfectivizing auxiliary (Los 2000). However, from late OE onwards the ingressive use rapidly gains ground. This holds especially for *beginnan*, which was much more popular in ME than in OE, and which Brinton argues to be ingressive as a rule (see Brinton 1988: 116, 161; Los 2000: 256). Verbs of the *ginnen*-class, if used ingressively, focus on the onset of a new situation and, by implication, on the ongoing (unbounded) character of that situation after it has started. In this respect they differ from *weorðan*, which focuses on the transitional process itself from one state into another one, including the end result.⁹ Ingressive verbs like *begin*, now, are frequently found in past tense retellings of events as a counterpart to the progressive in present tense descriptions, and their use seems to be more frequent in unbounded languages (Carroll et al. 2004: 206). Their increase in ME, therefore, is a clear indication that ME has a higher preference for unbounded constructions than OE.

Occasionally, inchoatives also replace *weorðan*, thus illustrating in what way the loss of *weorðan* might indeed be related to the grammaticalization of unbounded constructions. One example of such a replacement has already been given above in (15), where *bigan to haue nede* ‘began to have need’ has replaced *wearð wædla* ‘became a beggar’. A similar difference between OE (16) – which also contains *þa* – and ME (17) – which lacks a bounding time adverb – appears in two versions of Exodus.

- (16) *þa læfdon hi hit sume oð hit morgen wæs, & hit wearð wrymum*
Then left they it some until it morning was and it became worms:DAT
creowyd & hit forrotode.
crowded and it rotted
‘Then some men left it until it was morning, and it **was** crowded by worms and rotted.’
(c. 1075. *Exod* [Ker]: 16.20)

- (17) *But sum therof lafte vnto the morwen, and it biganne to boyle wormes, and stonk.*
‘But some of them left until the morning, and it **began** to spawn worms, and stank.’
(a. 1425(a. 1382). *WBible*(1) (Corp-O 4): Ex. 16.20)

The underlying Latin Vulgate source twice has a form of *coepio* (see e.g. Tweedale 1598). Apparently, the OE translators were highly unwilling to translate an unbounded inchoative construction with a direct OE equivalent, and this shows how strongly grammaticalized bounded construal in OE was. The occurrence of *begin* in the ME version is somewhat less conclusive, since the translation may be literal, and a more detailed study of non-translated prose would be necessary to shed light on the status of inchoatives in ME. But at least it shows that ME grammar was less averse to the use of inchoative constructions than was OE.

⁹ While *weorðan* is often called an inchoative or ingressive verb, there is thus a clear aspectual difference between *weorðan* and *beginnen*, and for that reason it is more accurate to refer to *weorðan* as a change-of-state verb.

Table 2. *Size of the corpus used*

	951–1050	1051–1150	1151–1250	1251–1350
Number of words	312290	144101	375019	257046

5 *Wearð* and boundedness

5.1 *Introduction*

In this section, quantitative evidence on the basis of data extracted from an extensive corpus (briefly described in section 5.2) will be given in support of the hypothesis that a breakdown of the bounded system of OE was instrumental in the disappearance of *wearð*. The evidence comes from three different tests. First, I will show that the relative frequency of *wearð* in main clauses, which more than other clause types serve to mark progress in a narrative, is significantly higher than that of *wæs* (section 5.3). Second, I will test the significance of the association of time adverbials such as *þa* with *wearð* as contrasted to their association with *wæs* (section 5.4). Finally, I will look at the different distribution of *wæs* and *wearð* over clausal constructions differing in word order (section 5.5).

5.2 *Note on the corpus*

My analysis is based on a considerably expanded version of the all-genre corpus set out in Petré & Cuyckens (2008).¹⁰ The corpus tries to enhance comparability between OE and ME by reducing West Saxon predominance (e.g. of Ælfric) and by introducing more Anglian material in the OE part, and by introducing southern material in the ME part (e.g. the Winteney version of the Benedictine Rule). New texts have been added to the 2008 corpus mainly to get a better balance in terms of genre, and to have more narrative data available for the ME periods. Sources of the corpus are mainly the YCOE, YPC, PPCME2, HC, DOEC, MEC (see references) and Arngart (1968). Table 2 provides the total amount of words (excluding foreign passages) of periods examined in this article.¹¹

¹⁰ The all-genre nature of the corpus may seem surprising, given the claim that the loss of *weorðan* is related to the loss of certain narrative patterns. The reason is that the typical OE narrative syntactic patterns occur fairly consistently not only with *weorðan* but also with *wesan* when it expresses a change of state and thus progress in the narrative. Limiting myself to narrative texts would clearly make it harder to see in what way *wearð* and *wæs* differ. Yet it is the loss of *wearð* as a past tense verb in general that is at stake, not its loss in narratives only. By looking at all the data, it becomes clear that *wæs* occurs far more frequently in precisely those syntactic patterns that become generalized in the past tense and therefore also replace the typical OE narrative syntactic patterns that are lost.

¹¹ A complete list of the texts used can be found at http://perswww.kuleuven.be/~u0050685/Petre_Functions_of_weorðan_and_its_loss_corpus.xlsx.

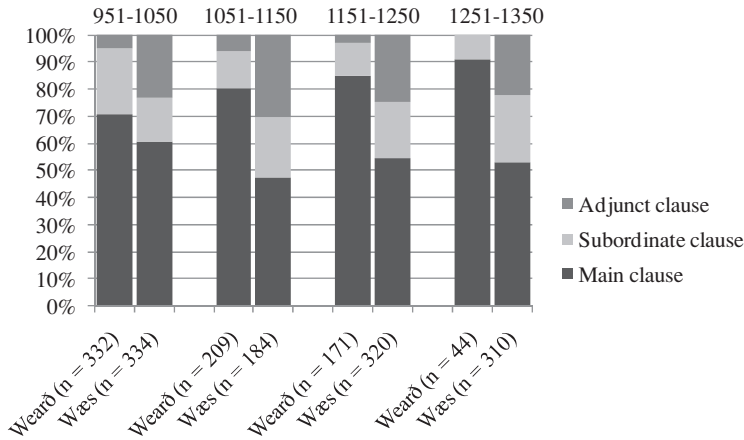


Figure 1. *Clause types co-occurring with wearð and wæs*

The corpus study is based on a full sample of all instances of *wearð* (and *weorðan* in general) and a 10 per cent sample of all instances of *wæs*. References to examples drawn from these corpora use the following format: for ME, the stencil used by the MED; for OE, the short title used by the DOE, preceded by a manuscript date (and occasionally a date of the original), which is taken from the editions used by the DOE.

5.3 *Types of clause*

A first observation that links up with OE bounded structures expressing narrative action concerns *wearð*'s distribution over clause types. Figure 1 gives the relative frequencies with which *wearð* and *wæs* occur in main clauses, subordinate clauses and adjunct clauses. The figure shows that *wearð* not only has a preference for main clauses, but that this preference even increases over time, and also that *wearð* is used increasingly exceptionally in adjunct clauses (the frequency of subordinate clauses decreases as well, but the complexity of its functions makes this tendency harder to interpret). These tendencies are the same for copular, passive or intransitive uses, and can both be related to *wearð*'s change of state semantics. Adjunct clauses are usually descriptive in nature, adding background information to a topical NP, as in *They chose his brother Harthacnut, who was a Danish citizen*. As such, they typically do not denote changes of state. By contrast, (past tense) main clauses often express events that mark progress in a narrative (they provide foregrounded information), and therefore will often be about changes of state.

Wearð's preference for main clause constructions thus equals a preference for foregrounded events (changes of state) in a narrative. Precisely because of this quality, the mere presence of *wearð* encourages a correct interpretation of such sentences as expressing foregrounded events. Moreover, this preference increased over time so as to

become an almost exclusive association, and this stands in sharp contrast to the idea that the distinction between *weorðan* and *wesan* became blurred from late OE onwards, and contradicts the hypothesis that *weorð* was lost due to the higher frequency combined with its increasing degree of semantic similarity to *wæs* (as found in some form in Wattie 1930; Mitchell 1985; Müller 2009). On the contrary, *weorð* might as well have taken over the use of *wæs* in the expression of events (changes of state) in a narrative, instead of being ousted due to its lower frequency. This is exactly what seems to have happened in (the bounded languages) German and Dutch, where *werden* and *worden* have attained to the status of the exclusive auxiliary of the eventive passive, as well as the default copula to express a change of state.

5.4 *Wearð and time adverbials*

The preference of *weorð* for main clauses points to its foregrounding function, being mainly used in narrative action. In this section I will further examine main clauses containing *weorð* and *wæs* in order to test to what extent it is typical of *weorð* to occur with bounding time adverbials in this clause type, as for instance in (18). This is done by contrasting the behaviour of *weorð* to that of *wæs* in main clauses. A typical such instance of *wæs* is (19), which provides stative background information to the narrative.

- (18) Heo hine freclice bat. **Pa** **weorð** heo **sona** fram deofle gegripen.
 She him heavily beat. **Then** **got** she **suddenly** from devil seized.
 ‘She beat him heavily. **Then** she **was/got suddenly** seized by the devil.’
 (c.1025. *GD* 1 [C]: 4.31.1)
- (19) Her forðferde Cnut cing æt Scieftesbyri, ... & he **was** cing ofer eal
 Here died Cnut king at Shaftesbury, ... and he **was** king over all
 Engaland **welneah XX wintra**.
 England **welnigh 20 winter:GEN.PL**
 ‘In this year King Cnut died in Shaftesbury, ... and he **had been** king over all England
almost 20 years.’ (c.1107. *ChronF*: 1036.1)

(18) has a clause-initial time adverbial with inversion, conforming to the boundedness template of German. In addition to such clause-initial time adverbials, other time adverbials have also been included in the calculations for this section. The main reason is that word order in the older stages of English is a much more intricate matter than it is in German. First, clause-initial time adverbials other than *þa* (and *þonne*) do not trigger inversion with pronominal subjects. Second, time adverbials that occur in non-clause-initial positions also generally have a bounding function, as in (20), even if it is unclear to what extent they topicalize the time span for which the assertion holds.

- (20) & hie **þa** **wurdon** **sona** blinde. & feollan to eorþan.
 and they then became soon blind and fell to earth
 ‘And they **then immediately became** blind and fell down to the earth.’
 (c.1000(c.971). *LS* 20 (*AssumptMor*(*BIHom* 13)): 151.227)

The actual method used for comparing differences in association strengths to time adverbs between *weorð* and *wæs* goes under the name of distinctive collexeme analysis,

‘the analysis of alternating pairs of constructions and their relative preferences for words that can (or should be able to) occur in both of them’ (Gries & Stefanowitsch 2004: 101). In this case study, the pair of constructions referred to consists of any main clause in which *wearð* is the finite verb in the past tense and any main clause containing *wæs*. Usually with this method, all and only tokens belonging to the same word or phrase type constitute a collexeme. This works when thousands of observations are available (as, for instance, in Hilpert 2008). With the data I have for *wearð*- and *wæs*-constructions, amounting to about 200 observations per construction per period, it is useful to group more than one type of time adverbial into larger semantic categories. Using such collexeme categories increases the average frequency of each collostruct (i.e. each construction-specific collocational pattern), which makes significant semantic distinctions easier to spot. A complete list of categories with some representative members is given in table 3 (spelling has been regularized).¹² The grammaticalized items *þa* ‘then (single occurrence)’ and *þonne* ‘then (iterative/generic, ‘each time when X, then’)’ have each been classed under separate categories (THO and THEN respectively).

The results of the distinctive collexeme analysis are summarized in tables 4–7. *CollostructionalStrength* in these tables represents the strength of association between a category of time adverbials and one of the copulas *wearð* or *wæs*.¹³ All categories have been included in the tables that had a CollStr of 1 or more, which is equivalent to a significance of $p < 0.05$. Unfortunately, it is not possible with this method to plot the development of the constructional strength of a particular time adverb over time, because CollStr is extremely sensitive to the raw frequencies of both collostructs for each period examined. The tables can still be compared with regard to their relative rankings of time adverbials, and this turns out to be quite revealing.

Many of the examples given in this article illustrate the preferences revealed by tables 4–7: *wearð* occurs with ON_TIME in (12), with THO in (14), and with THO + ALL_OF_A_SUDDEN in (18). Likewise, *wæs* occurs without any time adverbial in (2) and (10), with THROUGHOUT_PERIOD in (19), and with ALWAYS in (4). Quite clearly, the tables and the examples show that there is a high collostructional strength between *wearð* and time adverbials that define temporal segments marking progress in the narrative. All time adverbials but one in the column for *wearð* clearly have this function – the odd one out is *never* in the period 951–1051, whose occurrence may be related to a (possibly conflicting) preference for *weorðan* in clauses negating something (see Kilpiö 1989: 65). The collostructional strength of *wearð* is particularly high with two

¹² The category OTHER merges any provisional categories that only had five or fewer members. When more than one time adverbial is present, each has been classed separately as long as each one belonged to a separate category (when, for instance, *þa* occurred twice in the same sentence it is only counted once).

¹³ Because the data of the two alternating pairs should preserve the frequency with which each construction occurs in the corpus, I multiplied the data of *wæs* (which are based on a 10 per cent sample) by 10, so as to get figures for the entire corpus, similar to the data for *wearð* (hence the figures in italics in tables 4–7). Inevitably, such a projection lowers the reliability of the results, but these being so clearcut the impact of this effect is negligible.

Table 3. *List of categories of time adverbials*

AFTER_X: *after his death, embe ten night* ‘after ten nights’, *sithen (X V-ed)* ‘afterwards, after X V-ed [i.e., introducing a subordinate clause of time]’, *þæs* ‘after’;

AGAIN: *eft, new*;

ALL_OF_A_SUDDEN: *anon, feringe, ferly, forthright, radly, rathe, samnunga, soon, soon so X V-ed* ‘as soon as X V-ed’, *thereright*;

ALWAYS: *ay* ‘always’, *day and night, simble* ‘always’, *on the worlds’ worlds* (Latin *in seculum seculi*) ‘in the age(s) of the age(s), in eternity’;

ERE_X: *ere (X V-ed), before, 1118 years ere, erer, the ere, fern* ‘long ago’, *geo* ‘long ago’, *far ere before, ere any world’s time*;

FINALLY: *last, at next, at the end, at the last*;

FIRST: *erest, first*;

FROM_TIME: *from frumth* ‘from the beginning’, *from the Easter tide, of tide* ‘from that time’;

NEVER: *never*;

NoAdverbial: [No time adverbial is present];

NOW: *now, here*;

OFTEN: *oft*;

ON_TIME: *at a fight, by light day, four nonarum January’s* ‘January 4th’, *on morrow* ‘in the morning’, *on DAY X, on YEAR X, on her restday* ‘on their restday’, *here* (in chronicle entries), *on this eld* ‘in this age’, *this day*;

OTHER: *newen* ‘recently’, *sithlice* ‘lately’, *not yet, (ever) so longer so X, the longer*;

REPEATEDLY: *ylomely* ‘repeatedly’, *many a sithe* ‘many a time’, *so oft so X V-ed, in all the seven years each day*;

STILL: *yet, gen, whether*;

THEN: *then, then X V-ed, when X V-ed*;

THO: *tho, (tho) tho X V-ed (tho)*;

THROUGHOUT_PERIOD: *all day, all the winter, long throw, many days, seven years, to life* ‘during life’, *yond the seven nights, 50 days, 5228 winters*;

UNTIL: *a-that X V-ed* ‘until X V-ed’, *oth this* ‘until this’, *till even* ‘till the evening’, *till X V-ed*;

WHILE_X: *imong this doom* ‘during this judgment’, *the while the X V-ed, mid the X V-ed, with that X V-ed* ‘while X V-ed’;

WITHIN_X: *binnen X* ‘within X’, *in one tide* ‘within one hour’.

Table 4. *951–1050*

Wearð	CollStr	Wæs	CollStr
THO	4.65	NoAdverbial	7.67
AFTER_X	3.23	STILL	2.54
ALL_OF_A_SUDDEN	2.91	THEN	2.54
WITHIN_PERIOD	2.89	FIRST	2.03
ON_TIME	2.25	THROUGHOUT_PERIOD	1.72
NEVER	1.92		
NOW	1.92		
AGAIN	1.31		

(N of time adverbials co-occurring with *wearð* = 269; *wæs* = 2190)

Table 5. 1051–1150

<i>Wearð</i>	CollStr	<i>Wæs</i>	CollStr
ALL_OF_A_SUDDEN	7.82	NoAdverbial	15.31
THO	6.51	THROUGHOUT_PERIOD	1.79
AFTER_X	5.27	ALWAYS	1.73
ON_TIME	3.20	ERE_X	1.73
AGAIN	1.69		
ALL_OF_A_SUDDEN	7.82		

(N of time adverbials co-occurring with *wearð* = 209; *wæs* = 960)

Table 6. 1151–1250

<i>Wearð</i>	CollStr	<i>Wæs</i>	CollStr
ALL_OF_A_SUDDEN	7.97	NoAdverbial	8.66
THO	7.91	THROUGHOUT_PERIOD	3.45
ON_TIME	4.67	NEVER	2.28
WITHIN_PERIOD	3.26		
AFTER_X	1.55		

(N of time adverbials co-occurring with *wearð* = 164; *wæs* = 1820)

Table 7. 1251–1350

<i>Wearð</i>	CollStr	<i>Wæs</i>	CollStr
THO	7.04	NoAdverbial	2.49
WHILE_X	1.63		
WITHIN_PERIOD	1.63		

(N of time adverbials co-occurring with *wearð* = 44;
N of *was* = 3140)

categories of time adverbials that are clearly associated with boundedness. The first of these is *THO*, which has already been introduced as the most typical demarcator of a temporal segment. (21), from an Anglian gloss of the Vulgate, once again illustrates how strongly *wearð* and a bounding time adverbial such as *þa* evoke each other in OE. Despite it being a gloss, and despite the presence of another, partially open-ended time adverbial (*ex illa hora* ‘from that time onwards’), it still adds *þa* to this clause that uses *wearð* as well. By contrast, the version from the Wyclif Bible in (22) – which has already been mentioned for its lack of bounded constructions in section 4 – uses neither *þa* nor *wearð*, but only *was*.

- (21) & hælend ... cwep dohter, ... geleafa þin þec halne dyde &
And Saviour said daughter, faith yours you healthy made and

warð ða hal þæt wif **of þære hwile.**
became then healthy that woman **from that time.**

- ‘And the Saviour said “Daughter, your faith has made you healthy” and **then** that woman **became** healthy **from that time onwards.**’ (c.950. *MtGI* (Ru) 9: 22)
- (22) And Jhesus . . . seide, Douytir, . . . thi feith hath maad thee saaf. And the womman **was hool fro that our.**
 ‘And Jesus . . . said: “Daughter, . . . your faith has made you safe.” And the woman **was** healthy **from that hour on.**’ (a.1425(c.1395) *WBible*(2), Mt 9: 22)
 (Latin: ‘At Iesus . . . dixit “confide filia fides tua te salvam fecit” et salva **facta est** mulier **ex illa hora.**’ (*Vulgate*, Mt 9: 22))

The second category is *ALL_OF_A_SUDDEN*. This category contains various time adverbials, all of which fit well with the notion of boundedness, as they collapse topic time to a single point in time, the functional bottom limit that a bounding construction can have. OE/ME *sona/sonne* ‘suddenly’, the most frequent member of this category, deserves special mention, as, in addition to its temporal semantics, it has also developed a function as a foregrounding or focalizing device. Such a function is also found in Dutch and German, which make ample use of similar adverbs (for instance *plots(eling)*, *ineens*, *onmiddellijk* in Dutch). Interestingly, *þa* too developed a focal use in OE when in clause-internal positions (see van Kemenade & Los 2006), and overall there seems to be a strong relation between time adverbs marking narrative progress and focalizers in bounded language use (see also footnote 8). In general, the strong association of *wearð* with these two categories of time adverbials, even if functioning as focalizers, corroborates the hypothesis that *wearð* was part and parcel of the bounded system of OE.

By contrast, *wæs* usually lacks the accompaniment of any time adverbial whatever. In those cases it seems to designate an unbounded, imperfective state that held at some point in the past and which usually provides backgrounded information. Those categories of time adverbial that do collocate with *wæs* a significant number of times mostly have a function quite different from the foregrounding function of marking narrative progress. This holds first for the group of three categories *ALWAYS*, *THROUGHOUT_PERIOD* and *STILL*, which all score highly in collostructional strength with *wæs*, and which have in common a component of duration. Most of the instances belonging to this group are found in clauses providing backgrounded information, such as the clause containing *welneah XX wintra* ‘almost 20 winters’ given in (19), which gives information on how long King Cnut reigned before he died (the main event), and which, despite being a main clause syntactically, is clearly subordinate in function. *ERE_X* as well often collocates with *wæs* to provide backgrounded information on a situation that either pertained up to the event of the main clause, or for some time in a more remote past. The category is particularly frequent in subordinate clauses – which are not included in tables 4–7 – as for instance in the subordinate clause in (23).

- (23) **Ða wæs** se calic eft swa gehal swa he **ær wæs.**
Then was the chalice again so whole as it **ere was**
 ‘**Then** the chalice **was** whole again as it **had been** before.’

(c.1000. *Mart* 5 (Kotzor): Au7, A.8)

Finally, there are instances of *wæs* collocating with time adverbials that do normally mark progress in the narrative. This implies that, ultimately, *wæs* really was an alternative for *wearð* in most of its uses, although it still seems possible to discern a distinction in emphasis. Thus, the occurrence of *þa wæs* in (23) might still be interpreted as putting emphasis on the state resulting from the action expressed in the preceding clause rather than on the process of becoming whole again. Importantly, this use of *wæs* was relatively infrequent as compared to its other uses, and therefore the breakdown of the bounded system did not overall affect the use of *wæs* very much, unlike its effect on *wearð*.

While collostructional strengths cannot be straightforwardly compared between periods with different sample sizes, it is still likely that the association of *wearð* with the bounding time adverbials, in particular *THO* and *ALL_OF_A_SUDDEN*, was probably at its strongest during the period 1051–1150. This period has higher values than those of its neighbouring periods, despite having the smallest sample size – values tend to increase with greater sample size.¹⁴ So not only was *wearð* tied up with bounding time adverbials throughout its history, in OE there even appears to have been a language-internal development towards an ever stronger association of *wearð* with the bounded system, until the time when it started to break down. Two alternative explanations for the difference between 951–1050 and 1051–1150 need to be mentioned. First, the period 951–1050 contains more Anglian material, and thus the difference might simply be a matter of dialect differences. Second, the period 951–1050 contains verse material while the sample for 1051–1150 does not. However, both these conditions also hold for the period 1151–1250, which still has higher collostructional strengths for *THO* and *ALL_OF_A_SUDDEN* than 951–1050. Thus, even while the bounded system and *wearð*'s association with it might have been grammaticalized to the highest degree in West Saxon (the dominant dialect in 1051–1150), the figures provide ample evidence that basically the same conditions held across all dialects of English. Significantly, the collostructional strength between *wearð* and bounding time adverbials remains very high when *wearð* starts disappearing. This again holds especially for *THO* and *ALL_OF_A_SUDDEN*. While both of these decrease during early and late ME – *THO* quite drastically (Westergaard 2009), *ALL_OF_A_SUDDEN* more gradually – their co-occurrence rate with *wearð* hardly decreases at all (except for *ALL_OF_A_SUDDEN* in the last period). This is shown in table 8, which gives the number of occurrences of time adverbials per 1,000 instances of *wæs/wearð*. A gradual, though less marked, decrease also seems to be the fate of the time adverbials belonging to the category *ON_TIME*, which is evidence that all adverbials marking narrative progress are affected. By contrast, the frequency of a time adverbial typically associated with *wæs*, such as *THROUGHOUT_PERIOD*, does not significantly change. Table 8 once more shows how the fate of *wearð* is tied up with the fate of time adverbials that mark narrative progress.

¹⁴ The last period, 1251–1350, is harder to compare in general, as the number of instances of *wearð* has dropped so drastically.

Table 8. *Frequencies of time adverbials normalized per 1,000 past tense indicative copulas*

	951–1050		1051–1150		1151–1250		1251–1350	
	<i>Wearð</i>	<i>Wæs</i>	<i>Wearð</i>	<i>Wæs</i>	<i>Wearð</i>	<i>Wæs</i>	<i>Wearð</i>	<i>Wæs</i>
ALL_OF_A_SUDDEN	74	32	139	31	110	16	25	12
NoAdverbial	401	580	230	531	470	703	475	696
ON_TIME	67	32	120	52	79	16	0	12
THO	294	183	392	219	220	71	375	71
THROUGHOUT_PERIOD	4	23	5	31	0	49	0	36

In sum, given the evidence presented in this section, it is not surprising that, when time adverbials of narrative progress drastically decrease in frequency during the thirteenth and fourteenth centuries (together with other constructions belonging to the bounded system), *wearð* is lost with them.

5.5 *Wearð and inversion*

Besides its association with certain types of time adverbials, *wearð* also seems to be associated with inverted word order, as in (18), here repeated as (24).

- (24) Heo hine freclice bat. **Þa wearð** heo **sona** fram deofle gegripen.
 She him heavily beat. **Then got** she **suddenly** from devil seized.
 ‘She beat him heavily. **Then** she **was/got suddenly** seized by the devil.’
 (c.1025. *GD* 1 [C]: 4.31.1)

The variable of word order is relevant because verb-second syntax and boundedness seem to go hand in hand (as implied in Los 2009: 104–6), while an unbounded system is typically subject-initial. While there are many instances of *þa* or other bounding time adverbials that do not cause inversion, the lexeme causing inversion is very often one of them, like *þa* in (18). This overlap may seem to make testing *wearð*'s association with inverted word order redundant. However, inversion constitutes an interesting additional testing variable, because measuring the association between *wearð* and inversion gives insight into the global effect of the formal side of the bounded system on the loss of *wearð*, where the collostructional analysis with various time adverbials pins down the most conspicuous semantic conspiracy between *wearð* and boundedness. Inversion not only occurs with time adverbials in first position but also with other items such as spatial (frequently *þær* ‘there’) or argumentative (*þurh þæt/X* ‘through that/X’) adverbs or adverbial prepositional phrases. The similarity in bounding function of temporal and spatial adverbials is established and further elaborated for German in Carroll & Lambert (2003: 169–70). For OE, their function as discourse-anchors has been established by Los (2009: 104). Put briefly, spatial adverbials perform a function similar to those

Table 9. *Word order differences between wearð-and wæs-main clause constructions in prose*

	951–1050		1051–1150		1151–1250		1251–1350	
	<i>Wearð</i>	<i>Wæs</i>	<i>Wearð</i>	<i>Wæs</i>	<i>Wearð</i>	<i>Wæs</i>	<i>Wearð</i>	<i>Wæs</i>
No inversion	61	77	82	66	21	37	0	6
Inversion	51	36	73	19	25	15	0	0
P-value	0.012	<0.001	0.006				–	
[Excluded prose]	[15]	[23]	[12]	[4]	[21]	[2]	[0]	[0]

of time adverbials, which is also partially bounding, in that they define the topic space, i.e. the space within whose boundaries a certain assertion holds. Argumentative prepositional phrases are less transparently bounding structures, but they arguably limit a clause to a certain region in argumentative space. Put differently, all the possible fillers of the first position-slot share a function of structuring information, in anchoring the clause to the preceding one and, in that way, locating it in time, space or argumentative space.

The close relationship between boundedness and verb-second is further corroborated by the fact that the loss of verb-second proceeded simultaneously with the loss of time adverbials such as *þa* and *sona*. Particularly significant is the simultaneity of the loss of verb-second and that of *sona*, as *sona* only rarely takes up the first position in the clause, which makes it important independent semantic evidence. Van Kemenade & Westergaard (in prep.) show that the logic behind the verb-second system was falling apart after 1300 (at the latest), and that there is evidence for both partial overgeneralization of verb-second in contexts where it was not previously attested, and for a decrease in use and loss of the information-structural relevance of verb-second in contexts where it was previously more robust. Specifically with regard to *þa* (and *þonne*), Fuß & Trips argue that its status as a trigger of verb-second is lost roughly in the period 1340–1475 (Fuß & Trips 2003; Trips & Fuß 2007). In general, careful assessment of the evidence leads to the conclusion that ‘verb-second was all but defunct by 1500’ (Los 2009: 110; see also Warner 2007).

Given the relevance of verb-second and concomitant inversion for a bounded system, a strong association of *wearð* with verb-second would once again confirm its loss as the consequence of the collapse of that system. Table 9 gives the significance of the different frequencies with which *wearð* and *wæs* co-occur with inverted subjects in main clauses, based on the one-sided Fischer-exact test.¹⁵ As word order in verse texts tends to be less representative of word order in spoken language, only prose texts have been taken into account. As a consequence of this, hardly any data are available for

¹⁵ Los (2009), quite rightly, points out that a finer-grained distinction needs to be made between inverted subjects and late subjects. Making this distinction, however, would not change the main tenets of the data presented here.

the final period 1251–1350, in which prose narratives are very poorly documented. Also left out are those cases where the subject is not overtly expressed (either because it is not expressed at all, or because it has undergone ellipsis in the second part of a conjunct), as well as verb-first clauses, whose loss during late Old English preceded the decrease of *weorð*.

As it turns out, the association of *weorð* with inverted word order is highly significant throughout, and this is further evidence that its fate is tied up with the breakdown of the bounded system of OE.

6 Evaluation and conclusion

In most previous studies, the loss of *weorðan* has been explained by appealing to its competition with the copula-cluster *is/beon/wesan* as a copula or (most often) a passive auxiliary. By contrast, it was shown in this article that the decrease of *weorðan* is not dependent on the type of complement the verb takes. Instead, a distinction needs to be made between present and past tense. In this article I focused on the past tense, and on the important part played by narratives in that tense. Ongoing research suggests that in the present tense other factors, such as the development of an analytic future with *shall*, are more important, but this topic is reserved for future publications. For the past tense I have shown that the loss of *weorð* is linked to its strong association with two interrelated constructions typical of a bounded language system, notably those involving time adverbials marking progress in the narrative, and the inversion construction (verb-second syntax). More thorough research on word order and the function of time adverbs such as *þa* and *sona* against the background of boundedness theory might shed more light on the relationship between time adverbials and their position, and might lead to refinements of the present analysis. What has clearly been established is that an association exists between *weorðan*, *þa* and inversion, that *weorðan* is almost always used resultatively, and that it is likely that the loss of *þa* and inversion, both core parts of the OE system of boundedness, had an immediate impact on the frequency of *weorðan*.

In explaining the loss of *weorð* as due to a shift in the way grammar is used to structure narratives, my account goes beyond simply positing loss through competition with a more frequent form *wæs*. Not frequency but embeddedness within a network of constructions is of primary importance in the survival of one of the competing forms. The idea that a constructional subsystem of a language's grammar has an impact on its lexicon can probably be fruitfully applied to the history of other function words and other languages as well. Shifting constructions have already been appealed to by Los (2002) in accounting for the loss of *man* 'they' in Old English, a phenomenon also clearly related to the shift in English from a verb-second to an SVO language. Incidentally, it can thus probably be fitted into the same story as the one presented here on boundedness, and this leads me to a final important consideration: while I made a case for the breakdown of the bounded system by the fourteenth century only in order to account for the loss of *weorð*, it is obvious that this breakdown and the development

of an alternative is in itself a highly interesting topic that needs further looking into.

Author's address:
Dept. Linguïstiek
Katholieke Universiteit Leuven
Blijde-Inkomststraat 21, postbus 3308
B-3000 Leuven
Belgium
peter.petre@arts.kuleuven.be

References

- Angart, Olof (ed.). 1968. *The Middle English Genesis and Exodus* (Lund Studies in English 36). Lund: Gleerup.
- Biber, Douglas. 1991. *Variation across speech and writing*. Cambridge: Cambridge University Press.
- Biese, Yrjö M. 1932. Die neuenglischen Ausdrücke des Werdens in sprach-geschichtlicher Beleuchtung. *Neuphilologische Mitteilungen* 33, 214–24.
- Biese, Yrjö M. 1952. Notes on the use of ingressive auxiliaries in the works of William Shakespeare. *Neuphilologische Mitteilungen* 53, 9–18.
- Brinton, Laurel. 1988. *The development of English aspectual systems*. Cambridge: Cambridge University Press.
- Bybee, Joan. 2003. Mechanisms of change in grammaticization. In Brian D. Joseph & Richard D. Janda (eds.), *The handbook of historical linguistics*, 602–23. Oxford: Blackwell.
- Carroll, Mary & Christiane von Stutterheim. 2003. Typology and information organisation: perspective taking and language-specific effects in the construal of events. In Anna Ramat (ed.), *Typology and second language acquisition*, 365–402. Berlin: Mouton de Gruyter.
- Carroll, Mary & Monique Lambert. 2003. Information Structure in narratives and the role of grammaticised knowledge: A study of adult French and German learners of English. In Christine Dimroth & Marianne Starren (eds.), *Information structure and the dynamics of language acquisition*, 267–87. Amsterdam: John Benjamins.
- Carroll, Mary, Christiane von Stutterheim & Ralf Nuese. 2004. The language and thought debate: A psycholinguistic approach. In Thomas Pechmann & Christopher Habel (eds.), *Multidisciplinary approaches to language production* (Trends in Linguistics: Studies and Monographs 157), 183–218. Berlin: Mouton de Gruyter.
- Croft, William. 2000. Parts of speech as language universals and as language-particular categories. In Petra M. Vogel & Bernard Comrie (eds.), *Approaches to the typology of word classes* (Empirical Approaches to Language Typology 23). Berlin: Mouton de Gruyter.
- Croft, William. 2001. *Radical Construction Grammar. Syntactic theory in typological perspective*. Oxford: Oxford University Press.
- Declerck, Renaat. 2007. Distinguishing between the aspectual categories '(a)telic', '(im)perfective' and '(non)bounded'. *Kansas Working Papers in Linguistics* 29, 48–64.
- Denison, David. 1993. *English historical syntax: Verbal constructions*. London: Longman.
- DOE: *Dictionary of Old English. A-G on CD-ROM*. 2008. Toronto: PIMS.
- DOEC: *Dictionary of Old English Corpus*. www.doe.utoronto.ca/pub/corpus.html (accessed 19 January 2009).
- Enkvist, Nils E. 1986. More about the textual functions of the Old English adverbial *Pa*. In Dieter Kastovsky & Aleksander Szwedek (eds.), *Linguistics across historical and*

- geographical boundaries: In honour of Jacek Fisiak on the occasion of his fiftieth birthday*, 301–9. Berlin: Mouton de Gruyter.
- Frary, Louise G. 1929. *Studies in the syntax of the OE passive, with special reference to the use of 'wesan' and 'weorðan'* (Language Dissertation no. 5). Linguistic Society of America.
- Fuß, Eric & Carola Trips. 2003. *Pa, þonne and V2 in Old and Middle English*. Presented at the annual LAGB meeting, University of Oxford.
- Geeraerts, Dirk. 2000. Saliency phenomena in the lexicon: A typology. In Liliana Albertazzi (ed.), *Meaning and cognition*, 79–101. Amsterdam: John Benjamins.
- Goldberg, Adele. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.
- Goldberg, Adele. 2006. *Constructions at work: The nature of generalization in language*. Oxford: Oxford University Press.
- Gotti, Maurizio, Marina Dossena & Richard Dury (eds.). 2008. *English historical linguistics 2006*, vol. 1: *Historical syntax and morphology. Selected papers from the fourteenth International Conference on English Historical Linguistics (ICEHL 14), Bergamo, 21–25 August 2006*. Amsterdam: John Benjamins.
- Green, Eugene. 2009. Synonymy and obsolescence: The example of Old English *weorþan*. Presented at Studies in the History of the English Language 6 (SHEL 6), Banff, AB.
- Gries, Stefan T. & Anatol Stefanowitsch. 2004. Extending collocation analysis: A corpus-based perspective on 'alternations'. *International Journal of Corpus Linguistics* 9(1), 97–129.
- HC: *Helsinki Corpus of English Texts: Diachronic Part* (ICAME, version 2). 1999. Matti Rissanen et al. Helsinki: Department of English.
- Hilpert, Martin. 2008. *Germanic future constructions: A usage-based approach to language change*. Amsterdam: John Benjamins.
- Kemenade, Ans van & Bettelou Los. 2006. Discourse adverbs and clausal syntax in Old and Middle English. In Ans van Kemenade & Bettelou Los (eds.), *The handbook of the history of English*, 224–48. Oxford: Blackwell.
- Kemenade, Ans van & Marit Westergaard. in prep. Syntax and information structure: The diverse nature of V2 in Middle English. To be submitted to volume on Information structure in language change (Oxford Studies in the History of English). Oxford: Oxford University Press.
- Kemenade, Ans van, Bettelou Los & Marianne B. P. Starren. 2008. *From bounded to unbounded events: what the rise of the progressive in early Modern English can tell us about the causes of typological shift*. www.ru.nl/aspx/download.aspx?File=contents/pages/309843/aioplaats2008sep23.doc (accessed 31 August 2009).
- Killie, Kristin. 2008. From locative to durative to focalized? The English progressive and 'PROG imperfective drift'. In Gotti, Dossena & Dury (eds.), 69–88.
- Kilpiö, Matti. 1989. *Passive constructions in Old English translations from Latin: With special reference to the OE Bede and the Pastoral Care* (Mémoires de la Société Néophilologique de Helsinki 49). Helsinki: Société Néophilologique.
- Kilpiö, Matti. 1993. Syntactic and semantic properties of the present indicative forms of the verb *to be* in Old English. In Matti Rissanen, Merja Kytö & Minna Palander-Collin (eds.), *Early English in the computer age: Explorations through the Helsinki Corpus*, 21–32. Berlin: Mouton de Gruyter.
- Klein, Wolfgang. 1994. *Time in language*. London: Routledge.
- Klingebiel, Josef. 1937. *Die Passivumschreibungen im Altenglischen*. Bötting: Postberg.
- Kurtz, Georg. 1931. *Die Passivumschreibungen im englischen*. Ohlau: Dr Hermann Eschenhagen.

- Langacker, Ronald. 1987. *Foundations of Cognitive Grammar*, vol. 1: *Theoretical prerequisites*. Stanford: Stanford University Press.
- Los, Bettelou. 2000. *Onginnan/beginnan* in Ælfric with bare and to-infinitive. In Olga Fischer, Anette Rosenbach & Dieter Stein (eds.), *Pathways of change. Grammaticalization in English* (Studies in Language Companion Series 53), 251–74. Amsterdam: John Benjamins.
- Los, Bettelou. 2002. The loss of the indefinite pronoun *man*. In Teresa Fanego, Maria José Lopez-Couso & Javier Perez-Guerra (eds.), *English historical syntax and morphology. Selected papers from 11 ICEHL, Santiago de Compostela, 7–11 September 2000*, 181–202. Amsterdam: John Benjamins.
- Los, Bettelou. 2009. The consequences of the loss of verb-second in English: Information structure and syntax in interaction. *English Language and Linguistics* 13(1), 97–125.
- Lutz, Angelika. 1991. *Phonotaktisch gesteuerte Konsonantenveränderungen in der Geschichte des Englischen*. Tübingen: Niemeyer.
- MEC: *Middle English Compendium* <http://quod.lib.umich.edu/c/cme/> (accessed 3 September 2009).
- MED: *Middle English Dictionary*. <http://quod.lib.umich.edu/m/med/> (accessed 5 September 2009).
- Mitchell, Bruce. 1985. *Old English syntax*, vol. 1: *Concord, the parts of speech and the sentence*. Oxford: Clarendon Press.
- Müller, Torsten. 2009. Construction grammar, grammaticalisation and the Old English *wurthe*-passive. Presented at Middle and Modern English Corpus Linguistics (MMECL), Innsbruck.
- Petré, Peter & Hubert Cuyckens. 2008. The Old English copula *weorðan* and its replacement in Middle English. In Maurizio Gotti, Marina Dossena & Richard Dury (eds.), *English historical linguistics 2006*, vol. 1: *Historical syntax and morphology. Selected papers from ICEHL 14*. 23–48. Amsterdam: John Benjamins.
- Petré, Peter & Hubert Cuyckens. 2009. Constructional change in Old and Middle English copular constructions and its impact on the lexicon. *Folia Linguistica Historica* 30, 311–65.
- PPCME2: *Penn-Helsinki Parsed Corpus of Middle English*, 2nd edn. Anthony Kroch. www.ling.upenn.edu/hist-corpora/ (accessed 31 August 2009).
- Smith, Carlota. 1997 [1991]. The parameter of aspect, 2nd edn (Studies in Linguistics and Philosophy 43). Dordrecht: Kluwer.
- Stutterheim, Christiane von. 2002. Konzeptualisierung und Versprachlichung von Ereignissequenzen. www.idf.uni-heidelberg.de/fileadmin/user_download/antrag_KVE.pdf (accessed 20 November 2009)
- Trips, Carola & Eric Fuß. 2007. The syntax of temporal anaphora in early Germanic. Presented at CGSW, Stuttgart.
- Tweeddale, M. 1598. *Biblia Sacra juxta Vulgatam Clementinam*. <http://vulsearch.sf.net/html> (accessed 31 August 2009).
- Wandschneider, Wilhelm. 1887. *Zur Syntax des Verbs in Langleys Vision of William concerning Piers the plowman, together with Vita de Dowel, Dobet et Dobest*. Leipzig: Richter.
- Warner, Anthony. 2007. Parameters of variation between verb–subject and subject–verb order in late Middle English. *English Language and Linguistics* 11, 81–111.
- Wattie, J. M. 1930. Tense. *English Studies* 16, 121–43.
- Westergaard, Marit. 2009. Word order in Old and Middle English: The role of information structure and first language acquisition. *Diachronica* 26(1), 65–102.
- Wischer, Ilse. 2006. Markers of futurity in Old English and the grammaticalization of *shall* and *will*. *Studia Anglicana Posnaniensia: International Review of English Studies* 42, 165–79.
- worth, v.². *The Oxford English Dictionary*. 2nd edn. 1989. *OED Online*. Oxford: Oxford University Press. 4 April 2000. <http://dictionary.oed.com/cgi/entry/50287355>.

- YCOE: *The York-Toronto-Helsinki Parsed Corpus of Old English Prose*. 2003. Ann Taylor et al. York: Department of Language and Linguistic Science.
- YPC: *York-Helsinki Parsed Corpus of Old English Poetry*. 2001. Susan Pintzuk & Leendert Plug. York: Linguistics Department.
- Zieglschmid, A. J. Friedrich. 1929. Is the use of *wesan* in the periphrastic actional passive in the Germanic languages due to Latin influence? *Journal of English and Germanic Philology* 28, 360–5.
- Zieglschmid, A. J. Friedrich. 1930. The disappearance of *WERDAN* in English. *Philological Quarterly* 9, 111–15.