

# The rise and fall of the passive auxiliary *weorðan* and strict Verb-Second in the history of English

## Reichenbach events in diachrony

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### Abstract

The rise and fall of the passive auxiliary *weorðan* (WERDEN) in the history of English is investigated. We provide a new structural analysis of why and in what languages the passive diathesis can / cannot use the copula BE as auxiliary. We will do so in a comparative perspective within Germanic and Romance. We provide 1. language internal structural variation in BE and WERDEN as passive auxiliaries in relation with Verb-Second, 2. cross-linguistic i.e. comparative data of this variation 3. diachronic data on Old English *weorðan* that ties the need of a separate passive auxiliary to the Verb second constraint. It turns out that Old English displays a temporary rise and fall of strict-V2 around 1000, as well as a rise and fall of *weorðan*, which developments can be related because they comply to Kroch's Constant Rate Hypothesis (CRH). Finally, we sketch the first contours of a grammatical model that umbrellas tense/aspect, V2, and the passive diathesis, which predicts this correlation. By modifying Giorgi's projection of the Reichenbachian event indexes S,E, and R onto the syntax, we show that the (in)equality of these indexes is not ruled by structural templates stored in the lexicon, but are dynamically ruled by the syntax.

## 1. The decline of *weorðan* in English

### 1.1 The problem

Let us first sketch the problem. While in French, Portuguese and English the static copula BE can be used as passive auxiliary, as illustrated in (1-3), this is not possible in for instance German, Dutch and Frisian, illustrated in (4-6). Instead of the copula, German, Dutch and Frisian make use of a separate passive auxiliary that we will gloss with WERDEN, after the German infinitival form. It is derived of the inchoative copular verb *werden* 'become' rather than from the static copular *sein*.

- (1) a. Les enfants **sont** complètement dépendants des parents  
b. Les enfants **sont** toujours mis au lit avant 8 heures par l'un des parents
- (2) a. As crianças **são** totalmente dependentes dos adultos  
b. As crianças **são** sempre colocados na cama antes das 8 horas por um dos pais
- (3) a. The children **are** completely dependent on their parents  
b. The children are always brought to bed by their parents before 8 o'clock  
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- (4) a. Die Kinder **sind** ganz und gar der Eltern abhängig  
b. Die Kinder **werden** immer vor 08.00 Uhr von einem der Eltern ins Bett gebracht
- (5) a. De kinderen **zijn** geheel afhankelijk van de ouders  
b. De kinderen **worden** altijd vóór 8 uur naar bed gebracht door één van de ouders
- (6) a. De bêrn **binne** hielendal ôfhinklik fan 'e âlders  
b. De bêrn **wurde** altyd fuar achten op bêd brocht troch ien fan 'e âlders

Old-English patterns with Continental Germanic in having a separate passive auxiliary *weorðan* (7b), next to the copula *beon/wesan*, illustrated in (7a).

- (7) a. he **wæs** þes biscepes nefe of Searesbyrig                      CMPETERB,44.91....  
           he was the.GEN bishop cousin of Salisbury  
           'He was the cousin of the bishop of Salisbury'  
       b. Þa **wurdon** hig mid unwisdome gefyllede                      (c 1025. Lk (WSCp))  
           then were they with fury filled  
           'Then they were filled with fury'

Modern English (3ab) patterns with the Romance languages, while Old-English seems to be more like the Continental West Germanic. The passive use of *weorðan* disappears after 1200 gradually, and is absent at the beginning of the Middle English period. Many studies have made this change in the history of English to their object of research. Why did it happen? How did it happen? Did it happen because of external influences or are their language-internal causes? Is it a consequence of the gradual disappearance of the inchoative copular itself? A problem is that BE was always used next to *weorðan* as a passive auxiliary, i.e. there is not an attested "pure stage" of *weorðan*. Both auxiliaries were usually mixed, as illustrated in (8) taken from one Chronicle, written around 900, where *wesan* and *weorðan* seem in alternation: a king in 651 is killed with *beon*, a king in 654 is killed with *weorðan*.



- (8) a. Her Oswine kyning **wæs** ofslægen [...]                      (Annal 651)  
       b. Onna cyning **wearþ** ofslægen.                                      (Annal 654)  
           'In 651 King Oswine was killed [...] In 654 King Onna was killed.'

Did they have different semantics (Petré 2014)? Or did *wesan* simply outcompete *weorðan* because of its higher frequency, cf. Zieglschmid's (1931, Mitchell (1985)? Was it a calque, a borrowing from Latin or French (Klingebiel 1937, Green 2009)? Or had it a structural cause, as Petré (2010) argues? In this paper, we will make grammatical, comparative, and diachronic study of the passive auxiliary in eventive contexts. The literature on this subject is rich and we have not the illusion to cover, discuss and evaluate all the proposals. We refer to Petré (2010)'s dissertation for a recent and comprehensive description and rejection of most of these proposals. Petré argues that the change from *weorðan* to BE is related to changing discourse properties of the language. Our study can be seen as a modification, more precisely, a syntactisation of Petré's proposal. We add new synchronic correlations that should be taken into account and apply them to the diachronic problem of the decline of *weorðan*.

## 1.2 Previous approaches

As said in the introduction, many scholars have studied the decline of *weorðan* in the history of English. They have attributed the decline either to external competition (i.e. the influence of French) or as internal competition: the more frequent verb BE was a competitor. Neither of them consider the possible grammatical causes or study, at least, the grammatical impact of the change. Only Petré (2010) considers structural causes in the different discourse properties of the constructions with BE and with WERDEN. He does so from a pragmatic perspective. The results are convincing but the correlations seem to be derived rather than direct. To what extent Petré's discourse approach is orthogonal to the semantic stand taken in Petré (2014) is unclear to me. Though we adopt a purely formal syntactic approach to the decline of *weorðan*, our explanation, which attributes the decline in the changes in Verb-second, can be seen as a syntactic variant of Petré's. As changes in V2 has attested impact in the discourse structure of a language (Los 2009, Van Kemenade & Westergaard 2014), we should not be

surprised if we see a correlation. However, we argue that the link is mediated via the syntax: the correlation with the syntactic phenomenon of V2 is significant, while it is weak and derived with the discourse properties.

- (9) Petré 2010: Decline of *weorðan*  changes in discourse properties  
This study: Decline of *weorðan* ↔ Changes in V2  changes in discourse properties

The structure of this study is as follows. First we provide synchronic grammatical evidence from a range of Germanic languages and dialects indicating that the need of WERDEN is not absolute, but is a function of the syntactic context. We consider two configurations: tense/aspect periphrasis and passive of causative constructions in Dutch (dialects). It appears that the simpler the syntactic construction is, i.e. the less syntactic domains the syntactic construction has, the more WERDEN is needed over and above BE. We show that similar effects can be observed in Romance languages with V2: Rhaeto-Romance and Old French. In section 3 we make an inventory of the relevant languages studied in section 2 and show that there is a correlation with V2. In section 4 we apply this to English and study the correlation between choice between WERDEN and BE as a passive auxiliary correlates with the fall of V2. We carry out a corpus study on the parsed corpora YPC, YCOE and PPCME2, re-ordered according the Petré's LEON periodisation. It turns out that the fall of WERDEN (around 1100) is not related with the fall of V2 (around 1450), but rather of the rise and fall of *Strict V2* (around 1100). While English had and still has a V2-property of the operator type seen in Gothic (Fuss 2003), there is a ephemeral rise and fall of strict V2, as we know it from German, Dutch and the Scandinavian languages: even non-operator constituents trigger V2 when they are fronted. This ephemeral rise and fall of strict V2 and the rise and fall of *weorðan* peak around 1100. We discuss Kroch's Equal Rate Hypothesis and argue that the two peaks can be tied to a shared underlying parameter: while the activation times differ slightly but significantly, their rates are equal within the error. These two *failed changes* are probably tied to the rise of periphrastic passive constructions as such, be it with BE or with WERDEN, which was a successful change. the conclusion that *weorðan* was a failed change, peaking around 1100, and confirm the observation in Strang 1970, corroborated in Petré 2010, that *weorðan* as a passive auxiliary never played a dominant role in the history of English. We finish the paper with a theoretical proposal that links V2 and the inhibition to use BE as a passive present tense auxiliary.

## 2. Sensitivity to tense/aspect periphrasis

In this section we give a grammatical study of the use of WERDEN as a passive auxiliary in function of tense /aspect periphrasis. It shows that the choice between BE and WERDEN is not ruled by the lexicon and cannot be an arbitrary spellout effect. WERDEN and BE show different syntactic interactions. We study Dutch, Raeto-Romance, and Old French.

### 2.1 Aspect sensitivity in Dutch (dialects)

### 2.1.1 Standard Dutch

Standard Dutch is a language that has a specific passive auxiliary *worden*, the cognate of German *werden*. However, while German uses *werden* in all tenses and aspects, Dutch only uses *worden* in present (10b) and the simple past (11b).

- (10) a. Jan kust Marie present, active  
John kisses Mary  
'John kisses Mary'

- (11) b. Marie **wordt** door Jan gekust present, passive  
 Mary WERDEN.pres by John kissed  
 'Mary is kissed/being kissed by John'
- a. Jan kuste Marie past, active  
 John kissed Mary  
 'John kissed/was kissing Mary'
- b. Marie **werd** door Jan gekust past, passive  
 Mary WERDEN.past by John kissed  
 'Mary was (bing) kissed by John'

In perfect tenses Dutch uses BE, as shown in (12a). This verb BE is a convolute of the perfect auxiliary and the passive auxiliary into one verbal form. Traditional grammarians have assumed that there is a deleted *worden* in these constructions, as this is the overt form in some (Northern) dialects (12b).

- (12) a. Marie is door Jan gekust perfect, passive (Standard)  
 Mary AUX.perf.pass by John kissed  
 'Mary has been kissed by John'
- b. Marie is gisteren door Jan gekust geworden perfect, passive (dialectal)  
 Mary AUX.perf yesterday by John kissed AUX.pass  
 'Mary was kissed by John yesterday'

However, there is no need for this assumption of a deleted WERDEN, as all unaccusative verbs display the same property.

- (13) a. Marie gaat naar Amsterdam  
 Mary goes to amsterdam
- b. Marie is naar Amsterdam gegaan perfect  
 Mary AUX.pass.perf to Amsterdam gone

Dutch shows auxiliary selection in perfect tenses, i.e. it uses HAVE with unergative verbs and BE with unaccusatives. So, the AUX in (13b) does not only encode perfect tense, but also passive argumental licensing: AUX.perf.pass. This has apparently be generalized in the standard language to agentive passive constructions as in (12a).

Notice that the Dutch AUX + ptc can not only be used with a perfect tense reading but also with a past tense reading, i.e. it is a punctual past that is combinable with a past adverbials like *gisteren* 'yesterday', illustrated in (14a). The same is true for the passive past (14b). This implies that (14b) is not a static passive, as it would be combinable with present tense reading only. The fact that it is combinable with adverbs like *gisteren* 'yesterday' or *vorig jaar* 'last year' shows it is an active argumental passive.

- (14) a. Jan heeft **gisteren** hard gewerkt composed tense with past reading  
 John has yesterday hard worked  
 Yesterday, John worked very hard'
- b. Marie is **gisteren** door Jan gekust  
 Mary AUX.perf.pass yesterday by John kissed

We conclude that Standard Dutch selects WERDEN in present and simple past tenses, and BE in perfect tenses, whatever its reading is, past or perfect. This suggests that it is the higher

complexity in the perfect tenses that allows for BE and that it is the simplex nature of imperfect tenses that requires WERDEN.

### 2.1.2 *Passives of causative constructions in Dutch and Middle Dutch*

Similar sensitivity to the complexity of the construction can be observed in long passives of causative constructions. The passive diathesis is generally not possible in causative constructions with *laten* 'let'. In rare cases, *laten*+V restructures to one complex verb, as in *laten weten* 'inform', *laten vallen* 'drop', *laten gaan* 'let go'. It then allows for a passive for some speakers of Dutch (Coopmans 1985:68ff).

- (15) a. % Dat is hem op tijd laten weten  
           That AUX.perf.pass him in time make know  
           'that was told to him in time'  
       b. % Dat is door iemand laten vallen  
           that AUX.perf.pass by someone made fall  
           'That was dropped by someone'  
       c. % Deze steen is gisteren op dit huis laten vallen      (Coopmans 1985:88)  
           this stone is yesterday on this house made fall  
           'This stone was dropped on this house yesterday'

In (15a) the derived subject *dat* has moved from the object position of the embedded predicate *weten* 'know' to the structural subject position. It is a "long passive" (Burzio 1986, Kayne 1974). What Coopmans does not observe, is that these constructions are completely impossible in the present tense, i.e. if we select *worden* instead of BE, as (16) shows.

- (16) a. \*Dat wordt hem laten weten  
           that AUX.pass him made know  
           'That will be told to him'  
       b. \*Deze steen wordt morgen op dit huis laten vallen  
           this stone is yesterday on this house made fall  
           'This stone was dropped on this house yesterday'

The passive causative construction also occurs in Middle Dutch. Curiously. However, all 10 examples mentioned in Verdam 's *Dictionary of Middle Dutch* are cases with BE, not one with *worden* is reported (Verdam 1911, s.v. *laten*, p. 199).

- (17) a. Also't hemlieden **was** ghelaten weten  
           As it to-them was let.ptc know  
           'as was acknowledged to them'  
       b. Die biscop wort ghevaen ende **was** seder ghelaten gaen  
           the bishop was captured and was since let.ptc go  
           'The bishop was captured and later released'

This suggests that too much complexity, be it structural or featural, prevents WERDEN to sit in this passive construction. We may hypothesize that while BE is simple, WERDEN is complex and it is this inherent complexity that resists insertion in complex configurations. We come back to this. The situation in Standard Dutch can be compared to Latin that uses a morphological passive morphology in imperfect tenses, but periphrastic forms with BE in perfect tenses. This BE auxiliary in Latin is a convolute of passive auxiliary and perfect

auxiliary, quite similar to the situation in Dutch. The morphological passive is unavailable in perfect tenses, only periphrastic constructions.

### 2.1.3. *WERDEN* in Dutch dialects

The situation is slightly more transparent in Dutch dialects, as these do not use the convolute strategy as Standard Dutch does. While in all dialects WERDEN is used in non-composed tenses, they make use of either BE or WERDEN in composed tenses. In Flemish, WERDEN is used in non-composed tenses, but BE is used in composed tenses.

- (18)    a.     Jan **wordt** geslagen                                 WERDEN      (Flemish)  
                John WERDEN.pres.3g hit  
                'John is (being) hit'  
                b.     Jan is geslagen **geweest**                                 BE  
                John BE.perf.3g hit BE.ptc  
                'John has been hit'

In the Limburgian Eigenbilzen dialect (SAND Q086p), WERDEN is used in non-composed tenses, while there is an optionality of WERDEN and BE in composed tenses.

- (19)    a.     Jan **wordt** voortdurend geslagen                      WERDEN  
              John WERDEN.3sg all-the-time hit  
              'John is hit al the time'
- b.     Jan is geslagen **geworden/geweest**                      WERDEN/BE  
              John AUX.perf.3sg hit.ptc WERDEN.ptc/BE.ptc  
              'John has been hit'

Some Flemish dialects have this optionality as well. In the North Eastern dialects of Dutch, WERDEN is used in all tenses and aspect, just as in German.

## 2.2 Aspect sensitivity in Rhaeto-Romance

In Rhaeto-Romance, the passive auxiliary is derived from *venir* 'to come'. We give two examples from Vallader and Surselvan, both taken from Haiman & Benincà (1992) in (20a) and (20b), respectively. We take these as examples of WERDEN.

- (20)    a.     Jaw vɛŋəl klam-aws                      WERDEN  
             I come.1sg call.perf.m.sg  
             'I am called'
- b.     ε vɛŋ klam-a                              WERDEN  
             I come.1sg. call.perf.m.sg  
             'I am called'

Curiously, this typically occurs in present and simple past: “The passive in the Romansh dialects employs the verb ‘come’ as the auxiliary in non-compound tenses” (Haiman & Benincà 1992:108). In the composed tenses BE is used, although WERDEN is possible as well, illustrated in (21).

- (21)  $\varepsilon$  sun {ny /stat} klam-a WERDEN/BE  
I am come (prf.m.sg.) / be (prf.m.sg.) call (prf.m.sg.)  
'I have been called.'

The situation in Engadine dialects is, therefore, parallel to the Limburgian case, discussed above. A similar situation holds in Friulian (Iliescu 1982: 203; Benincà and Vanelli 1985: 178-94, *apud* Haiman & Benincà, *loc. cit.*).

### 2.3 Aspect sensitivity in Old French

The passive is rare in Old French (Buridant 2000:296). To the extent it occurs it is made by the auxiliary BE (Einhorn 1974:124). However, the examples given in the grammars (Kibler 1984:89, Buridant 2000:296 and 297) are all in the perfect tense (22abc), never in the imperfect tenses (*présent* and *imparfait*). In present tenses, a strategy using the reflexive clitic is used (22d).<sup>1</sup>

- |      |    |   |                     |    |
|------|----|---|---------------------|----|
| (22) | a. | e por o fut presentede Maximiiën (Eul. 11)<br>and for it was $\emptyset$ presented to Maximian<br>'and therefore she was brought before Maximian'         | perfect tense       | BE |
|      | b. | Del tot en tot i fu mal conneü (Aliscans, 2974)<br>From all to all there was badly recognized<br>'One was badly received in every respect'                | perfect tense       | BE |
|      | c. | Mes ostex ne fu onques a franc home veës (Aiol, 1755)<br>my houses NEG was ever a honorable man vetoed<br>'My house was never blocked to a honorable man' | perfect tense       | BE |
|      | d. | ne lor membre con blez se vent (Montreuil 13404)<br>not them remember how wheat SE sells<br>'They do not remember how wheat is sold'                      | imperfect tense     | se |
|      | e. | Couchié some laidement (Roland 286)<br>Cheated are.1pl $\emptyset$ terribly<br>'We have been betrayed terribly / not: 'we are being betrayed'             | present tense + ptc |    |
|      | f. | Par cel saint cors sunt lur anemes salvedes (Alexis, 605)<br>'by this holy body, their souls were/have been saved' / not: 'are (being) saved'             | present tense + ptc |    |

There are certainly cases of present tense BE + passive participle, but these are either static *baptizet sunt assez plus de .x. milie* (Roland 3671) 'More than 10.000 are baptized' not 'are being baptized'. (Jensen 1990:288), or denote a perfect passive (with past reading), as in (22ef), not a present tense passive reading.<sup>2</sup> This makes Old-French parallel to modern Flemish and Middle Dutch (Stoett 1923:§264), using of BE in complex tenses, but a resort strategy to denote simplex tenses (WERDEN or SE respectively).

## 3. Comparative data from Germanic and Romance

### 3.1 WERDEN/ BE and tense/aspect periphrasis

In the previous section, we discussed the relation between the tense/aspect periphrasis in various Germanic and Romance languages and dialects. The following picture emerges: in

<sup>1</sup> Moignet (1976:188) considers this construction well-documented in Old-French, but Jensen (1990:278) claims that it is marginal. Jensen does not give a reason why to ignore the "isolated" occurrences.

<sup>2</sup> In embedded contexts, BE + ptc can have a present, passive reading, illustrated in (i).

(i) Me gardez que je soie prise a beste cuivert (Berte, 895) (Anglade: 201)  
Watch me that I will not be caught by a looming beast

(ii) Dame, j'ai a non Berte, si soit m'ame assolue (berte, 1301) (Buridant: 297)

The subjunctive nature of these contexts is not accidental, and is an indication of a different status of C. This will be important in section 5.

virtually all Romance languages BE is used as a passive auxiliary, which we assume to be the default. In some dialects, the use of BE is blocked, especially in present and past tense, with imperfect aspect.

- (23) a. Romance languages use BE as a passive auxiliary  
(except Rhaeto-Romance and Old-French)  
b. Germanic languages cannot use BE as a passive auxiliary (in imperfect tenses)  
(except Modern English)

The question is what property correlates with this dichotomy. If we find a property, it should -- in the ideal case -- also explain the tense and aspect side effects. In the next sections, we will argue that V2 is this property.

### 3.2 *WERDEN, BE and V2*

We are now in the position to make an inventory of the situation. The selection of BE/*WERDEN* roughly varies along the dimension of Romance versus Germanic and additionally varies along the dimension with tense and aspect. However, some Germanic languages pattern with Romance (English), and some Romance languages pattern with Germanic. If we take the V2 property as a crucial distinction between Romance and Germanic, the following more fine-grained pattern emerges. In the Scandinavian languages, *bliva* 'stay' is used instead of BE. Scandinavian is V2. In continental West Germanic it is most often *WERDEN* and its cognates, but other replacements are possible such as *ginn* 'give' in Luxemburgish and *xo* 'come' in Bosco Gurin (Russ 2002). In Rhaeto-Romance it is *vegn* 'come'. These dialects are V2 as well.

24	Language	V2	passive voice	
			present/past	(past)perfect
	1. Scandinavian	yes	BLI(VE)/SE	BLI(VE)/SE
	2. German	yes	WERDEN	WERDEN
	3. Luxembourgian	yes	GIVE	GIVE
	4. Bosco Gurin	yes	COME	COME
	5. Dutch dialects (North)	yes	WERDEN	WERDEN
	6. Limburgian dialects	yes	WERDEN	WERDEN/BE
	7. Frisian	yes	WERDEN	BE( <i>convolute</i> )
	8. Dutch	yes	WERDEN	BE( <i>convolute</i> )
	9. Flemish	yes	WERDEN	BE
	10. Rhaeto-Romance	yes	VEN	BE
	11. Old French	yes	- (se)	BE (or se)
	12. English	no	BE	BE
	13. French	no	BE (or se)	BE (or se)
	14. Italian	no	BE (or si)	BE (or si)
	15. Spanish	no	BE (or se)	BE (or se)
	16. Portuguese	no	BE (or se)	BE (or se)

So, the Romance languages Rhaeto-Romance and Old French appear to be V2, while English is non V2. The cross-linguistic comparison shows that the V2 property correlates with a block of BE in simplex tenses. If we collapse all non-BE verbal strategies under the label *WERDEN*=\*BE, we may summarize the pattern as an absolute block on BE in simplex tenses in V2-languages.

- (25) *V2-WERDEN correlation*  
V2  $\Leftrightarrow$  \*BE in simplex tenses



In complex tenses, no such two-way correlation holds.<sup>3</sup>

What this comparative study shows, is that the choice of the passive auxiliary is not just a matter of post-syntactic lexical insertion, as it interacts with core syntactic properties of the language, such as V2 and aspect. In the next sections, we will investigate this correlation in the history of English.

#### 4. Diachronic analysis of English *weorðan*

The English *weorðan* is here studied using Petré's LEON corpus, which is composed of various other corpora (YPC, YCOE, PPCME2, among others). We used the periodisation in Petré 2010, as it does not have an artificial break between Old and Middle English period.<sup>4</sup> However, we only used the subset of LEON that was syntactically parsed (for the file list, cf. appendix).

##### 4.1 Main clause versus embedded clauses

In this section we study the relation between the use of *weorðan* and the V2 constraint. Now, the V2 constraint is a typical root phenomenon, i.e. it only shows up in main clauses. This suggests that we might observe a difference in use of WERDEN and BE in main clauses and dependent clauses. It must be said that no such sensitivity has been reported in Dutch and the Dutch dialects with a mixed system. We only did this because such a tendency has been reported in the literature. Petré 2013 writes, referring to Frary (1919:17):

Approximately four fifths of the instances of *wearþ* as auxiliary of the passive are in main clauses, while more than two thirds of those of *wæs* in this construction are in subordinate clauses. This distribution is probably due largely to the fact that *wearþ* is suited to direct narration, while *wæs* is natural in relative and causal-temporal clauses, which are usually a statement of fact or of completed action.

We carried out a query on the syntactically parsed subset of LEON.<sup>5</sup> As *weorðan* does not occur beyond period 4, we limited our study to the first 4 LEON periods. We calculated the relative use of BE versus WERDEN in matrix and embedded clauses. The results are given in the table under (26).

(26) Relative use of be/be+weoþan passives

be/weorðan+be-passives	I	II	III	IV
matrix	undefined -	1145/1145+200 (85%)	2721/2721+873 (75%)	6/6+2 (75%)
embedded	3/3+0 (100%)	1862/1862+158 (92%)	2621/2621+267 (90%)	20/20+0 (100%)

In the first period, the number of passive constructions is extremely small. They only occur in embedded clauses. This is probably accidental and a mere consequence of the low numbers. It is remarkable though, that the first attestations are with BE and not with WERDEN. We come

<sup>3</sup> An implicational relation holds: \*BE→V2

<sup>4</sup> LEON Periods: <950, 951-1050, 1051-1150, 1151-1250, 1251-1350, 1351-1420, 1421-1500.

<sup>5</sup> ((IP-MAT\* idominates VBN\*|RP+VBN\*) AND (IP-MAT\* idominates BE\*) AND (BE\* idominates wesam) ) and ((IP-MAT\* idominates VBN\*|RP+VBN\*) AND (IP-MAT\* idominates BE\*) AND (BE\* idominates werthan) ), where 'wesam' and 'werthan' are definition files with all morphological forms of BE and WERDEN respectively, to be found in Petré (2010:83).

back to that below. This is not an effect of the low numbers, because in the second period the dominant construction is with BE as well. This is true for the entire history of English. We further see that in embedded clauses the rate of *weorðan* continues to be rather low. WERDEN never exceeds the 10 percent. In root clauses, on the other hand, the number of WERDEN grows to 25%, but BE remains the dominant type. The distinction between root and embedded clauses is significant.<sup>6</sup> Before we can understand what this means, we must first elaborate on the interaction between *weorðan* and V2. We postpone this discussion to section 5.

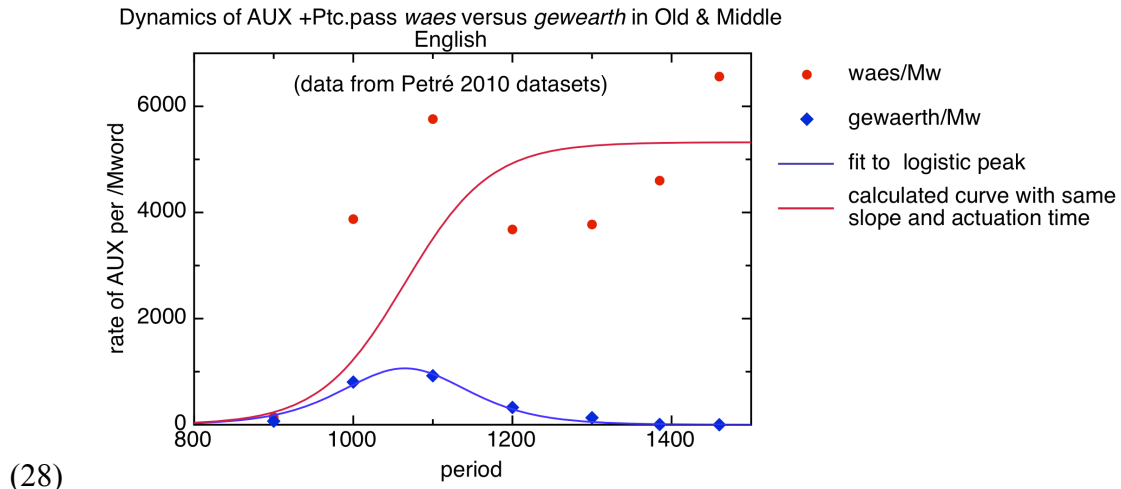
#### 4.2 Diachrony of *weorðan*

In this section we study the diachronic development of *weorðan*, irrespective of the type of clause. We completely base ourselves on Petré's data sheets of *wæs* + Ptc and *(ge)wearð* + Ptc, which classify the uses of these AUX-constructions with respect to their use and form. We only count the eventive passive ("Vorgangspassiv"), that may or may be accompanied with some type of by-phrase (genitive or dative NP, *for*, *from*, *mid*, *by*, *in*, *at*, *through*).<sup>7</sup> The results are given in (27).

(27)

LEON period	<i>wæs</i> <sup>8</sup>	<i>(ge)-wearð</i>	total	number/Mwords	total/Mw	<i>wæs</i> /Mw	<i>gewærð</i> /Mw
900±50	40	19	59	0.28054	210.30794	142.58165	67.72629
1000±50	1210	251	1461	0.31229	4678.34385	3874.60373	803.74011
1100±50	830	133	963	0.14410	6682.81275	5759.84899	922.96375
1200±50	1380	122	1502	0.37502	4005.13041	3679.81356	325.31685
1300±50	970	34	1004	0.25705	3905.91567	3773.64363	132.27204
1385±35	1950	2	1952	0.42390	4604.91395	4600.19580	4.71815
1460±40	2630	0	2630	0.40086	6560.84498	6560.84498	0

In the diagram in (28) we have rendered these data in a graphic. It shows that the use of *weorðan* does not display a gradual decay, but first emerges and disappears again.



We fitted these empirical data (the blue diamonds) to a logistic peak, as defined in Postma (2010).<sup>9</sup> We may consider it a failed change, which peaks just before 1100. The logistic peak

<sup>6</sup> P-value < 0.0000000

<sup>7</sup> Petré's construction G.

<sup>8</sup> The Petré's *waes* datasheet represent 10% of the total corpus. The values have been scaled up.

is a good fit to the data, as the standard deviations are small, cf. (29). The model has three free fittable parameters: the actuation time, the slope, and the saturation level (in S-types models this is usually normalized to 1).

(29) Logistic Peak

Fit Algorithm: Levenberg-Marquardt

Chi squared = 2.3833e+4

Fitted parameters:

Standard deviations:

a[1] = 1064.7442  $\Delta a[1]$  = 7.1006

a[2] = 53.5918  $\Delta a[2]$  = 5.7344

a[3] = 4253.1527  $\Delta a[3]$  = 355.1318

If we calculate the connected successful change, i.e. an S-curve with the equal centralisation in time ("actuation") and the equal slope ("rate"), we get the S-curve displayed in the figure under (28). It might represent the emerging of passive constructions in general in the history of English. The empirical data points of this emerging passive construction are drawn in the figure as well (the red dots). Their fit to the logistic curve is rather poor, though, as the data points fluctuate considerably. We leave for further research if the *weorðan* peak is really connected to the rise of periphrastic passive constructions as such, which seems conceptually attractive, but not a conceptual necessity. In this study, we concentrate on the relation with V2 as the synchronic and comparative data presented in section 2-3 suggested.

At first glance, we have a problem here, because the Old English V2 disappears between 1400 and 1500 (Kemenade 1987, Platzack 1995, Kroch & Taylor 1997, Haeberli 1999, Fuss & Trips 2002, Biberauer & Roberts 2008), while the peak in *weorðan* lays before 1100. A further problem is that V2 declines according to a S-curve, while *weorðan* seems to be a peak, and finally that the ratio of *weorðan* with respect to *wesan/beon* is always small. How can the conflicting dating and the other discrepancies be reconciled? A solution emerges when we realize that the Old English V2 is of a very special type, quite different from the V2 property of Continental Germanic, which is much stricter in nature. So, while Old English allows for V3 structures with pronouns if the fronted constituent is not an operator (Van Kemenade 1989), this is not possible in Dutch and German (Pintzuk 1999:136).

- (30) a. [hiora untrymnesse] he **sceal** rowian on his heortan NP-pron-Vfin  
           their weakness he shall atone in his heart  
       b. [thin agen geleafa] the **hæfth** gehæledne NP-pron-Vfin  
           thy own faith thee has healed

So, the question comes up: is the use of *weorðan* tied to a stricter version of V2? If so, it must be a hidden, and thus far unnoticed, type that is underlyingly present in Old-English. In the remainder of this paper we will go into its relation with strict V2.

#### 4.3 Diachrony of strict V2

In this subsection we identify a layer of strict-V2 in Old English. Strict-V2, as present in continental Germanic differs in only one context from Old-English V2. We list the contexts in the table below. The contexts vary along two dimensions: 1. whether the subject is pronominal or a full NP, 2. whether the fronted XP has quantifier properties or not. We have,

<sup>9</sup> A logistic peak is a composed of two logistic S-curves, one going up and one going down, with the same actuation time and the same slope (with reverse sign), cf. Postma (2010).

therefore, four contexts. Old-English and continental V2 only differs if the fronted XP has no quantifier properties and the subject is pronominal, i.e. (31d). So, we will focus on (31d).

(31)	Old English "V2"	Strict V2
a.	QP + $V_{fin}$ + SU	QP + $V_{fin}$ + SU
b.	XP + $V_{fin}$ + YP + SU	XP + $V_{fin}$ + YP + SU
c.	QP + $V_{fin}$ + SU <sub>pron</sub>	QP + $V_{fin}$ + SU <sub>pron</sub>
d.	XP + SU <sub>pron</sub> + $V_{fin}$ $\leftarrow \neq \rightarrow$	XP + $V_{fin}$ + SU <sub>pron</sub>

A complicating factor is that the set of quantificational properties change in the course of time. In Modern English only some monotone decreasing quantifiers, such as negative elements and WH-items, trigger V2. But in Older English also *tha* and discourse pronouns functioned as operators, and triggered strict V2. This change in the set of NP that count as quantifier is a change in English distinct from the problem we have at hand, and occurs much later. The loss of the d-set as quantifiers is probably related to change in discourse sensitivity observed by Petré, which only weakly correlates with the decline of *weorðan*. So, we need a context that is non-quantificational for our quest of a strict-V2 layer in all our Old-English texts.

We, therefore, did a study of the occurrence of the context of (31d): to what extent does XP+ $V_{fin}$ +SU<sub>pron</sub> occur? We must choose an XP that is maximally non-quantificational. For that reason we chose fronted PPs, exemplified in (32a-c). The V-pron sequences are highlighted.

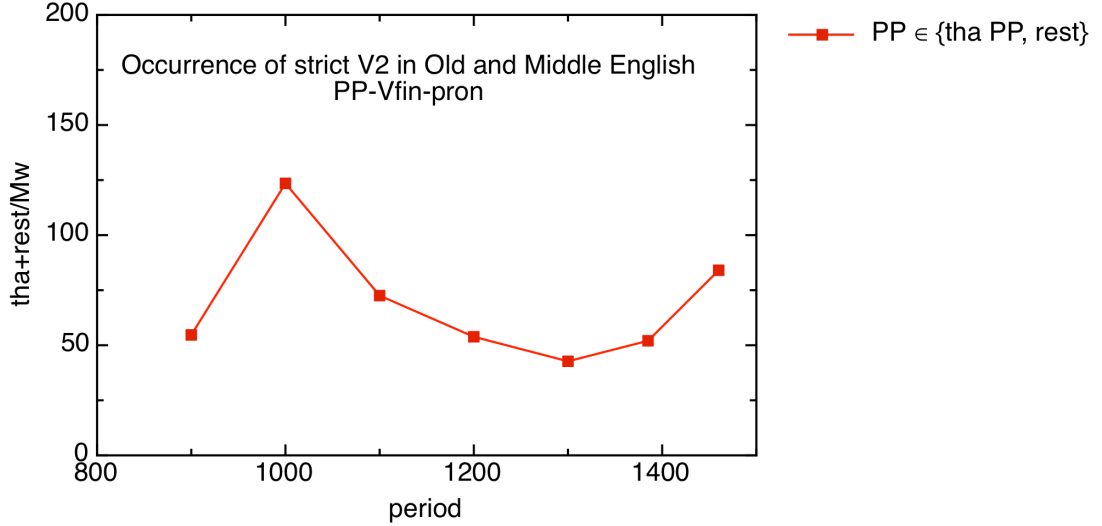
- (32) a. þurh mare lastunge **wrencheð hit** to wurse (cmancriw-1,II.157.2148)  
 By more burden twists it to worse
- b. & þach in þt ilke point **neluueð he** us the lesse  
 & though in that same point not.loves he us the less (cmancriw-1,II.170.2371)
- c. Tha aefter thon **gesawon we** betweoh tha wudubearwas & tha treo  
 healfhundinga micle maengeo, (coalex, Alex:29.8.356)  
 there after saw we between the wood and the trees half-dog people great many  
 'Then we saw a great many half-dog people in the words'

Again, we executed this study on the parsed part of the LEON corpus. The results of this search is given in (33), with a breakdown with its triggers.

(33)	triggers of PP- $V_{fin}$ -SBJ <sub>pron</sub>	<i>tha</i>	NEG	▼	Q	d-	2p	subj	say	rest class	total
	period @1	11 (65%)	2							4 (24%)	17
	@2	20 (59%)	3	3						8 (24%)	34
	@3	5 (42%)	2							5 (42%)	12
	@4		15	1		4	25			14 (24%)	59
	@5			1	1	7	3			4 (25%)	16
	@6		6	1	1	29	3	5	5	21 (30%)	71
	@7	1?	5	3	1	28	5	1	2	34 (44%)	78

We observe a dramatic change of these triggers if we compare the Old-English period (first three intervals) with the Middle English period (4-7). The *tha* adjunct to the PP was replaced by constituent internal d-words. Moreover, various new triggers emerge, such as the presence of a 2<sup>nd</sup> person (which has quantificational status (Postma 2012), but also SAY and subjunctive inversion (of the type *albeit*) emerges. As to the constituent that precede the

inverted inflectional verb, we are only interested in the non quantificational PPs. We therefore ignored WH, universal quantifiers, quantifiers such as *much* and *little* (Q).<sup>10</sup> We also consider SAY, subjunctive, and 2p as a trigger of the operator type. In (34) we have drawn the *tha* occurrences added with the d- words, and the rest class.



(34)

We observe an rise and fall around 1000, and a subsequent rise in the Middle English period. These seem developments that are rather different in nature. The strict V2 layer in the Old English period seems to be related to the rise and fall of *weorðan*, while the increase in the later seems to be a regional effect of Northern influence, as the geographical breakdown in (35) shows.

(35) Geographical breakdown of Strict V2 in period @7:

Region	occurrence V2 per number of mains clauses
North+ EastMidlands	69/15588= 4.6/kToken
West-Midlands	12/ 9439= 1.3/kToken
South	1/3029= 0.3 /kToken
whole search, hits/tokens/total	82/82/28056= 1.0/kToken

We therefore concentrate on the Old English period, as it concerns us most in view of the rise and fall of *weorðan*. Let us make a logistic fit and compare the result with the curve of *weorðan*. If we use only the data points on the Old English period, the fit is as (36).

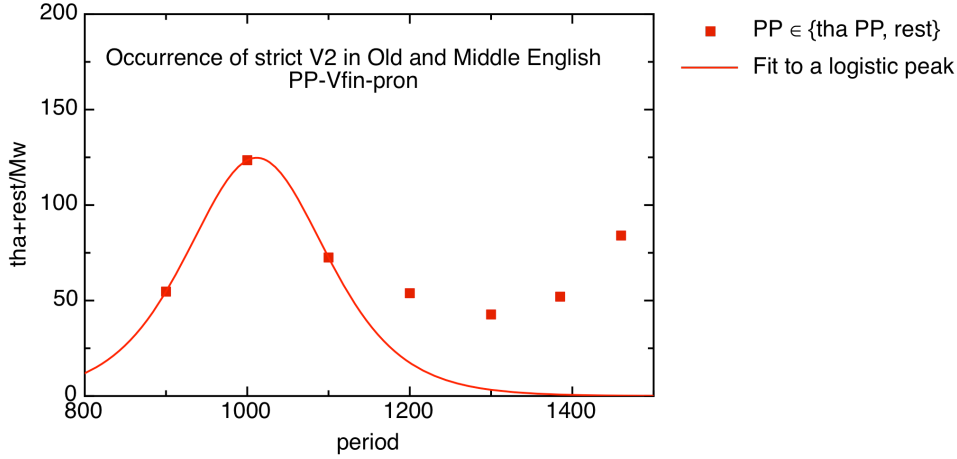
<sup>10</sup> The query is:

define: finite.def

print\_complement: f

node: IP-MAT\*

query: ((IP-MAT\* idominates PP\*) AND (IP-MAT\* idominates NP-NOM|NP-SBJ) AND (NP-NOM|NP-SBJ idominates PRO^N|PRO) AND (IP-MAT\* idominates finite) AND (PP\* iprecedes finite) AND (finite iprecedes PRO^N|PRO))



(36)

The fitted parameters are given in (37). It must be noticed that there are only data 3 points, i.e. the first 3 periods of the LEON-periodisation. The fit is perfect, i.e. zero standard deviations in (37). This is due to the fact that there is always a perfect fit if the degrees of freedom of a model is equal to the number of data points. There are of course many uncertainties, but other sources of error have not been taken into account, such as uncertainty in dating, etc.

(37)

```
=====
Logistic peak fit of strict V2
Fit Algorithm: Levenberg-Marquardt
Chi squared          =      9.5886e+4
Fitted parameters:   Standard deviations:
a[1]   =      1011.6      Δa[1] =      NAN
a[2]   =       57.4      Δa[2] =      NAN
a[3]   =      499.1      Δa[3] =      NAN
=====
```

The peak is quite similar to the peak in *weorðan* (in 28). For the sake of comparison, we listed the relevant parameters for the two curves in the table under (38).

(38)

	Peak of strict V2	Peak of <i>weorðan</i>
Actuation time (in years)	1011 ± NAN	1064 ± 7
Slope (in years)	57 ± NAN	53 ± 6

The curves are not identical: the actuation times of V2 and *weorðan* (1011 and 1064, respectively) differ 53 years, which make them unequal (outside the error range), while their slopes (57 and 53 years, respectively) are equal (inside the error range).

According to Weinreich *et al.* (1968), a grammatical change may manifest itself in different contexts at different times, i.e. with different actuation times. However, they do share their steepness. Elaborating this line of thought, Kroch (1989) proposes the Constant Rate Hypothesis (CRH), which states that the two manifestations of a parameter change proceed with the same speed, i.e. the same steepness in their S-curves ("rate"). If we may apply the CRH to failed changes as well (as they are built up by two mirrored S-curves (Postma 2010)), we can identify the curve of strict-V2 and the *weorðan* curve, as they have

the same steepness ("rate"), although not the same actuation time. We conclude that the comparative linguistic evidence of the relation between WERDEN en V2 get a reflex in the history of English. We do not go into the question what triggered the change, or which change triggered which, but it is plausible to see the changes in V2, which is a 50 years earlier, as the cause of the need of a separate passive auxiliary, next to BE, just as in the continental languages. It is tempting to attribute this change to external influences, be it Scandinavian or Old-French, which were both V2.

There are two additional pieces of evidence that *weorðan* is more than a free variant of *wesan*. As Petré (2014) argues, after a careful comparison of *gewearð ofslægan* and *wæs ofslægan*, both meaning 'was killed', in closely related fragments, the auxiliary form (*ge*)*wearð* is more used when there is more violence involved. The statistics given by Petré is convincing. Petré ties this to different meanings of the two auxiliaries (without wondering how that could possibly be the case). However, in view of the discussion above, it is more probable that these forms concerns different manners of writing, tied to different worlds, a Norman(d) world with more strict V2 and more violence, versus a traditional world and style with more traditional Old-English V2 and less violence. *Weorðan* does not imply more violence in itself, nor does V2. While V2 and *weorðan* are grammatically connected to each other, their shared connection to a Norman(d) world, is an arbitrary historical accident.

The second possible piece of evidence is taken from Visser (1973:2091). Visser expresses doubts about attempts to tie the choice of *weorðan* or *wesan/beon* in passive constructions to a difference in meaning. Visser gives a list of occurrences of passive constructions from two versions of the same text, Pope Gregory's Dialogues. There is manuscript C and manuscript H, first published in Hecht (1900). They differ in the use of the passive auxiliary. We here give Visser's first example.

(39) 26,31	Ms C: <i>wæs</i> he <b>wæs</b> gebælded of ðæs æelmihtigen godes fultume to þam <sup>11</sup> swyðe, þæt...	Ms H: <i>wearð</i> he <b>wearð</b> þa þurh godes æelmihtiges fultum <u>mid þam mægene</u> gestranged to þam swiðe, þæt ...
---------------	--	---

Apparently the scribe of H changes *wæs* into *wearð*. Visser, therefore, considers *wæs* and *wearð* as "in free variation". These two forms are certainly alternants semantically, but not necessarily syntactically. For, there is a regular pattern. Wherever ms C and ms H differ in the choice of the passive auxiliary, ms C has *wæs* while ms H has *wearð*, never the other way around. Conversely, if ms C has forms of *weorðan*, ms H has *weorðan* too. According to Hecht (1900: introduction), ms H is "eine Neubearbeitung" of ms C. This suggests that there is a reason for the scribe to change the wording. It might have been a matter of style simply because he had another taste (as Visser implicitly suggests in footnote 2). But it can be also be because he had a different grammar.

Now if we compare the two texts above we see that the underlined PP *mid þam mægene* lacks in Visser's comparison. However, if one looks up the original (Hecht *op. cit.*:24), it turns out that Ms C had: *Mid thy mægen he wæs gebælded of ðæs æelmihtigen godes fultume to þam swyðe, þæt....* So, the scribe of ms H shifts the initial PP into the middle field and changes *wæs* into *wearð*. He thus changes the Old English V3 with a pronoun into a strict-V2 construction. The situation is clearly more complicated than this, since scribe H always retains the V3 header phrase "*Gregorius him andswarode*". Apparently he did not

<sup>11</sup>Hecht (1900) has *þon*.

always feel the need or the courage to change the text to V2.<sup>12</sup> The scribe of ms H has also systematically changed the progressive into simple tense forms, as Visser notices. This might indicate a more complex bundle of *syntactic* differences between the mss. More detailed research is needed here.

### 5. The grammatical connection between WERDEN and strict V2

Thus far, we provided 1. evidence from Dutch dialects, 2. evidence from comparative linguistics in the languages of Europe, and 3. evidence from diachronic linguistics (the rise and fall of *weorðan*), showing that there might be a connection between strict V2 and the block to use BE as a passive present tense auxiliary in simplex tenses. However, even statistics -- how convincing these may be -- remain circumstantial as long we cannot pinpoint a mechanism for this interaction. Does strict-V2 causes the need for WERDEN or does WERDEN opens up the possibility for a language to develop strict V2? Or is there a common origin? In this section we will elaborate upon the mechanism. We provide the contours of a model that predicts that strict V2 blocks passive BE in simplex tenses.

The model has to combine the following ingredients: 1. passive argument licensing, 2. perfect/imperfect tense composition, 3. some morphological difference between BE and WERDEN, as well as 4. the nature of V2. Now, the latter two properties are still rather mysterious theoretically, though well studied and rather straightforward in their overt realization. So, let us proceed from the known to the unknown, i.e. from Romance (without WERDEN nor V2) to Germanic (with both WERDEN and V2). Let us start with the two French sentences in (40) with auxiliary BE and a derived subject.

- (40) a. Les enfants **sont** tombés ergative  
the children are fallen  
'The children have fallen'
- b. Les enfants **sont** mis au lit par l'un des parents passive  
the children are put to.the bed by ...  
'The children are (being) put to bed by ...'

Both sentences have a derived subject: (40a) has an ergative predicate. (40b) is a passive predicate. The respective structures are given in (40ab). This is all well established and uncontroversial.

- (41) a. Les enfants **sont** [ - tombés t ] ergative  
b. Les enfants **sont** [pro mis au lit t ] [par l'un des parents]] passive

Curiously, (41a) has perfect aspect (possibly with past reading "passé composé"), while (41b) is a present tense. We could, of course, assume two distinct verbs *être*, as traditional grammar does: *être* in (41a) is a perfect tense auxiliary and *être* in (41b) is a passive auxiliary. This does not help us further, though.

It is better to ask what coerces *être* in the configuration in (41a) to have a perfect tense reading, and what makes it have a present tense reading in (41b). The distinction between the two structures is that (41b) projects an agentive subject in the VP, here labeled as 'pro', while (41a) lacks such a subject. Apparently, the presence of an underlying agentive subject changes the eventive nature of the construction. How is this possible? Now, it is crucial to

<sup>12</sup> Visser is not correct where he writes: "It is only seldom that the two Mss are in agreement: 104.21: 'hi waeren genydede' (Ms H) : 'hi waeron geneadode'. In all cases where Ms C has *weorthan*, Ms H has also *weorthan*. The forms are not in free variation.



realize that subjects play an important role in defining *domains* (of the Binding Theory) or *edges* of phases. So let us assume that the VP is a domain (or phase) in (41b) but not in (41a), where it lacks an agentive subject.<sup>13</sup> If we now assume eventive indexes on the auxiliary (cf. Postma 1993) and on the participle, we get the two configurations in (42), where X represents the auxiliary and Y the participle.

- |      |    |                         |            |            |           |
|------|----|-------------------------|------------|------------|-----------|
| (42) | a. | $X_i \dots Y_j$         | $i \neq j$ | $R \neq E$ | perfect   |
|      | b. | $X_i \dots [\dots Y_j]$ | $i = j$    | $R = E$    | imperfect |

So we have disjoint reference in (42a) and conjoint reference in (42b). If we now apply the binding theory on these heads, we predict that  $i \neq j$  in (42a), but we do not have such an obviation in (42b). This is parallel to the argumental obviation in *He<sub>i</sub> saw him<sub>j \neq i</sub>*, and the absence of it in *he<sub>i</sub> said [ he<sub>i</sub> was tired*. Let us assume that only coerced obviation makes indexes distinct (cf. Borer 1989). If we now project the Reichenbachian variables S, R, E (Reichenbach 1947) onto the syntax (Comrie 1985, Hornstein 1990, Giorgi & Pianesi 1997), i.e.,  $R \leftrightarrow X$  and  $E \leftrightarrow Y$  in (42), we predict interactions of syntactic structure (the presence of an agentive subject) and tense composition. Put differently, the Reichenbachian obviation ('\_' in  $R\_E$ ) is coerced syntactically by the Binding Theory applied to two verbal heads.<sup>14</sup>

Let us now apply this to the interaction between Reichenbachian S and R as well. The time variable S typically refers to the anchoring point of the speech act. It is a discourse property, which by default is projected outside the sentential structure, as represented in (43a).

- |      |    |                  |
|------|----|------------------|
| (43) | a. | $S [CP \dots R]$ |
|      | b. | $[CP S \dots R]$ |

Significantly, in strict-V2 languages this discourse reference point is grammaticalized, i.e. S is drawn into the syntactic structure and sits in the CP domain, as represented in (43b). Now, CP is a phase and a domain of the Binding Theory. This means that (43a) reduces to (44a), while (43b) reduces to the coerced obviation structure in (44b).

- |      |    |                         |            |            |
|------|----|-------------------------|------------|------------|
| (44) | a. | $X_i \dots [\dots Y_j]$ | $i = j$    | $S = R$    |
|      | b. | $X_i \dots Y_j$         | $i \neq j$ | $S \neq R$ |

Now for present tense it holds that  $S = R = E$ . The Binding Theory blocks this index identity in principle, unless sufficient structure is present. This means that we need an extra opacity in V2 languages between S and R. In active sentences, we may assume that the agentive subject turns TP into such an opaque domain, but in passive sentences there is no such an agentive subject. This means that BE cannot be used unless this extra opacity factor is inserted. So let us define WERDEN as in (45).

- (45) Definition  
 WERDEN = BE + opacity factor F (intervening between C and T)  
 $X_i \dots F \dots BE_{j=i}$

<sup>13</sup> In a more articulated version of VP, it is probably the (agentive) subject of the little  $\nu P$  that does the job.

<sup>14</sup> Giorgi & Pianesi locate the interaction between E and R in one head (their "T2") with values  $E = R$  and  $E \neq R$ . We locate E and R in *two* interacting heads that interact through the Binding Theory. Our theory provides a valuation of "T2". Similarly, G&P locate the interaction between S and R in one head (their "T1"). Our theory, once again, provides a valuation of T1 with values  $S = R$  and  $S \neq R$ .

We will assume that WERDEN comes about by BE incorporating morphologically into this opacity factor, which is spelled out as WERDEN. It might be clear that F is not needed if BE does not reside immediately under C, i.e. when other opacity factors are available, as happens in more complex tenses. This gives us the possibility that BE is used as a passive auxiliary in Southern Dutch, and Rhaeto-Romance in complex tenses (cf. 18, 20/21). The full theory will be elaborated in a separate study.

## 6. Conclusions

Barbara Strang (1970:351) is correct when she writes: "*weorðan* never established more than a marginal role as an auxiliary" in the history of English. The need of *weorðan* as a passive auxiliary instead of BE is tied to the strict-V2, which shows up in XP-Vfin-pron orders: an equally marginal construction in the history of English. There is corroborating synchronic as well as comparative linguistic evidence for this connection between *weorðan* and strict-V2. Old English goes through a ephemeral rise and fall of strict-V2 (perhaps under Norman(d) influence). *Weorðan* as a passive auxiliary does not "decline" (through a typical S-curve) but comes up and fades away as a peak (a *failed change*). This failed change might be connected to a successful change of the emergence of the periphrastic passive, but more research is needed on this point. WERDEN is not a lexical alternant of the passive auxiliary BE. WERDEN has more complexity: it has incorporated an opacity factor which is needed to create an opacity between S in C and E in T. In complex tenses, i.e. outside the direct interaction between C and T, the need of WERDEN is relaxed.

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### Data files

Petre\_P\_2014\_Constructions\_and\_environments\_OUP\_Appendix\_3\_WAES\_APPEND.xls  
 Petre\_P\_2014\_Constructions\_and\_environments\_OUP\_Appendix\_3\_GEWIERTH.xls

The GEWIERTH file is online available at:

[https://lirias.kuleuven.be/bitstream/123456789/366310/2/Petre\\_P\\_2014\\_Constructions\\_and\\_environments\\_OUP\\_Appendix\\_3\\_GEWIERTH.xlsx](https://lirias.kuleuven.be/bitstream/123456789/366310/2/Petre_P_2014_Constructions_and_environments_OUP_Appendix_3_GEWIERTH.xlsx)

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### Appendix 1 - The parsed subset of Petré's corpus.

(The names are those found in Petré 2010 with an added @1 for period 1, etc). The @1 etc is added to make searches through sets of files possible.

#### Period 1 - < 950

coboeth@1.o2.psd|cochronA@1.o23.psd|cocura@1.o2.psd|cocuraC@1.psd|codocu2@1.o2.psd|colaece@1.o2.psd|colawaf@1.o2.psd|colawafint@1.o2.psd|coorosiu@1.o2.psd|coprefcura@1.o2.psd|cosolsat2@1.psd|

#### Period2 - 950-1050

coblick@2.o23.psd|cocathom1@2.o3.psd|cocathom2@2.o3.psd|codocu3@2.o3.psd|cogenesiC@2.psd|coherbar@2.psd|colacnu@2.o23.psd|colaw5atr@2.o3.psd|colawnorthu@2.o3.psd|colaw6atr@2.o3.psd|comargaT@2.psd|comart1@2.psd|comart3@2.o23.psd|comarvel@2.o23.psd|conicodD@2.psd|coquadru@2.o23.psd|

#### Period3 - 1051-1150

coalcuin@3.psd|coaugust@3.psd|cochad@3.o24.psd|cochdrul@3.psd|cochristoph@3.psd|codicts@3.o34.psd|codocu4@3.o24.psd|coeluc1@3.psd|coeluc2@3.psd|coexodusP@3.psd|cogregdC@3.o24.psd|cojames@3.psd|colawwllad@3.o4.psd|colawger@3.o34.psd|coleofri@3.o4.psd|colsigewZ@3.o34.psd|comargaC@3.o34.psd|comart2@3.psd|coneot@3.psd|conicodA@3.p

sd|conicodE@3.psd|coprefsolilo@3.psd|corood@3.psd|cosolilo@3.psd|cosolsat1@3.o4.psd|coverhom@2.psd|coverhomE@2.psd|coverhomL@3.psd|covinceB@3.psd|covinsal@3.psd|

Period4 - 1151-1250

cmorm@4.m1.upsd|cmpeterb@4.m1.upsd|cmsawles@4.m1.upsd|cmvices1@4.m1.upsd|cmhali@4.m1.upsd|cmjulia@4.m1.upsd|cmkathe@4.m1.upsd|cmlambx1@4.m1.upsd|cmmarga@4.m1.upsd|cmancriw-2@4.m1.upsd|cmlamb1@4.m1.upsd|cmancriw-1@4.m1.upsd|

## Appendix 2 - Definition files

wesan:

eom|beo|eart|bist|is|ys|bi+t|bi+d|by+d|beo+d|seo|sind|synt|sindon|syndon|beo+t|was|w+as|w+are|w+aron|sy|sie|beo|sien|beon|w+are|w+aren|wes|beo|wesa+t|beo+t|wesam|beon|beonne

werden:

+geweor+de|gewur+da+t|iurden|wharr+t|wur+dæ|+geworden|gewur+d+d|iur+den|wier+d|wur+dæp|+gewordene|gewurde|i-wur+den|wior+d|wur+dæ+t|+gewur+d|gewur+de|iur+dest|wior+da+d|wurdan|+gewur+de|gewur+de+d|i-wur+dest|wior+dan|wur+dan|+gewur+te|gewurden|iur+di|wior+de|wur+da+t|geo|weor+te+d|gewur+den|iur+te|wior+de+d|wur+d+de+d|geuær+d|gewurdon|iur+ten|wior+dest|wurde|geuar+d|gewur+te|uerden|wir+d|wur+de|geuor+da|gewyr+d|uuard|woor+t|wurde+d|geuorden|gewyr+dan|uueorthae|word|wur+de+d|geuorden|gewyr+de|uuiurthit|wor+d|wur+dede|geuor+des|gewyr+de+d|wærd|worde|wur+deden|gewar+d|gewyr+tan|wær+d|wor+de|wurden|gewarden|iwer+t|war|worden|wur+den|geweard|iward|ward|wor+den|wur+dest|gewear+d|iward|war+d|wordene|wur+do+d|gewear+t|i-wær+d|warr+t|wor+des|wurdon|geweor+da+d|iward+den|wart|wordis|wur+don|geweor+dam|iward|warth|wordon|wurdon|geweor+dan|iwar+d|war+t|worst|wurh|geweor+de|i-war+d|weard|wort|wurrdenn|geweor+de+d|war+d|iwar+de|wear+d|worth|wurr+t|geweor+dest|wear+d|iwear+d|wear+t|wor+t|wurr+te|geweor+de+t|iwear+t|weor+d|wor+te|wurr+tenn|geweor+den|iweorden|weor+da+d|worthe|wurr+te+t+t|geweor+t|iweor+da+d|weor+dam|wor+te|wurstu|geweor+tan|iwerd|weor+dan|worthe|wurten|geweor+ta+t|iwer+d|weor+da+t|wor+ten|wur+t|geweor+te|i-wer+d|weor+de|worthen|wurth|geweor+te+d|iwer+de|weor+de+d|wor+test|wur+te|geweor+te+t|iwere+tit|weor+den|wor+te+t|wurthed|gewior+dan|iwor+de|weor+des+d|wor+tid|wurthen|gewior+da+t|iworden|weor+dest|worthin|wurthen|gewior+de+d|iwor+den|weor+de+t|worthine|wyr+d|gewir+d|iwordene|weorpe|worthing|wyr+da+d|gewir+de|iwordon|weor+ta+d|worthis|wyr+dan|gewor+da|i-worth|weor+ta+d|worthit|wyrde|gewor+das|iwor+te|weor+tæn|worthyd|wyr+de|geworden|i-worpe|weorpan|worthyn|wyrðeð|gewordenan|iworpen|weorþaþ|wourthit|wurden|gewordene|i-wrað|weorþe|wrht|wurðen|gewordenre|i-wrað|weorþeð|wrð|wurdon|gewordenu|i-wrð|weorþeþ|wrðe|wyrst|gewordenum|i-wrt|weorþon|wrðen|wyrþ|geworðes|i-wurð|werð|wrope|wyrþan|gewordne|i-wurðæn|werde|wrt|y-worþ|geworþan|i-wurðæst|wert|wrþ|y-worþe|gewurð|i-wurðæþ|werþ|wrþan|y-worthe|gewurðað|i-wurðan|werth|wrþe|y-worþe|gewurðæ|i-wurðe|werþe|wurd|y-worþen|gewurðan|i-wurðe|werthit|wurð|y-worþþe|gewurðan|i-wurðeð|wharð|wurðað|y-wourthe

Appendix 3 - Datasheet **Strict V2** in Old and Middle EnglishPeriod 1 - 11x *tha* ; 2x NEG ; 4x overig, Total = 17

9	& +after medmiclum f+ace <b>niosode he</b> min eft (cobede,Bede 5:6.402.17.4055)	-
11	+Tas +ting by st+are Ongel+tiode cirican on Brytene, swa swa geo of manna gewritum o+d+de of ealdra gesegene o+d+de of minre sylfre cy+te+te ic gewitan mihte, mid Dryhtnes fultume <b>gedyde ic</b> Beda Cristes +tiow & m+assepreost +t+as minstres +tara eadigra apostola Petrus & Paulus, +t+at is +at Wiramun+ton & on Gyrwum. (cobede,Bede 5:22.480.20.4820)	-
14	mid swelce hr+agle he ineode, mid swelce <b>gange he</b> ut. (colawafint,LawAfEl:11.22)	such
15	Gif mon n+abbe buton anfeald hr+agl hine mid to wreonne & to werianne, & he hit to wedde selle, +ar sunnan setlgonge <b>sie hit</b> agifen. (colawafint,LawAfEl:36.91)	-
16	Eac buton +t+am yfele <b>nahton hie</b> na+ter ne +t+arinne mete ne +t+arute freond. (coorosiu,Or 2:8.52.21.1005)	neg
12	& for +dyllecum <b>n+as he</b> nanwuht geunrotsod, (coboeth,Bo:16.39.21.720)	neg
1	+Da on +d+are unstilnyse <b>onsendon hi</b> +arendwrecan to Rome mid gewritum & wependre bene: (cobede,Bede 1:9.44.11.370)	tha
2	Mid +ty heo oft & geornlice from him monode w+aron, +t+at +t+at n+anige +tinga beon meahte, +t+at hy buton +t+are halgan gecl+asnunge fulwihtes b+a+des +t+am halgan hlafe gem+ansumede, <b>+ta</b> +at neahstan <b>w+aron heo</b> mid hatheortnesse onstyrede. (cobede,Bede 2:5.112.19.1059)	tha
3	Mid +ty he +ta se biscop Paulinus geseah, +t+at he una+delice meahte +da heannesse +t+as cynelican modes to ea+dmodnesse gecerran, \$+t+at he onfon wolde his ecre h+alo & +t+am geryne +t+are liff+astan rode Cristes, ond he somed for his h+alo +t+as cyninges & +t+are +teode, +te he fore w+as, ge mid worde trymenesse mid monnum wonn, ge eac mid +da godcundan arf+astnesse mid worde his gebeda won, +t+at he fore+tingode, <b>+ta</b> +at nyhstan <b>geleornade he</b> in gaste (cobede,Bede 2:9.124.31.1187)	tha
4	For+don mid +ty he micelre tide +after lifde & georne halig gewreotu leornade & smeade, <b>+ta</b> +at nyhstan <b>onget he</b> & geleornade in gaste, +t+at he ne w+as mid w+atre fulwihtes b+a+des Gode to bearne acenned. (cobede,Bede 3:17.234.6.2392)	tha
5	+Da +at nehstan <b>cw+a+d heo</b> : Ic wat +t+at ge wena+d, +t+at ic ungewitge mode sprece. (cobede,Bede 4:10.286.15.2891)	tha
6	Mid +ty he +ta +ty d+age ond +t+are +afterfylgendan nihte betweenh +tara o+derra ofslegenra lic geliic deadum l+ag, <b>+da</b> +at nyhstan <b>onfeng he</b> gaste (cobede,Bede 4:23.326.5.3262)	tha
7	+ta he in +aghw+a+derum mynstre Hilde +t+are abbudissan geornlice his leornunge \$+atfealh & geh+alde haligra gewreota, <b>+ta</b> +at nyhstan <b>wilnade he</b> on his mode +ta fulfremedan +ting. (cobede,Bede 4:24.334.30.3363)	tha
8	Mid +dy we +da swi+de longe wi+d +d+am winde & wi+d +d+am sae holonga compadon & wunnun, <b>+da</b> +at nestan <b>locadon we</b> on b+acling, hw+a+der woen ware, +d+at we +anige +dinga fur+dum +d+at ealond gesecan meahton, +d+at we +ar ut of gongende w+aron. (cobede,Bede 5:1.384.23.3834)	tha
10	+Ta betwih +das +ding <b>w+as he</b> gehrinen & gestonden s+amninga mid untrumnesse: (cobede,Bede 5:14.438.3.4384)	tha
13	& eft ongean +da godan & <b>+da</b> wellibbendan <b>forsio he</b> his ealdordom su+a sui+de +d+at he on allum +dingum +da +de him under+diedde sien l+ate him gelice, (cocura,CP:17.107.13.706)	tha
17	+Ta on +d+am d+age <b>plegedon hie</b> of horsum, +ag+ter ge Philippus ge Alexander, +te he his dohtor him sellan wolde, ge Alexander his agen sunu, swa heora +teaw +at swelcum w+as, & eac monige o+tere mid him. (coorosiu,Or 3:7.65.19.1283)	tha

Period 2 - 20x *tha* ; 3x NEG ; 3x ALL ; 8x rest =34

2	& +tonne +at nehstan <b>bi+t he</b> sylfa on ecne wean bedrifan. (coblick,HomS 26 [BIHom 7]:95.210.1229)	-
6	nu for +tinre geleafleaste <b>beo +tu</b> dumb o+d +d+at min bodung gefylled sy. (cocathom1,+ACHom I, 25:379.22.4817)	-
18	Se deofol andwyrde; Swa swa he +t+at yfel of +dam menniscum gewunan underfeng. <b>underfo he</b> eac swa +t+at wite fram +dam upplican deman; (cocathom2,+ACHom II, 22:192.87.4260)	-
21	+After +dison <b>feollon hi</b> eft ealle +atforan +tam casere. swa swa God bebed. (cocathom2,+ACHom II, 31-32:248.225.5534)	-
24	Eft si+d+dan on +d+are feor+dan nihte <b>clypede heo</b> hire to +ta ylcan l+arestran Redempta.	-

	(cocathom2,+ACHom_II, 42:316.191.7153)	
27	& +after his d+age <b>ga hyt</b> for uncra begra sawle +tider him leouest sy. (codocu3,Ch_1487_[Whitelock_13]:9.225)	-
28	& +after hir+a dege <b>gange hit</b> into Sancta Marian stow+a into Beorcingan+aalswa hit st+ant mid m+ate & mid mannum. (codocu3,Ch_1486_[Whitelock_15]:26.289)	-
33	+Donne +after +ton <b>betyne+d he</b> +da scyldegan on helle. (coverhom,HomS_4_[ScraggVerc_9]:82.1293)	-
3	& on <b>eallum</b> tidum <b>secggan we</b> him +tanc ealra his miltsa & his ea+dmodnessa & his geofena +te he us forgeaf, (coblick,HomU_19_[BlHom_8]:103.123.1327)	all
7	Eft on o+dre stowe mynega+d +d+at halige gewrit. On <b>eallum</b> +tinum weorcum <b>beo+tu</b> gemyndig +tines endenextan d+ages. (cocathom1,+ACHom_I, 28:414.130.5540)	all
11	On <b>eallum</b> +tingum <b>beo +tu</b> gemyndig +tines endenextan d+ages. (cocathom1,+ACHom_I, 32:454.94.6428)	all
14	for +di <b>n+as he</b> geteald to +dyssere wi+dmetennysse; (cocathom2,+ACHom_II, 3:19.12.443)	neg
22	and buton twyn <b>n+abbe we</b> nan eage +t+ar +d+ar seo gymeleast bi+d; (cocathom2,+ACHom_II, 33:251.73.5602)	neg
23	For +dyssere twynunge <b>bolde we</b> hreppan his +drowunge; (cocathom2,+ACHom_II, 39.2:298.15.6795)	neg
1	+ <b>Ta</b> +after +ton <b>gesawon we</b> betweoh +ta wudubearwas & +ta treo healfhundinga micle m+angeo, +da cwoman to +ton +t+at hie woldon us wundigan. (coalex,Alex:29.8.356)	tha
4	& + <b>ta</b> +turh his unsce+d+dian dea+de <b>wurdon we</b> alysed: fram +tam ecan dea+de. gif we us sylfe ne forp+ara+d. (cocathom1,+ACHom_I, 14.1:296.170.2693)	tha
5	+ <b>Ta</b> mid +t+are bletsunge <b>ferde he</b> to heofenum him onlocigendum: (cocathom1,+ACHom_I, 21:345.17.4113)	tha
8	+ <b>Da</b> +at sumon cyrre <b>tengde he</b> to fyrde ongean perscissum leodscipe. (cocathom1,+ACHom_I, 30:436.206.6007)	tha
9	+ <b>Da</b> ymbe tyn geara fyrst <b>wear+d he</b> ascofen of his cynesetle. for +tan +de+t+at iudeisce folc wrehton his modignysse to +tam casere. & he +ta hine on wr+acsi+de asende. (cocathom1,+ACHom_I, 32:452.43.6385)	tha
10	+ <b>Da</b> +after sumum fyrste <b>wurdon hi</b> ungesome. Philippus & Arethe(cocathom1,+ACHom_I, 32:452.50.6390)	tha
12	+ <b>Da</b> mid +tyssere bene <b>beseah heo</b> to +t+are stowe +t+ar heo +t+at cild +ar forlet: (cocathom1,+ACHom_I, 37:501.137.7409)	tha
13	+ <b>Ta</b> on +dam Easterd+age <b>eodon hi</b> swa hi gewunode w+aron to +t+are cyrcan. (cocathom2,+ACHom_II, 2:15.131.363)	tha
15	+ <b>da</b> for unwedre <b>gecyrde he</b> to sumes hyrdes cytan. +te stod weste on +dam westene +de he oferferde. (cocathom2,+ACHom_II, 10:82.51.1646)	tha
16	+ <b>Ta</b> betwux heora spr+ace <b>begann heo</b> to halsigenne +done halgan wer. +t+at he sceolde hire secgan hu lange hire bro+dor Ecgfridus moste his rices brucan; (cocathom2,+ACHom_II, 10:87.215.1769)	tha
17	ac +da +da hi anr+adlice on +d+are bene +turhwunodon. + <b>ta</b> +at nextan <b>geti+dode he</b> him. (cocathom2,+ACHom_II, 11:94.64.1915)	tha
19	+ <b>Ta</b> +after lytlum fyrste <b>wear+d he</b> geuntrumod. (cocathom2,+ACHom_II, 22:198.261.4403)	tha
20	+ <b>Ta</b> betwux +dam o+drum <b>geseah he</b> hw+ar man bytlode ane gebytlu eal mid sm+atum golde. (cocathom2,+ACHom_II, 23:203.117.4497)	tha
25	+ <b>Da</b> betweonan +tam <b>wear+d hit</b> ute(codocu3,Ch_1458_[Rob_41]:4.18)	tha
26	+ <b>Da</b> for +d+are bro+dorsibbe <b>geu+de he</b> him Earhi+des & Cr+agan & +Anesfordes & Wuldahames his d+ag. (codocu3,Ch_1458_[Rob_41]:11.26)	tha
29	+ <b>Ta</b> on niht <b>bescear heo</b> hire feax swa was(comart1,Mart_1_[Herzfeld-Kotzor]:De25,C.9.41)	tha
30	Ond + <b>da</b> +after seofon gearum <b>het he</b> hine beheafdian. (comart3,Mart_5_[Kotzor]:Ap23,A.5.583)	tha
31	Ond + <b>ta</b> on +afen <b>dydon hi</b> hine on carcern, +t+ar him on niht +atywde Godes engel ond him s+ade +t+at he sceolde +t+as on mergen leoran on +da ecean reste. (comart3,Mart_5_[Kotzor]:Ap25,B.21.625)	tha
32	+ <b>Ta</b> +after +tam <b>ahengon hie</b> hine on +tam clife +te hie heton Golgo+d+da, & twegen scead+an him on +ta twa healfa (coverhom,HomS_24_[ScraggVerc_1]:203.213)	tha
34	+ <b>Ta</b> +after +tam <b>eode he</b> to +dam his discipulum, +t+ar hi ealle w+aron, (coverhomE,HomS_24.1_[Scragg]:76.43)	tha

Period 3 - 5x tha, 2x neg, 5 rest = 12

2	+Donne preostas to cyrcan cumon heora prim to singenne, +tonne hi heora +tenunge geendod h+abbon, +ar	-
---	---	---

	+tam fiftigan sealme, <b>don hi</b> heora andytnysse him betweenan (cochdrul,ChrodR_1:16.1.305)	
3	& on +tone d+ag <b>sy he</b> broht to +t+are halgan cyrcan greadon; (cochdrul,ChrodR_1:28.4.428)	-
4	for +ti <b>beo +tu</b> +alcan timan gearu angean +tines Drihtnes tocyme. (cochdrul,ChrodR_1:80.40.1034)	-
11	Ac on eornost, <b>syllon ge</b> us Ioseph +te ge on +t+are clusan beclysdon (conicodA,Nic_[A]:13.2.17.249)	-
12	and, myd +tys o+drum cyningum +te +de abutan synd, <b>nyme ge</b> ealle an ge+teaht, +t+at ge magon eow sylfe alysan of eowre feonda gewealde, +ta eow wylla+d myd eallon forspyllan and eowre ryce towurpan. (covinsal,VSal_1_[Cross]:12.6.97)	-
1	For +ti +tonne ne of heora agenun ne of heora mynstres +tingum <b>nabbon hi</b> ne+after maran to +trafianne +tonne heora neod behofa+d: +t+at is, +t+at hi habban +at & drinc & reaf; & beon on +tam gehealdene, +te l+as, gif hi mare ofer +t+at nyma+d, +t+at hi gehefygyon & gedrefon +ta Godes +tearfian, +te man sceal for Cristes lufon neade fedan. (cochdrul,ChrodR_1:4.11.138)	neg
8	& cw+a+d: for nanum o+trum +tinge <b>n+as ic</b> geteohhod in +tas witelican stowe, buton for+ton +te ic \$gefealh & gewunode in Laurenties worde & w+as wi+d Simmache. (cogregdC,GDPref and 4 [C]:42.330.6.4975)	neg
5	+ <b>Ta</b> +at nexstan <b>funde he</b> , hw+ar se +teof gewunode, +t+at he ofer +tone geard steah, (cogregdC,GD_1_[C]:3.23.35.240)	tha
6	& + <b>ta</b> eac on +da ylcan tid <b>w+as ic</b> sylfa +tider ons+anded to +tam ealdormen for +tearfe & for spr+ace +tyssere cyrcan. (cogregdC,GDPref and 3 [C]:32.241.3.3390)	tha
7	& + <b>ta</b> +turh +t+at <b>ong+aton hi</b> openlice, +t+at +ta sawle +ta englas underfengon, & hi +ta gel+addon mid lofsangum to heofonum. (cogregdC,GDPref and 4 [C]:15.282.21.4163)	tha
9	+ <b>Ta</b> ymb V dagas <b>wear+d he</b> mid feferadle ge+tread (cogregdC,GDPref and 4 [C]:49.338.5.5093)	tha
10	+ <b>Ta</b> on morgenne <b>eodon hi</b> (cogregdC,GDPref and 4 [C]:55.341.29.5169)	tha

**Period 4 - 0 tha, 15 neg, 1 all, 14 rest, 4 d-, 25 2pers**

2	ach hwenne his rinde is offe; + <b>tenne</b> as +te \$boch \$de+d <b>hwite+d hit</b> utewi+d +turch worldlich hereword (CMANCRIW-1,II.119.1508)	thenne
3	hwase sei+d biforen ow wel is +te meder +tt ow ber. & to goder heale <b>were +ge</b> iborene. ha biswike+d ow (CMANCRIW-1,II.145.1951)	-
4	& +gef hit is sumdel uuel; +turch mare lastunge <b>wrenche+d hit</b> to wurse. (CMANCRIW-1,II.157.2148)	-
10	Of bitterness inwi+d segge we her sumhwet.(CMANCRIW-2,II.274.468)	-
15	+gef eut ilimpe+d misliche +tt +ge ne beo naut ihuslet \$i \$+teose sette termes. <b>beo+d hit</b> +te neste sunnendei. (CMANCRIW-2,II.301.933)	-
18	and eft +tenne we beo+d eldre <b>bete we</b> hit +tenne (CMLAMBX1,29.352)	thenne
19	to ufele hele <b>wes ic</b> iboren +gif ic ne mot habben on +tisse weorlde +geuenesse. (CMLAMBX1,33.419)	-
20	\$for \$+ti <b>bileafden heo</b> heore timbrunge (CMLAMBX1,93.820)	-
22	+tenne +turh +tis sikerlec. <b>seche ich</b> earst up on ham. (CMMARGA,77.366)	thenne
23	& forr+ti + <b>gerrndesst tu</b> +tatt icc +Tiss werre +te sholde wirrkenn; (CMORM,DED.I.23.7)	-
27	& o +tatt allterr <b>haffdenn +te+g+g</b> Glowennde gledes +garrkedd. (CMORM,I,34.381)	-
38	+Turh so+tfasst lufe <b>wass itt</b> don, (CMORM,I,103.882)	-
39	Annd o +tatt illke nahht tatt Crist Wass borenn her to manne, <b>Wass he</b> +get, alls hiss wille wass, Awwnedd onn o+terr wise. (CMORM,I,117.1023)	-
46	& wi+t+t +ta boness <b>bidde we</b> +Te Laferd Cristess hellpe Off all +tatt +afre ned uss iss To lif & ec to sawle. (CMORM,I,185.1530)	-
29	& +giff +tu foll+ghesst skill & sh+ad & witt i gode +t+awess, & hafesst +get, tohh +tu be +gung, Elldernemanness late, & ha+gherrlike ledesst te & daffelike & fa+g+gre, & ummbe+tennesst a+g+g occ a+g+g Hu +tu mihht Drihtin cwemenn, & lufenn himm & dredenn himm & hise la+ghess haldenn, Wi+t+t oxe <b>lakesst tu</b> Drihtin Gastlike i +tine +t+awess, Swa - +tatt itt ma+g+g wel hellpenn +te To winnenn Godess are. (CMORM,I,40.420)	2
30	& +giff +tu firr+tresst fremmde menn A+g+g affterr +tine fere, & arrt te sellf a+g+g milde & meoc, & all wi+t+tutenn galle, Wi+t+t cullfre <b>lakesst tu</b> Drihtin Gastlike i +tine +t+awess, Swa +tatt itt ma+g+g wel hellpenn +te To winnenn Godess are. (CMORM,I,41.429)	2
31	& +giff +tu ledesst clene lif, & murrenesst i +tin heortte, +Tatt tu swa lanng dwellesst her Swa ferr fra Godess riche, & +geornesst tatt tu mote sket Uppcumenn inntill heoffne, Upp till +ti Laferd Jesus Crist, To lofenn himm & lutenn, Wi+t+t turrtle <b>lakesst tu</b> +tin Godd Gastlike i +tine +t+awess, Swa	2



	+tatt it ma+g+g wel hellpenn +te To winnenn Godess are. (CMORM,I,42.432)	
32	& +giff +tu cwennkesst i +te self All +twerrt ut modi+gnesse, & l+aresst o+tre all swa to don +Turrh lare & ec +turrh bisne, Wi+t+t bule <b>lakesst tu</b> +tin Godd Gastlike i +tine +t+awess, Swa +tatt itt ma+g+g wel hellpenn +te To winnenn Godess are. (CMORM,I,42.437)	2
33	& forr+ti <b>wass +gho</b> till Jos+ap Wi+t+t Godess la+ghe weddedd, +Tatt +gho ne w+are shamedd her, Ne shennd off unnc+l+annesse. (CMORM,I,67.606)	2
34	& forr+ti <b>wass +gho</b> wurr+t full wel Utnumennli+g to wurr+tenn +Turrh Drihhtin blettcedd, & to ben Allw+aldenn Godess moderr. (CMORM,I,77.688)	2
35	& t+ar+turrh, & +turrh all +tatt god +Tatt wass inn hire fundenn, Inn hire lif +tatt all +twerrt ut Wass Drihhtin lef & dere, +T+ar+turrh <b>wass +gho</b> wel wurr+t to ben Swa wurr+tedd her onn er+te, +Tatt Godess Sune sholde mann Inn hire wambe wurr+tenn, Off hire fl+ash, off hire blod, Off hire streness kinde. (CMORM,I,80.704)	2
36	+T+arfore se+g+gde +gho +tiss word Till Gabri+al hehenngell, (CMORM,I,82.726)	2
37	Off so+te lufe wass +gho full, (CMORM,I,87.776)	2
40	& forr +tatt he wass borenn her Sahhtnesse & gri+t+t to settenn Bitwenenn Drihhtin, heoffness king, & mannkinn her onn eor+te, Forr+ti <b>ch+as he</b> to wurr+tenn mann O +tatt Ke+g+gseress time, +Tatt held wi+t+t mikell gri+t+t & fri+t+t Hiss kinedom onn eor+te. (CMORM,I,121.1046)	2
12	ach +toa hit flech from him. +toa wi+d al his streng+de wende he +ter efter. (CMANCRIW-2,II.275.484)	all
25	& t+arfore <b>hafe icc</b> turnedd itt Inntill Ennglisshe sp+ache, Forr +tatt I wolde bli+teli+g +Tatt all Ennglisshe lede Wi+t+t +are sholde lisstenn itt, Wi+t+t herrte sholde itt trowwenn, Wi+t+t tunge sholde spellenn itt, Wi+t+t dede sholde itt foll+ghenn, To winnenn unnderr Crisstenndom Att Godd so+t sawle berrhless. (CMORM,DED.L113.33)	d
26	& t+arfore <b>hafe icc</b> turnedd itt Inntill Ennglisshe sp+ache, Forr +tatt I wolde bli+teli+g +Tatt all Ennglisshe lede Wi+t+t +are sholde lisstenn itt, Wi+t+t herrte sholde itt trowwenn, Wi+t+t tunge sholde spellenn itt, Wi+t+t dede sholde itt foll+ghenn, To winnenn unnderr Crisstenndom Att Crist so+t sawle berrhless. (CMORM,DED.L285.57)	d
42	& +turrh +tatt Godd wass wurr+tenn mann Forr ure miccle nede, +Turrh +tatt <b>wass he</b> , +tatt witt tu wel, All wi+t+t hiss lefe wille Ni+t+tredde & wannsedd wunnderrli+g, & la+ghedd inn himm sellfenn, (CMORM,I,128.1096)	d
57	& tatt wass se+g+gd alls iff he +tuss Wi+t+t openn sp+ache se+g+gde, To +tann <b>comm icc</b> off heffne dun To wurr+tenn mann onn er+te, +Tatt whase trowwenn shall onn me, & mine la+ghess haldenn, Wel mu+ghe ben wurr+ti wi+t+t me To brukenn eche blisse. (CMORM,II,260.2583)	d
1	Ach na mare +ten aschep ase sei+d hali writ quic <b>ne que+d he</b> neauer anword. (CMANCRIW-1,II.99.1188)	neg
5	i +te forme +geres nis hit bute bal plowe. (CMANCRIW-1,II.161.2219)	neg
6	& +tach in +tt ilke point neluue+d he us +te lesse (CMANCRIW-1,II.170.2371)	neg
7	asswa leoue susterren hwil +tt god wi+d +te bere+d +tin fondinge. nast +tu neauer hu heui hit is (CMANCRIW-1,II.171.2384)	neg
8	for hwen he falle+d naue+d he hwa him reare+d. (CMANCRIW-1,II.185.2629)	neg
9	seo+d+den as he mende him nefde he hwer he machte huden his heaued. (CMANCRIW-1,II.190.2701)	neg
11	hwil eauer iraeles folcwes inegypte under pharaones hond. neledde he \$neauer ferd +tron. (CMANCRIW-2,II.275.483)	neg
13	innou+der nes he worldlich mon. (CMANCRIW-2,II.277.528)	neg
14	Neauer quo+d he ear nu \$nes \$ich \$ful pined. Naut +turch +tt eisil ach +turch hare ondfule ni+d. (CMANCRIW-2,II.296.848)	neg
16	Nai +tu wult seggen. for +tt ful+de <b>nis hit</b> nawt. (CMHALI,147.272)	neg
17	and seod+tan +te cristindom wes; nefre ouer .xii. mon+te nis hit undon (CMLAMBX1,5.32)	neg
21	+Det is to seggane. Gif +ta hefdmen of +tissere worlde hefdenn icnawen crist; <b>nefden heo</b> nefre ifestned hine on rode for ure hele. (CMLAMBX1,123.1204)	neg
51	\$Ne \$off nan +ting <b>narrt tu</b> +ta forredredd Butt off +tatt an +ting ane, Off +tatt tu shule wra+t+tenn himm O sume kinne wise. (CMORM,I,277.2266)	neg
58	+Giet, +teih +dis mann swa do, <b>nis he</b> nauht innocens, bute +gif he biete +dat he harrer hafde tobroken. (CMVICES1,133.1653)	neg
59	+Gif +te herof noht nagrist, <b>nart +tu</b> naht liues +tar +de +du libben scoldest. (CMVICES1,139.1714)	neg
24	& forr+ti <b>trowwe icc</b> +tatt te birr+t Wel +tolenn mine wordess, E+g+gwh+ar +t+ar +tu shallt findenn hemm Amang Goddspellless wordess. (CMORM,DED.L53.15)	thi
28	& forr+ti <b>tacne+t+t itt</b> full wel Galnessess hate stinnchess. (CMORM,I,39.418)	thi

41	& forr +tatt he wass wurr+tenn mann To +gifenn menn onn eor+te Hiss a+ghenn hall+ghe fl+ash & blod, So+t br+ad to +te+g+gre sawle, Forr+ti <b>ch+as he</b> +tatt illke tun To wurr+tenn borenn inne, +Tatt wass +gehatenn Be+t+tle+am, Forr+ti <b>+tatt itt</b> bitacne+t+t +Tatt hus +tatt br+ad iss inne don, (CMORM,I,121.1047)	thi
43	& forr+ti <b>wass itt</b> upponn himm +Turrh Drihtin firrst bigunnenn, Forr +tatt itt sholde ben onn himm Till himm full witerr takenn, +Tatt he wass Drihtin swi+te lef +Turrh throww+tess rihhtwisnesse. (CMORM,I,138.1155)	thi
44	& forr+ti <b>sinndenn +te+g+g</b> full wel +Turrh tale off ehhte tacnedd. (CMORM,I,157.1291)	thi
45	& forr +tatt te +tiss lufe birr+t O twe+g+genn hallfe fillenn, Forr+ti <b>wass itt</b> bitacnedd wel +Turrh tale off twe+g+genn hundredd. (CMORM,I,177.1459)	thi
47	& forr+ti <b>wass he</b> full wel +turrh Amminadab bitacnedd, +Tatt tacne+t+t uss +tatt mann +tatt do+t God werre wi+t+t innwardd herrte, Wi+t+t all hiss mahht, wi+t+t mikell lusst, Wi+t+t all hiss fulle wille. (CMORM,I,206.1681)	thi
48	& forr+ti <b>comenn +te+g+g</b> himm firrst To sekenn i +tatt ende, Forr +tatt te+g+g haffdenn herrd tatt he +T+ar sholde borenn wurr+tenn; (CMORM,I,238.1960)	thi
49	& forr+ti <b>cume we</b> nu for+t To lakenn himm wi+t+t maddmess, & forr to lefenn upponn himm & bu+ghenn himm o cnewwess. (CMORM,I,247.2012)	thi
50	& forr+ti <b>nass he</b> rihht nohht wurr+t To findenn Crist tatt time, (CMORM,I,253.2057)	thi
52	& forr+ti <b>let he</b> cwellenn +ta +Te miccle & ec +te little, +Tatt Crist ne sholde mu+ghenn himm O nane wise attwindenn. (CMORM,I,278.2271)	thi
53	& forr +tatt he throwwede wel, Swa summ himm sellf itt se+g+gde, +Tatt Crist wass cumenn all +turrh Godd & all o Godess hallfe, & comm +tohhwhe+t+tre o nahht till Crist Stilli+g wi+t+t himm to m+alenn, Forr+ti <b>bitacne+t+t he</b> +tatt folle +Tatt lefe+t+t wel o Criste, & lede+t+t +tohh fl+ashlike lif I +t+awwess & i dedess, & nohht ne darr +get sti+ghenn upp To foll+ghenn he+ghe mahhtess I gastli+g lifess brihhte da+g+g, Forr hiss fl+ashess unnstrennc+te, Acc foll+ghe+t+t fl+ashli+g lifess nahht I +t+awess & i dedess, & m+ale+t+t wi+t+t +te Laferd Crist & herrcne+t+t whatt he m+ale+t+t, +Turrh +tatt te+g+g lefenn rihht o Crist & herrcnenn Cristess lare. (CMORM,II,235.2471)	thi
54	& forr+ti +tatt tiss Nicodem, +Tatt we nu m+alenn ummbe, Himm haffde takenn mikell gom Off Cristess miccle tacness, & wisse +tatt te Laferd Crist Wass all o Godess hallfe, Forr+ti <b>comm he</b> till Crist anan Wi+t+t mikell lusst to lernenn, To fra+g+gnenn himm off Crisstenndom & off +te rihhte l+afe. (CMORM,II,238.2487)	thi
55	& forr+ti +tatt te Laferd sahh +Tatt he wass fus to lernenn, Forr+ti wass he rihht r+adi+g till To wissenn himm & l+arenn, (CMORM,II,238.2488)	thi
56	& forr+ti toc he sone anan To sh+awenn himm whatt wise Fl+ashlike mann ma+g+g wurr+tenn gast +Turrh Hali+g Gastess bisne, (CMORM,II,247.2517)	thi

**Period 5** - 0 tha, 1 much, 1 all, 7 d-, 3 2p, 4 rest.

10	In which daie +tat ich had cleped to +te, <b>here +tou</b> me hastilich. (CMEARLPS,121.5325)	-
11	As he ys iuged, go he out condempned, (CMEARLPS,136.5967)	-
15	+Turch prede o+ter +turch anvie. o+ter +turch wre+the. o+ter +turch o+ter manere of diadliche senne <b>grede we</b> to him Merci. (CMKENTSE,220.155)	-
16	Also at undren. and at midday. <b>iherede he</b> werkmen into is winyarde. +to ha sente be +to time +tet Moyses was and aaron. (CMKENTSE,221.198)	-
1	And huo +tet nim+t wel yeme ine <b>alle</b> +tise guodes of kende +tet ich habbe ssortliche y-tald: <b>by hit</b> zenne be ydele blisse ine to uele maneres +tet ech may betere y-zy yne him-zelue yef he wyle wel studie: +tet o+tre ne conne him zigge. (CMAYENBI,24.367)	all
2	And +teruore <b>is hy</b> do+gter of prede. and +te zeuende bo+g he+gliche. (CMAYENBI,26.402)	d
3	and +teruore bye+t hy onnea+te uoryeue. (CMAYENBI,29.466)	d
4	and +teruore <b>is he</b> uals demere and ontrewe. (CMAYENBI,62.1150)	d
5	and +terby <b>he+t he</b> alenway: +te herte ine peyse. (CMAYENBI,85.1662)	d
6	+Teruore <b>bit he</b> hier to huam god his misdedes uoryef+t +tet he hine loky uram ayen-uallinge. (CMAYENBI,116.2236)	d
8	And in +tat <b>dy+gted he</b> pyne of de+te, (CMEARLPS,7.250)	d
9	in +te <b>am ich</b> out-caste of +te wombe. (CMEARLPS,24.955)	d
7	O. <b>moche is he</b> fol uorzo+te and child of wytte +tet of his ssredinge is proud. (CMAYENBI,258.2409)	Q

12	for-+ty <b>loued ich</b> +ty witnesses. (CMEARLPS,152.6760)	thi
13	For-+ti <b>loue ich</b> +ti comaundement vp gold & topaz. (CMEARLPS,153.6785)	thi
14	For-+ti <b>was ich</b> dresced to +ti comaundement, (CMEARLPS,153.6787)	thi

**Period 6** - 0 tha, 6 neg, 1 all, 29 -d , 3 2pers, 21 rest.

7	til a god <b>haue we</b> tan. (CMBENRUL,6.160)	-
18	Na-for-+ti, for +te febilnes of +ta +tat may noht for-bere, <b>hauis he</b> for-lokid til ilkain a mesur of wyne of +te day, Ou+tir suilke als tabbesse may furde; (CMBENRUL,28.948)	-
19	When sho hauis musterd hir firmite, yef +te cumandement of +tabbes haldis for+ge, <b>witte sho</b> wele +tat it es hir prowte til +te saule; (CMBENRUL,45.1388)	-
21	and of this sentence <b>folweth it</b> that thanne ben schrewes constreyned at the laste with most grevous torment, whan men wene that thei ne ben nat punyssched. "(CMBOETH,448.C1.400)	-
23	Loo, goostly freende! to soche wrechidnes as +tou here mayst see <b>ben we</b> fallen for synne. (CMCLOUD,119.630)	-
24	And schortly wi+t-outyn +ti-self <b>wil I</b> not +tat +tou be, ne +git abouen, ne be-hynde, ne on o side, ne on o+ter. (CMCLOUD,121.648)	-
27	To this sentence accordeth the prophete David, that seith, 'If God ne kepe the citee, in ydel <b>waketh he</b> that it kepeth.' (CMCTMELI,226.C2.376)	-
29	Agayns honour, <b>have they</b> in helle shame and confusioun. (CMCTPARS,291.C2.142)	-
34	Of thilke Adam <b>tooke we</b> thilke synne original, (CMCTPARS,297.C1.372)	- /same
36	and certes, in thilke dede <b>have we</b> remembraunce of the love of Jhesu Crist that deyde for his enemys. (CMCTPARS,304.C2.677)	- /same
39	Unto the body <b>anoyeth it</b> greuously also, (CMCTPARS,317.C2.1259)	-
43	And for god sei+t in +te Ewangelie: "Al +tat +ge preyen my ffader in my nome, +tat he schal don"; +terfore we seyen at +te ende of eueri orison in holi chirche, Per dominum nostrum Iesum Cristum, filium tuum, Qui tecum uiuit et regnat deus, per omnia secula seculorum amen, +tat is to siggen: "+Torw vre lord Ihesu Crist, +ti sone, +tat wi+t +te liue+t & regne+t god, world wi+touten ende, <b>be hit</b> so". (CMEDVERN,253.571)	-/ subj
44	bi-foren an Oxe and an Asse <b>was She</b> leid in a Cracche, (CMEDVERN,254.623)	-
49	And on the scherethorsday <b>make +tei</b> here therf bred in tokene of the mawndee (CMMANDEV,12.236)	-
53	and of +to .ij. welles <b>hath it</b> the name (CMMANDEV,69.1720)	-
66	And so by +tis bodily werke of mercy of Crist <b>been we</b> tawte to wiche men we schulde do syche almys. (CMWYCSE,249.472)	-
68	In +te olde lawe <b>weren +tei</b> wont to offren a loomb wi+towten weary, +te whiche schulde ben of oo +ger, for +te synne of +te peple; (CMWYCSE,345.2116)	-
71	And herfore leue we +tis, (CMWYCSE,367.2523)	-
72	And so wi+t \$+tis vndirstondyng <b>fi+gte we</b> wisly wi+t +tis world; (CMWYCSE,377.2706)	-
73	And herfore <b>worche we</b> wisly, (CMWYCSE,377.2712)	-
75	And aftyr +tis byleue of Crist <b>proue+t he</b> +tat +tei schulden trowen hym, (CMWYCSE,418.3453)	-
65	Si+t God almi+gty, al witty and al goodly, kan not worche but +gif he worche by mercy, <b>be we</b> +tanne merciful for goodnesse of God. (CMWYCSE,237.244)	- subj
70	For, as +tow trowedust by my grace, <b>be hit</b> doon vnto +te. ' (CMWYCSE,366.2505)	- subj
62	and seide, If any man thirstith, <b>come he</b> to me, (CMNTEST,7,20J.666)	-, subj
63	"In hi+ge halle of hevene com he nevere +tat steli+t +tis belle out of seynt Aldelyn his seete." (CMPOLYCH,VI,185.1324)	-, subj
64	and he seide, "If eny man seekith not the Lord God of Israel, di+ge he, fro the leeste til to the meeste, fro man til to womman." (CMPURVEY,I,22.1045)	?
8	& for ty <b>hauis +tou</b> no mede of +tat +ting +tat tu dos gruchande; (CMBENRUL,10.343)	2
9	for +ti <b>ar +tai</b> rotyn +tat folyzed wicke wylle; (CMBENRUL,12.412)	2
11	Ouir vs hauis +tu don men, "+ti wylle at fulfille. (CMBENRUL,13.455)	2
25	And whan this olde man wende to enforcen his tale by resons, wel ny alle atones <b>bigonne they</b> to rise for to breken his tale, and beden hym ful ofte his wordes for to abregge. (CMCTMELI,219.C2.91)	all
1	Than for as mochel as a filosofre saith, "he wrappith him in his frend, that condescendith to the	d

	rightfulle praier of his frend," therfore <b>have I</b> yeven the a suffisant Astrolabie as for oure orizonte, compowned after the latitude of Oxenforde; upon which, by mediacioun of this litel tretys, I purpose to teche the a certain nombre of conclusions aperteynyng to the same instrument. (CMASTRO,662.C1.7)	
2	And in this wise <b>had I</b> the experience for evermo in which manere I shulde knowe the tyde of the day and eke myn ascendent. (CMASTRO,670.C2.237)	d
22	& +terfore <b>haue we</b> gode trust in God; (CMBRUT3,86.2607)	d
26	and therfore <b>han they</b> rather conseilled yow to youre talent than to youre profit. (CMCTMELI,225.C2.333)	d
28	And therfore <b>seye I</b> that it is good as now that ye suffre and be pacient. (CMCTMELI,231.C1.536)	d
30	And therfore <b>han they</b> lorn al hire hope, for sevene causes. (CMCTPARS,293.C1.213)	d
31	And therfore thanne, for as muche as the resoun of man ne wol nat be subget ne obeisant to God, that is his lord by right, therfore <b>leseth it</b> the lordshipe that it sholde have over sensualitee, and eek over the body of man. (CMCTPARS,294.C2.258)	d
32	And forther over, for as muchel thanne as the caytyf body of man is rebel bothe to resoun and to sensualitee, therfore <b>is it</b> worthy the deeth. (CMCTPARS,294.C2.269)	d
33	and after that <b>was he</b> bounde, that cam for to unbynden us of synne and peyne. (CMCTPARS,295.C1.281)	d
35	And therfore <b>be we</b> alle born sones of wratthe and of dampnacioun perdurable, if it nere baptesme that we receyven, which bynymeth us the culpe. (CMCTPARS,297.C1.376)	d
37	Therfore <b>been they</b> likned to the devel, that evere is aboute to maken discord. (CMCTPARS,309.C2.893)	d
38	And therfore <b>speke I</b> first of misericorde. (CMCTPARS,316.C1.1182)	d
40	for therby <b>wynneth he</b> the mooste partie of this world. (CMCTPARS,318.C1.1268)	d
41	ffor +tou art feir, +terfore <b>are +tei</b> feir; (CMEDVERN,245.225)	d
42	ffor +tou art good, +terfore <b>are +tei</b> goode. (CMEDVERN,245.226)	d
46	& fro thennes <b>is she</b> meridional assending til she come agayn at capud <slash> (CMEQUATO,42.299)	d
47	& +terfore <b>made +tei</b> the foot of the cros of Cedre. (CMMANDEV,6.100)	d
48	And for +tei trowed +tat thei hadden the victorye of crist Jhesus +terfore <b>made +tei</b> the ouerthwart pece of palme. (CMMANDEV,7.107)	d
50	And fro +tens <b>was he</b> translated into paradys of delytes, as +tei seyn. (CMMANDEV,44.1094)	d
51	And fro +tens <b>was sche</b> born of the Apostles vnto the vale of Iosaphath. (CMMANDEV,60.1483)	d
52	& fro +tat tyme <b>was sche</b> a worthi womman (CMMANDEV,65.1635)	d
55	& +terfore <b>allegge +tei</b> so the lettre (CMMANDEV,79.2009)	d
57	& +terfore <b>ben +tei</b> repreued of +te wise +tat gostly vnderstonden it. (CMMANDEV,88.2203)	d
59	And +terfore maken +tei here god of an ox the on part & the o+ter halfondell of a man be cause +tat man is the most noble creature in erthe & also for he hath lordschipe abouen all bestes; (CMMANDEV,110.2688)	d
60	+terfore <b>make +tei</b> the halfondel of ydole of a man vpwardes & the to+ter half of an ox dounwardes. (CMMANDEV,110.2689)	d
61	And +terfore <b>hath it</b> befallen many tymes of o +ting +tat I haue herd cownted whan I was +gong, how a worthi man departed somtyme from oure contrees for to go serche the world, (CMMANDEV,122.2971)	d
67	and +terfore <b>holde we</b> couenaunt to God (CMWYCSE,278.942)	d
74	And in +tis <b>ben we</b> tawte to suffre meekely owre owne wrong, (CMWYCSE,400.3140)	d
76	And +terfore <b>caste we</b> away +te werkis of derknesses, (CMWYCSE,477.3625)	d
54	And fro +tat welle <b>bare he</b> water oftentyme to his moder (CMMANDEV,75.1901)	d?
58	And +tus for here synnes <b>han +tei</b> lost all this lond +tat wee holden. (CMMANDEV,89.2230)	d?
4	In o+tir stede sais he: "In god <b>sal man</b> be glad and loue him in dede." (CMBENRUL,3.61)	man
3	Als sain paul sais: "Lauerd, of me <b>haue I</b> noht, bot +tu sende it me." (CMBENRUL,3.60)	neg
5	Als ure lauerd sais: "Of +te sinfull will I noht +te dede, bot +tat tay turne and liue." (CMBENRUL,3.71)	neg
13	Til na +ting es I made bot for to doe godis wylle. (CMBENRUL,14.484)	neg
45	In +tis manere <b>louest tou</b> not but bounte, si+ten +tow louest alle men for bounte. (CMEDVERN,261.917)	neg
56	& for non o+ter +ting is it not good. (CMMANDEV,83.2102)	neg
69	but of his owne wor+tesse affyede he not +tus, (CMWYCSE,364.2453)	neg
10	And in odyr stede <b>sais he</b> : "Voluntas habet &c. - (CMBENRUL,12.429)	say
12	And in odir stede sais he: "Confitemini &c. - (CMBENRUL,13.470)	say
14	Of +tes times <b>sais he</b> : "seuin sy+te opo day saie I louing to +te." (CMBENRUL,18.610)	say
16	And in o+tir stede sais he: "Psallite - (CMBENRUL,19.653)	say
17	And in o+tir stede sais he: "Infidelis &c. (CMBENRUL,23.778)	say

20	but thanne at erste <b>ben thei</b> verraye good, whan thei ben gadred togidre \$als into o forme and into oon werkyng, so that thilke thing that is suffisaunce, thilke same be power, and reverence, and noblesse, and myrthe; (CMBOETH,434.C2.248)	tha
6	Bi-fore +te werld <b>er +tai</b> semande, (CMBENRUL,4.107)	x
15	Til +ta +tat rysis o night and wakis Sais vre lauerd: "My frende, o niht ras I for yu (CMBENRUL,18.611)	x

**Period 7** - 0 tha, 5 neg, 3 all, 28 d-, 5 2pers, 34 rest.

4	In a cart al fire was he bore up to paradise. (CMCAPCHR,34.64)	-
5	In Samary deied he, (CMCAPCHR,34.71)	-
6	Of Demostenes <b>rede we</b> +tat whan Alisaundre cam to Attenes in purpos to distroye +te cite', +tis man was sette withoute +te gate because he had be maistir onto +te kyng. (CMCAPCHR,41.298)	-
7	But of homely kyn <b>was he</b> born, (CMCAPCHR,50.546)	-
10	In +tis tyme <b>lyued he</b> +tat is clepid Albinus, of Englisch nacioun, which was maistir onto Charles in al +te seculer sciens, (CMCAPCHR,83.1521)	-
11	In +te xix +gere of his regne went he to Rome, cause of deuocion, (CMCAPCHR,86.1645)	-
12	and be hir had he iiii sones: (CMCAPCHR,86.1650)	-
14	Of +tis Ode <b>haue I</b> sey dyuers werkes, on upon +te Sauter, and a gret book of omelies. (CMCAPCHR,91.1781)	-
15	Ofte in his lyf <b>went he</b> to Rome and hom ageyn for to se good gouernauns in +te Cherch, (CMCAPCHR,93.1868)	-
16	and at Westminster was he crowned in Cristmesse of Aldred, bischop of +Gork. (CMCAPCHR,102.2158)	-
19	In +tat +gere <b>mad he</b> chaunge of his coyne, (CMCAPCHR,128.2962)	-
20	but at +te last was he broute to +te castel of Berkley, (CMCAPCHR,154.3615)	-
21	and to +tese lordes <b>gaue he</b> mech of +te liflod of +te duke of Gloucetir, erl of Warwik, and erl of Arundel. (CMCAPCHR,209.3751)	-
24	and vndir +tat ypocrisie had he a ful venemous hert. (CMCAPCHR,243.4042)	-
25	For xxj +gere was he in paganite, and ix +gere in +te heresie of +te Manychees. (CMCAPSER,145.12)	-
27	Off +tis ordre haue I as +get no certeyn knowleche, who was her foundor, or vndir what Pope, or kyng, +tei be-gunne. (CMCAPSER,148.67)	-
28	And ther-fore, what houre +tat I thynke of my-selfe, one nyghte or on day, On a syde <b>hafe I</b> gret loye, and on ano+ter syde gret sorowe: -- (CMEDTHOR,16.10)	-
29	Bot vn-till vs, thurghe His awen myghte full of mercy, <b>es He</b> Godd and makere and Fadyr, For +tat our saule es lelly lyke vn-till +te lyknes of +te Fadyr, and +te Son, and +te Haly Gaste, +tat ere hallyly a Godd and persons thre. (CMEDTHOR,32.423)	-
30	In state of thralle <b>tuke He</b> oure flesche to suffre +te gylteste pouerte, and schame, and noyes, and paynnes, +tat neuer dyd ill ne na maner of syn,	-

THE DECLINE OF *WEORDAN*

	(CMEDTHOR,33.436)	
31	For of oure selfe <b>hafe we</b> noghte Hym for to +gelde; (CMEDTHOR,34.449)	-
36	In clowtis was He wonden, (CMEDTHOR,42.607)	-
37	and als a chylde was He bunden; (CMEDTHOR,42.608)	-
39	By reson, <b>commes He</b> till +te knawyng of man one +tis manere: - (CMEDTHOR,46.703)	-
41	In +tis manere <b>lufe +tou</b> na thyng bot gudnes, sen +tat +tou lufes all thynges for gudnes; (CMEDTHOR,49.773)	-
42	but of grettest name <b>was he</b> in helpynge of the people of god. to distroye his enmyes. where by he myght atteyne to the people of god promysid <slash> whiche glory and reno~mee of name he obteyned in lyftyng his hondes & scute in shotynge of sharpe & fyry arowes ayenst y=e= cyte of hay & c~ <slash> (CMFITZJA,A3V.34)	-
43	And on a tyme <b>was he</b> taken bi pirates in the see. & solde to Denyse y=e= grete tyraunt <slash> (CMFITZJA,B3R.144)	-
47	Hereto <b>ere we</b> byddyn of god and drawen and consayled and lered inwardlye be the haly gaste & outwarde by haly kyrke by the same grace. (CMJULNOR,62.318)	-
57	Sche thowt in hir mende, "A, Lord, for +ti lofe <b>cam I</b> hedyr, (CMKEMPE,229.3751)	-
59	for in an evyll tyme <b>com they</b> . (CMMALORY,38.1234)	-
62	For for that cause com I hydir.' (CMMALORY,189.2758)	-
66	And +ten he sayde: 'Hereby <b>know I</b> now, +tat +tylke gret byschop of Caunturbury ys +tys day slayne for Goddys sake. (CMMIRK,43.1257)	-
71	atte laste <b>cam he</b> in lyknes of an heremyte <slash> (CMREYNAR,11.162)	-
78	With mouthe <b>es it</b> tane in vayne, with all athes brekyng, of new prechyng +tat es vanyte and vndevocone; prayere, when we honour God with oure lypys, and oure hertys erre ferre fra Hym. (CMROLLTR,11.301)	-
80	and if he will, of his fre grace, ouer +tis desire, send vs of his gostely lyghte, and opyn oure gostely eghen for to se & knawe more of Hym +tan we hafe had be-fore by comon trauell, <b>thanke we</b> Hym +tar-of; (CMROLLTR,43.882)	-
18	To the kyng of Frauns hast +tou be fals, (CMCAPCHR,111.2447)	2
51	& al thorw my grace <b>hast +tu</b> skapyd. (CMKEMPE,51.1162)	2
55	& for +ti synne hast +tu ful lityl contricyon. (CMKEMPE,127.2946)	2
56	but in myn goodnes & in thy sorwys +tat +tu hast suffryd +terin <b>hast +tu</b> gret cawse to joyn, (CMKEMPE,131.3062)	2
65	In a shamefull oure <b>were thou</b> borne,' seyde sir Launcelot. (CMMALORY,208.3457)	2
23	before all +tese red he his resignacion (CMCAPCHR,214.3821)	all
8	and to euery region preferred he a decun, to write treuly +te lyf of holy martires. (CMCAPCHR,56.744)	all
77	bot in al his myght purge he +te vilete of syn in hym and in other.	all

	(CMROLLEP,117.944)	
13	+terfor wanted he +te benediccion imperial. (CMCAPCHR,90.1774)	d
2	in this stondist thou, dere sustir, (CMAELR4,16.467)	d
3	afir +tat xl +gere was he kyng, first vii +gere in Hebron upon +te tribe of Juda, afir xxxiii in Jerusalem upon al Israel. (CMCAPCHR,32.14)	d
9	and +terfor was he smet with a leuene and +tundir, but not ded. (CMCAPCHR,59.809)	d
17	+terfor <b>had he</b> neuyr prosperite' afir +tat. (CMCAPCHR,105.2259)	d
26	be +tis vndirstund we +te knytes of Seynt Ion whech begunne first at Ierusalem, (CMCAPSER,147.49)	d
32	And for-thi +tat we may noghte euer-mare do +tat perfutely whyls we ere in +tis caytifede worlde, +tare-fore <b>pray we</b> +tus, (CMEDTHOR,38.543)	d
33	and for-thi +tat we may noghte do +ti will whills we lyffe in +tis body, if +tou ne sustayne vs noghte, +tare-fore <b>say we</b> +tus, Panem nostrum cotidianum da nobis hodie, +tat es to say, Oure ilke day brede +tou gyffe vs to-day; (CMEDTHOR,39.548)	d
34	And for-+ti +tat a lytill vs helpes to hafe forgyfnes of syn, if we may noghte kepe vs fra syn, +tare-fore <b>pray we</b> +tus, Et ne nos inducas in temptacionem, (CMEDTHOR,39.556)	d
35	and +tare-fore <b>hafe I</b> twynned the thaym by +te Seuen houres of +te daye +tat +tou saise in +te kyrke, Swa +tat nan houre passe the, +tat +tou ne sall be swetely occupyed in +ti herte. (CMEDTHOR,42.600)	d
40	And for-+ti +tat of +te fyrste personne comes +te to+ter, and oowte of thaym bathe comes +te thyrde, For-thi <b>calles he</b> +te firste personne Godd +te Fadire, +te to+ter Godd +te Sonne, +te thirde Godd +te Haly Gaste. (CMEDTHOR,48.740)	d
46	and in this <b>was I</b> lered that ilke saule contemplatyfe to whilke es gyffen to luke and seke god schalle se hire and passe vnto god by contemplacion. (CMJULNOR,59.255)	d
48	+Terfor <b>wend sche</b> +tat God had forsake hir. (CMKEMPE,15.296)	d
49	And +terfore <b>wend sche</b> +tat he had forsakyn hir (CMKEMPE,16.323)	d
50	"+Terfor <b>is it</b> no synne to +te, dowtyr, (CMKEMPE,48.1090)	d
52	& +terfor sufferyd sche mych despyte & mech reprefe. (CMKEMPE,68.1553)	d
53	& +terof cowde sche good skylle (CMKEMPE,86.1957)	d
54	& +Terof had +tei gret wondyr. (CMKEMPE,110.2547)	d
58	& +terfor was sche oftyn-tymys blamyd. (CMKEMPE,233.3848)	d
60	'therefore com I affer you.' (CMMALORY,51.1690)	d
67	But, for +tys fest make+te mynde of +tes kyngys offryng, +terfor <b>pursew we</b> +te forme of holy chyrche, (CMMIRK,48.1364)	d
68	But for God rewardyth a good endyng, and not +te begynnyng, +terfor <b>lese we</b> not our mede, (CMMIRK,68.1848)	d
69	+Ten wyth +tat <b>sayde he</b> : 'For I wot well I am vnworthy to haue mercy; wherfor	d

	+tou wolt +geue me non mercy.' (CMMIRK,92.2469)	
70	And +terfor <b>pray we</b> to Saynt George +tat he wyll be our helpe at oure nede, and saue +tys reem to +te worschyp of God and his modyr Mary and all +te company of Heuen. (CMMIRK,135.3594)	d
72	therfore haue I the lenger taryed a lytyl <slash> (CMREYNAR,13.250)	d
74	therfore ete I gladly lyght mete. (CMREYNAR,56.477)	d
81	And +ter-fore <b>drede +tou</b> leste he do commaunde to bynde +te honde and fote and putt +te in-to +te innere derkenesse. (CMROYAL,16.103)	d
82	and +terfore seye we, 'faire fadre, lede not vs in-to temptacioun.' (CMVICES4,116.352)	d
44	For neyther by theyr prudence ne yet theyr sapyence. <b>ladde they</b> or themself. or theyr folowers to the ryghte & perfyte ende naturall. or supernaturall (CMFITZJA,B3V.158)	neg
61	and at no tyme was he ovircom but yf hit were by treson other inchauntement. (CMMALORY,180.2409)	neg
63	Whether that I lyve other dye,' seyde sir Launcelot, 'with no wordys grete <b>gete ye</b> hit agayne. (CMMALORY,203.3291)	neg
64	and anone an holer man in his lyff <b>was he</b> never. (CMMALORY,204.3331)	neg
75	of +tat maner of syngyng speke I noght, (CMROLLEP,106.709)	neg
76	bot +tarfore lufes he hym noght, (CMROLLEP,110.813)	neg
79	and for-thi <b>be +tou</b> noghte in dowte ne in were when +tou prayes or thynkes one Godd, or ells duse any owtwarde dedis to thyne euencristyn, whe+ter +tou desyres Hym or noghte, (CMROLLTR,37.777)	neg
73	wyth moche payne <b>cam I</b> of his clawes <slash> (CMREYNAR,52.307)	Q
22	To hem <b>seid he</b> +tat he wold resigne his regaly, and all +tat longe +terto, saue +te carectis of his soule, so +tat his lif schuld be graunted him, and sufficient liflod to him and viii persones. (CMCAPCHR,213.3810)	say
38	And to +te discyple saide He, 'Manne, lo +tare thy Modire!' (CMEDTHOR,44.647)	say
1	Natheles, though chastite be a yifte of God and may not be gote ne had with-out him, <b>be we</b> yit neuere so vertuous, whan we han it we shulden kepe it as vertuously as we konne with affliccyon of oure flesshe, or by othir vertuouse menes. (CMAELR4,11.294)	subj
45	Thenne of this Ihu~s our sauour Cryste <b>purpoos I</b> to talke wyth his mercy (CMFITZJA,B6V.217)	tha?

69/15588= 4.6/kToken

#### Appendix 4.

Geographical breakdown of Strict V2 in period @7:

Document	Occurrence V2	Region
cmaelr4@7.m4.upsd	2/2/767	East Midlands
cmcapchr@7.m4.upsd	22/22/4177	East Midlands
cmcapser@7.m4.upsd	3/3/91	East Midlands
cmedmund@7.m4.upsd	0/0/300	East Midlands



cmfitzja@7.m4.upsd	4/4/228	East Midlands
cmhilton@7.m34.upsd	0/0/218	East Midlands
cminnoce@7.m4.upsd	0/0/208	East Midlands
cmjulnor@7.m34.upsd	2/2/334	East Midlands
cmkempe@7.m4.upsd	11/11/3853	East Midlands
cmreynar@7.m4.upsd	4/4/740	East Midlands
cmreynes@7.m4.upsd	0/0/681	East Midlands
cmvices4@7.m34.upsd	1/1/364	East Midlands
cmrolltr@7.m24.upsd	3/3/957	Northern/East Midlands
cmethor@7.m34.upsd	14/14/795	Northern
cmgaytry@7.m34.upsd	0/0/199	Northern
cmrollep@7.m24.upsd	3/3/1002	Northern
cmthorn@7.mx4.upsd	0/0/674	Northern
<b>North+ EastMidlands</b>	<b>69/15588=4.6/kToken</b>	
cmmalory@7.m4.upsd	7/7/4999	West Midlands
cmmirk@7.m34.upsd	5/5/3708	West Midlands
cmsiege@7.m4.upsd	0/0/732	West Midlands
<b>West-Midl</b>	<b>12/ 9439=1.3/kToken</b>	
cmgregor@7.m4.upsd	0/0/2630	Southern
cmroyal@7.m34.upsd	1/1/399	Southern
<b>South</b>	<b>1/3029=0.3 /kToken</b>	
whole search, hits/tokens/total	82/82/28056=1.0/kToken	