

Complex verb constructions in Old Dutch

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Abstract

The article presents a corpus study of complex verb constructions in Old Dutch. A systematic search of the Old Dutch Corpus uncovers a set of fifteen complex verb constructions which all stack two auxiliaries (one finite and one nonfinite) on top of a main verb. The oldest and most frequent complex verb construction in the corpus is a future passive construction combining finite *sullan* 'shall' with nonfinite *werthan* 'be' and a past participle. The article discusses all fifteen complex verb constructions in detail and sketches the wider linguistic context in which they are found.

Keywords

verb construction, auxiliary, grammaticalization, frequency, corpus, Old Dutch

1 Introduction

Complex verb constructions are a common feature of Present-day Dutch. The following sentences illustrate two well-studied types of complex verb constructions, the so-called IPP construction in (1), and the double modal construction in (2), both marked in bold.

- (1) *Hij is blij dat zij het nog zelf **heeft mogen meemaken**.*
'He is happy that she **has been able to experience** it herself.'
- (2) *Ik vind dat iedereen gezond en veilig **moet kunnen wonen**.*
'I think that everyone **should be able to live** healthy and safe.'

These examples stack two auxiliaries on top of a main verb, resulting in a three-verb construction. The IPP construction in (1) combines the perfect auxiliary *heeft* 'has' with the modal auxiliary *mogen* 'may'. The double modal construction in (2) stacks the modal auxiliaries *moet* 'must' and *kunnen* 'can' on top of the main verb *wonen* 'live'. Note that the embedded auxiliaries, *mogen* in (1) and *kunnen* in (2), are nonfinite.

We only have scattered knowledge of complex verb constructions in Old Dutch. Van der Horst (2008: 342) mentions in his discussion of verb order in Old Dutch that combinations of three verbs occasionally occur in the Leiden Willeram but gives no further details. Van Dijk (1996: 268) argues in his historical study of IPP constructions that these and related complex verb constructions are scarce in earlier stages of Dutch, citing Van der Horst (p.c.), who has found only three complex verb constructions in the Wachtendonck Psalter "all with the future auxiliary and passive auxiliary". Van der Horst (2008: 223) concurs saying that he is not aware of any case of IPP constructions in Old Dutch. Coupé & Van Kemenade (2009) finally look into the rise of double modal constructions in Germanic. They find no evidence of this construction in the Wachtendonck Psalter. The above literature review suggests that complex verb constructions are all but missing in Old Dutch.

This article aims to provide a comprehensive picture of complex verb constructions in Old Dutch. As opposed to some of the cited studies, we are not restricting ourselves to one particular construction or text, but rather take an exhaustive approach searching for all complex verb constructions in the available texts in Old Dutch. We do this with the help of the *Corpus Oudnederlands* ‘Old Dutch Corpus’, which was compiled as the source for the *Oudnederlands Woordenboek* (ONW) ‘Old Dutch Dictionary’. The corpus contains three longer texts (Schoonheim 2008), which constitute a potential source for complex verb constructions, that is, the Wachtendonck Psalter (WP), the Leiden Willeram (LW) and the Central Franconian Rhyming Bible (CF). We search for these verb constructions with the help of the linguistic annotations available in the corpus. Section 2 goes into the details of the corpus study.

Our corpus search uncovers fifteen cases of three-verb constructions distributed more or less equally over the three longer texts of the Old Dutch Corpus. Section 3 presents these corpus observations for each of the texts and discusses their form and meaning in more detail. This section is the empirical heart of the article as it presents an exhaustive overview of complex verb constructions in Old Dutch. The remainder of the article sketches the wider linguistic context in which these verb constructions are found. Section 4 gives a historical account of the rise of complex verb constructions in Old Dutch. Section 5 goes into the question of how rare complex verb constructions really were in Old Dutch taking into account the small body of texts we have at our disposal. Section 6 investigates what kind of auxiliaries early complex verb constructions recruit paying attention to their grammaticalization and frequency.

2 Searching for complex verb constructions in the Old Dutch Corpus

Our empirical study makes use of the Old Dutch Corpus provided by the Dutch Language Institute (version 1.1, online since 2012). Although the corpus is enriched with linguistic annotation on the word level (such as lemma, part of speech and inflection) it does not contain syntactic information which would allow us to extract complex verb constructions directly. Instead, we search for complex verb constructions in the corpus by looking for nonfinite auxiliaries.

This operationalization is based on Coupé & Van Kemenade (2009), who search for double modal constructions in Old Dutch (and related Old Germanic varieties) by looking for modal infinitives. Indeed, double modal constructions differ from simple modal constructions by the presence of a modal infinitive. Compare the double modal construction in (2) above with its simple counterpart in (3).

- (3) *Ik vind dat iedereen gezond en veilig moet wonen.*
‘I think that everyone **should live** healthy and safe.’

While both constructions contain a finite modal auxiliary (more specifically *moet* ‘must’ in both examples), only the double modal construction in (2) combines this finite modal auxiliary with a nonfinite one (more specifically the infinitive *kunnen* ‘can’). This observation not only holds for double modal constructions but can be extended to all complex verb constructions.

We selected all nonfinite verb forms (both infinitives and past participles) in the corpus by means of the available inflectional annotation.¹ The corpus annotation does not provide information on whether these verbs are used as an auxiliary or not in their particular context of use. It is notoriously difficult to decide whether verbs are used as auxiliaries. This is especially the case in their early stages of grammaticalization, as their grammaticalized meaning as an auxiliary is not yet distinguishable from their original meaning as a lexical verb. Grammaticalization arises namely in so-called ‘bridging contexts’ (Heine 2002) where both the original and grammaticalized meaning are available. It is only when the grammaticalized meaning extends to new contexts which are no longer compatible with the original reading (so-called ‘switch contexts’) that we can observe that grammaticalization has arisen. We therefore call verbs potential auxiliaries when they are combined with a nonfinite verbal complement in a constellation that corresponds to a present-day verb construction in form and meaning.

We first filtered the potential auxiliaries in our sample of nonfinite verbs on the basis of their lemmas. With the help of the ONW and Van der Horst (2008: §1.9), we compiled a list of nineteen verbs which are reported to behave as auxiliaries in Old Dutch. These are in alphabetical order *beginnen* ‘begin’ (*te*) INF, *doen* ‘do’ INF, *dorren* ‘dare’ INF, *durven* ‘dare’ INF, *gaan* ‘go’ INF, *gelaten* ‘let’ INF, *hebben* ‘have’ PP, *heten* ‘order’ INF, *kunnen* ‘can’ INF, *laten* ‘let’ INF, *leernen* ‘learn’ INF, *leren* ‘learn’ INF, *moeten* ‘must’ INF, *mogen* ‘may’ INF, *willen* ‘want’ INF, *worden* ‘be’ PP, *zien* ‘see’ INF, *zijn/wezen* ‘be’ PP and *zullen* ‘shall’ INF.² This selection results in a sample of 146 nonfinite verbs. We then manually inspected this sample to ensure that all nonfinite verbs were used as auxiliaries in their actual context of usage. In most of the cases, the nonfinite verbs turned out to be used as a copula verb with a nonverbal complement or as a main verb, as illustrated in (4) with the infinitives *wesan* ‘be’ and *hauan* ‘have’ respectively.³

(4) Also duostu: thu **newilt** niet *fortis wesan ad terrena* noh **newilt** neheine *spem hauan in caducis premiis et laudibus* noh nescuwest ie niet cheine *asperitatem laboris pro amore meo*. (LW 121,08)

‘Aldus doe je: je **wilt** niet krachtig **zijn** [want to be] met betrekking tot aardse zaken, noch **wil** je hoop **koesteren** [want to cherish] op vergankelijke beloningen en lofprijzingen, en ook schuw je nooit enige hardheid van het werk voor mijn liefde.’

After removing such cases from the sample, fifteen instances of nonfinite verbs were retained which potentially serve as the nonfinite auxiliary in a complex verb construction. All of them are infinitives. We discuss these instances in more detail in the next section.

¹ While infinitives are definitely the most common type of nonfinite auxiliaries in complex verb constructions today, we did not want to exclude past participles a priori in our exploratory corpus study. Note that we did not restrict ourselves to modal auxiliaries, as the examples may suggest.

² We use present-day lemma’s to bridge the divergent lemma representations in the ONW and Van der Horst (2008). The abbreviation INF stands for infinitive and PP for past participle. Note that some of the auxiliaries in the list have a bare infinitive instead of a *te*-infinitive as they do today.

³ The Old Dutch fragment and its translation into Present-day Dutch are cited from the ONW. More information on the specific text editions used in the ONW are given in the section on primary sources at the end of this article. We added an English translation of the Present-day Dutch complex verb constructions in between brackets.

3 Analyzing the corpus observations

The fifteen observations from our corpus search are more or less equally distributed over the three longer texts of the Old Dutch Corpus. We discuss the form and the meaning of these observations for each of the texts separately.

3.1 Observations in the *Wachtendonck Psalter*

Six of the corpus observations are found in the *Wachtendonck Psalter*. They are presented in (5) to (10) together with their original psalm verse in Latin.⁴

- (5) **Convertentur**⁵ ad vesperam, et famem patientur ut canes, et circuibunt civitatem.
Bekerda sulun uerthun te auandi, in hungger tholon sulun also hunda, in umbigan sulun burg. (WP ms. H Ps. 58,7)
'Zij **zullen** 's avonds **teruggestuurd worden** [shall be sent back] en zij zullen honger lijden zoals honden en zij zullen de stad rondgaan.'
- (6) **Convertentur** ad vesperam, et famem patientur ut canes, et circuibunt civitatem.
Bekerda sulun uerthun te auandi, in hunger tholon sulun also hunda, in umbigan burg. (WP ms. H Ps. 58,15)
'Zij **zullen** 's avonds **teruggestuurd worden** [shall be sent back] en zij zullen honger lijden zoals honden en (zij zullen) de stad rondgaan.'
- (7) Laetabitur iustus in domino, et sperabit in eo, et **laudabuntur** omnes recti in corde.
Blithon sal Rehlico an herron in getruon sal an imo, in **gelouoda sulun uerthun** alla rehlica an hertin. (WP ms. H Ps. 63,11)
'De rechtvaardige zal zich verheugen in de Heer en hij zal op hem vertrouwen en allen die oprecht van hart zijn, **zullen geprezen worden** [shall be praised].'
- (8) Quoniam deus salvam faciet Syon, et **aedificabuntur** civitates Iudaeae; et inhabitabunt ibi, et hereditate acquirunt eam.
Vuando got behaldan duon sal sijen, in **gestiftoda sulun uerthun** burge iudae In uuanun sulun thar in mit erui geuunnon sulun sia. (WP ms. I Ps. 68,36)⁶
'Want God zal Sion redden en de steden van Judea **zullen gesticht worden** [shall be founded] en zij zullen daar wonen en door hun erfenis zullen ze haar verkrijgen.'
- (9) In labore hominum non sunt, et cum hominibus non **flagellabuntur**.
An arbeithe manno ne sint, in mit mannon ne **sulun befilloda uerthan**. (WP ms. I Ps. 72,5)
'Aan de moeilijkheden van de mensen hebben ze geen deel, en met de mensen **zullen ze niet geseld worden** [shall be flogged].'

⁴ Psalm verses 58,7 and 58,15 are part of a refrain which explains their parallel wording.

⁵ The ONW writes *converterentur* instead of *convertentur* which is the form given in De Grauwe (1982: 441-442) for both psalm verses 58,7 and 58,15. We assume this is a typo and corrected the verse accordingly.

⁶ Note that the string *behaldan duon sal* in psalm verse 68,36 looks like a three-verb construction at first sight. It is however not part of our sample as the nonfinite verb *duon* 'do' is combined with the past participle *behaldan* 'safe' rather than an infinitive and as such does not correspond to a present-day verb construction. There are three similar strings in the psalm verses 55,8; 71,4 and 71,13.

(10) **Consumetur** nequitia peccatorum.

Farnozzan uuirthan sal. consumetur 27. (WP glosses Ps. 7,10).

‘Het zal verbruikt worden [shall be consumed].’

All six observations combine a present tense form of *sullan* ‘shall’ with the infinitive of *werthan* ‘be’ and a past participle. They thus seem to be in line with the three cases reported in Van Dijk (1996: 268) which are “all with the future auxiliary and passive auxiliary”.

The interpretation of these six cases as a future passive construction is supported by their Latin original. All six attestations translate a future passive indicative verb form in Latin (marked in bold). This correspondence suggests that *sullan werthan* PP has the potential to express a combination of a future and passive meaning in Old Dutch. It should be noted that the reverse correspondence is not as straightforward. Quak (1983) and De Belder (2005) have systematically investigated the correspondences between Latin passives and their interlinear translation in the Wachtendonck Psalter. They found that *sullan werthan* PP only translates Latin future passives in a handful of cases.⁷ Most future passives are translated with the help of *werthan* alone, as such patterning with the typical translation of present and preterit passives in Latin.

The analysis of *sullan* as a future auxiliary is hardly controversial. Van der Horst (2008: 202) points out that *sullan* INF is the default translation of the Latin future in the Wachtendonck Psalter. As this choice implies a serious deviation from the word-for-word translation principle of the text, he argues, the periphrastic future must have been *vanzelfsprekend* ‘natural, obvious’ to the translator. The status of *werthan* as a passive auxiliary is however contested. Van der Horst (2008: 206-208) points out that the past participle complement of *werthan* often shows agreement with the subject of the clause and that the passive meaning of the construction as a whole is not always very obvious. This last argument is not valid for our six observations as they systematically translate a Latin passive. It also does not rhyme with the fact that *werthan* PP in general translates Latin passives in the Wachtendonck Psalter, as pointed out by the ONW (lemma *werthan* §3), and which also can be inferred from the work of Quak (1983) and De Belder (2005). These facts suggest in our view that the *werthan* PP periphrasis was a perfectly ‘natural’ choice for the translator to render passive meanings.

As to the first argument, the past participles in our attestations indeed show agreement with the subject. More specifically, the past participles in (4) to (8) are inflected with *-a*, marking agreement with their plural subjects, whereas the past participle in (9) shows zero inflection in agreement with the singular subject of the clause. De Belder (2005) more generally shows that the past participle complement of *werthan* nearly always agrees with the subject in the Wachtendonck Psalter. Van der Horst (2008: 206) cites Schrodt (2004: 1), who argues for Old High German that “Flektierte Partizipien deuten darauf, dass sie im Ahd. weitgehend noch als prädikative Konstruktionen gelten und daher am Rand der grammatischen Verbkategorien stehen”. The gradual loss of past participle agreement, as observed by De

⁷ Quak (1983: 103-104) reports four psalm verses 58,7; 58,15; 63,11 and 68,36 and the gloss of psalm 7,10. De Belder (2005: 44-47) mentions five cases but only illustrates them with psalm verses 63,11 and 68,36. This implies that psalm verse 72,5 given in (9) has stayed under the radar of both studies.

Belder (2005) in the Leiden Willeram and some Early Middle Dutch texts, is then considered a sign of ongoing grammaticalization.

We see two counterarguments against this supposed connection between past participle agreement and the grammaticalization of *werthan*. For one, Dutch (and related West Germanic languages) has not only lost agreement of past participles but also of adjectives in predicative position, as Vikner (2009) shows. As such, loss of past participle agreement is not necessarily related to the grammaticalization of *werthan* but may be part of a general drift in West Germanic to dismantle predicative agreement. Moreover, Vikner (2009) also points out that some Scandinavian and Romance languages show past participle agreement in passive and perfect constructions. This implies that the presence of past participle agreement is not necessarily at odds with the advanced grammaticalization of a verb construction. We therefore do not consider the presence of past participle agreement in our sample a problem for the analysis of *werthan* as a passive auxiliary.

3.2 Observations in the Leiden Willeram

We found three complex verb constructions in the Leiden Willeram, presented in (11) to (13) below.

- (11) Waz duowir hiro nu, so siu hiro rades **scal gegruozet werthan?** (LW 141,2)
“Wat doen we nu met haar, als zij met betrekking tot het huwelijk **aangesproken zal worden** [shall be addressed]?”
- (12) Thaz godesbedde bewarent in thirro wereldthimsternisse thie *sancti doctores*, ande thie **sculan erwelet sin** *ex fortissimis Israhel*, wanda thie sculan wesant *rectores animarum*, thie the cristanheyd cunnan beskirman mit *spiritualibus armis* with thene diuvel ande *contra hereticos*. (LW 51,10-11)
“De heilige leermeesters beschermen het bed van God in deze aardse duisternis, en die **moeten gekozen worden** [must be chosen] uit de sterksten van Israël, want zij moeten de leerneesters van de zielen wezen, die de christelijke geloofsgemeenschap met spirituele wapenen kunnen beschermen tegen de duivel en tegen de ketters.”
- (13) So wie houg so her si beythe *per diuinitatem ioh per uirgineam natiuitatem*, her quam uns iethoch *cum humilitate*, wanda her **geboran wolda werthen** uan armon uortheron. (LW 36,2)
“Hoe verheven hij ook is, zowel door zijn goddelijkheid als door zijn maagdelijke geboorte, hij kwam desondanks tot ons met nederigheid, omdat hij **geboren wilde worden** [wanted to be born] uit arme ouders.”

The observation in (11) combines *sullan* and *werthan* in a future passive construction of the type discussed earlier in the Wachtendonck Psalter. The pattern in (12) can be considered a variant of this construction type with *sīn* ‘be’ serving as a passive auxiliary instead of *werthan*. The translation in the ONW suggests an alternative reading of *sullan* as a deontic modal rather than a future auxiliary (see also ONW lemma *sullan* §2). This is a perfectly plausible reading implying that we are potentially dealing with a modal passive construction. The observation in (13) constitutes another type of modal passive construction combining the

modal verb *willen* ‘want’ with passive *werthan*. This particular attestation is cited in Van der Horst (2008: 342) as one of the few three-verb combinations found in the Leiden Willeram.

3.3 Observations in the Central Franconian Rhyming Bible

We finally found six three-verb constructions in the Central Franconian Rhyming Bible, listed below as (14) to (19).

- (14) [man]ege **sculen** anther erthen [siner geburte **ge]frowet werthen**. (CF B l. 121)
‘Velen op aarde **zullen** over zijn geboorte **verblijd worden** [shall be gladdened].’
- (15) Thu **scalt** uon thinen vianden **beseszen werden**, thie dich sculen uerderben. (CF B l. 564)
‘Je **zult** door je vijanden **bezeten worden** [shall be possessed], die je te gronde zullen richten.’
- (16) Sie sprachen sie heten in *prophetis* gelesen, iz **scolde** inbetlehem **geboren wesen**. (CF B l. 153)
‘Ze zeiden dat ze in de profeten hadden gelezen dat het in Betlehem **geboren zou worden** [should be born].’
- (17) z[...] scolde g[...] willen, thaz ire lichnamen umbewollen Gemischet wurthe zû ther erden, uon ther here **geboren wolde werthen**. (CF B l. 469)
‘(...) zou (...) willen dat hun lichamen onbevlekt vermengd werden met de aarde waaruit hij **geboren wilde worden** [wanted to be born].’
- (18) Wie **solden** the juthen. that **gedon mugen**. Of *christus*, ere herre. godes sun were. (CF A l. 348)
‘Hoe **zouden** de Joden dat **kunnen doen** [should be able to do], als Christus, hun Heer, Gods zoon was?’
- (19) Thaz er nicht **getan nescolde haben**, wolt man ime al ertriche geben. (CF B l. 245)
‘Wat hij (t.w. Jezus) niet **gedaan zou hebben** [should have done], al wilde men hem de hele wereld geven.’

The observations in (14) to (17) are variations of the construction types already encountered in the Wachtendonck Psalter and the Leiden Willeram. The construction in (16) introduces *wesan* as an alternative passive auxiliary in a future passive construction. The construction in (18) is our first and only example of a double modal construction in Old Dutch. It combines finite *sullan* with the modal infinitive *mugan* ‘may’ and the infinitive of the lexical verb *giduon* ‘do’. This finding pushes back the first attestation of a double modal construction in Dutch from the first half of the thirteenth century – Coussé (2015) found some cases in the earliest Middle Dutch charters from 1236 and 1237 – to the first half of the twelfth century, the presumed time of writing of the Central Franconian Rhyming Bible (Schoonheim 2008). Our last observation (19) combines finite *sullan* with the perfect auxiliary *hebben* ‘have’ and the past participle of the lexical verb *duon* ‘do’. This construction type has not been reported in Old Dutch before, although it appears to be rather frequent in Early Middle Dutch (Van Dijk 1996: 268).

4 The rise of complex verb constructions in Old Dutch

The discussion of our corpus findings reveals a number of different types of complex verb constructions in the Old Dutch Corpus. Table 1 gives the frequency of these construction types per text (abstracting away from phonological, inflectional and word order variation). The order of the texts reflects their relative time of writing, which is situated by Schoonheim (2008) in the tenth century for the Wachtendonck Psalter (WP), around the year 1100 for the Leiden Willeram (LW) and in the first half of the twelfth century for the Central Franconian Rhyming Bible (CF). The table can thus be read as a tentative time line for the rise of complex verb constructions in Old Dutch.

	WP	LW	CF	Total
<i>sullan werthan</i> PP	6	1	2	9
<i>sullan s̄n</i> PP		1		1
<i>sullan wesān</i> PP			1	1
<i>sullan mugan</i> INF			1	1
<i>sullan hebben</i> PP			1	1
<i>willen werthan</i> PP		1	1	2
Total	6	3	6	15

Table 1. Complex verb construction types in the Old Dutch Corpus

The table shows that *sullan werthan* PP is the oldest type of complex verb construction found in Old Dutch. The construction also surfaces in younger texts, where it is joined by other construction types. These younger construction types can be considered extensions of *sullan werthan* PP. On the one hand, finite *sullan* is combined with new types of nonfinite auxiliaries, such as the passive auxiliaries *s̄n* and *wesān*, the modal auxiliary *mugan* and the perfect auxiliary *hebben*. This type of extension is a case of ‘host-class expansion’ in the sense of Himmelmann (2004: 32), that is, finite *sullan* extends its range of nonfinite verbal complements, presumably as part of its ongoing grammaticalization. On the other hand, we see an extension to a new type of finite auxiliary in the construction type *willen werthan* PP.

Many of the observed construction types have flown under the radar of previous research of complex verb constructions in Old Dutch. This relates to the fact that the focus of this research has mainly been on finding the roots of the IPP construction and the double modal construction in Dutch. While both of these constructions are common from Middle Dutch onwards, they are all but missing in Old Dutch. Indeed, we only found one instance of the double modal construction *sullan mugan* INF in the whole of the Old Dutch Corpus and none of the IPP construction. This does not imply, however, that there are no complex verb constructions in Old Dutch. Our comprehensive corpus study has uncovered an interesting little set of complex verb constructions, which foreshadows the wealth of construction types found today.

5 How rare are complex verb constructions in Old Dutch?

Our corpus study uncovered fifteen complex verb constructions in the Old Dutch Corpus. While this is somewhat more than the few cases reported in the literature, it is still a very low

number. However, one should keep in mind that the body of available Old Dutch texts is also very small. We therefore need to consider the relative frequency of complex verb constructions in order to assess how rare they really are.

Table 2 brings together the total frequency of complex verb constructions in this study and the total size of the three texts they are found in. We complement these frequencies with data from Coussé & Bouma (forthcoming) on three-verb constructions observed in a corpus of spoken and written Present-day Dutch. The relative frequency of complex verb constructions is the ratio of the frequency of complex verb constructions and the total corpus size multiplied by ten thousand. Relative frequency rendered per ten thousand words is also known as normalized frequency.

	Old Dutch	PD Dutch
Frequency of complex verb constructions	15	6 082
Corpus size	23 101	1 983 819
Relative frequency of complex verb constructions	6.5	30.7

Table 2. Relative frequency of complex verb constructions

The table shows that complex verb constructions occur 6.5 times per ten thousand words in Old Dutch. Such a number is hard to interpret without a point of reference. We therefore compare it to the normalized frequency of three-verb constructions in Present-day Dutch. It appears that three-verb constructions in Present-day Dutch occur 30.7 times per ten thousand words, which is about five times as frequent as in Old Dutch.

The relatively low frequency of complex verb constructions in Old Dutch might be related to the fact that we only found a few construction types in this period. We therefore compare the relative frequency of the oldest and most frequent construction type *sullan werthan* PP with its contemporary cognate *zullen worden* PP in Table 3.⁸

	Old Dutch	PD Dutch
Frequency of <i>sullan werthan</i> / <i>zullen worden</i> PP	9	515
Corpus size	23 101	1 983 819
Relative frequency of complex verb constructions	3.9	2.6

Table 3. Relative frequency of *sullan werthan* / *zullen worden* PP

Table 3 reveals that while the contemporary *zullen worden* PP construction is much more frequent in absolute numbers, its relative frequency is about the same as its Old Dutch forerunner *sullan werthan* PP. This finding suggests that the relative frequency of individual complex verb constructions does not seem to change in the course of time. What does change is the types of complex verb constructions in the language, leading to a larger overall relative frequency for complex verb constructions taken together. More research is needed to find out what happens in between Old Dutch and Present-day Dutch.

6 What auxiliaries form complex verb constructions?

⁸ The contemporary cognate *zullen worden* PP combines finite *zullen* with the infinitive of *worden* and the past participle of a lexical verb. All inflectional and word order variants are included.

This section looks more deeply into the question why only a limited number of auxiliaries combine in Old Dutch. Van der Horst (2008: 223) suggests that the lack of IPP constructions in Old Dutch relates to the fact that the periphrastic perfect has just started to develop in this period. We therefore explore the hypothesis that verbs first need to be grammaticalized as auxiliaries before they can be combined into more complex verb constructions.

Our study looked at a set of nineteen verbs which were reported to behave as an auxiliary by the ONW or Van der Horst (2008). Table 4 organizes this set of verbs in semantically coherent groups and lists them together with their total frequency in each of the three longer texts of the Old Dutch Corpus. We mark these frequencies with grey shading if there is evidence that the verbs behave as an auxiliary in one of the texts, that is, as soon as they are found with a nonfinite verbal complement. Both the ONW and Van der Horst (2008) indicate this information either explicitly in their descriptive text or it can be inferred from the examples cited.⁹

Verb	Gloss	Selects	Meaning	WP	LW	CF
<i>zullen</i>	shall	INF	tense/modal	224	41	102
<i>zijn/wezen</i>	be	PP	passive/tense	107	468	145
<i>worden</i>	be	PP	passive	67	73	105
<i>hebben</i>	have	PP	tense	8 (1)	98	105
<i>mogen</i>	may	INF	modal	1	57	40
<i>willen</i>	want	INF	modal	3	54	41
<i>moeten</i>	must	INF	modal		5	10
<i>kunnen</i>	can	INF	modal		17	
<i>doen</i>	do	INF	causative	28 (2)	33	60
<i>laten</i>	let	INF	causative		8	26
<i>gelaten</i>	let	INF	causative			1
<i>gaan</i>	go	INF	aspect	6	7	18
<i>beginnen</i>	begin	(te) INF	aspect	1	6	13
<i>zien</i>	see	INF	perception		10 (1)	7
<i>heten</i>	order	INF	other	1	10	17
<i>leren</i>	learn	INF	other	2	2	5
<i>leernen</i>	learn	INF	other		5	
<i>dorren</i>	dare	INF	other		1	5
<i>durven</i>	dare	INF	other			5

Table 4. Potential auxiliaries in Old Dutch

Table 4 shows a large discrepancy between the number of verbs used in the Wachtendonck Psalter on the one hand and in the Leiden Willeram and Central Franconian Rhyming Bible on the other. Only eleven of the nineteen potential auxiliaries in the table occur in the Wachtendonck Psalter. Of these eleven verbs, only a handful are reported to take a nonfinite

⁹ Both sources agree in the majority of cases. Van der Horst (2008), however, does not explicitly mention that *mogen* and *moeten* occur with a nonfinite verbal complement in the CF. The ONW in turn does not mention that *leren* can be combined with a nonfinite complement in the LW.

verbal complement (marked with grey shading). They predominantly engage in future and passive constructions translating synthetic Latin verb forms. Perfect and modal auxiliaries are only marginally present. This small set of potential auxiliaries motivates why we only find so few auxiliary combinations in the Wachtendonck Psalter. There are simply no more types of auxiliaries available to recruit from in this text.

The Leiden Willeram and the Central Franconian Rhyming Bible show more types of potential auxiliaries. Not only do both texts contain a wider array of verbs, most of these verbs are also found with a nonfinite complement in one or both sources, pointing to their grammaticalization as an auxiliary. We see that the complex verb constructions found in both texts recruit from this wider pool of potential auxiliaries. Yet, not all available auxiliaries actually combine. It appears that the recruited verbs already were present in the Wachtendonck Psalter (some in very small numbers, admittedly) and show early signs of grammaticalization (except for *willen*, which is not found with a nonfinite verbal complement in the WP). These verbs are also among the most frequent ones in the Leiden Willeram and the Central Franconian Rhyming Bible. These observations suggest that verbs are only recruited in complex verb constructions once they are well-established as auxiliaries and have developed a relatively high frequency.

7 Conclusion

The aim of this article was to give a comprehensive overview of complex verb constructions in Old Dutch. A systematic search of the Old Dutch Corpus yielded a set of fifteen complex verb constructions which were distributed rather equally over the longer texts in the corpus. The oldest construction type found in the corpus is a future passive construction combining finite *sullan* ‘shall’ with the passive auxiliary *werthan* ‘be’ and a past participle. We found that this construction extends to other finite auxiliaries (*willen* ‘want’) and nonfinite auxiliaries (*sīn* ‘be’, *wesan* ‘be’, *mugan* ‘may’ and *hebben* ‘have’) in younger sources. Although early complex verb constructions are very infrequent in absolute numbers, it turns out that the relative frequency of the oldest and most frequent construction type *sullan werthan* PP is comparable to its present-day cognate. We also found that verbs only combine in complex verb constructions when they are both well-established as auxiliaries and have acquired a relatively high frequency. More research is needed to show whether these tendencies hold in later stages of Dutch as complex verb constructions further extend to new types of auxiliaries and auxiliary combinations. It would also be interesting to take a wider crosslinguistic perspective and investigate how complex verb constructions emerge in related Old Germanic languages, such as Old High German or Old English.

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