



# UNIVERSIDAD DE LA RIOJA

## TESIS DOCTORAL

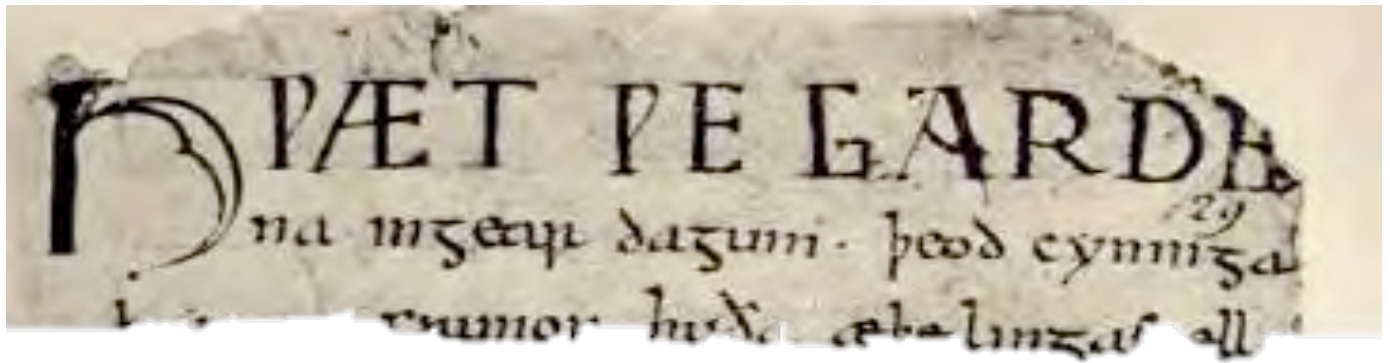
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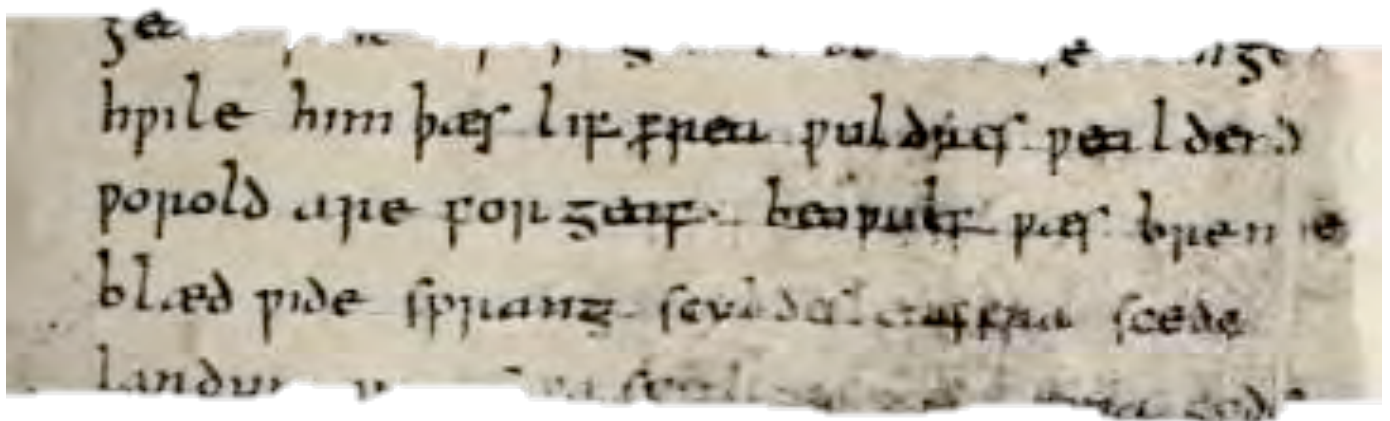
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# Transitivising formations in competition? Lability and the effects of preverbs on Old English causative oppositions

TESIS DOCTORAL  
Esaúl Ruiz Narbona



Departamento de Filologías Modernas  
Universidad de La Rioja





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LABILITY AND THE EFFECTS OF PREVERBS ON  
OLD ENGLISH CAUSATIVE OPPOSITIONS**

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Esaúl Ruiz Narbona

PhD Dissertation supervised by Prof. Javier Martín Arista and  
Dr. Luisa García García

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## ABBREVIATIONS

ACC	Accusative (case)
AFF	Affected(ness)
ANTICAUS	Anticausative
CAUS	Causative
DAT	Dative (case)
DOE	Dictionary of Old English A-G Online
DOEC	Dictionary of Old English Web Corpus
FUT	Future
GEN	Genitive (case)
GOT	Gothic
HEV	Historically expected valence
IMP	Imperfective
IMPTV	Imperative
IND	Indicative
INGR	Ingressive
INST	Instigation
INTR	Intransitive
MHG	Modern High German
MR	Macrorole
NEG	Negative
NHEV	Non-historically expected valence
NOM	Nominative (case)
NP	Noun phrase
OE	Old English
PDE	Present-day English
PERF	Perfective
PL	Plural
PRES	Present
PROC	Process
PP	Prepositional phrase

PPTCP	Past participle
RRG	Role and Reference Grammar
SG	Singular
SEML	Semelfactive
STH	Something
SUBJUNC	Subjunctive
TRANS	Transitive
VOL	Volition

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## CHAPTER 1. INTRODUCTION

### 1.1 Preliminaries

One of the aspects that has drawn more attention concerning the diachronic study of English has been the different processes of simplification undergone by this language since its origins up to the present day. Most studies related to this topic have focused on nominal morphology, more precisely on the loss of case and gender during the Middle English period. The almost complete loss of the case system and its possible relationship with a fixed word order has been investigated thoroughly (Traugott (1972), Lass (1997), Hickey (2002), Pintzuk (2002), Allen (2006), Fischer & van der Wurff (2006)).

Nevertheless, the processes of morphological simplification undergone by English are not limited to the aforementioned ones. They affect other structures such as modal verbs, Plank (1984) or the expression of the inchoative-causative alternation, see Haspelmath (1993) or Poppe (2009). As it is known, this is one of the main semantic alternations that determine the expression of verbal arguments, Levin (1993). It is also a crucial component of the lexical representation system used in the Role and Reference Grammar approach from which this study has benefited in that each of the *Aktionsart* types that serve as the basis of logical structures has a causative counterpart, and also a fundamental aspect of the lexis and syntax of English clauses.

But the expression of the inchoative-causative alternation belongs more to derivational morphology. This has not received the same attention from scholars interested in morphological simplification. García García (2012) carried out a study about morphological causatives in the history of English. She highlights the effects that the loss of productivity of this formation may have had and also points to different lines of research. The term morphological causative refers to verbs such as *set*, originally derived from *sit* by means of the Germanic *\*-ija* suffix. This suffix was attached to the *a*-grade of a strong non-causative verb such as *\*set-* ‘to sit’ (intransitive), and added a

causative meaning as in \**sat-ija*, ‘to set’ (transitive). These two verbs *sit* and *set* conform what is known as a causative opposition.

In Old English the formal relationship between the members of a causative pair is opaque and unsystematic (see Brinton and Traugott (2005: 153) or García García (2012: 135). This favours the gradual dissolution of causative pairs that entails both semantic and syntactic changes.

Concerning the latter, focus will be laid on cases in which the causative opposition disappears because one or the two members of the causative pair change their valence. This process affects oppositions in which the base verb is an intransitive verb that takes on the valence of its derived causative, becoming thus transitive as well. Derived causatives can also be affected, resulting in originally causative verbs acquiring an intransitive use. The Old English causative pair *meltan-myltan* may illustrate this:

(1.1)

a. *myltan* ‘melt’ (transitive and intransitive) < Proto-Germanic \**maltija-* ‘melt’ (transitive).

b. *meltan* ‘melt’ (usually intransitive) < Proto-Germanic \**melta-* ‘melt’ (intransitive).

In the example above, the original causative (*myltan*) has acquired an intransitive use. Verbs resulting from this process can be either intransitive or transitive with no morphological marking. They are labile verbs (Haspelmath 1993, Dixon 2000: 33-41). The labile use of Present-day English *melt* is illustrated in (1.2) below. In sentence (1.2a) it functions as an intransitive verb, whereas in (1.2b) it functions as a transitive one.

(1.2)

a. *The snowman melted*

b. *The sun melted the snowman*

Labile verbs are extraordinarily frequent in Present-day English in comparison with other related languages as highlighted by Haspelmath (1993) and Poppe (2009). For instance, most of the unmarked causative oppositions in English such as the ones in (1.2), repeated below for convenience's sake, and (1.4) are expressed by means of a morphologically marked causative alternation in German, exemplified in (1.3) and (1.5). In (1.5), the opposition is causative, i.e. the causative member is derived from the non-causative one, in this case by means of the *-jan* suffix, while in (1.3), an anticausative marker, *sich*, used to derive the non-causative member of the causative opposition, serves to distinguish the causative from the non-causative counterpart. This latter mechanism is rather widespread in modern European languages as exemplified by Spanish in (1.6) and (1.7) respectively.

(1.2)

a. *The snowman melted*

b. *The sun melted the snowman*

(1.3)

a. *Der Schneemann schmolz sich*

The.NOM snowman melted ANTICAUS

'The snowman melted'

b. *Die Sonne schmolz den Schneemann*

The.NOM sun melted the.ACC snowman

'The sun melted the snowman'

(1.4)

a. *The Titanic sank*

b. *An iceberg sank the Titanic*

(1.5)

a. *Die Titanic versank*

The.NOM Titanic sank

‘The Titanic sank’

b. *Ein Eisberg versenkte die Titanic*

A.NOM iceberg sank.CAUS the.ACC Titanic

‘An iceberg sank the Titanic’

(1.6)

a. *El muñeco de nieve se derritió*

The snowman ANTICAUS melted

‘The snowman melted’

b. *El sol derritió el muñeco de nieve*

The sun melted the snowman

‘The sun melted the snowman’

(1.7)

a. *El Titanic se hundió*

The Titanic ANTICAUS sank

‘The Titanic sank’

b. *Un iceberg hundió el Titanic*

A iceberg sank the Titanic

‘An iceberg sank the Titanic’

The tendency towards labile verbs displayed by Present-Day English can be traced back to Old English, as Hermodsson (1952: 129) points out. In fact, blurred causative oppositions are one of the main sources of labile verbs, though not the only one, see García García (2012: 138fn36). This process of labialization does not stop in Old

English though, since it continues in Middle English. Therefore, the Old English period is crucial in order to analyze the disappearance of this formation.

According to García García (2012: 140), out of the 57 Old English surviving causative pairs, 13 of them show signs of labilization. These are the verbs that form the backbone of the present study. This group of verbs conforms a key set of verbs in order to contribute to an assessment of the degree the process of labilization has reached during the Old English period and the related phenomena that can be linked to it. Additionally, it may offer insights concerning the direction of the change from transitive or intransitive-only verbs to labile ones. Due to the fact that the corpus of examples analysed in this work covers most kinds of Old English texts from all periods available, it also aims at shedding light on the development of the causative formation towards labilization within the Old English period itself.

The concept of valence is intimately linked to causativity, since this is defined as a valence-adding operation that modifies the valence of the original non-causative clause, changing an intransitive clause into a transitive one more often than not (see chapter 3, section 3 for more details). As a consequence, the process of transitivity needs to be addressed in this study. Therefore, in addition to causativity, other transitivising mechanisms such as prefixation are also investigated in this work for thematic coherence.

Concerning prefixation, as is common with many Old English verbs, the verbs taken into account in this study frequently appear with certain prefixes attached to them such as *ā-*, *for-* or *ge-*. Therefore, in order to carry out a complete analysis, prefixed verbs have to be included. As shown in Hiltunen (1983: 48-51) and Brinton (1988: 199-204) the prefixes analysed in the present work have often been associated with functions related to transitivity. Thus, the group of labile verbs and their prefixed counterparts examined in this study conform an ideal corpus in order to assess the transitivising effects of the prefixes in question. Likewise, they are fundamental in evaluating how different transitivising mechanisms, prefixation and causativisation interact, if at all, and to assess to what extent the latter mechanism might have been overridden by the much



more widespread prefixes. This topic has attracted little attention so far in Old English research, c.f. Visser (1963: 97-100) and Lindemann (1970: 30). However, it may allow for the exploration of new research lines that may offer unexpected insights concerning Old English word formation patterns.

All in all, the study of the verbs analysed in this work is directly connected to topics of relevance in current linguistics such as valence or transitivity, Hopper and Thompson (1980), Haspelmath (1993), Abraham (1997), Nichols and Barnes (2004), Comrie (2006), Naess (2007), Plank and Lahiri (2009)) and how these change throughout time (Hermodsson (1952), Visser (1963), Bammesberger (1965), Suzuki (1989), Kulikov (2001) and (2009), Narrog (2009), van Gelderen (2011), Óttosson (2013), Cennamo et al. (2015)). Furthermore, several works have concentrated on the study of *-jan* verbs from van Hamel (1931), Prokosch (1939: 151-3) or Bammesberger (1965) to García García (2005, 2012) and Óttosson (2013). The great number of studies related to the topics addressed in this work highlights the fact that morphological causatives are promising objects of study, since there exists a current debate within linguistics about topics related to them that do not only concern causatives from a diachronic point of view, but also topics that are of interest to general linguistics.

## **1.2 Main objectives**

The present study has two main objectives which could be divided into further minor ones. The first one focuses on the simplification undergone by Old English morphological causative pairs. The detailed analysis offered in this work (chapter 4) aims at providing precise data concerning the valence of each of the verbs taken into account in this study, both individually and in comparison with their counterparts in the causative alternation. The objective is, thus, to offer a complete mapping of the simplification undergone by Old English causative pairs consisting of underspecification of valence. This study offers a comprehensive assessment of the evolution of causative pairs and individual verbs in terms of their syntactic and semantic valence with special emphasis on the prefixed forms not included in García García's (2012) work. Furthermore, this study intends to clarify what some of the engines, or at least enabling conditions of the labilization process might be in light of the data

obtained in this work, such as prefixes or lack of formal distinction between strong non-causative and its weak causative counterpart. Likewise, this study aims at contributing to the debate of the direction of the labilization process, presenting data in support of the detransitivising hypothesis, which suggests that the labile verbs analysed in this work arise through a process whereby the causative transitive acquires the valence of its intransitive counterpart, i.e. detransitivises, rather than the other way around.

Additionally, this work brings to the forefront an issue often overlooked in most studies, namely variation within Old English itself. Thus, one of the objectives of the present study is to try to evaluate the existing differences in the behaviour of labile verbs in terms of their valence in different types of text, in texts composed at different times and texts presenting different dialectal features. Unfortunately, the analysis of the influence of dialectal variation has been limited to late glosses due to the difficulty in determining the dialectal features of some texts and to the unevenly distribution of the data in this respect, since the great majority of attestations of the verbs under analysis belong to West-Saxon texts. The main idea behind this textual analysis is to assess whether there exist textual factors that may contribute to a higher or lesser presence of labile clauses and to try to shed light on the evolution of the labilization phenomenon throughout the Old English period by examining data from texts composed during the early and the late Old English period.

The aforementioned textual factor represents a major difference with respect to previous work on morphological causatives. Unlike previous works on causatives mentioned above, the present one is based on a corpus of examples and not on data taken from previous scholars or based on previously processed dictionary data. The choice of this methodology aims at presenting a vision as close as possible to actual Old English use, far from the historical bias which dictionaries tend to present (see Ruiz Narbona: forthcoming). Additionally, the use of the corpus is a necessary step in order to assess the role of the different textual factors pointed out above.

Besides the fact that data are taken from a corpus of examples, this study presents a further methodological divergence with respect to preceding works, namely the use of

statistics. Once the results obtained from the data have been compiled, they have been subjected to statistical analysis. The use of statistics aims at avoiding any impressionistic conclusions and at filtering them through the sieve of impartiality and objectivity that a statistical analysis offers. With these two new methodological tools with respect to earlier work, it is intended to offer a new perspective and shed a new light on issues that have never before been analysed under that angle.

The use of a corpus of examples and statistics does not only concern the first main objective of this work, but also the second one. The second main objective of the present thesis is related to the interaction of causativity with another major transitivity mechanism, namely prefixation. As mentioned above, most of the prefixes attached to the verbs under analysis are associated with transitivity and other parameters such as telicity and affectedness of the object. Thus, one of the aims of this study is to assess the functions and meanings of the prefixes attested in my corpus. Even if this is not a comprehensive study of prefixes, it is indeed representative. On the one hand, it includes the more frequent and commonly discussed prefixes such as *ā-*, *be-* or *ge-*. On the other, the corpus covers a wide range of examples. It could be argued that the analysis is biased, as examples are limited to certain verbs, namely the aforementioned 13 labile pairs from causative oppositions. However, these are as representative as any randomly selected group of verbs. Perhaps, it is even more so due to the fact that this particular corpus is based on labile verbs. This allows for the assessment of the influence of prefixes on transitivity in a way that is not possible in corpora that only include verbs that present no valence variation.

Furthermore, the group of verbs under analysis may provide insightful results concerning the second objective related to prefixes, namely to assess to what extent causativity interacts, if at all, with prefixes as a transitivity mechanism and to try to shed light on the role prefixes might have had in the dissolution of the causative formation, a topic little explored so far as mentioned above. In addition to these objectives, I intended to offer a mapping of the transitivity effects of prefixes taking into account chronological and genre-related data, as in chapter 5 concerning the loss of the causative opposition in causative pairs. However, this had to be discarded due

mainly to the unevenly distribution of these data in terms of date of composition and genres in my corpus.

### 1.3 Overview of contents

Once the main objectives of this thesis have been put forth, an overview of the main contents will be provided. The rest of this study is divided into six chapters. In what follows, details will be given regarding the exact contents of each of them.

Chapter 2, “General Methodology”, explains the methodological tools that have been employed in this study independently of specific objectives. It deals mainly with the design and compilation of the corpus. It offers an overview of the different texts that were selected for this study and explains how the classification into different categories was made. Finally, a list of the texts employed in this study ordered by short title is provided.

The third chapter of this thesis focuses on the theoretical background and offers an overview of the main concepts that underpin this study. The first concept that is introduced is that of valence. This is followed by an outline of cardinal transitivity as well as the closely related prototypical transitivity hypothesis. The next subsection deals specifically with causativity as a valence-changing operation and offers information regarding the different types of causative derivation together with a historical overview of Old English morphological causatives. Section 4 concentrates on the concept of *Aktionsart*. It describes what is meant by this term and explains the different tests used in this work in order to determine the *Aktionsart* of the clauses under analysis. Additionally, a succinct explanation of the ways *Aktionsart* may interact with aspect is provided. Lastly, the final section introduces the concept of lexicalization.

Chapter 4, “Labile Verbs from Former Causative Oppositions: Valence Changes”, deals with the first objective explained above. First, it provides a section on methodological steps specific to this objective as well as the statistical method used in this study. The second part of this chapter presents the specific data concerning the valence of each of

the verbs and verb-pairs in alphabetical order and discusses the insights these data provide and the relevance they have concerning the first objective of the thesis. The conclusions drawn from this analysis are summarised in the concluding remarks section which also offers information regarding some of the likely factors influencing the labilization process and tries to shed light on the direction of the development of the labile verbs under analysis.

The fifth chapter of this study concentrates on the possible effects of text type, date of composition and, to a lesser extent, dialectal variation, on valence. Its aim is to assess whether there exists variation in the valence of the verbs under analysis with respect to the type of text they appear in and to give information regarding the chronological development of the labilization process throughout the Old English period. After a brief introduction, the data are examined and discussed. The final conclusions drawn from these data are considered at the end of the chapter.

The longest chapter in this study is chapter 6, entitled “Effects of Verbal Prefixes on Transitivity and their Interaction with the Causative Formation”. This chapter concentrates on the second main objective of this thesis, i.e. to assess the role related to transitivity of the prefixes under analysis and their interaction with the causative alternation as transitivising force. Chapter 6 opens with a brief review of the functions and meanings related to each of the prefixes taken into account in this study. This review is followed by a section describing the methodology specific of the objective dealt with in this chapter. The third section presents and discusses the data concerning the role of prefixes on the parameters of cardinal transitivity they are associated with. The data of prefixed strong verbs and their counterparts are also provided in order to assess the interaction of prefixation and causativity. Finally, the chapter closes with a summary of the results obtained from the previous analysis.

The last chapter of the thesis compiles the conclusions drawn from the different analyses provided throughout the rest of the work. Thus, it serves as a final statement of the results obtained in this study. This final chapter is followed by the references section. This is in turn divided into primary sources, on the one hand, including the

complete reference of all Old English texts that conform the corpus used in this work; and secondary sources, previous work cited throughout this study, on the other. This is followed by two appendixes. Appendix A is related to chapter 5. It provides the number of attestations per verb together with the valence these examples present in each of the texts included in this study. Appendix B compiles the results of each of the parameters of transitivity that each of the verbs under analysis displays.



## CHAPTER 2. GENERAL METHODOLOGY

The second chapter of this study focuses on general methodological issues. First, emphasis will be laid on the design and compilation of the corpus of examples. This is followed by a section devoted to the selection of texts from which the examples under analysis were taken. The way these texts were classified into different categories is dealt with in section 2.3. This chapter concludes with a list of the texts taken into consideration classified according to the categories specified in section 2.3.

### 2.1 Design and compilation of the corpus

This first section devoted to methodological issues concentrates on the design and compilation of the corpus of examples used in this study. As mentioned in the introduction, the present work focuses on the study of the valence and transitivity of 13 causative / non-causative verb pairs which according to García García (2012: 137) show syntactic merger. These are listed together with the meanings that appear in my corpus in Figure 2.1 below. Many of the works that study aspects related to the valence of morphological and other causatives in old Germanic languages (e.g. Ottósson (2013), van Gelderen (2011) or García García (2012)) rely mainly on dictionaries, secondary sources or very specific text samples. This study, on the contrary, makes use of a corpus of examples taken from actual Old English texts as a starting point.

Figure 2.1: Morphological causative pairs which according to García García (2012) present syntactic merger.

<b>Strong base verbs</b>	<b>Derived causatives</b>
<i>Būgan</i> ‘bow, bend; submit (intr.)’	<i>Bīgan</i> : ‘bend (caus.; intr.); submit (caus.)’
<i>Byrnan</i> ‘burn (intr.; caus.)’	<i>Bærnan</i> ‘burn (caus.; intr.)’
<i>Calan</i> : ‘be or become cold; make cold’	<i>Cēlan</i> : ‘cool or chill (sth), make cold; quench (thirst)’
<i>Deorfan</i> : ‘labour, be in danger or trouble’	<i>Dyrfan</i> : ‘bring into danger, afflict; engage in’
<i>Hweorfan</i> : ‘turn, change (intr.); go’	<i>Hwyrfan</i> : ‘turn, change (caus.; intr.);



	exchange; go, return'
<i>Belīfan</i> : 'be left over, remain' <sup>1</sup>	<i>Lāfan</i> : leave, remain
<i>Meltan</i> : 'melt (intr.), be dissolved, be digested'	<i>Myltan</i> : 'melt (caus.; intr.); digest
<i>Smēocan</i> : 'emit smoke (intr.); smoke, fumigate (sth)'	<i>Smīcan</i> : 'smoke, fumigate (sth.)'
<i>Stincan</i> : 'spring, leap; emit a smell'	<i>Stencan</i> : 'scatter'
<i>Swingan</i> : 'swinge; chastise; whip (cream); strike; beat (the wings)'	<i>Swengan</i> : 'cause to swing; swing, fling, strike'
<i>Wācnan</i> : 'come into being, be born, spring'	<i>Weccan</i> : 'waken, arise, spring (intr.; caus.)'
<i>Wegan</i> : 'bear, carry; move (caus.; intr.); weigh'	<i>Wecgan</i> : 'move, shake (sth)'
<i>Windan</i> : 'spring (intr.); roll (intr.; caus.); weave (sth)'	<i>Wendan</i> : 'turn (round), change (intr.; caus.); go (intr.)'

The main tool that was employed in the compilation of the corpus was the *Dictionary of Old English Web Corpus* (DOEC henceforth). This decision was made bearing in mind that this is the largest and most complete Old English textual database to date. This was not the only source of examples used in this work, though. Especially in cases where the number of attestations of certain verbs was very low, and no results were retrieved when carrying out searches in specific texts, I relied on the *Dictionary of Old English A-G Online* (DOE henceforth) to make the process of compilation more efficient.

Complete as it is, the DOEC presents a difficulty that affects searches from the start, namely the fact that this web corpus is not lemmatized. This means that different forms of the verb under study must be searched for individually and introduced manually one at a time. Thus, a first step that needed to be taken in the search was to compile the different forms that each of the twenty-six verbs under study may display. Unfortunately, this problem is not solved as simply as it is in the case of any

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<sup>1</sup> Notice that *belīfan* is compared to *lāfan* because there is not attested OE *\*līfan*

standardized modern language where paradigms of the different verbal forms may be found in any dictionary or grammar book. Old English verbs (especially strong ones) present a rich inflectional system, but variation in form does not end there. Due to dialect variation, date of composition of texts, etc. variation is greater than in any standardized language nowadays.

The selection of the different forms that needed to be searched for in order to find the largest number of examples possible for each verb was taken from the DOE when possible. This dictionary provides a list of all different attested forms of each of the words it compiles. However, since it is only completed up to the letter G (by the time the compilation of the corpus for the present study was made), it could only be used in four of the 13 verb pairs analyzed in this study, i.e. *būgan-bīgan*, *byrnan-bērnian*, *calan-cēlan* and *deorfan-dyrfan*. For the rest of the verbs, a variety of secondary sources were used. I relied on the standard Old English grammar by Campbell (1965), as well as on different dictionaries such as Sweet's *The Student's Dictionary of Anglo-Saxon* (1896), Bosworth and Toller's *An Anglo-Saxon Dictionary* (1898) and Clark-Hall's *A Concise Anglo-Saxon Dictionary* (1884, 1960 4<sup>th</sup> edition). Last but not least, I would like to point out that the search I conducted was not based on actual forms of the verbs in question as they appear on the texts, since this would have taken too long to complete, but rather on different roots. Thus, rather than introducing each of the complete forms of the verb *bīgan*, for example: i.e. *bīge*, *bīegst*, *bīegþ*, etc., I introduced only the different roots up to the letter where they coincide with other forms. Thus, instead of introducing *bīegst* and *bīegþ* as different searches, only one search for *\*bīeg\** was conducted. The different forms introduced in the search engine in order to retrieve the data under study in this work are presented in Figure 2.2 below.

Figure 2.2. Different forms of the verbs used to carry out the search in DOEC

<p><b><i>Būgan:</i></b> *bug*, *byg*, *bih*, *byh*, <b><i>Bīgan:</i></b> *big*, *beg*, *byg*, *bieg*</p> <p>*bich*, *buh*, *beag*, *beah*, *bæh*,</p> <p>*bog*</p>
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<b>Byrnan:</b> *byrn*, *beorn*, *birn*, <b>Bǣrnan:</b> *bærn*, *bern*, *bæn*, *ber*, *biern*, *biorn*, *barn*, *born*, *beorn*, *bearn*, *bær*, *bren*, *barn* *bearn*, *burn*	
<b>Calan:</b> *cal*, *cæl*, *cael*, *kael*, <b>Cēlan:</b> *cel*, *cæl*, *coel*, *kel* *col*, *calen*	
<b>Deorfan:</b> *deorf*, *dyrf*, *dearf*, <b>Dyrfan:</b> *dyrf*, *dierf* *durf*, *dorf*	
<b>Hweorfan:</b> *hweorf*, *hworf*, *hwurf*, <b>Hwyrfan:</b> *hwyrf*, *hweorf*, *hwierf*, *hwearf*, *hwærf*, *hwyrf*, *huerf*, *huerf*, *hwærf*, *hwirf*, *hwerf*, *hwierf* *hwearf*	
<b>Belīfan:</b> *belif*, *beliu*, *belyf*, <b>Lǣfan:</b> *læf*, *laf*, *lef* *belaf*, *bilaf*, *belæf*, *beleaf*, *bylif*	
<b>Meltan:</b> *melt*, *mealt*, *mult*, *molt*, <b>Myltan:</b> *mylt*, *melt*, *mielt*, *milt*, *mylt*, *milt* *mælt*	
<b>Smēocan:</b> *smeoc*, *smeac*, *smuc*, <b>Smīcan:</b> *smic*, *smec*, *smeoc*, *smoc*, *smec*, *smic* *smoc*	
<b>Stincan:</b> *stinc*, *stanc*, *stunc*, <b>Stencan:</b> *stenc*, *stinc* *sting*	
<b>Swingan:</b> *swing*, *swang*, *swung*, <b>Swengan:</b> *sweng*, *swing* *swong*, *suing*, *suung*, *swyng*, *suang*, *suong*	

<b>Wæcnan:</b> *wæcn*, *wake*, *wakn*, *waccn*, *wac*, *woc*, *wok*	<b>Weccean:</b> *wecc*, *auæcc*, *wæcc*, *woæc*
<b>Wegan:</b> *weg*, *wæg*, *wig*, *wæh*, *wih*, *weh*, *wei*	<b>Wecgan:</b> *wecg*, *weg*
<b>Windan:</b> *wind*, *wand*, *wund*, *wint*, *wient*, *winn*, *wond*	<b>Wendan:</b> *wend*, *woend*, *went*, *wænd*

This selection of forms allowed for a complete search of the different forms of the paradigms of each verb both in terms of person, tense, etc. as well as in terms of other kind of variation, mainly dialectal and dependent on date of composition. Additionally, it made possible the search for all prefixed forms of each of these verbs, which as explained in the introduction, play a crucial role in this piece of research. Taking into account the labile verbs included in García García (2012), plus different prefixed forms, the total number of verbs included in this study amounts to 86. They are presented in Figure 2.3 below together with the meanings they present in my examples:

Figure 2.3: List of verbs analyzed in this study.

<b>Strong base verbs</b>	<b>Derived causatives</b>
<i>Būgan</i> : ‘bow, bend; submit (intr.; caus.)’	<i>Bīgan</i> : ‘bend (caus.; intr.); submit (caus.)’
<i>Ābūgan</i> : ‘bow, bend; submit; withdraw (intr.)’	<i>Ābīgan</i> : ‘bow, bend; submit, convert (intr.; caus.)’
<i>Bebūgan</i> : ‘surround; avoid; flow around (caus.; intr.)’	
<i>Forbūgan</i> : ‘decline, avoid; flee from, escape; bend from, pass by’	<i>Forbīgan</i> : ‘bow, bend down; humiliate, abase, depreciate; avoid, pass by’
<i>Gebūgan</i> : ‘bow, bend (intr.; caus.)’	<i>Gebīgan</i> : ‘cause to move; bend, incline, submit (caus.)’

<i>Onbūgan</i> : ‘bend (in reverence), bow; submit, deviate (intr.)’	<i>Onbīgan</i> : ‘cause to bend; subdue, subjugate (caus.)’
<i>Byrnan</i> : ‘burn (intr.; caus.)’ <i>Ābyrnan</i> : ‘burn, be on fire; blaze (intr.)’ <i>Forbyrnan</i> : ‘burn up, completely; be consumed, destroyed by fire; burn down, burn to death (intr.)’ <i>Gebyrnan</i> : ‘burn; be consumed by fire, destroy by fire (intr.; caus.)’	<i>Bĕrnan</i> : ‘burn (caus.; intr.)’ <i>Forbĕrnan</i> : ‘burn up; consume by fire; burn down, burn to death; inflame (caus.; intr.)’ <i>Gebĕrnan</i> : ‘burn (caus.; intr.); destroy by fire; light (caus.)’ <i>Onbĕrnan</i> : ‘set fire to, light, kindle; burn’ (intr.; caus.)’
<i>Calan</i> : ‘be or become cold; make cold’ <i>Ācalan</i> : ‘be destroyed by cold’	<i>Cĕlan</i> : ‘cool or chill (sth), make cold; quench (thirst)’ <i>Ācĕlan</i> : ‘cool or chill (sth); quench (thirst)’ <i>Gecĕlan</i> : ‘cool or chill (sth); quench (thirst); become cold’
<i>Deorfan</i> : ‘labour, be in danger or trouble’ <i>Gedorfan</i> : ‘work, labour; perish at sea’	<i>Dyrfan</i> : ‘bring into danger, afflict; engage in’
<i>Hweorfan</i> : ‘turn, change (intr.); go’ <i>Āhweorfan</i> : ‘turn away (intr.; caus.)’ <i>Ēthweorfan</i> : ‘return (intr.)’  <i>Behweorfan</i> : ‘attend to; prepare (food, body for burial), embalm; treat, deal with’	<i>Hwyrfan</i> : ‘turn, change (caus.; intr.); exchange; go, return’ <i>Āhwyrfan</i> : ‘turn away (sth); change, transform (caus.)’  <i>Behwyrfan</i> : ‘turn around, revolve; encompass; change; exchange’  <i>Forhwyrfan</i> : ‘turn; change; remove; pervert (intr.; caus.)’

<i>Gehweorfan</i> : ‘turn, turn away; change; (intr.; caus.); return (intr.)’	<i>Gehwyrfan</i> : ‘turn (sth); cause to move, direct; (cause to) return; change, exchange, translate (intr.; caus.)’
<i>Onhweorfan</i> : ‘change; return; reverse’	<i>Onhwyrfan</i> : ‘turn, turn around; change (intr.; caus.)’
<i>Tōhweorfan</i> : ‘part, separate, disperse’	
<i>Ymbhweorfan</i> : ‘go around, revolve around; go about, over, through; turn around (intr.; caus.)’	
<i>Belīfan</i> : ‘be left over, remain’	<i>Lāefan</i> : ‘leave, remain’
	<i>Belāefan</i> : ‘leave (somebody, sth); spare, remain’
	<i>Gelāefan</i> : ‘leave; be left, remain’
<i>Meltan</i> : ‘melt (intr.), be dissolved, be digested’	<i>Myltan</i> : ‘melt (caus.; intr.); digest’
<i>Formeltan</i> : ‘melt away, become liquefied or molten by heat (intr.)’	<i>Formyltan</i> : ‘melt away, become liquefied’
<i>Gemeltan</i> : ‘melt, digest; weaken (intr.; caus.)’	<i>Gemyltan</i> : ‘melt, digest; cause to melt, soften’ (intr.; caus.)’
<i>Smēocan</i> : ‘emit smoke (intr.); smoke, fumigate (sth)’	<i>Smīcan</i> : ‘smoke, fumigate (sth.)’
<i>Stincan</i> : ‘spring, leap; emit a smell’	<i>Stencan</i> : ‘scatter; emit breath with effort; stink’
<i>Gestincan</i> : ‘perceive by the sense of smelling’	<i>Tōstencan</i> : ‘scatter, disperse; destroy, dissipate, overthrow (caus.)’
<i>Swingan</i> : ‘swinge; chastise; whip (cream); strike; beat (the wings)’	<i>Swengan</i> : ‘cause to swing; swing, fling, strike’
<i>Beswingan</i> : ‘flog, beat (someone); chastise’	

<i>Geswīngan</i> : ‘scourge, beat (someone)’	
<i>Wæcnan</i> : ‘come into being, be born, spring’	<i>Weccean</i> : ‘waken, arise, spring (intr.; caus.)’
<i>Āwæcnan</i> : ‘awake, wake up, arise; be born (intr.)’	<i>Āweccean</i> : ‘awake, rouse, revive (caus.); awake (intr.)’
	<i>Geweccean</i> : ‘rouse from sleep, excite (caus.)’
<i>Onwæcnan</i> : ‘awake, arise; be born (intr.)’	<i>Onweccean</i> : ‘awake, rise; be roused, raised’
	<i>Tōweccean</i> : ‘wake up, arouse (caus.)’
<i>Wegan</i> : ‘bear, carry; move (caus.; intr.)’	<i>Wecgan</i> : ‘move, shake (sth)’
<i>Āwegan</i> : ‘carry off, move (sth)’	<i>Āwecgan</i> : ‘move, agitate (sth)’
<i>Gewegan</i> : ‘weigh, measure (intr.)’	
<i>Windan</i> : ‘spring (intr.); roll (intr.; caus.); weave (sth)’	<i>Wendan</i> : ‘turn (round), change (intr.; caus.); go (intr.)’
<i>Āwindan</i> : ‘remove (sth.), slip from’ <sup>2</sup>	<i>Āwendan</i> : ‘turn, move; change, transform; translate (intr.; caus.)’
<i>Ētwindan</i> : ‘escape, flee (intr.)’	
<i>Bewindan</i> : ‘wind, encompass, wrap (intr.; caus.)’	<i>Bewendan</i> : ‘turn around, turn (sth) (intr.; caus.)’
<i>Gewindan</i> : ‘roll together, roll up (intr.); go about; roll back, unroll (trans.)’	<i>Gewendan</i> : ‘cause to move, turn; come, go, return (intr.; caus.)’
<i>Opwindan</i> : ‘get away, escape’ (intr.)’	<i>Opwendan</i> : ‘turn away, divert (caus.)’
	<i>Tōwendan</i> : ‘overthrow, upset, subvert, overturn; destroy (caus.)’

Not all examples retrieved from the search conducted in the DOEC were included in this work, though. Two prefixes, namely *ed-* and *of-* were only attested once each, one example of *edwendan* and one of *ofbīgan*. Due to the scarce information they could

<sup>2</sup> Other common meanings of *āwindan* are ‘twist, weave or plait’. As explained in DOE, these are attested in participial clauses only and therefore were not taken into account in my corpus.

provide regarding the objectives of this work, they were discarded. Additionally, since this study focuses on valence and transitivity, sentences that could not provide information related to these were left out. Thus, only active sentences have been included in my corpus. Passive sentences, such as (2.1) below, more often than not, provided no information about the agent carrying out the action. In a similar fashion, participial clauses, present or past (see (2.2) below) gave no information concerning the valence of the verb under study and were therefore also discarded. Other examples were not included for textual reasons. These will be commented on in more detail when dealing with the texts included in the corpus.

(2.1)

*Her was Paulus gehwierfed, & sanctus Stephanus oftorfod.*

Here was Paul converted, & Saint Stephen stoned

‘That year Paul was converted and Saint Stephen stoned’

ChronA (Bately) [0031 (34.1)]

(2.2)

*ac he ascoc hi into byrnendum fyre*

But he shook off her<sup>3</sup> into burning fire

‘But he shook it shook off into the burning fire’

ÆCHom I, 37 [0090 (505.251)]

Furthermore, at this point, it is important to comment on the fact that not all sentences were easily classified as containing examples of a certain verb with no doubt whatsoever. As can be seen in Figure 2.3 above, some of the forms used for the corpus search may belong to the paradigms of both the strong base verb and the derived causative, i.e. ‘\*hwyrf\*’ for both *hweorfan* and *hwyrfan*. The 2nd and 3rd person singular endings of the present indicative of strong verbs in Old English derive from the Proto-Germanic forms *\*-isi* and *\*-ibi* respectively (see f.i. Campbell (1965: §732)). These endings triggered the sound change known as *i*-umlaut, which results in the fronting of the root vowels of the verbs affected. Consequently, these forms of the

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<sup>3</sup> An aforementioned snake, OE *næddre* feminine noun.



paradigm of a strong verb coincide with the 2nd and 3rd person singular present of its causative counterpart, which makes them undistinguishable, as the DOE remarks. In the entry of *būgan*, for instance, it is specified that “the forms of the 2nd and 3rd person sg.pres.ind. of *būgan* and *bīgan* are at times indistinguishable”. Such formal coincidences in the paradigm of certain verbs are exemplified in Figure 2.4 below. Additionally, other formal coincidences may arise due to dialectal variation, spelling mistakes, etc. that are more difficult to detect and predict with absolute certainty.

Figure 2.4. The paradigm of the present indicative of *hweorfan* and *hwyrfan*.

	<b><i>Hweorfan</i></b>	<b><i>Hwyrfan</i></b>
1sg.	<i>hweorfe</i>	<i>hwyrfe</i>
2sg.	<i>hwyrfst</i>	<i>hwyrfst</i>
3sg.	<i>hwyrfþ</i>	<i>hwyrfþ</i>
Plural	<i>hweorfap</i>	<i>hwyrfap</i>

The following example (2.3) illustrates the fact that in some cases it is impossible to distinguish certain forms as belonging to the paradigm of the strong verb or its derived counterpart:

(2.3)

*Sona seo blædder to selran gehwyrfeð*

Soon the bladder to better turn/change

‘As soon as the bladder gets better’

LchI (Herb) [0850 (94.8)]

The form *gehwyrfeð* could either be a form of the verb *gehweorfan* ‘turn, turn away; change; (intr.; caus.); return (intr.)’ or *gehwyrfan* ‘turn (sth); cause to move, direct; (cause to) return; change, exchange, translate (intr.; caus.)’. From the point of view of valence, it shows the historically expected valence of the strong verb. Dictionaries which use actual Old English clauses to exemplify different meanings such as Bosworth and Toller (1898) and DOE tend to show a historical bias when classifying these ambiguous forms. They usually rely on the historically expected valence of the verb in

order to label it as an example of the strong verb or its derived causative. This method has been rejected in the present study, however, based on the evidence that these formally ambiguous verbs can show historically unexpected valence, not only in forms that may be ambiguous, but in others that can only possibly belong to one of the verbs. Actually, as will be described in detail below, in 11% of cases the verb *gehweorfan* shows non-historically expected valence. *Gehwyrfan*, on the other hand, does so in 40% of cases. Therefore, it seems that classifying a certain ambiguous verb form as an example of the strong base verb or its derived causative based on etymological assumptions is not a reliable method. As a consequence, when this type of problem arises, I have opted to count that ambiguous example both as an example of the strong verb and as an example of its derived counterpart, though only in cases where the semantics of the verbs in question is similar or practically the same. When the verb under analysis shows a meaning that is only connected to one of the verbs in the pair, in spite of the formal coincidence, it has only been counted once. This is the case with the verbs *deorfan* ‘labour, be in danger or trouble’ and *dyrfan* ‘bring into danger, afflict; engage in’. Even if the form *dyrff*, for instance, is shared by both verbs, it is clear that an example such as (2.4) belongs to the strong verb, since its meaning is clearly that of the strong counterpart, i.e. ‘labour, be in danger or trouble’, rather than that of the derived causative.

(2.4)

*Eala, leof hlaford, þearle ic deorfe*

Alas, dear lord, too much I work

‘Alas, dear lord, too much I work’

Æcoll C3 [0015 (23)]

All in all the total number of examples included in the corpus amounts to 2058. The exact number of examples per verb is detailed in Table 2.1.

Table 2.1: Number of clauses analyzed per verb in the present study.

<b>Strong base verb</b>	<b>Derived causative</b>
<i>Būgan</i> : 121	<i>Bīgan</i> : 22

<i>Abūgan</i> : 15	<i>Abīgan</i> : 1
<i>Bebūgan</i> : 6	<i>Forbīgan</i> : 4
<i>Forbūgan</i> : 56	
<i>Gebūgan</i> : 68	<i>Gebīgan</i> : 88
<i>Onbūgan</i> : 10	<i>Onbīgan</i> : 1
<i>Byrnan</i> : 71	<i>Bĕrnan</i> : 74
<i>Ābyrnan</i> : 1	
<i>Forbyrnan</i> : 27	<i>Forbĕrnan</i> : 128
<i>Gebyrnan</i> : 4	<i>Gebĕrnan</i> : 22
	<i>Onbĕrnan</i> : 11
<i>Calan</i> : 5	<i>Cĕlan</i> : 8
<i>Ācalan</i> : 2	<i>Ācĕlan</i> : 1
	<i>Gecĕlan</i> : 13
<i>Deorfan</i> : 14	<i>Dyrfan</i> : 1
<i>Gedeorfan</i> : 4	
<i>Hweorfan</i> : 143	<i>Hwyrfan</i> : 23
<i>Āhweorfan</i> : 3	<i>Āhwyrfan</i> : 10
<i>Ēthweorfan</i> : 1	
<i>Behweorfan</i> : 10	<i>Behwyrfan</i> : 6
	<i>Forhwyrfan</i> : 5
<i>Gehweorfan</i> : 26	<i>Gehwyrfan</i> : 46
<i>Onhweorfan</i> : 2	<i>Onhwyrfan</i> : 1
<i>Tōhweorfan</i> : 5	
<i>Ymbhweorfan</i> : 7	
<i>Belīfan</i> : 43	<i>Lĕfan</i> : 37
	<i>Belĕfan</i> : 6
	<i>Gelĕfan</i> : 1
<i>Meltan</i> : 13	<i>Myltan</i> : 13
<i>Formeltan</i> : 5	<i>Formyltan</i> : 3
<i>Gemeltan</i> : 9	<i>Gemyltan</i> : 11
<i>Smēocan</i> : 4	<i>Smīcan</i> : 4
<i>Stincan</i> : 13	<i>Stencan</i> : 2

<i>Gestincan</i> : 6	<i>Tōstencan</i> : 8
<i>Swingan</i> : 48 <i>Beswingan</i> : 11 <i>Geswingan</i> : 2	<i>Swengan</i> : 3
<i>Wæcnan</i> : 11 <i>Āwæcnan</i> : 21 <i>Onwæcnan</i> : 20	<i>Weccean</i> : 21 <i>Āweccean</i> : 48 <i>Geweccean</i> : 1 <i>Onweccean</i> : 1 <i>Tōweccean</i> : 1
<i>Wegan</i> : 19 <i>Āwegan</i> : 2 <i>Gewegan</i> : 22	<i>Wecgan</i> : 4 <i>Āwecgan</i> : 10
<i>Windan</i> : 18 <i>Āwindan</i> : 3 <i>Ētwindan</i> : 23 <i>Bewindan</i> : 16 <i>Gewindan</i> : 7 <i>Opwindan</i> : 3	<i>Wendan</i> : 261 <i>Āwendan</i> : 120 <i>Bewendan</i> : 10 <i>Gewendan</i> : 103 <i>Opwendan</i> : 1 <i>Tōwendan</i> : 5

## 2.2 Selection of texts

Once I have dealt with the verbs, I will concentrate on the other crucial aspect of the corpus, namely the texts. As explained in the introduction, the selection of texts is of special importance since one of the main objective of this study is to evaluate the influence that date of composition as well as text type may have had on the valence behaviour of the verbs under analysis. Although many works devoted to Old English morphosyntax tend to regard Old English as a fixed period, it must be borne in mind that it encompasses written texts that cover a span of about 400 years, which inevitably means that variation due to time of composition, let alone other types of variation, is highly expected. In this sense, this work is similar in scope to Cichosz (2010). Even if

she focuses on word order issues, her work tries to shed light on this idea of variation throughout time and genres both in Old English and Old High German.

Bearing in mind the claims in the above paragraph, the selection of the texts was considered a priority in the research design. The main idea behind the choice of texts was to create a corpus as wide and balanced as possible. The objective was to have a corpus that represented a wide variety of texts both in date of composition and text type. Therefore, examples have been taken from both early texts (up to circa 950) such as the translation of Bede's *Historia Ecclesiastica Gentis Anglorum* or Bald's *Leechbook*, and late texts (950-1150) as is the case with Ælfric of Eynsham's works. As for text type, samples of virtually all different genres attested in Old English have been included. These range from history (*The Anglo-Saxon Chronicle*), medicine (*Herbarium*) or riddles (*The Anglo-Saxon Riddles*) to epic verse (*Beowulf*) or religious texts such as homilies.

In the first steps of the compilation of the corpus of examples, the list of different texts included in the *Helsinki Corpus*, accessed online through <http://www.helsinki.fi/varieng/CoRD/corpora/HelsinkiCorpus/oldenglish.html>, served as a primary guide. This webpage presents a very complete classification of Old English texts by date of composition as well as text type. It was also useful in terms of the search for examples since it provides a word count for the different texts included in the corpus. Such information was crucial in the first stages of the compilation process since it allowed for me to carry out searches in the texts that would likely include more examples of the verbs under analysis first, thus making the process of compilation faster.

Searches were carried out in all different texts conforming this corpus, with few exceptions as will be explained below. According to the aforementioned web page, this corpus consists of more than 400,000 words, which means that it represents around a seventh part of the complete surviving Old English corpus consisting of about 3 million words. Such a corpus can already be considered representative of the Old English language.

However, the present study has been completed with examples from many other texts not included in the *Helsinki Corpus*. In order to ascertain that all representative Old English texts were included in my corpus, the work by Fulk and Cain (2013) was especially useful. This work is a concise, clear and orderly account of the different Old English texts that survive up to the present. It is not only useful in terms of providing a list of the most prominent surviving all English texts, but it also offers very insightful information concerning date of composition, different medieval genres, etc. The texts in Fulk and Cain (ibid), together with the ones in the *Helsinki Corpus* constitute a representative and valid selection of texts where a remarkable part of the complete Old English corpus in which texts from all major genres and from different time periods are taken into account.

As explained above, once the complete list of all major Old English texts was compiled, searches were made for the different verbs. During this process of compilation of examples, several issues arose. These are accounted for in the following paragraphs.

First, it is the fact, that, as expected, not all texts searched for yielded results that could be used in this study. Several of the selected texts simply did not include any sentence with any of the verbs under analysis in this work. This was especially so in the case of short poems such as *The Panther* (DOEC: Pan), just to name one. In the case of glosses, on the other hand, only those which provided a context have been taken into consideration. It is common in the DOEC to find glossed texts that provide the word that is being searched for plus the Latin term they are glossing only as in (2.5).

(2.5)

*Infridat*        *cælp*.

Cools (Latin) cools (OE)

‘It cools / is cooling’

CIGl 1 (Stryker) [3342 (3366)]

Obviously, such examples were of no use for the purpose of this study because they provide no clues as to whether the valence of the verb is transitive or intransitive in that context. Notice that analysing the valence of the Latin was not of much help in such examples since in many of the cases the Latin verb happened to be labile itself.

Other selected texts were finally discarded due to the difficulty in dating and classifying them. That is the case with charters. It required a great amount of time and work to figure out the date of composition of each of the charters which are published in tens of different editions. Additionally, they tended to provide poor results in relation to the verbs under analysis. The only verb that appeared relatively frequently was *wendan* which happens to be the most attested verb of them all in my corpus by far.

Lastly, I decided not to include the *Peterborough Chronicle* (DOEC: ChronE). This decision was based on the fact that this text displays some of the features of Middle English. It will be the object of a future piece of research.

What follows is an overview of the different texts that have been included in the corpus developed for this study, i.e. only those that provided examples that have been analysed in this piece of research. The aim of this overview is to offer some insights on the date of composition, topics treated as well as any relevant formal features displayed by the texts in question. This synopsis is based on the work by Fulk and Cain (2013). This summary follows the approach of these authors and is therefore divided into genres rather than following some other more controversial classifications, such as date of composition. The only exception to this rule are the texts translated as part of the programme of learning instigated by Alfred the Great that are commented on together as a group independently of their genre.

### 2.2.1 *Literature of the Alfredian Period*

With the term ‘literature of the Alfredian period’ Fulk and Cain (2013: 83-111) make reference to the texts written as part of the ambitious programme led by King Alfred (reigned 871-899).

The first text belonging to this group, *Cura Pastoralis* (DOE: CP), was originally composed circa 590 by Pope Gregory. The translation of this work itself is quite literal and faithful even if certain simplifications do occur. More elaborate in this respect though, is the preface accompanying the main work (DOE: GDPref and 4 (C)) in which Alfred gives details about the state of learning in England at this time and about his programme to revert this bad situation.

The second translation attributed to Alfred is that of Boethius' *De Consolatione Philosophiae* (DOE: Bo), originally written in the years 524-525 and rendered into English (after 893) in a very free translation. The translated text shows important modifications in comparison with the original one. In addition to the prose translation, some of the passages of the Latin original in verse have been rendered into Old English verse and are known as *The Meters of Boethius* (DOE: Met).

The third translation I will refer to is Augustine's *Soliloquia* (DOE: Solil). Originally written in 387 by Augustine of Hippo, this Old English dialogue between Augustine and Reason is a rather free translation that frequently adapts matter.

On the other hand, the first fifty psalms of the Paris Psalter (DOE: PPs Prose) represents a high quality translation, see Wiesenekker (2000), though not a slavish one.

In addition to the texts mentioned so far, three historical works are also related to Alfred's initiative. The first of these texts is the translation of Bede's *Historia Ecclesiastica Gentis Anglorum* (DOE: Bede), completed in 731. As usual in the texts commented above, the translation of Bede's work also shows modifications. In general, it is reduced in scope with respect to the original but adds more information concerning contemporary interests for a 9th century audience.

Orosius' (ca. 380-420) *Historiae adversus paganos* (DOE: Or) represents a Christian history in response of those who blame the degradation of Rome on Christianity and the abandonment of the old gods. As usual in these translations, there are significant changes to the original.



The third historical work is the complex text known as the *Anglo-Saxon Chronicle*. This series of annals represents the “first continuous history of any western people in their own language” as Swanton (2000: xx) puts it. The history of the different manuscripts is complicated (see Bately (1988) and (1991)). All of them show close agreement up to the year 892 and are later expanded in different ways. Three manuscripts have been included in my corpus, namely manuscript A (DOE: ChronA), composed during Alfred’s reign or as late as 920 (see Dumville 1987: 163-5); C (DOE: ChronC), compiled at Abingdon; and D (DOE: ChronD) copied from a northern manuscript.

The *Anglo-Saxon Chronicle* is very interesting from a linguistic point of view since it represents one of the few cases of Old English prose free of Latin influence. The main problem of these texts as a source for historical linguistic research lies in the nature of the texts themselves, written in short annals. However, they tend to be extended in later years, especially when narrating the events related to Alfred’s victories over the vikings, which suggests the propagandistic value of this historical work.

The last text related to the Alfredian period included in my corpus is Gregory’s *Dialogi* (DOE: GD). Contrary to the case of other translations related to the Alfredian programme, this text represents a very rigid and sophisticated translation of the Latin and therefore shows a high number of errors not present in other freer translations referred to above.

### 2.2.2 *Homilies*

The texts included under this heading in Fulk and Cain (2013: 112) are “set texts designed for the portion of the mass or other liturgical rite devoted to preaching”. Designed for the use of religious houses, these texts are usually compiled together with related ones such as sermons and saints’ lives. The homilies incorporated in the corpus under study can be divided in two main groups: On the one hand, the collection of homilies in Vercelli Book and on the other, those by Ælfric of Eynsham (DOE: ÆCHom, I) and Wulfstan (DOE: WHom).

The first group of homilies in the Vercelli Book (DOE: HomU) consists of 23 homilies, most of which are sermons, composed possibly during the 9th century. These compositions draw from several different sources most of which are continental and heterodox in nature.

The heterodox nature of the Vercelli homilies differs drastically with respect to those by Ælfric and Wulfstan. Indeed, the former introduced a new standard in the writings of homilies in the last decade of the 10th century in which rigour and orthodoxy played a key role. From a linguistic point of view, Ælfric's homilies are marked by an alliterative style as well as the distinctive vocabulary and orthography promoted by the school of Æthelwold. Wulfstan (d. 1023) wrote with a similar goal in mind to Ælfric, namely to educate the uneducated and guide them away from heretic, unorthodox views. His main concern seems to be the effective oral delivery reflected in a very personal style designed to maximise oral efficacy.

### 2.2.3 *Saints' legends*

Saint's legends, as mentioned above, are a type of text that share certain connections with homilies in Old English literature. The writing of saints' legends in Old English is basically the work of one person, namely Ælfric. His *Lives of Saints* (DOE: ÆLS) shows many similarities to Ælfric's *Catholic Homilies* such as an alliterative style to improve oral efficacy. There survive other anonymous saints' legends in the Old English corpus. Most of them are earlier than Ælfric's, though still within the late Old English period, such as the lives of St. Margaret and St. Chad (DOE: LS 14 (Margaret CCC 303), LS 16 (Margaret Cot. Tib. A. iii); LS 3 (Chad)). The life of St. Machutus LS 13 (Machutus)), on the other hand, seems to have been composed later than Ælfric's day.

Lives of saints were not only composed in prose, but also in verse. Three of the surviving texts, namely *Elene* (DOE: El), *Juliana* (DOE: Jul) and *Andreas* (DOE: And) have been included in this study. The first two lives are signed by Cynewulf, an unidentified person writing presumably circa 750-850 or possibly a century or so later.

#### 2.2.4 *Biblical literature*

In Anglo-Saxon times, several books circulated as anthologies. That is the case with the Hexateuch. The edition by Crawford (1922) included in the DOEC, adds a homily on the book Judges (DOE: Judg) as well. This Old English “Heptateuch”, partially translated by Ælfric, represents a mostly direct rendering of Jerome’s Vulgate, although with some minor changes.

Another common set of biblical books that are found together in Old English manuscripts are the Gospels. In this work I have included the Rushworth and Lindisfarne Gospels. The former (DOE: JnG1 (Ru), LkG1 (Ru), MkG1 (Ru) and MtG1 (Ru)), are a translation made by two different scribes written in two different dialects, namely Northumbrian and a northern variety of Mercian, which make this text very challenging from a linguistic point of view. As for the Lindisfarne Gospels, they are an Old English glossed translation with the added value of representing the late Northumbrian dialect.

In addition to prose texts, there exist a series of Old English translation from the Bible in verse. The only text of this kind belonging to my corpus is the translation of Genesis (DOE: Gen A, B). Genesis A is usually considered to have been composed no later than the 8th century. Even though not a slavish translation from a Latin source, it is a closer one than Genesis B. The B part is not a Latin translation though, but an Old Saxon one, probably dating from the late 9th or early 10th century.

#### 2.2.5 *Liturgical and devotional texts*

Under this heading Fulk and Cain (2013: 177-210) group together a series of texts related to prayer, divine worship and the sacraments. The first three texts I will refer to are poetic compositions. First, the poetic translation of psalms copied in the Paris Psalter (DOE: PPs). The next group of poems Christ I, II and III (DOE: Christ A, B, C) was formerly regarded as one composition. Differences in style and lexical and metrical features make this hypothesis unlikely. The last poem included in this corpus related to liturgical and devotional texts is the allegorical poem *The Phoenix* (DOE: Phoen). Not

earlier than writings by Cynewulf in composition (ca.750-850 or even a century or more later as referred to above), it shows features associated with the Mercian dialect.

The other important group of liturgical and devotional texts are those of rules regulating the life of the clergy. The most important one is the *Regula S. Benedicti* written by Benedict of Nursia (ca. 480-550). The first vernacular translation of the rule in Europe is the Old English one (DOE: BenR), preserved in five different manuscripts. Another important rule translated into Old English and preserved in an 11th century manuscript is the *Regula canonicorum* (DOE: ChrodR) by bishop Chrodegang of Metz (d. 766). The last rule for the secular clergy included in this work is the free and fluent Old English translation of *Capitula Theodulfi* (DOE: ThCap). It survives in two bilingual manuscripts dating from the 11th century.

In addition to the aforementioned rules, another text type taken into consideration have been letters related to homiletic literature for the use of bishops. Two letters by Ælfric have been included, namely Ælfric's letters to Wulfsig (DOE: Ælet 1) and to Sigeward (DOE: Ælet 4).

Another text with a clear liturgical function is the *Old English Martirology* (DOE: Mart). It is an important source of linguistic information on account that it is not a direct Latin translation.

Finally, visions, contained in several saints' legends, are related to liturgical and devotional matters. In this corpus, I have included the *Vision of Leofric* (DOE: Leof), a late text (ca. 1100) which tells of the visions experienced by two of Edward the Confessor's most prominent thanes.

#### 2.2.6 Legal Texts

The majority of the examples taken from legal texts used in the compilation of my corpus belong to different law codes issued by several kings. The first law code we have records of is that issued by King Æthelberht of Kent (ca. 602) (DOE: LawAbt). This collection of laws is preserved in a manuscript dating around 500 years later than the

actual composition of the text. However, due to the high number of archaisms, scholars are sure that this is the oldest Old English text of any length. This text was later augmented by the king's successors Hlothere and Eadric (ca. 673-85) and Wihtræd (ca. 690-725). Both law codes were taken into account in this study, however, only the latter (DOE: LawWi) yielded any useful results.

The influence of these Kentish law codes is seen in others. That is the case with the one issued by Ine (DOE: LawIne) preserved as an appendix to Alfred's laws (DOE: LawAf). The last third of laws included are the ones issued by King Cnut (r. 1016-1035) and drafted by Wulfstan (DOE: LawICn and LawIICn). The latter's political views are explained in more detail in *Institutes of Polity* (DOE: WPol) also included in the corpus.

In addition to law codes, there survive several anonymous ordinances dealing with matter such as adultery, assylum or betrothal. Especially interesting concerning these texts are the late Old English *Gerefa* (DOE: LawGer), on the responsibilities of the reeve and *Rectitudines singularum personarum* (DOE: LawRect) establishing the rights and obligations of the individuals of different social classes with respect to their lords.

### 2.2.7 Scientific and scholastic texts

The scientific texts included in this study can be divided into two main groups, namely prognostics and medico-magical texts. Both text types clearly display how imbued the role of the supernatural is in medieval scientific thought.

Prognostics (DOE: Prog) are texts used to predict future events based on the observation of meaningful signs. Though completely unscientific to a contemporary audience, they were closely related to the science of computus during the Anglo-Saxon period.

Medico-magical texts, contrary to the majority of the Old English corpus, are texts intended for lay people, especially nuns, the ones usually taking care of the diseased. Their knowledge of Latin was non-existent and the style of these texts departs from the

elaborate rhetorical style present in others. The most important medical text is known as Bald's *Leechbook* (DOE: Lch II), composed around Alfred's time but preserved in a tenth century manuscript. A less rational and scientific text is *Lacnunga* (DOE: Med 3). The third medical text included in this work, *Herbarium* (DOE: Lch I) is a translation of an original Latin treaty, intended for the study of monks rather than to be used by nuns.

The last (pseudo-)scientific work is *Alexander's Letters to Aristotle* (DOE: Alex). Written in the epistolary form, purportedly Alexander the Great tells his master about the wonders encountered in his visit to India.

As for texts intended to be used in the classroom, only one text has been considered, namely *Ælfric's Colloquy* (DOE: ÆColl). Intended as an aid to Latin conversation, this text features a series of dialogues between a teacher and his pupils. It represents a good source for more everyday language absent in the majority of the corpus.

#### 2.2.8 *Wisdom literature*

These texts are works devoted to gnomic expressions, particularly in verse. Their most basic form consists only of a collection of maxims or proverbs. The most notable example of this genre in Old English are the *Dicts of Cato* (DOE: Prov 1 (Cox)). This text is a translation of a collection of metrical proverbs assembled around the 4th century AD spuriously attributed to Cato the Censor (234-149 BCE). What makes this text especially interesting from a linguistic point of view is that the translation is far from literal. The text is completely adapted to the literary conventions as well as the life circumstances surrounding contemporaries in the Anglo Saxon period.

Additionally, two more prose texts pertaining to wisdom literature have been included. The first is in the form of a dialogue, the prose *Solomon and Saturn II* (DOE: Sol II). The second one, *Adrian and Ritheus* (DOE: Ad), takes the form of an unorthodox catechism also frequent as far as wisdom literature is concerned.

### 2.2.9 Germanic legend and heroic lay

Even if some other texts dealing with Germanic legend were taken into consideration, none of the searches delivered any instantiation of the verbs under study, with the exception of what is undoubtedly the best known Old English text, namely *Beowulf* (DOE: Beo). This famous poem tells of the deeds of the Germanic hero Beowulf, not mentioned in any other sources. It is a very interesting text from a linguistic point of view due, among other things, to the fact that it is not derived from any Latin source and therefore uncontaminated by the influence of Roman language and culture. This unique text whose only extant copy is preserved in the manuscript known as the Exeter Book (around the year 1000) has prompted by far more intensive study than any other Old English text.

One of the issues that has provoked a hot debate among scholars is its date of composition. Some scholars such as Kiernan (1981a, 1981b) proposed a late date of composition in the 11th century, contrary to what was the trend long before the end of the 19th century, which regarded *Beowulf* as one of the earliest Old English compositions around Bede's time. Regarding current scholarship, an early date of composition is favoured, as pointed out in Fulk and Cain (2013: 293), based on metrical, stylistic cultural and paleographic grounds. For these reasons even though this text appears under the OE3 period (950-1050) in the *Helsinki Corpus*, it will be considered an early Old English composition in this work.

### 2.2.10 Other texts

In this section I will deal with some texts that are not incorporated in any of the above text types by Fulk and Cain (2013). The compositions in this category that have been included in this corpus can be divided into two groups, namely glossaries and riddles.

As for the former, a large part of the Old English corpus survives in the form of glosses. These are interlinear word translations on a Latin text used to facilitate reading. In many cases, whole texts are glossed and some of the Old English texts treated here have only come to us in this way, as is the case with the *Liber scintilliarum* (DOE: LibSc). In some cases these different glosses and the word they glossed were copied down in a

separate manuscript, known as a glossary. As pointed out above, glossaries have only been taken into account as a last resource in cases where the verbs present a very low number of attestations, and then only when a linguistic context, and not just the words being glossed, is offered.

Riddles (DOE: Rid), on the other hand, are humorous and playful texts, though of a learned character, usually classified as lyric because of the fact that they are written in verse and have a first person narrator. They are interesting from a linguistic point of view since spelling seems to point to an early date of composition. Moreover, even though most are original compositions, several of the riddles are very close Latin translations, something uncommon regarding Old English verse, as pointed out throughout this section.

### **2.3 Classification of texts**

Once an overview of the texts included has been offered, an explanation of the way they have been classified will be offered. First, I will focus on the classification concerning the date of composition of the texts. An important source of information in this respect was the table offered in the *Helsinki Corpus*, mentioned above. This webpage presents a very complete classification of Old English texts by date of composition as well as text type.

However, the information given in the *Helsinki Corpus* had to be completed using other sources. First of all, it is the fact that not all of the texts taken into account in this study are part of the *Helsinki Corpus* and are therefore, not present in the aforementioned table. Additionally, the information they provide concerning date of composition does not always coincide with that given by other sources. In both cases, I have relied on the work by Fulk and Cain (2013) and other works they make reference to in order to try to establish a more or less precise date of composition. In the case of *Beowulf* for instance, easily the OE text that raises the most controversies with respect to its date of composition, I have decided to follow Fulk and Cain's arguments in favour of an early



date of composition, even though the *Helsinki Corpus* favours a later one (OE period 3 ca. 950-1050).

This is not the only difference between the classification in the *Helsinki Corpus* and the one in this study, though. The table presented in the former uses a fourfold division of the Old English period. It classifies texts as pertaining to the OE1 period (up to ca. 850), OE 2 period (850-950), OE3 period (950-1050) and OE4 period (1050-1150). In this work, however, I have opted for a simpler approach, as Cichosz (2010) does, for instance. Concerning the date of composition, I have classified texts into two groups: Early texts (up to ca. 950) and late texts (950-1150). This model has been chosen mainly for one reason, namely the difficulty in establishing a precise date of composition, especially concerning the periods 3 and 4 in the *Helsinki Corpus*. According to the literature consulted, mainly Fulk and Cain (2013), several of the texts taken into account in this study could perfectly be classified as either OE3 and OE4. In order to avoid this problem, I decided to simply refer to both periods as just one. Notice that in general terms, with some exceptions, scholars do seem to agree on which texts should be considered early and which ones should be considered late. Additionally, as the analysis of the data showed, the differences in the results for these two late subperiods are not significant at all. As for the early periods, I decided to avoid a twofold classification into OE1 and OE2 simply because of the fact that there are no OE1 texts included in my corpus of examples since none of the texts contain any sentence with any of the verbs under study.

The other crucial aspect in the classification of texts is text type. In the overview above, a division into well-established genres is made. Such a model was considered when designing the division of texts into text-types. Complete and precise as this may be, such an idea had to be discarded. Therefore, it must be pointed out that the overview included in the previous pages is used only to provide information about texts in an orderly way relying on a grouping that is less controversial than other based on date of composition, for instance, as mentioned above. The decision of discarding the division offered by Fulk and Cain (2013) has been made based on the unbalance displayed by the corpus. This lack of balance is by no means unknown for any historical linguist

working on such an early period. Several of the verbs under study are overrepresented in certain text types and are not attested in many other types: for instance, *gebærnan* appears almost exclusively in medical texts, other verbs like *gebūgan* are much more frequent in late texts than in early ones, etc. It was concluded that this unbalance made it difficult to get to any solid, consistent conclusions regarding text type.

Therefore, similarly to the case of date of composition, I have opted for dividing text types into larger groups. In this respect I have followed the threefold division used in the DOEC between prose, verse and gloss. No modification has been made with respect to the classification offered by the authors of this corpus. In the early stages of the research design a slightly more complex model, similar to the one used by Cichosz (2010) was considered. She contemplates the categories prose and verse and also adds a further division between original texts and translations. Attractive as this approach may seem, it presented certain difficulties that have been avoided in this work. The main difficulty has to do with the difference between the concept of translation we have today and that of Medieval authors. Today, translations are, or at least intend to be, a faithful image of a fixed text into another language. Certainly, this was not the case during the Old English period. As pointed out above regarding some of the translations of the Alfredian period and others, modifications, additions or elimination of certain (and sometimes lengthy) parts of the text were not uncommon. In addition to that, several *a priori* original Old English compositions are based on, but are not translations of, Latin originals such as the poem *Andreas*. Consequently, due to the virtual impossibility of determining to what extent a text is original or not or to what degree it is influenced by any non-Old English source, I have determined not to include this category in the division of texts in the present study. Thus, the influence of other languages, Latin in this case, will be assessed through the glosses that conform part of the corpus under analysis, since being close one-to-one translations, it is easier to establish some kind of peculiarity as being the result of foreign influence.

All in all, the different texts conforming the corpus have been divided into early (up to ca. 950) and late (ca. 950- 1150) on the one hand, and into prose, verse and gloss on the other. Thus, each of the texts in this study has been sorted into one of the following six

groups, i.e. early prose, early verse, early gloss, late prose, late verse or late gloss. There is only one exception, namely the *Hymns* (HyGl 1). This is due to the fact that no reference to the date of composition has been found in the secondary sources available for the completion of this work.

## 2.4 List of texts

What follows is a list of all the texts included sorted by text type and date of composition. As mentioned above with respect to the overview, only texts that yielded results are included. They have been ordered alphabetically within that category on the basis of its DOEC short title. At this point, I need to comment on some slight modifications made to these short titles. First, in cases where the work in question is divided into books, for example Bede's *Historia Ecclesiastica*, each of the books usually has a different short title in DOEC, e.g. Bede 1, Bede 2, etc. These have been listed under an unnumbered short title, Bede, in this case. In a similar fashion, I have grouped under just one short title texts that, although labelled separately in DOEC, are normally (as in the overview above) referred to as just one. That is the case with Ælfric's *Lives of Saints* (ÆLS), or Wulfstan's homilies (WHom). Secondly, I have modified the short title of the books of the *Old English Heptateuch*. The seven books conforming this work appear under different short titles in DOEC, *Exodus* (Exod), *Judges* (Judg), etc. However, as they have been taken from the same edited work, i.e. Crawford (1922)<sup>4</sup>, I have chosen to refer to them with the short title Hept. Likewise I will be using the short titles LiGl and RuGl to refer the Lindisfarne and Rushworth Gospels respectively, even though each of the gospels is labelled with an individual short title in DOEC. In addition to the list below, the full references of the edited works used in this study are included in the primary sources section. Moreover, appendix A is a list of the number of examples of each verb per text together with information on the valence of these verbs.

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<sup>4</sup> *The Old English Version of the Heptateuch*, EETS 160 (London); repr. with additions by N.R. Ker 1969.

EARLY PROSE:

**Bede:** Bede's *Historia Ecclesiastica Gentis Anglorum*

**Bo:** Boethius' *De Consolatione Philosophiae*

**ChronA:** *The Anglo-Saxon Chronicle MS A*

**CP:** *Cura Pastoralis*

**CPLetWærf:** *Cura Pastoralis. Letter to Wærferth*

**GD:** Gregory the Great's *Dialogues*

**HomU 9:** *The Vercelli Homilies*

**LawAbt:** *Laws of Æthelberht*

**LawAf / Ine:** *Laws of Alfred-Ine*

**LawWi:** *Laws of Wihtræd*

**LchII:** Bald's *Leechbook*

**Med 2:** *Medical recipes from British Library MS*

**Or:** *Orosius' Historiae Adversus Paganos*

**PPs (Prose):** *Paris Psalter Prose*

**Solil:** Augustine's *Soliloquies*

EARLY VERSE:

**Beo:** *Beowulf*

EARLY GLOSS:

**BoGl:** Boethius' *De Consolatione Philosophiae* Gloss

LATE PROSE:

**Ad:** *Adrian and Ritheus*

**Alex:** *Alexander's Letters to Aristotle*

**ÆCHom:** *Ælfric's Homilies*

**ÆGenPref:** *Ælfric's Preface to Genesis*

**ÆHex:** *Hexameron*

**ÆJudgEp:** *Heptateuch Epilogue*

**ÆLet 1:** *Letter to Wulfsige*

**ÆLet 4:** *Letter to Sigeward*

**ÆLS:** *Ælfric's Lives of Saints*  
**ChrodR:** *Chrodegang of Metz's Regula Canonicorum*  
**ChronC:** *The Anglo-Saxon Chronicle MS C*  
**ChronD:** *The Anglo-Saxon Chronicle MS D*  
**Hept:** *Old English Heptateuch*  
**HomS 12:** *Second Sunday in Lent*  
**HomS 37:** *Tuesday in Rogationtide*  
**LawCn:** *Laws of Cnut*  
**LawGer:** *Gerefa*  
**LawRect:** *Rectitudines*  
**LchI:** *Pseudo Apuleius: Herbarium*  
**Leof:** *Vision of Leofric*  
**Lit 4.6 (Muir):** *Prayer for Victory*  
**LS Chad:** *Life of Saint Chad*  
**LS Machutus:** *Life of Saint Machutus*  
**LS Marg:** *Life of Saint Margaret*  
**LS Mary of Egypt:** *Life of Mary of Egypt*  
**LS Nicholas:** *Life of Saint Nicholas*  
**Mart 5:** *Martyrologium*  
**Med 3:** *Lacnunga*  
**Prog:** *Prognostics*  
**Prov:** *Distichs of Cato*  
**Sol I:** *Solomon and Saturn I*  
**Sol II:** *Solomon and Saturn II*  
**ThCap2:** *Theodulf of Orleans' Capitula*  
**WHom:** *Wulfstan's Homilies*  
**WPol:** *Institutes of Polity*

LATE VERSE:

**And:** *Andreas*

**ChristABC:** *Christ*

**El:** *Elene*

**GenAB:** *Genesis*

**Jul:** *Juliana*

**Met:** *The Meters of Boethius*

**Phoen:** *Phoenix*

**PPs:** *Paris Psalter*

**Rid:** *The Anglo-Saxon Riddles*

LATE GLOSS:

**ÆColl:** *Ælfric's Colloquy*

**DurRitGl:** *Durham Ritual*

**LibSc:** *Defensor, Liber Scintillarum*

**(Li)Gl:** *Lindisfarne Gospels*

**ProgGl:** *Prognostics Gloss*

**PsGl D / K / H / F:** *Psalms Glosses*

**(Ru)Gl:** *Rushworth Gospels*

UNDATED GLOSS:

**HyGl 1:** *Hymns*



## CHAPTER 3. THEORETICAL BACKGROUND

The present chapter introduces the theoretical background on which this work is based. It is divided into five sections. The first one focuses on the concept of valence. The second one presents the concept of cardinal transitivity. This is followed by an overview of causatives as a valence-changing operation. Section 4 concentrates on *Aktionsart* and its connection with aspect. Lastly, this chapter concludes with a brief outline of the phenomenon of lexicalization.

### 3.1 Valence

A first key concept I need to deal with is that of valence. This concept was first introduced in linguistics by Tesnière (1953, 1959) and Hockett (1958) and it makes reference to the number of core arguments that a verb takes in order to form an acceptable clause that makes sense.

In the literature, valence is described as twofold in nature, see for instance Haspelmath and Sims (2010: 234-6). On the one hand, there exists the concept of syntactic valence which makes reference to the number of overt morphosyntactically coded arguments a verb takes. On the other hand, semantic valence is connected with the number of semantic roles a verb takes in its semantic representation.

The concept of valence is closely related to that of transitivity in the traditional sense, even though there is more to it than what I will be mentioning in this section as will be explained in detail below. As Hopper and Thompson (1980: 251) put it “transitivity is traditionally understood as a global property of an entire clause, such that an activity is ‘carried-over’ or ‘transferred’ from an agent to a patient”. In light of this definition, transitivity, thus involves two necessary aspects: On the one hand, two participants, agent and patient; and on the other, an action that is effective. Following van Valin’s Role and Reference Grammar approach (RRG henceforth), (2005: 64) the notion of traditional transitivity refers to the number of NP’s that appear in the syntax corresponding to the number of core arguments.



In the next sections I will offer an overview of the semantic representation system used in the RRG approach that I follow in this study and how semantic roles derive directly from the logical structure used to represent sentences. Additionally, the concept of macrorole and its connections to valence and transitivity will be explained.

### 3.1.1 *Lexical representation in RRG*

The aim of the present section is to offer an overview of how the system of lexical representation used in RRG works. The following account is mainly based on van Valin (2005: 42-67), although references will be made to other works as well.

The lexical representation system the RRG approach makes use of has as its base the *Aktionsart* division proposed by Vendler (1967) which classifies verbs into states, achievements, accomplishments and activities in addition to semelfactives proposed by Smith (1997), active accomplishments and the causative version of all classes. I provide detailed information of all the different *Aktionsart* types in section 4. In addition to this, the RRG approach employs the representational scheme proposed by Dowty (1979), although with certain modifications.

The lexical decomposition system used in the RRG framework is known as logical structure. This representation consists of a constant (usually predicates) followed by a prime plus a varying number of variables. Following conventions in formal semantics, constants are presented in boldtype, whereas variable elements appear in normal typeface. It must be pointed out as well that elements in boldface plus the prime do not belong to a particular language, but are part of a semantic metalanguage, even though they clearly resemble English words. On the other hand, variable elements are lexical items of the language that is being analyzed. Thus the logical structure for the verb *die* in English and Spanish *morir* would be BECOME **dead'** (x). However, the logical structure of the English sentence *The bird died* would differ with respect to Spanish *El pájaro murió* in the representation of the variables but not in the representation of the constant that forms part of the semantic metalanguage. Example (3.1) below illustrates the corresponding logical structures for the English (a) and Spanish (b) sentences:

(3.1)

a. BECOME **dead'** (bird)

b. BECOME **dead'** (pájaro)

In the lexical representation system used in RRG, the logical structures of states and activities form the basis from which the rest of classes are derived. On the one hand, states are represented as bare predicates such as **know'** (x, y) or **dead'** (x), representing the verb *know* and *be dead* respectively. On the other hand, the representation of activities contain the element **do'** as shown in the representations of *cry* and *eat* in (3.2)

(3.2):

a. *cry*: **do'** (x, [**cry'** (x)])

b. *eat*: **do'** (x, [**eat'** (x, y)])

Achievements, that is, punctual changes of states or onsets of activities are represented as a state or as an activity plus the operator INGR which stands for ingressive. Thus the intransitive verb *shatter* would have the following representation: INGR **shattered'** (x). As for punctual onsets of activities there are no English lexical verbs that indicate the distinction between an activity and the onset of that activity, but verbs in other languages such as Russian and other Slavic languages do. Van Valin (2005: 42) exemplifies this through the Russian verbs *plakat'* 'cry' and *zaplakat'* 'burst out crying'. The former is an activity verb whereas the latter is an achievement. Their respective logical structures are found in (3.3).

(3.3)

a. *plakat'*: **do'** (x, [**cry'** (x)])

b. *zaplakat'*: INGR **do'** (x, [**cry'** (x)])

As in the case of achievements, semelfactives can be based either on states or on activities. While the former have a representation such as SEML **see'** (x, y) for *glimpse*, the latter have SEML **do'** (x, [**cough'** (x)]) for the verb *cough*.

The fifth type of *Aktionsart* are accomplishments, namely non-punctual changes of state or onsets of activities. They are represented through a state or activity logical structure correspondingly, plus the operator BECOME. Intransitive *melt* would be thus represented as BECOME **melted'** (x), whereas the Russian verb *zagovorit'* 'to start talking', an accomplishment corresponding to the activity verb *govorit'* 'to talk' has the following logical structure: BECOME **do'** (x, [**speak'** (x)]).

The last verb class in this section are active accomplishments, that is accomplishment uses of activity predicates. Concerning this class, I will follow van Valin's (2014) representation which improves and substitutes the model used in van Valin (2005: 44). This class is composed of an activity predicate plus a change of state, like accomplishments. Van Valin classifies active accomplishments into two groups: first, verbs of motion and second, verbs of consumption or creation which have different lexical representations.

In the case of motion verbs, one needs to represent both the activity and the change of location. Thus the activity *Cristina ran* and the active accomplishment *Cristina ran to the park* would have the representations exemplified in (3.4a) and (b) respectively:

(3.4)

a. Activity: **do'** (x, [**run'** (x)])

*Cristina ran*

**do'** (Cristina, [**run'** (Cristina)])

b. Active accomplishment: **do'** (x, [**run'** (x)] ^ PROC **cover.path.distance'** (x, (y))] & INGR **be-at'** (**path.endpoint**, x)

*Cristina ran two miles to the park*

**do'** (Cristina, [**run'** (Cristina)]) ^ PROC **cover.path.distance'** (Cristina, two miles) & INGR **be-at'** (park, Cristina)

The operator PROC above stands for *process* and the symbols ^ and & mean ‘and simultaneously’ and ‘and then’ respectively. What the active accomplishment logical structure in (3.4b) means is therefore “*x* runs and simultaneously effects a process of covering distance *y*, both of which terminate, and this leads to the result that *x* is located at the endpoint of a path of length *y*’ as van Valin (2014: 8) puts it.

The case of creation and consumption verbs is different. In the case of creation verbs the result of the activity represented by it has as a result the coming into existence of the object in question. This is expressed as an activity followed by an accomplishment representation of the coming into existence of the object just created as in (3.5):

(3.5)

a. Activity: **do'** (*x*, [**write'** (*x*, *y*)])

*Phillip wrote poetry*

**do'** (Phillip, [**write'** (Phillip, poetry)])

b. Active accomplishment: **do'** (*x*, [**write'** (*x*, *y*)]) ^ PROC **create'** (*y*) & INGR **exist'** (*y*)

*Phillip wrote a poem*

**do'** (Phillip, [**write'** (Phillip, poem)]) ^ PROC **create'** (poem) & INGR **exist'** (poem)

The logical structure in (b) is paraphrased by van Valin (2014: 7) as “*x* writes *y*, which simultaneously undergoes a process of creation, which terminates and leads to the result that *y* exists”.

The logical structure of verbs of consumption is likewise similar to the one of creation verbs. The difference lies in the fact that the preexisting entity is consumed rather than created.

(3.6)

a. Activity: **do'** (x, [**eat'** (x, y)])

*Lu ate pizza*

**do'** (Lu, [**eat'** (Lu, pizza)])

b. Active accomplishment: **do'** (x, [**eat'** (x, y)]) ^ PROC **consumed'** (y) & INGR **consumed'** (y)

*Lu ate a pizza*

**do'** (Lu, [**eat'** (Lu, pizza)]) ^ PROC **consumed'** (pizza) & INGR **consumed'** (pizza)

In addition to the different representations I have dealt with so far, it must be pointed out that each of the aforementioned classes has a causative counterpart. However, the representation of causatives will be discussed in section 3 which focuses on causativity as a valence-changing operation.

### 3.1.2 *Semantic roles and macroroles*

The present section will focus on semantic roles and macroroles, two key concepts related to valence, especially to semantic valence. The logical structures overviewed in the previous paragraphs form the core of the lexical entry of a verb. In order to deepen in the description of semantic representation, the relationship between the verb and its arguments should also be taken into account. The semantic relationship holding between the verb and its arguments is what is often termed semantic roles.

As van Valin (2005: 53) points out, semantic roles have been studied at three levels of generality. First, verb-specific roles such as runner, hearer, etc. Second, as generalizations across verb-specific roles, i.e. thematic relations such as agent, theme, experiencer, patient, etc and third, as semantic macroroles, actor and undergoer, which are in turn generalizations across thematic relations. Only the the second and third type are relevant to the RRG model and therefore they will be the only ones discussed below.

### 3.1.2.1 *Thematic relations*

The logical structures explained above play the role within the RRG framework that thematic relations or  $\theta$ -roles lists associated with a verb in its lexical entry play in other frameworks. Contrary to the theories which list thematic roles in the lexical entry of the verb, in RRG the semantic role a given argument has is defined in terms of the position that argument in question occupies in the logical structure representation of the verb as Jackendoff (1976) proposes.

Considering the different types of logical structures presented above, only five different argument positions are relevant. In what follows the different argument positions together with the different thematic roles that can fill them will be presented.

The first relevant position is that of the argument of a state as in **dead'** (x). The variable (x) could be filled by the lexical item *dog* in *The dog is dead*. This particular argument can be filled by the thematic role of PATIENT and ENTITY.

Two other relevant positions are the first (x) and second (y) arguments of **pred'** as in the following logical structure: **see'** (x,y). The first argument could be filled by a lexical item such as *girl* and the second one by *boy* for instance as in the sentence *The girl sees the boy*. According to van Valin (2005: 58) these two arguments of **pred'** can be filled by a wide variety of thematic roles. LOCATION, PERCEIVER, COGNIZER, WANTER, among others, might be related to the first argument of **pred'** while other such as THEME, STIMULUS or CONTENT are associated with the second argument. The full range of thematic roles for both arguments is listed in Figure 3.1 below.

The fourth argument position I will refer to is the first argument of **do'** as in the activity **do'** (x, [**run'** (x)]). The variable (x) could be filled with the lexical item *child* for example as in *The child ran*. The thematic roles associated with this position are EFFECTOR, MOVER, ST-MOVER among others specified in Figure 3.1.

The fifth and last argument position is the argument of DO, which so far is the only one that has not appeared in any of the logical structures commented on in the previous

section. Following Ross (1972), van Valin (2005: 56) uses DO in order to signal agency in logical structure and explains the role of agents in RRG. Agents are taken to be intentional, volitional and controlling participants in an event. Many verbs such as *kill* can take agents as arguments in some sentences but not necessarily in all of them as (3.7a) and (b) show. In the latter *the man* is clearly not an intentional, volitional controlling participant.

(3.7)

a. *The man intentionally killed his friend.*

b. *The man accidentally killed his friend.*

However, other verbs such as *murder* necessarily require an agent argument as a sentence like *\*The man accidentally murdered his friend* illustrates. What van Valin argues is that in the case of verbs like *murder*, agency is lexicalized in the meaning of the verb and therefore this should be reflected in its logical structure. DO is the way to signal agency in logical structure as mentioned above. Thus, the logical structure of *murder* would be as follows:

(3.8)

a. DO (x, [**do'** (x, Ø<sup>1</sup>)] CAUSE<sup>2</sup> [BECOME **dead'** (y)])

b. *The man murdered his friend*

b'. DO (man, [**do'** (man, Ø)] CAUSE [BECOME **dead'** (friend)])

Contrary to what is the case with *murder*, verbs like *kill* have an effector argument that is interpreted as agent only under certain circumstances, namely when the referent is a human or sentient being acting intentionally, something which is precluded if an adverb such as *accidentally* is used.

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<sup>1</sup> This symbol stands for an unspecified activity (van Valin 2005: 47)

<sup>2</sup> The operator CAUSE will be discussed in detail in section 3.3 which focuses on causativity.

By way of summary, the five different positions and the thematic roles that can fill them are listed in Figure 3.1 which reproduces Figure 2.3 in van Valin (2005: 58).

Figure 3.1. Thematic relations in terms of logical structure argument positions.

Arg. of DO	1st arg. of <b>do'</b>	1st arg. of <b>pred'</b>	2nd arg of <b>pred'</b>	Arg. of state <b>pred'</b> (x)
	(x,...	(x, y)	(x, y)	
AGENT	EFFECTOR	LOCATION	THEME	PATIENT
	MOVER	PERCEIVER	STIMULUS	ENTITY
	ST-MOVER	COGNIZER	CONTENT	
	L-EMITTER	WANTER	DESIRE	
	S-EMITTER	JUDGER	JUDGMENT	
	PERFORMER	POSSESSOR	POSSESSED	
	CONSUMER	EXPERIENCER	SENSATION	
	CREATOR	EMOTER	TARGET	
	OBSERVER	ATTRIBUTANT	ATTRIBUTE	
	USER	IDENTIFIED	IDENTITY	
		VARIABLE	VALUE	
			PERFORMANCE	
			CONSUMED	
			CREATION	
			IMPLEMENT	

### 3.1.2.2 *Macroroles*

In this section I will discuss the second level of generalization concerning semantic roles which is that of macroroles. The concept of macroroles is crucial in this study. It is the level of description I will be more concerned with since, as will be detailed below, the valence of a verb is determined by the number of macroroles it takes, and valence is, together with transitivity, the main aspect in this piece of research.

The concept of macrorole is a generalization across different thematic roles. There exist two macroroles, actor and undergoer which act as the two primary arguments of a transitive predicate. In the case of intransitive predications, either of them can function



as its single argument. Actor is the more agent-like of the two, while undergoer has a more patient-like nature.

The generalization of macroroles arises from the observation that certain thematic relations are often treated in the same fashion cross-linguistically. Thematic roles such as agent, effector, experiencer or observer are often subjects of an active verb; whereas the object slot of such verbs can be filled by different roles such as patient, theme, stimulus or location to name a few. It cannot be a coincidence that these roles are grouped together in different unrelated languages. Macroroles, therefore, are used in RRG in order to capture this cross-linguistic generalization.

The number of macroroles a verb takes can be determined from its logical structure, although there are some exceptions. There exist three possibilities: the verb takes two macroroles [MR2], just one [MR1] or none [MR0]. If the verb takes two, one of them will be the actor and the other the undergoer (3.9a). In cases where the verb takes only one, this argument can be either an actor or an undergoer. The type of macrorole the verb displays depends on the type of predicate, thus activity predicates have actors (3.9b) while state ones have undergoers as in (3.9c).

(3.9)

a. *see*: *Jenny saw the film*

**see'** (x, y)

**see'** (Jenny, film)

[MR2]: Jenny = actor; film = undergoer

b. *cry*: *The baby cried*

**do'** (x, [**cry'** (x)])

**do'** (baby [**cry'** (baby)])

[MR1]: Baby = actor

c. *melt* (intr.): *The snowman melted*

BECOME **melted'** (x)

BECOME **melted**' (snowman)

[MR1]: Snowman = undergoer

I already mentioned briefly in the introduction to this section that the number of macroroles a verb takes is linked to the notions of valence and transitivity. Following the macrorole approach, a verb with two macroroles has a transitive valence and one with only one macrorole an intransitive one. Verbs which have no macrorole whatsoever are termed atransitive by van Valin (2005: 64). Considering this, it must be pointed out that the number of syntactic arguments does not always coincide with that of macroroles. Thus, a verb like *rain* for instance, does not have any macrorole; however, they do have a syntactic argument, namely the dummy *it* that serves as its subject. Likewise, verbs like *give* have three syntactic arguments, i.e. subject (the giver), direct object (the thing given) and indirect or oblique object (the person to which the thing is given) but only two macroroles, assigned to the subject and direct object of an active sentence but not to the oblique argument. No more details will be given concerning atransitive verbs and verbs with three syntactic arguments since they are not the focus of this study.

However, before I finish with the discussion on valence, I would like to point out an important fact. As explained above, van Valin classifies verbs into three types depending on their transitivity. Additionally, there are some verbs that can have either an intransitive or a transitive reading, as is the case with *eat*. Since verbs with this dual behaviour are the object of study, in this work I will be following authors such as Dixon (2000) in referring to them with a distinct label. Dixon (2000: 3) calls these verbs which can occur in an intransitive or transitive clause *ambitransitives*. He distinguishes between two types. On the one hand, what he calls *agentive ambitransitives*, i.e. verbs in which, when used intransitively, the subject equals the transitive subject. In RRG terms this refers to the fact that the only argument of the verb has the actor macrorole. This is illustrated by the verb *sing* used as an activity (3.10a). (3.10b) is an example of *sing* used transitively (as an active accomplishment).

(3.10)

a. *The girl sang*

**do'** (girl [**sing'** (girl)])

[MR1] girl = actor

b. *The girl sang a song*

**do'** (girl, [**sing'** (girl, song)]) ^ PROC **create'** (song) & INGR **exist'** (song)

[MR2] girl = actor; song = undergoer

The second ambitransitive verb type distinguished by Dixon is referred to as patientive ambitransitives. In this case the only argument of the verb when used intransitively has the macrorole of undergoer as illustrated in (3.11a), used intransitively, and (3.11b) transitively.

(3.11)

a. *The snowman melted*

BECOME **melted'** (snowman)

[MR1] snowman = undergoer

b. *The sun melted the snowman*

[**do'** (sun, Ø)] CAUSE [BECOME **melted'** (snowman)]

[MR2] sun = actor, snowman = undergoer

As commented on in the previous chapter, the verbs I analyse in this study are of the ambitransitive type. However, I will refer to them with the term labile as Haspelmath (1993: 91) and García García (2012: 125-6) do. Notice that other authors such as Perlmutter (1978) refer to the two types of ambitransitive with a different label, namely unergative verbs (Dixon's first type) and unaccusative (the second type).

## 3.2 Transitivity

The previous section of this work introduced the concept of valence. I considered as well the connection valence has with transitivity. As commented on above, traditional transitivity involves an action that is effective in some way and two participants: one carrying out the action and the other one undergoing it. A clause that presents these features is said to be transitive. From the point of view of valence, it is a clause that has two macroroles, actor and undergoer. Contrariwise, when only one participant is involved, either an actor or an undergoer, the clause is classified as intransitive. However, there exist some approaches from which this work benefited which support the idea that the concept of transitivity goes beyond that of the traditional one. The following subsections focus on two different approaches, namely cardinal transitivity (Hopper and Thompson (1980)) and the transitive prototype developed by Næss (2007).

### 3.2.1 Cardinal transitivity

As Hopper and Thompson (1982: 2-3) explain, prior to their 1980 article, several authors had already drawn attention to the fact that there was more to transitivity than just a clause that involves two participants and an action that is effective in some way. Lyons (1968) pointed out that no grammar seemed to deal with the notion of transitivity correctly. He concludes that there exists a notion of “normal” transitivity in which an agent does something that affects an object. Most importantly, however, not all transitive clauses in a language fit this pattern. He highlighted this fact and, even though he did not propose a transitivity continuum, he put forth a different classification of transitive clauses dividing them into intransitive, fully transitive and pseudo-transitive, i.e. those that present object deletion, common in verbs such as *eat* and *drink*.

Other authors such as Ferguson (1958) and Brewer (1970) propose a notion of more / less transitive that could better capture some differences in transitivity related to certain phenomena. More specifically, Ferguson suggests the labels less transitive and doubly transitive in connection with certain facts of Classical Arabic derivation, while Brewer uses a similar distinction to classify objects marked with *le* and *lo* in Old Spanish.

Additionally, though not specifically stated, Bolinger’s paper on the English passive (1978) seems to imply the notion of transitivity as a continuum.

Lakoff (1977), on the other hand, suggested the idea of transitivity as a prototypical concept consisting of an agent, a patient and an action, each of which must satisfy certain requirements. More recently, a similar approach to the one proposed by Lakoff is followed by Næss (2007). This approach will be discussed in more detail below.

As far as the notion of transitivity is concerned in this study, I will be mainly following Hopper and Thompson’s (1980) approach. This proposal has not been superseded to date and still serves as the basis of more modern studies on transitivity such as Næss (2007) or causatives, see Hollmann (2003). Additionally, it must be pointed out that just as Hollmann does, Hopper and Thompson’s approach has been subjected to certain modifications in this work. These are explained in detail in chapter 6, section 6.2.

In their 1980 article Hopper and Thompson proposed that the transitivity notion could be broken down into component parts. They isolated ten different parameters, each of which involved “a facet of the effectiveness or intensity with which the action is transferred from one participant to the other” as they put it (1980: 252). Those ten parameters are represented in Figure 3.2 below:

Figure 3.2: Parameters of cardinal transitivity.

	High	Low
A. Participants	2 or more participants, A and O	1 participant
B. Kinesis	Action	Non-action
C. Aspect	Telic	Atelic
D. Punctuality	Punctual	Non-punctual
E. Volitionality	Volitional	Non-volitional
F. Affirmation	Affirmative	Negative
G. Mode	Realis	Irrealis
H. Agency	A high in potency	A low in potency

I. Affectedness of O	O totally affected	O non affected
J. Individuation of O	O highly individuated	O non-individuated

Hopper and Thompson (1980: 252)

What follows is a brief description of the parameters above, as well as a succinct explanation of their effects on the intensity with which an action is transferred according to Hopper and Thompson (1980: 252-3).

Parameter A, participants, is self-explanatory. Only in a clause involving two participants (A and O, or actor and undergoer as I will refer to them) can any type of transfer occur.

As for the parameter kinesis, the difference here is between non-actions or states and actions where dynamicity is involved. A transfer only takes place in the latter as in *I kissed Cristina*, rather than in states, e.g. *I love Cristina*. In the first example something has actually happened, while that is not the case in the second sentence.

Parameter C, aspect, differentiates between telic and atelic predicates. In telic predicates the action is viewed as complete. It is provided with an endpoint. That is the case with *He ate up the pizza*. In this example the action has been completed in its entirety, and therefore the transferal is more effective than in cases where the action is portrayed as not having an endpoint, i.e. atelic as in *He is eating pizza*.

Punctuality, parameter D, makes a distinction between actions that have duration in time, non-punctual, and those that have no obvious internal duration between their inception and completion phase. The latter, punctual actions such as *John kicked the ball*, are regarded as having a more prominent effect on the patient than non-punctual ones such as *Soldiers carry heavy equipment*.

The fifth parameter mentioned in Hopper and Thompson's scale, volitionality, has to do with the agent of the action rather than with the action itself as the previous three. Under the high column are volitional agents. Typically, actions in which the agent is portrayed

as acting on purpose are seen as more effective as far as their transferal is concerned as illustrated by (3.12a) with a volitional agent and (3.12b) with a non-volitional one. As will be explained in more detail below, volitionality is one of the key elements of the transitive prototype approach developed by Næss (2007).

(3.12)

a. *She had murdered four people.*

b. *She had accidentally killed four people.*

The following parameter, F, affirmation, contrasts affirmative and negative clauses. Clearly, if an action is presented as not occurring, there is no possible transferal effect on the patient. In a sentence like *The boys did not hit the dog*, the patient has not undergone any type of action whatsoever and is therefore not affected.

Parameter F is closely linked to the next parameter in the scale, namely mode. This seventh parameter makes reference to the realis / irrealis distinction. Actions in the irrealis mode are presented as not occurring or as having occurred in a non-real world. Consequently, as is the case with negative clauses, an action that has not taken place is less effective than one that corresponds to an actual event. Thus, a sentence like (3.13a) is lower in transitivity than (3.13b) because obviously the degree of effectiveness on the patient varies greatly from (a) to (b).

(13.3)

a. *He would kill the president (if he had the chance)*

b. *He killed the president*

Parameter H is agency. It distinguishes between agents high in potency and those low in potency. As Hopper and Thompson (1980: 252) explain, there is a difference between the way in which agents high in potency can affect the transfer of an action that is not available to patients that are low in agency. They argue that *John startled me* “is a

perceptible event with perceptible consequences” (ibid) but that *The picture startled me* can be regarded as an internal state where no action whatsoever takes place.

The last two parameters of the list, I and J, affectedness of O and individuation of O refer to the patient of the sentence. The former, affectedness of O, makes reference to the “degree the action is transferred”, “to how completely the patient is affected” (Hopper and Thompson 1980: 253). For example, the action in (3.14a) is more effective than the one in (3.14b) since in (a), the object is affected in its entirety while that is not the case in its counterpart in (b).

(3.14)

a. *My brother ate up the whole steak.*

b. *My brother ate some of the meat.*

The tenth parameter of the list, individuation of O, refers to the distinctness of the O to the A as well as the distinctness of O to its background. This parameter is itself a complex one consisting of different subparameters. The ones used by Hopper and Thompson (1980: 253) are based on the work by Timberlake (1975, 1977). They present the following parameters that must be borne in mind in order to differentiate individuated from non-individuated noun phrases:

Figure 3.3: Parameters differentiating individuated from non-individuated noun phrases.

<b>Individuated</b>	<b>Non-individuated</b>
Proper	Common
Human, animate	Inanimate
Concrete	Abstract
Singular	Plural
Count	Mass
Referential, definite	Non-referential

Hopper and Thompson (1980: 253)



As Hopper and Thompson point out, actions are typically regarded as more effective when they act on an individuated O, since they are typically seen as more completely affected. If we hear a sentence like *Mary drank the whisky*, we will often assume that the A drank all the whisky that was available to her. This assumption is highly improbable or even impossible to be reached in a sentence such as *Mary drank some of the whisky*. In a similar vein, the effects on animate objects are perceived as more salient than on inanimate ones. Take for instance the sentences in (3.15a) and (3.15b).

(3.15)

a. *The baseball player hit the coach*

b. *The baseball player hit the ball*

It is clear that the O in sentence (3.15a) is more likely to be a focus of attention than the O in (3.15b). In fact, when hearing sentence (3.15a) speakers are more likely to think of the consequences for the coach rather than to think of the consequences for the baseball player. However, the opposite is the case in (3.15b) where clearly the focus of attention is on the agent rather than on the patient.

Hopper and Thompson (1980: 253) argue that, taken together, these parameters can be used to rank clauses as more or less transitive. The higher number of features a certain clause has in the ‘high’ column, the higher its transitivity will be, and therefore the closer it will be to cardinal transitivity. Thus if sentences (3.16a) and (3.16b) are measured for transitivity, (3.16b) would rank higher because it displays properties related to high transitivity that (3.16a) does not, as seen in Figure 3.4.

(3.16)

a. *Jerry likes beer*

b. *Jerry knocked Sam down*

Figure 3.4: Analysis of the cardinal transitivity parameters of sentences (3.16a) and (3.16b).

	<i>Jerry likes beer</i>	<i>Jerry knocked Sam down</i>
Participants	2 participants	2 participants
Kinesis	Non-action	Action
Aspect	Atelic	Telic
Punctuality	Non-punctual	Punctual
Volitionality	Non-volitional	Volitional
Affirmation	Affirmative	Affirmative
Mode	Realis	Realis
Agency	A in potency	A in potency
Affectedness of O	O not affected	O totally affected
Individuation of O	O non-individuated: common, inanimate, mass, non-referential	O highly individuated: referential, animate and proper

(Hopper and Thompson 1980: 253)

As pointed out by Hopper and Thompson (1980: 254), this idea of transitivity as a continuum defies the idea of traditional transitivity in that certain sentences traditionally classified as intransitive can rank higher in transitivity than some others classified as transitive in a traditional way as exemplified by (3.17a) and (3.17b).

(3.17)

a. *Susan left*

b. *Jerry likes beer*

While (3.17b) ranks higher in the parameter participants, (3.17a) ranks higher in four other parameters, namely kinesis (action), aspect (telic), punctuality (punctual) and volitionality (volitional).

However, there is more to it in the cardinal transitivity approach than a list of parameters according to which sentences can be ranked as more or less transitive. Hopper and Thompson (1980: 254) explain that “these features co-vary extensively and systematically”. This observation led them to develop their transitivity hypothesis which they explain as follows:

If two clauses (a) and (b) in a language differ in that (a) is higher in transitivity according to any of the features 1A-J, then, if a concomitant grammatical or semantic difference appears elsewhere in the clause, that difference will also show (a) to be higher in transitivity.

Hopper and Thompson (1980: 255)

By way of example, many languages in the world mark the parameter mode morphosyntactically on verbs. Typically, verbs in the irrealis mood show a different inflection to realis mood. The term for this different verbal mood varies from language to language but the following are usual: subjunctive, optative, hypothetical, etc. If a language having that feature also marks objects morphosyntactically in a different way depending on their individuation or affectedness, the Transitivity Hypothesis predicts that if the verb is in the realis mood (on the high column of the scale in parameter G), the O will be marked as totally affected or as individuated, that is, on the high column of the scale too in parameters I and J.

This pattern is in fact attested in Spanish in the case of relative clauses. Spanish has three verbal moods, i.e. indicative, for realis actions; subjunctive, for irrealis ones; and imperative for commands. Additionally, Spanish distinguishes morphosyntactically by means of the preposition *a* between animate referential objects and those which are not. Thus, a sentence such as *I am looking for a man who speaks English* can be translated into Spanish in two different ways. The first one is exemplified in (3.18a). This sentence has a referential object. In this case the speaker knows exactly who she is looking for; the man is called Alejandro. In such a sentence the verb must obligatorily be in the realis mood and the object preceded by the preposition *a*. On the other hand, in (3.18b), the O is non-referential, i.e. the speaker is looking for any man whosoever who

is able to speak English. As predicted by the Transitivity Hypothesis, the verb is in the subjunctive mood, lower in transitivity in parameter G and the object is not preceded by any preposition.

(3.18)

a. *Busco a un hombre que habla inglés*

I look for ACC a man who speak (IND) English

b. *Busco un hombre que hable inglés*

I look for a man who speak (SUBJUNC) English

‘I am looking for a man who speaks English’

### 3.2.2 *Prototypical transitivity*

Another approach to transitivity that goes beyond the traditional notion of transitivity and that incorporates some of the views put forth by Hopper and Thompson (1980) is the prototypical transitivity approach developed by Næss (2007). According to this author (2007: 29), a prototypical transitive clause consists of two highly distinguished participants, on the one hand, a prototypical agent and on the other, a prototypical patient, neither of which shares any of the properties of the other. As Næss (2007: 44-45) explains, these two participants are characterized by a set of binary properties, namely volition, instigation and affectedness. Prototypical agents are characterized by volition and instigation, while prototypical patients display high affectedness as schematized in (3.19) below:

(3.19)

Agent: [VOL +, INST +, AFF -]

Patient: [VOL -, INST -, AFF +]

Thus, in a prototypical transitive event, the patient is affected by an event that has been instigated by the agent and whose instigation is a volitional act.

What the prototypical transitive approach predicts, similarly to the cardinal transitivity approach, is that any deviation from this prototype would have as a consequence the use of a structure distinct from the prototype clause in some languages, and that conversely any difference in formal transitive marking can be explained in terms of deviation from the prototypical pattern exemplified in (3.19). This can be illustrated with the following German sentences taken from Kittilä (2002: 133). Sentence (3.20a) below conforms to the prototypical transitive clause. It presents an agent that is volitional, instigating and non-affected (*ich*) and an affected patient that is neither volitional nor instigating (*den Teller*). From a morphosyntactic point of view, these two NP's are marked using the canonical cases expected in sentences that conform to the transitive prototype, i.e. nominative for the agent and accusative for the patient.

(3.20)

- a. *Ich habe den Teller zerbrochen*  
 I. NOM have the. ACC plate break. PPTCP  
 'I broke the plate'

An event like the one portrayed in sentence (3.20a) can also be portrayed as having occurred accidentally, in which case the agent would change the volition parameter to [-VOL]. The sentence in question would not conform to the transitive prototype now. As predicted by Næss' approach, this can be reflected in the morphosyntax of a language in some way. German, for instance, allows for a dative (for the agent) – nominative (for the patient) case frame to portray an event that occurs accidentally as exemplified in (3.20b).

(3.20)

- b. *Mir ist der Teller zerbrochen*  
 I. DAT is the. NOM plate break. PPTCP  
 'I broke the plate accidentally'

Interestingly for the purpose of this study, several of the parameters that Næss argues may affect the semantic features of agents and patients are in fact present in Hopper and

Thompson's scale. That is the case with the clausal operators negation, mood and aspect which Næss calls "feature-switchers", since they have the capacity to change certain of the parameters in the prototypical transitive clause from + to – and viceversa.

By way of example, I will show how negation can affect the transitivity of a clause according to Næss (2007: 114-8). She takes the verb 'break' as an example. This verb may refer to the instigation of an event that has certain consequences, i.e. something is broken. For instance, in *Claudia broke the vase*, Claudia is a volitional, instigating subject whose action affects the patient, in this case the vase. However, when negated, the agent is no longer instigating, since it is not instigating any event whatsoever. Consequently, the patient is not affected because the action that would have affected it has not taken place. In terms of the transitive prototype features the original prototypical agent [+VOL, +INST, -AFF] changes to what Næss (2007: 115) calls a Frustrative [+VOL, -INST, -AFF] and the corresponding patient from the prototypical one [-VOL, -INST, +AFF] to a Neutral [-VOL, -INST, -AFF] using Næss' (2007: 116) terminology.

Though not in English, the semantic changes mentioned above in connection to negation are reflected in the morphosyntax of some languages. Næss (2007: 41-2) mentions Kolyma Yukaghir, a Yukaghir language spoken in Russia. This language has two sets of person markers. One is used in intransitive clauses and the other in transitive clauses only. Interestingly, however, in negated transitive clauses the intransitive marker is used as exemplified in (3.21) below:

(3.21)

a. *a:-te-mek*

make-FUT-TRANS.2SG

'You will make'

b. *el-a:-te-jek*

NEG-make-FUT-INTR.2SG

'You will not make'

(Maslova 2003: 144, glosses from Miestamo 2005: 134)

### 3.3. Causatives as a valence-changing operation

The present section focuses on the concept that constitutes one of the foundations of the present study, namely the causative construction. Causatives are clearly connected to the idea of transitivity in that causativity involves the addition of a further participant not present in the original non-causative construction. Moreover, as a consequence of this addition of a participant, causativity is related to several parameters of cardinal transitivity, such as agency, since the new participant takes this role, or affectedness and individuation of O because O is the syntactic role adopted by the sole participant of the non-causative clause in its causative counterpart. All these changes between causative and its corresponding non-causative clause will be dealt with in detail below.

Due to the fact that, among other changes, causatives involve the addition of a further participant, they are clearly connected to valence. Contrary to what may seem from the overview of valence offered in the previous section, the valence of a verb is not static. Actually, valence can be changed by means of different morphological operations as Haspelmath and Sims (2010: 236-7) and Dixon (2000: 6) among others explain. As these authors point out, these valence-changing operations may add or reduce the number of arguments in a clause. Additionally, the semantic roles of these arguments may change as well. Valence-changing operations include not only causatives, but passives, antipassives, applicatives, to name a few. In this work, however, I will deal solely with causatives.

Causatives are a type of the so-called agent-adding operation. Not only do causatives change the number of participants in a clause, but also the semantic roles of the arguments that participate in the clause vary as well. Dixon (2000: 13) provides a series of features that prototypical causatives fulfill.

The first feature refers to the fact that causatives apply to an underlying intransitive clause and form a derived transitive. In terms of RRG, prototypical causatives are applied to clauses with one macrorole which have as a result a two-macrorole clause.

As Dixon puts it, the second feature typical of causatives concerns the argument in S function (subject of intransitive clause), or the causee. This argument goes into the O (object) function in the derived causative.

The third main feature refers to the introduction of a new argument in A (subject of transitive) function, (the causer). In terms of its semantics, the causer has the actor macrorole. The former S, O in the causative clause, has the undergoer macrorole.

Lastly, Dixon mentions that there is some kind of explicit formal marking that differentiates the causative clause from its non-causative counterpart.

Since the focus of this work is on the Old English language, I will exemplify how these four features apply using an example of a non-causative clause and its causative counterpart in this language.

(3.22)

a. Non-causative

<i>seo</i>	<i>wyrt</i>	<i>barn</i>	
The.NOM	herb	burnt. INTR.	
S – Undergoer		V <sub>intr.</sub>	

‘The herb burnt’

b. Causative

<i>se</i>	<i>man</i>	<i>bærnde</i>	<i>þa</i>	<i>wyrt</i>
The.NOM	man	burnt.CAUS	the.ACC	herb
A – Actor		V <sub>caus.</sub>	O – Undergoer	

‘The man burnt the herb’

As pointed out when reviewing the different features, causatives apply to an underlying intransitive clause such as (3.22a) to form a derived causative (3.22b). The S argument in (a) *seo wyrt*, becomes the O in the derived causative, i.e. *þa wyrt*. This is reflected in the morphology of the determiner in those phrases. In (a) it displays nominative case,



whereas this changes to accusative in (b). Additionally, a new argument with the macrorole of actor is introduced in the causative clause, in this case *se man*, which acts as causer, perpetrator of the action applied to the undergoer argument. Finally, there is some explicit marking that distinguishes the causative construction from the non-causative one. In this case, each of the clauses has a different verb, namely *byrnan*, on the one hand (3.22a), and *bārnian* on the other in (3.22b). In fact the latter is derived from the former by means of a morphological operation. The different types of causative derivation that exist cross-linguistically will be surveyed briefly in the next section. Following that, I will provide a historical overview of the morphological causative formation in Germanic while dealing with the peculiarities this formation presents in Old English.

Before moving on to the description of the different types of causative derivation, I will concentrate on the logical structure of causatives. As mentioned in section 3.1.2, each of the different *Aktionsart* types has a causative counterpart. The logical structure of causatives is characterized by a first argument followed by the element CAUSE and a second argument which is the logical structure of the basic verb or predicate. Van Valin and Lapolla (1997: 107fn15) comment on the complications of the label CAUSE though I will not get into details here. The logical structure of a causative clause is represented as  $\alpha$  CAUSE  $\beta$  (van Valin 2005: 45) where  $\alpha$  and  $\beta$  stand for logical structures of any type.

In some sentences such as (3.23), the state of affairs that brings about another, the dog's barking in this case, is clearly specified. In (3.23) an activity predicate causes a state as represented in its logical structure.

(3.23)

*The dog's barking scared the boy*

[**do'** (dog, [**bark'** (dog)])] CAUSE [**feel'** (boy, [**afraid'**])]

In other instances, however, as van Valin and LaPolla explain (1997: 107), the nature of the cause is not specified. In the case of the Old English example above, we know that

the man burnt the herb but we do not know what he did specifically in order to burn it. That unspecified action is represented as ‘do’ (x, Ø)’ in the logical structure as already introduced in section 3.1.2.1 when discussing the role of agents in the RRG model. Thus, the logical structures of (3.24a) and (b) would be as follows:

(3.24)

a. *Seo wyrnt barn.*

‘The herb burnt’

Accomplishment: BECOME **burned**’ (wyrnt)

b. *Se man bærnde þa wyrnt*

‘The man burnt the herb’

Causative accomplishment: [**do**’ (man, Ø)] CAUSE [BECOME **burned**’ (wyrnt)]

What follows are examples of the logical structure of each of the different causative *Aktionsart* types taken from van Valin (2005: 47) with some modifications in the case of causative active accomplishments following van Valin (2014).

(3.25)

a. Causative state: *The dog scared the boy.* [**do**’ (dog, Ø)] CAUSE [**feel**’ (boy, [**afraid**’])]

b. Causative accomplishment: *Max melted the ice.* [**do**’ (Max, Ø)] CAUSE [BECOME **melted**’ (ice)]

c. Causative achievement: *The cat popped the balloon.* [**do**’ (cat, Ø)] CAUSE [INGR **popped**’ (balloon)]

d. Causative semelfactive: *Sam flashed the light.* [**do**’ (Sam, Ø)] CAUSE [SEML **do**’ (light, [**flash**’ (light)])]

e. Causative activity: *Felix bounced the ball*. [**do'** (Felix, Ø)] CAUSE [**do'** (ball, [**bounce'** (ball))]]

f. Causative active accomplishment: *Mary fed the pizza to the child*. [**do'** (Mary, Ø)] CAUSE [**do'** (child, [**eat'** (child, pizza)]) ^ PROC **consumed'** (pizza)] & INGR **consumed'** (pizza)]

### 3.3.1 *Types of causative derivation*

As was anticipated above, in the present section, I will concentrate on the last feature causatives present according to Dixon (2000: 13), namely the explicit formal marking of the causative construction with respect to its non-causative counterpart. The aim of this section is to provide a succinct account of the different ways in which a causative alternation can be expressed cross-linguistically. As will be shown, Present-day English and Old English differ in this respect in important ways. In fact, the main objective of this study is to shed some light on the origins of one of the common ways of displaying the causative alternation in Present-day English (though interestingly, very uncommon in other related languages), i.e. labile verbs, that has its origins in the Old English period. This account is based mainly on García García's (2012: 124-6) outline since it takes into account the most relevant works on this topic, such as Nedyalkov and Silnitsky (1973), Comrie (1989), Haspelmath (1993) and Dixon (2000).

There are two main types of formal oppositions between causal and non-causal verb pairs, namely directed and non-directed. In the former, one of the members is derived from the other. Within directed oppositions, several different types can be found.

The first type of directed opposition I will introduce is causatives. These are cases in which the causal member is derived from the non-causal one. In morphological causatives, this can be achieved by two different means, namely the addition of an affix or a stem modification. In the case of Proto-Germanic causatives, both mechanisms are combined as the following example shows:

(3.26)

a. \**rīsanq* ‘rise’ (non-causal) - \**raizijanq* ‘raise’ (causal)

b. \**sitjanq* ‘sit’ (non-causal) vs. \**satjanq* ‘seat, set’ (causal)

(Ringe 2006: 253)

When a causative auxiliary is used, the construction is known as periphrastic or analytic causative as is common in Present-day English. See (3.27) below:

(3.27)

*to laugh* (non-causal) - *to make laugh* (causal)

A third type of directed opposition is the anticausative. In this type of construction, contrary to what happens in causative oppositions, the non-causal verb is the one that is derived from the causal one. Again, these formations can be the result of the addition of an affix, an anticausative auxiliary or stem modification. Only the type including an anticausative auxiliary is found in English:

(3.28)

*to lose* (causal) - *to get lost* (non-causal)

In modern European languages, it is quite frequent though, to make use of reflexive pronouns as anticausative particles. Examples from German (3.29) and Spanish (3.30) illustrate this fact:

(3.29)

a. *Ich öffnete die Tür* (causal)

I.NOM opened the.ACC door

‘I opened the door’

b. *Die Tür öffnete sich* (non-causal)

The.NOM door opened ANTICAUS

‘The door opened’

(3.30)

a. *Abrí la puerta* (causal)

I opened the door’

‘I opened the door’

b. *La puerta se abrió* (non-causal)

The door ANTICAUS opened

‘The door opened’

(3.31a) and (b) are examples from Maltese and Swahili respectively which exemplify the derivation of the non-causal verb from the causal one through affixation:

(3.31)

a. *fetaħ* ‘open’ (causal) – *nfetaħ* ‘open’ (non-causal)

b. *vunja* ‘break’ (causal) – *vunjika* ‘break’ (non-causal)

(Haspelmath et alii. 2014: 598)

In the case of non-directed oppositions, neither of the members is derived from the other. As in the previous case, there are different types of non-directed oppositions. In labile ones, both the causative and non-causative senses are expressed by the same verb:

(3.32)

a. *The ice melts* (non-causal)

b. *The sun melts the ice* (causal)

Notice that this will be the use given to the term *labile* in this work, as I mentioned in section 3.1.2.2 above. *Labilization* is the term given used in this work to refer to the process by which a verb becomes *labile*.

A different type of non-directed oppositions are correlative oppositions or equipollent following Haspelmath (1993). The members of this opposition differ in one part of their stem; both the root and the affix can be different. An instance of this type of opposition is the one that holds between the Present-day English morphological causatives, such as *fall* (non-causal) – *fell* (causal) or *lie* (non-causal) – *lay* (causal).

In addition to these, another type of non-directed opposition is found, i.e. suppletive, or lexical (Comrie 1989: 166). In this type of opposition, the causative and non-causative members are expressed by different lexemes as the English and Spanish examples below show:

(3.33)

a. *die* (non-causal) – *kill* (causal)

b. *caerse* ‘fall’ (non-causal) – *tirar* ‘drop, let fall’ (causal)

### 3.3.2 *Historical overview of Old English morphological causatives*

The present section of this work offers an overview of the history of the morphological causative formation from its Indo-European origins. Additionally, it provides information on several of the particularities that concern these verbs already during the Old English period.

Even though rare in present-day European languages, several causative formations have been reconstructed for Proto-Indo-European. Ringe (2006: 28) mentions the iterative and causative suffix *\*-éye* or *\*-éyo-*, which added to verbal stems with o-grade root gave as a result an iterative or causative verb as the following examples:

(3.34)

a. *\*b<sup>h</sup>er-* ‘carry’ > *\*b<sup>h</sup>or-éye/o-* ‘be carrying around’

b. *\*sed-* ‘sit down’ > *\*sod-éy/o-* ‘seat someone’

This Proto-Indo-European formation is reflected in several language families derived from it, such as the Vedic *áya-* formation (see Jamison 1983), the Slavic *i*-conjugation (Bielfeldt 1961: 200), and the Germanic *jan*-formation (García García 2005), usually known with this name since the infinitive endings of this type of verb in Gothic presented this form, e.g. *kannjan* ‘to make known’ or *sagkjan* ‘to cause to sink’.

As far as Proto-Germanic is concerned, the aforementioned suffix presented two allophonic variants: *\*-ja*, after light roots, and *\*-ija* after heavy ones, since this suffix underwent the effects of Siever’s Law. It was generally attached to the past singular grade of a strong verb to form a derived causative, which was ascribed to the first class of weak verbs (Ringe 2006: 176).

Ringe (2006: 252-3) provides several reconstructions of strong verbs and their derived causatives which exemplify this formation. I have added their later Old English equivalents as well:

(3.35)

*\*etanq* ‘eat’ - *\*atjanq* ‘to cause to eat’ > OE *etan* ‘eat’ – *ettan* ‘graze’

*\*drinkanq* ‘drink’ - *\*drankijanq* ‘cause to drink’ > OE *drincan* ‘drink’ – *drencan* ‘give drink to, saturate’

*\*ligjanq* ‘lie’ - *\*lagjanq* ‘lay’ > OE *licgan* ‘lie’ – *lecgan* ‘lay’

*\*rīsanq* ‘rise’ - *\*raizijanq* ‘raise’ > OE *rīsan* ‘rise’ – *rāeran* ‘rear’

*\*sitjanq* ‘sit’ - *\*satjanq* ‘seat, set’ > OE *sittan* ‘sit’ – *settan* ‘set, place’

*\*brinnanq* ‘burn’ (non-causal) - *\*brannijanq* ‘burn (causal)’ > OE *byrnan* ‘burn’ (non-causal) – *bāernan* ‘burn’ (causal)

*\*bilībanq* ‘leave’ - *\*bilaibijanq* ‘be left over’ > OE *belīfan* ‘remain’ > *belāfan* ‘leave’

Estimates on the number of possible derived causatives in the protolanguage differ considerably. Ringe (2006: 252) mentions that 24 derived causatives of the weak class can be reconstructed with certainty for Proto-Germanic. On the other hand, Seebold (1970) mentions around 185 verbs, that is, nearly 30% of the 643 Germanic strong verbs reconstructed by this scholar have a secure causative in any Germanic language (García García 2012: 126).

Despite the productivity of this formation in the protolanguage, few of them still remain in Present-day English, for instance: *fall - fell*, *drink - drench*, *sit - set*. This almost total obliteration of the causative formation is not a modern phenomenon though. It is during the Old English period where some radical changes affecting both the base and the derived verb begin to operate, pointing to an abandonment of morphological causatives as a productive word-formation strategy and to a gradual dissolution of the distinctions expressed by it.

Two of the main processes involved in the gradual dissolution of causative pairs beginning in the Old English period are phonological and syntactic in nature, namely decrease in formal transparency due to phonological changes and what can be referred to as syntactic merger. The latter is of special relevance to the purpose of this work. What follows is a brief description of these processes based on García García (2012: 135-9).

In Old English, different phonological changes caused a decrease in formal transparency between the strong verb and its derived causative as pointed out as well by previous authors such as Visser (1963: 127-133). This fact can be illustrated clearly when compared to Gothic causatives:

(3.36)

a. GOT *sigqan* ‘sink (non-causal)’ - *sagkjan* ‘cause to sink’

b. OE *sincan* ‘sink (non-causal)’ - *sencan* ‘cause to sink’



In the case of Gothic, both the ablaut grade of the derived verb as well as the *-jan* suffix can still be identified. However, the only sign through which both Old English verbs can be distinguished is a vowel alternation in which the direction of the derivation is not visible anymore. Moreover, there is no systematic relationship between derived causatives and its base. Whereas in the case of *sincan* - *sencan* the distinction is based on a vowel alternation, the distinction between *cwelan* ‘die, suffer’ and *cwellan* ‘kill’, lies in the length of the final root consonant. These examples are interesting to illustrate how a causative pair becomes obsolete mainly due to insufficient and unsystematic formal marking.

The next phenomenon I will deal with, syntactic merger, is central to this study. With syntactic merger García García (2012: 137) refers to cases in which one or both of the members of a causal / non-causal pair take on a further valence value. She explains that this “process only affects pairs in which the base is an intransitive verb, and it consists in the base adding a transitive-causative usage (that is, a causing subject) to its valence frame and / or the *-jan* derivative an intransitive usage”. The outcome is, however, the same in both cases, namely a labile verb which can function both as an intransitive and causative verb. In (3.37) below I illustrate this phenomenon with an example taken from two different versions of the *Anglo-Saxon Chronicle*. These two different sentences illustrate the labile behaviour of the verb *belīfan* ‘remain’, a base strong verb whose historically expected valence is intransitive. In (3.37a), it is used intransitively. In (3.37b), on the other hand, it is used as a causative verb, where its derived causative counterpart *lāefan* would be expected.

(3.37)

a. & *se here þa ferde sum to Denmarcon,*

& the.NOM army then travelled part to Denmark

& *XL scypa belifon mid þam cyng Cnute*

& 40 ships remained 3.PL with the king Cnut

‘And then a part of the raiding-army travelled to Denmark, and 40 ships stayed with king Cnut.’

ChronD [0720 (1018.4)]

b. & *se here ða ferde sum to Denemearce*

& the.NOM army then travelled part to Denmark

& *XL scypa belaf mid þam cynige Cnute,*

& XL ships remain 3. SG with the king Cnut

‘And then a part of the raiding-army travelled to Denmark, and left 40 ships with king Cnut’.

ChronC [0715 (1018.1)]

In (3.37a), the verb *belīfan* has only one argument, i.e. it is intransitive. Its sole argument, *XL scypa*, has the undergoer macrorole. From a syntactic point of view, it is the subject of the verb since it agrees in person (3<sup>rd</sup>) and number (plural) with this NP argument. In (b), however, the valence of the verb *belīfan* is different. In this case, it presents two arguments. *XL scypa* is still one of them. It acts as the undergoer argument from a semantic point of view. Its case, genitive plural, does not change with respect to (a), since this is the typical case displayed by NP’s preceded by numerals, and numerals such as forty do not change their form depending on case in Old English, nor is there any way to reflect such a morphological change using Roman numerals. However, this argument does not act as the subject any more, since the verb appears in its 3<sup>rd</sup> person singular form, *belaf*. It shows agreement with the other argument in the clause, *se here*, which has the actor macrorole and functions as the subject from a syntactic point of view. Considering this, the valence of *belīfan* in (b) is transitive. These examples show how the verb *belīfan* has acquired a valence typical of its causal counterpart *lāefan*. This means that this verb can be used both in an intransitive or causative clause with no morphological marking, i.e. it is labile.

As García García (2012: 140) points out, the verb illustrated above is no exception in Old English and several other instances of verbs which present the same syntactic behaviour are to be found. In fact, out of a total of 57 causative / non-causative

morphological pairs in Old English, 13 show partial (one member of the pair is labile) or total syntactic merger (both are labile). As has been previously explained, these are the verbs that will be investigated in this piece of research.

In Present-day English, this tendency towards the formation of labile verbs has been maintained. Some scholars (Haspelmath (1993) or Poppe (2009)) have already drawn attention to the high frequency of labile verbs in English as opposed to other closely related languages such as Modern High German (MHG), as these two examples illustrate:

(3.38)

a. English: *sink* (both causal and non-causal)

MHG: *versinken* (non-causal) – *versenken* (causal)

b. English: *wake up* (both causal and non-causal)

MHG: *erwachen* (non-causal) - *erwecken* (causal)

This relative frequency of labile verbs in English with respect to other Germanic languages can be traced back to Old English as Hermodsson (1952: 195) pointed out. “One of the sources for labile verbs is then causative pairs which lose their distinctiveness and eventually merge in a double-functional verb” as García García (2012: 138) explains.

### **3.4 Aktionsart**

The present subsection concentrates on the concept of *Aktionsart* (German for type of action). *Aktionsart* types are relevant in this work not only because the logical structures used in the RRG framework are based on them but because this concept is also intimately related to the notion of cardinal transitivity. Three of its parameters, namely dynamicity, punctuality and aspect are three of the four features, together with state, that define the different *Aktionsart* types described by van Valin and LaPolla (1997: 91-102) and van Valin (2005: 32-42) on which this work relies.

Before discussing *Aktionsart* in detail, it must be pointed out that although Hopper and Thompson (1980) refer to the distinction between telic and non-telic as aspect, I will use the term telicity when dealing with that parameter. This is so due to the fact that in this work, a clear distinction is made between *Aktionsart*, on the one hand, and aspect, on the other. This latter category refers to the “different ways of viewing the internal temporal constituency of a situation” as Comrie (1976: 3) puts it. Thus, aspect makes reference to the speaker’s point of view or perspective on a situation. Aspect is then subjective since it depends on the speaker’s choice, contrary to *Aktionsart*. In the RRG approach (see van Valin and LaPolla (1997: 40)), aspect is defined as an operator related to temporality. This nuclear operator provides information about the internal temporal structure of a given event, whether it is completed or not, ongoing or recurring, etc. The most common categories found cross-linguistically are related to completeness vs. incompleteness (usually referred to with the terms perfective and imperfective), progressive (ongoing) and perfect (related to perfective but with the added nuance of current relevance).

Another important feature of aspect is the fact that it is grammatical. By this, it is meant that this category is expressed by verbal inflections, morphology and periphrases (Brinton 1988: 3). For instance, Latin makes a distinction between imperfective and perfective past by means of different verbal inflections (see (3.39a), imperfective, and (3.39b), perfective). Additionally, English makes use of periphrastic constructions such as *keep on* + *-ing* to express progressive aspect, as in *The angry workers keep on demonstrating*.

(3.39)

- a. *Puer panem manducabat*  
 Child.NOM bread.ACC eat.PAST IMP  
 ‘The child used to eat bread’

- b. *Puer panem manducavit*  
Child.NOM bread.ACC eat.PAST PERF  
'The child ate the bread'

Even though aspect and *Aktionsart* are two distinct categories that must be distinguished carefully, it must be pointed out that these two categories interact with each other. Such an interaction will be dealt with briefly below.

#### 3.4.1 *Aktionsart* features and classes

Once this clarification has been made, focus will be laid on *Aktionsart*. Van Valin and LaPolla's (1997) and van Valin's (2005) views concerning this category are based on Vendler's (1967) work. This author argued that verbs and other predicating units could be classified depending on their inherent temporal properties or *Aktionsart*. He proposed four different types, namely states, activities, achievements and accomplishments. To these four basic Vendlerian classes, van Valin (2005: 32) adds semelfactives as proposed by Smith (1997). Each of these basic *Aktionsart* types corresponds to a different state of affairs. Thus, states correspond to situations, activities to actions, achievements to events and accomplishments to processes. Semelfactives, as explained in van Valin (2005: 32), are punctual events that have no result state, e.g. *The light flashed* or *Chris coughed*. Each verb in a given language has a basic *Aktionsart* type which is represented in the speakers' lexicon. However, as will be explained below, verbs can be used with more than one *Aktionsart* interpretation since the addition of certain elements such as adverbials or NP's may alter the basic *Aktionsart* interpretation of the verb in the context of the entire clause.

The different *Aktionsart* types are defined in terms of four features: namely [+/-static], [+/-telic], [+/-punctual] and [+/-dynamic]. The first feature serves to distinguish between two types of verbs, static and non-static. The latter encodes a happening and the former a non-happening. As van Valin and LaPolla (1997: 93) put it, if a sentence can answer the question 'What is happening?' then the predicate in that sentence is [-static] as in *The player hit the ball*. However, a sentence such as *My sister believes in gods* is not an appropriate answer to the aforementioned question, since nothing is

actually happening. The verb *believe* is therefore [+static]. Attending to this feature, states are [+static], while activities, achievements, accomplishments and semelfactives are [-static].

The feature [+/-telic] refers to whether the state of affairs depicted by the verb has an inherent endpoint or not. States, activities and semelfactives do not have an inherent endpoint [-telic]. In the activity *The wheel is spinning*, the rotation of the wheel need not terminate. Achievements and accomplishments, on the other hand, do have a terminal point and are therefore [+telic]. The accomplishment verb *melt* for instance entails that at one point the substance undergoing the melting will be liquefied.

The feature [+/-punctual] distinguishes telic events which have an internal duration from those which lack it (van Valin and LaPolla 1997: 93). In both *The house burnt* and *The house exploded* the house is undergoing a change of state. However, there is an important difference between the two. While exploding is instantaneous [+punctual], burning occurs during a time span [-punctual]. Only achievements and semelfactives are [+punctual].

The last feature that is used in distinguishing *Aktionsart* types is [+/- dynamic]. This feature refers to whether the situation being portrayed by the verb involves action or not. Activities are [+dynamic] since they involve action. A test frequently used to determine action is the compatibility of a certain verb with adverbs such as *violently*, *vigorously*, etc. Semelfactives are interesting from the point of view of dynamicity. While some semelfactive verbs display this feature, e.g. *cough* as in *The teacher coughed violently* some others do not, e.g. *glimpse* as in *\*He glimpsed the robber strongly*.

The six different *Aktionsart* types commented on so far (states, activities, achievements, semelfactives, accomplishments and active accomplishments) are used to represent spontaneous states of affairs. However, as pointed out by van Valin and LaPolla (1997: 84), for each type of spontaneous state of affairs, there exists an induced counterpart. Each of these spontaneous state of affairs has a causative counterpart which is used to

represent an induced state of affairs. Thus, the final list of *Aktionsart* types rises to 12. These are exemplified in (3.40) below together with a summary of the features they display (see Figure 3.5):

(3.40)

a. State: *The boy is afraid.*

a'. Causative State: *The dog frightens / scares the boy.*

b. Achievement: *The balloon popped.*

b'. Causative achievement: *The cat popped the balloon.*

c. Semelfactive: *The pencil tapped on the table.*

c'. Causative semelfactive: *The teacher tapped the pencil on the table.*

d. Accomplishment: *The ice melted.*

d'. Causative accomplishment: *The hot water melted the ice.*

e. Activity: *The soldiers marched in the park.*

e'. Causative activity: *The sergeants marched the soldiers in the park.*

f. Active accomplishment: *The soldiers marched to the park.*

f'. Causative active accomplishment: *The sergeant marched the soldiers to the park.*

Van Valin (2005: 34)

Figure 3.5: Features displayed by each *Aktionsart* type.<sup>3</sup>

a.	State	[+static]	[-dynamic]	[-telic]	[-punctual]
b.	Activity	[-static]	[+dynamic]	[-telic]	[-punctual]
c.	Achievement	[-static]	[-dynamic]	[+telic]	[+punctual]
d.	Semelfactive	[-static]	[+dynamic]	[-telic]	[+punctual]

<sup>3</sup> The causative counterparts of each *Aktionsart* class are not included in this table because they share the same features with their non-causative counterparts.

e.	Accomplishment	[-static]	[-dynamic]	[+telic]	[-punctual]
f.	Active accompl.	[-static]	[+dynamic]	[+telic]	[-punctual]

Causative and non-causative state of affairs may be distinguished through a test. Even though van Valin (2005: 38) acknowledges that there is no simple test to determine the inherent causativity of a verb, paraphrases such as the ones below (3.41) can be useful:

(3.41)

a. *The dog caused the boy to be afraid.*

b. *The cat caused the balloon to pop.*

c. *The hot water caused the ice to melt.*

d. *The girl caused the ball to bounce around the room*

One important point to bear in mind while paraphrasing, though, is that the paraphrases must contain the same number of arguments as the original sentence. Thus *John caused Michael to die* is an appropriate paraphrase for *John killed Michael*. On the other hand, *My dad causes himself to eat* does not work as paraphrase of *My dad eats* since we have a different number of arguments. This fact means that the paraphrase test cannot be applied to one-argument verbs since it is impossible to make a causative paraphrase with just one argument. Notice that the causative relationship I have just dealt with is exactly the same as the one portrayed by the morphology of many languages, Old English among them, e.g. *byrnan* (burn spontaneous, accomplishment) vs. *bærnian* (burn induced, causative accomplishment).

#### 3.4.2 Interaction of Aktionsart and other elements

As has been pointed out above, verbs present a basic *Aktionsart* type. However, this may be altered in the context of a given sentence since the *Aktionsart* of a verb interacts with other elements present in the sentence, such as noun phrase complements or prepositional phrases. This phenomenon has been pointed out by several authors. Garey



(1957: 107-9) already classified object complements with the labels telic and atelic. Taylor (1977: 180-9) argued that “the semantic structure of a noun phrase can be the decisive element in the aspectual denotation of a sentence”. Brinton (1988: 45-51) offers a review of the way these elements interact with the basic *Aktionsart* of the verb. The following account is based on her work and on van Valin and LaPolla’s (1997: 99-100). Likewise, it is important to consider the way in which aspect interacts with *Aktionsart*. A brief survey of this interaction will be provided below as well.

An important alternation between activities and accomplishments is related to prepositional phrases. A verb like *walk* in *Sara walked in the park* behaves like an activity. However, this basic activity behaviour may be altered if a prepositional phrase with the meaning of goal, a definite terminal point, is added as in *Sara walked to the park*. In this case the activity represented by *walk* has an endpoint, it is bounded and therefore telic. It does no longer present the features typical of activities, namely [-static, -telic, -punctual], but those of accomplishments [-static, +telic, -punctual]. Brinton points out (1988: 51) that the the opposite (a conversion from accomplishment to activity) is also possible through the use of certain prepositional phrases which convert the expression of a goal into one of direction, source or other atelic concept. Thus, in the sentence *John worked the crossword puzzle* 'work' has an accomplishment interpretation, whereas it has an activity interpretation in *John worked on the crossword puzzle*.

Another interaction that must be borne in mind is that of verbs which are normally seen as accomplishments but change into activities if accompanied by a mass or unspecified plural argument. This alternation is common in consumption, destruction and creation verbs. In a sentence like *Peter ate three slices of pizza* the noun phrase provides the endpoint of the action represented by the verb and is therefore an accomplishment. On the other hand, if the specific *three slices of pizza* is changed for the unspecified *pizza* no specific endpoint is provided, the activity is not telic and consequently the verb *eat* in that sentence would be interpreted as an activity. Van Valin and LaPolla (1997: 100) use a different class to refer to accomplishment uses of activity verbs such as *walk* + goal PP or *eat* + quantified NP, namely active accomplishments.

The distinction between individuation, most specifically the mass vs. count distinction, plays a role in the aspectual dimension of the language as pointed out by the aforementioned authors. Van Valin and LaPolla (1997: 57), in fact, refer to this distinction as nominal aspect. As pointed out by Jackendoff (1990), there exists a parallelism between the mass vs. count distinction in nouns and the bounded vs. unbounded in verbs. As he puts it (1990: 29) “a part of *an apple* (count) cannot be itself described as *an apple*; but any part of a body of *water* (mass) can itself be described as *water*”. This same criterion applies to the event vs. process distinction: any part of *John ate the sandwich* (event) cannot be itself described as *John ate the sandwich*. By contrast any part of *John ran towards the house* (process) can itself be described as *John ran towards the house*.

Concerning the interaction of aspect and *Aktionsart*, I will mainly concentrate on some incompatibilities of certain *Aktionsart* features in combination with some aspects and / or the different readings they may entail. This discussion is based mainly on Brinton (1988: 38-45 and 237-8).

One of the aspects that present the fewest number of restrictions with regards the combination with *Aktionsart* is perfective. The most salient incompatibility perfective aspect presents is that of present perfective and dynamic events. This combination is only possible when the event is seen as a complete series, e.g. *John runs (everyday)*. If a single instance of that activity is intended, it must be combined with a progressive as in *John is running*.

Progressive aspect, the one used to portray a dynamic situation as ongoing, is normally incompatible with [+state] and [-punctual] *Aktionsart* types such as *\*I am knowing*. Exceptions do occur, however, in cases where the state is regarded as temporary rather than permanent as in *Laura is enjoying the reading*, or the state in question is regarded as having an activity reading as in *Pedro is smelling the flowers*. As for non-punctual *Aktionsart* types (achievements and semelfactives), the former are only compatible with the progressive with a plural object as in *The firecrackers are popping* as opposed to

*\*The firecracker is popping.* However, as in the case semelfactives, such as *The light is flashing*, an iterative, not a punctual meaning is portrayed. Finally, progressive aspect is compatible with both telic and atelic verbs. In both cases the state of affairs is seen as ongoing, incomplete. However, there exist little differences between them. In the case of [-telic] verbs, the situation being portrayed has not been terminated, e.g. *The teacher is talking*. On the other hand, concerning [+telic] verbs, the goal has not been attained and therefore the event has not been finished, as in *Leo is writing an email*. In this specific example the email (the goal) has not yet been achieved.

The combination of certain *Aktionsart* features and perfect aspect is according to Bauer (1970) one of the reasons behind the different meanings usually attributed to his aspect. This author puts forth that the interaction of telic and punctual verbs and perfect aspect portrays the notion of attainment or achievement of the goal, e.g. *She has found the kid* or *They have convinced the voters*. Conversely, atelic verbs, by virtue of their [-telic] feature (not the perfect aspect) do not imply the attainment of any goal as in *I have lived in many countries*.

### 3.4.3 *Aktionsart* tests

In order to determine the *Aktionsart* a verb displays in a specific context van Valin (2005: 34-41) proposes a number of tests. These tests have been used to determine the *Aktionsart* features of the different clauses analysed in this work. The different tests and their compatibilities are summarised in Figure 3.6 below which is a slightly modified version of the one in van Valin (2005: 39). I have obviated the asterisks signalling some complications with the application of the tests with certain *Aktionsart* types.

Figure 3.6: Tests for *Aktionsart* classes.

Class	Test 1:	Test 2:	Test 3:	Test 4:	Test 5:	Test 6:	Test 7:
	Occurs	Occurs	Occurs	Occurs	Occur	Can be	Causative
	with	with	with	with V	s with	used as	paraphras
	progressiv	adverbs	adverb	<i>for an</i>	V <i>in</i>	stative	e
	e	like	s like	<i>hour</i>	<i>an</i>	modifie	
		<i>vigorousl</i>	<i>quickly</i>		<i>hour</i>	r	

	y						
State	No	No	No	Yes	No	Yes	No
Achiev.	No	No	No	No	No	Yes	No
Semel.	No	No	No	Yes	No	No	No
Accompl	Yes	No	Yes	Irrelev	Yes	Yes	No
.	.	.	.	.	.	.	.
Activity	Yes	Yes	Yes	Yes	No	No	No
Active acc.	Yes	Yes	Yes	Irrelev	Yes	Yes	No
.	.	.	.	.	.	.	.
Caus. State	Yes	Yes	No	Yes	No	Yes	Yes
Caus. Achiev.	No	Yes	No	No	No	Yes	Yes
Caus. Semel.	No	Yes	No	No	No	No	Yes
Caus. Accompl	Yes	Yes	Yes	Irrelev	Yes	Yes	Yes
.	.	.	.	.	.	.	.
Caus. Activity	Yes	Yes	Yes	Yes	No	Yes	Yes
Caus. Active accompl.	Yes	Yes	Yes	Irrelev	Yes	Yes	Yes
.	.	.	.	.	.	.	.

Test 7, which serves to distinguish causative vs. spontaneous state of affairs has already been discussed when commenting on induced states of affairs above. Test 1 makes reference to the incompatibility of certain *Aktionsart* types with the progressive. Activities, accomplishments and active accomplishments are compatible with it. Most states are not, on the other hand. As for achievements, only those with plural subjects can be used with the progressive. In the case of semelfactives, when used with the progressive, they necessarily involve an iterative reading.

Test 2 is a test for dynamicity. It is based on the compatibility of +dynamic *Aktionsart* types with adverbs that code dynamic action such as *vigorously*, *powerfully*, etc. These *Aktionsart* types are activities, active accomplishments and some semelfactives.

Test 3 serves to distinguish between punctual and non-punctual *Aktionsart* types. It is based on the compatibility of non-punctual verbs with the so-called pace adverbs, i.e. adverbs that involve duration in time such as *quickly* or *slowly*. Bearing this in mind, only achievements and semelfactives which feature [+punctual] are the only *Aktionsart* classes that are not compatible with these adverbs, although with some exceptions in the case of the latter.

Both tests number 4 and 5 are useful to differentiate between telic and non-telic verbs. The former refers to the possibility of a verb to appear with a duration adverb such as *for an hour* or in phrases that indicate duration in time as *spend x time V-ing something*. In fact, what test 4 determines is the property of a certain verb to have duration in time. States, activities, accomplishments and active accomplishments do have temporal duration while achievements do not. As for semelfactives, they can only take a *for* PP expressing duration if it refers to an extremely short period of time.

Test 5 determines whether a verb is compatible with terminal points. If something can be done *in x time* an explicit reference is being made to the endpoint of the situation in question [+telic]. The given state of affairs began at some time and finished after x time. Accomplishments and active accomplishments can take *in x time* adverbials. Due to their punctuality, achievements and semelfactives can only take *in x time* adverbials if they refer to very short periods of time such as *in an instant*, *in a fraction of a second*, etc, unless an iterative reading is intended. Additionally, it must be pointed out that achievements, semelfactives and activities can occur with *in*-phrases as in *The boy will run in an hour*. However, this phrase does not refer to the endpoint of the action or event, but rather to the time before the beginning of the action or event. Therefore, in these cases the addition of the *in*- phrase is irrelevant to the [+/- telic] test. As van Valin puts it “it is not sufficient simply to ascertain the type of temporal phrase that a verb can

occur with; it is rather, necessary to pay attention to the meaning of the sentence as well” (2005: 38).

Lastly, test 6 can be used to differentiate between the two punctual classes, namely achievements and semelfactives. The latter “have no result state and therefore cannot be used as stative modifiers” as pointed out by van Valin (2005: 35). See for instance *\*The flashed light*. On the contrary, achievements do have a result state as in *The shattered window* and can, therefore, be used as stative modifiers.

### 3.5 Lexicalization

In addition to topics such as transitivity, the verbs in the *-jan* oppositions studied in this work frequently appear in the literature as instances of different types of linguistic change such as morphologization (Anderson 1992), phonologization (Hopper 1994) and lexicalization (Bybee 1985, Brinton and Traugott 2005).

In the present section I would like to focus on the latter phenomenon given the fact that some of the verbs under study, *wendan* for instance, have undergone lexicalization. Studies that refer to the relationship between lexicalization and English morphological causatives, such as Brinton and Traugott (2005) tend to concentrate on the present-day form of these verbs. They emphasise the peculiarities in semantic and morphosyntactic terms that they display and that can be explained as a consequence of the lexicalization they have undergone throughout their history. Brinton and Traugott (2005: 153) refer to Present-day English morphological causative pairs such as *sit-set* and *fall-fell* as related pairs in which “original morphology and original allophonic variation resulting from its presence is lost due to phonological changes, and the forms split”. However, even though the aforementioned authors are making reference to Present-day English, the split and the consequences it has can already be detected in Old English as pointed out by García García (2012: 135). In fact, as will be shown in this study, certain Old English causatives and their counterparts already display some of the phenomena often related to lexicalization. Additionally, some information concerning how morphological

causatives crosslinguistically are prone to undergo some effects related to this phenomenon will be given.

As Brinton and Traugott (2005: 18) explain, the term lexicalization has been used to refer to phenomena of a different character, i.e. synchronic and diachronic. In the present study I will only focus on lexicalization as a diachronic process. From the diachronic point of view, the term lexicalization has been used as “adoption into the lexicon” or “falling outside the productive rules of grammar”. The latter forms the core of what is going to be understood as lexicalization in this work. This brief definition can be expanded by quoting from Anttila (1989 [1972]), Bauer (1983) and Ramat (1992) respectively. The first of these authors refers to this phenomenon as “whenever a linguistic form falls outside the productive rules of grammar it becomes lexicalized” (Anttila 1989 [1972]: 151). Bauer (1983: 48), on the other hand, defines lexicalization as the stage “when a lexeme has, or takes on, a form which it could not have if it had arisen by the application of productive rules”. Last, for Ramat (1992: 550-551) “a process whereby linguistic signs formed by rules of grammar are no longer perceived (parsed) in this way but as lexical entries” is a case of lexicalization.

A broader definition of this linguistic process is provided by Blank (2001: 1600, 1604), since it includes aspects that have usually been regarded as semantic change, as highlighted by Brinton and Traugott (2005: 56). Blank describes this phenomenon as “a process by which new linguistic entities, be it simple or complex words or just new senses, become conventionalized on the level of the lexicon”. Thus, cases of generalizations such as *holy day* ‘religious feast’ > *holiday* ‘day off from work’ and specializations, which are important in connection with some of the prefixed verbs under study, as OE *steorfan* ‘to die’ > PDE *starve* ‘to die of hunger’ constitute lexicalization according to Blank.

Even though reference will be made to the aforementioned views on lexicalization in this study, the main work I will follow in this respect is the one by Brinton and Traugott (2005). These authors select aspects from current and extant definitions in order to

formulate what is perhaps the most insightful definition of lexicalization. They define this phenomenon as:

the change whereby in certain linguistic contexts speakers use a syntactic construction or word formation as a new contentful form with formal and semantic properties that are not completely derivable or predictable from the constituents of the construction or the word formation pattern.

Brinton and Traugott (2005: 96-7)

Before concluding this section, some relevant comments related to lexicalization and causatives crosslinguistically will be made. The fact that causatives are prone to lexicalize is not a phenomenon restricted to Old English or even the Germanic languages. Bybee (1985: 17-19) offers interesting insights of the connections and effects of lexicalization and causatives. According to this author, the lexicalization in this type of verbs is rather widespread and lies mainly in semantic reasons. She points out the fact that the causative meaning is very relevant to the meaning expressed by a verb, since it affects the meaning the stem conveys. For instance, 'dying' and 'causing somebody to die' are quite different activities. Additionally, the causative notion may describe quite different activities depending on the verb stem it is attached to. This situation may lead to cases where the products of the morphological process of causativity can be unpredictable and therefore become lexicalized. When this is the case for many causative verbs resulting from a morphological process, speakers will eventually find it more difficult to apply this process productively, something which may end up in the obsolescence of the process.

Bybee gives some examples from Luganda, a Bantu language. She relies on the work by Ashton et alii (1954) and explains that Luganda has one causative formation that is quite general and widely productive, since it is used to express the occurrence of either an agent, instrument, reason or purpose in the sentence. For most verbs, the result of this morphological process is predictable. However, in some cases, some degree of ambiguity between agent and instrument can be found. Bybee mentions the verb *kùsalà* 'to cut' and its causative *kùsazà* 'to cut with', *kùleèta* 'to bring' and *kùleèsa* 'to make to



bring, or bring by means of', as well as *kùgoberera* 'to follow' and *kùgobereza* 'to cause to follow'. Moreover, it is pointed out that there are many instances in which the derived causative verb acquires an idiosyncratic meaning as well. Two examples are mentioned concerning this issue, namely, *kùbala* 'to count, to calculate' and its morphological causative *kùbaza* which has come to signify 'to multiply' and the intransitive verb *kùkyûka* 'to turn around, change or be converted' and its derived counterpart *kùkyûsa* which means 'to turn, to change or convert (transitive)' but also idiosyncratically 'to retrace steps' or 'to translate'. Examples like the latter are by no means alien to Old English, see for instance *āwindan* 'to wind' and its causative counterpart *āwendan* 'to turn' or 'to translate'.

Bybee then explains that morphological causatives may be very general, but prone to lexicalization because, as has been mentioned, the resulting meaning of the verb changes considerably depending on the verb stem to which the suffix is attached. She compares a grammatical category often lexicalized such as causativity, with one that never is, i.e. tense. She points out that the reason for the frequent lexicalization of causatives lies in the fact that the combination of the causative affix with a verb has important effects on the meaning of the resulting causative verb, while tense never does. As Bybee herself states "the consequence of this is that even productive morphological causative processes will produce many verbs that will be lexicalized [...] and it will be difficult for such a process to be productive" (Bybee 1985: 20)

## CHAPTER 4. LABILE VERBS FROM FORMER CAUSATIVE OPPOSITIONS. VALENCE CHANGES

The present chapter concentrates on the first objective of this work, namely the simplification undergone by Old English causative pairs consisting of underspecification of valence. After a brief description of the methodology employed, detailed information concerning the verbs and verb pairs that have undergone labilization is provided. This chapter also discusses some of the factors that might be connected with labilization and contributes to the debate of the direction of the valence change.

### 4.1. Methodological steps

The following paragraphs offer a detailed account of the methodological steps that have been taken in order to obtain the results analysed in this chapter. All different steps, from the compilation of examples, up to the obtention of the data discussed in subsequent pages will be exemplified by means of a specific verb, *būgan* in this case.

The first necessary step in order to carry out searches in DOEC has been to determine the roots that needed to be introduced in the search engine in order to find examples of the verb in question in all the different forms of its paradigm, taking into account chronological and dialectal variation as well. As explained in chapter 2, section 2.1, this step has been carried out with the help of different dictionaries and grammars (see the aforementioned section for more specific information). In the case of *būgan*, the number of roots introduced amounts to ten included in (4.1) below. This information is included in Figure 2.2 and repeated here for convenience's sake.

(4.1)

*Būgan*: \*bug\*, \*byg\*, \*bih\*, \*byh\*, \*bich\*, \*buh\*, \*beag\*, \*beah\*, \*bæh\*, \*bog\*

After introducing these forms, each of the examples belonging to any of the texts specified in the corpus in chapter 2 has been compiled in a data base. The first step of

the analysis of these examples has been to classify them as an example of the unprefixing verb *būgan* or any of its numerous prefixed versions. This step serves to find out that *būgan* appears frequently attached to five different prefixes, namely *ā-*, *be-*, *for-*, *ge-* and *on-*.

Once each of the examples is grouped as belonging to any of the five prefixed verbs or its unprefixing counterpart, a more careful examination of the clauses containing these verbs is needed. The objective of this analysis is to ascertain that none of the examples retrieved from DOEC displayed any of the characteristics that make them unsuitable for the present study such as being in the passive voice, being glosses with no context or being examples of participial clauses.

This first careful examination is followed by a more thoughtful one involving formal and semantic features of the remaining examples. The objective in this case is to verify that each of the clauses actually contains an example of the verb analysed in this case, *būgan* and its prefixed counterparts. This step is relevant since, as commented on in chapter 2, several of the verbs under study share some forms of their paradigms with their causative counterpart. Additionally, some of the roots introduced in the search engine may be shared by other verbs that have nothing to do with the one that is meant to be compiled. Focusing on the former issue, when it is impossible to confirm on formal or semantic grounds whether a certain form illustrates the verb being compiled, *būgan* in this case, or its counterpart *bīgan*, this has been taken as an example of both verbs as mentioned in chapter 2.

Once the definite list of examples is available, focus is laid on providing information concerning text type and date of composition. Each of the examples has been tagged as belonging to any of the following categories: early prose, early verse, early gloss, late prose, late verse and late gloss<sup>1</sup>, depending on the text they were taken from. The complete list of the texts that conform each category is included in chapter 2. At this point, a translation into Present-day English of each of the examples was carried out so

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<sup>1</sup> There is an additional “undated gloss” category as explained in chapter 2.

that they could be used to illustrate some of the points made throughout this whole work.

The next step, and the central one for this chapter, has been to carry out an analysis of the valence of each of the examples on the definitive list. The valence of each of the examples has been categorised as historically expected valence (HEV), intransitive in strong verbs and transitive in its derived causative counterparts, and non-historically expected valence (NHEV), i.e. transitive in strong verbs and intransitive in causatives. The results have been compiled in a table. Each of these tables includes the unprefixes verb being analysed plus all prefixed forms in alphabetical order. It provides the number of examples classified as historically expected and non-historically expected from the point of view of their valence as well as the percentage this number represents. The total number of examples have also been added. Table 4.1 is the one corresponding to the verb *būgan* and its prefixed counterparts.

Table 4.1. Valence data of the verb *būgan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Būgan</i>	119 (98.3%)	2 (1.6%)
	Total: 121	
<i>Ābūgan</i>	15 (100%)	0 (0%)
	Total: 15	
<i>Bebūgan</i>	4 (66.6%)	2 (33.3%)
	Total: 6	
<i>Forbūgan</i>	1 (1.7%)	55 (98.2%)
	Total: 56	
<i>Gebūgan</i>	64 (94.1%)	4 (5.8%)
	Total: 68	
<i>Onbūgan</i>	10 (100%)	0 (0%)
	Total: 10	

In addition to the aforementioned data in the different tables, the statistical significance of the results concerning valence has been assessed. In order to get those statistical

results I have made use of the widespread t-test for significance. For a good example of the importance of statistical analysis regarding corpus linguistics see Hollmann (2003: 15-17). I have compared the number obtained in the HEV column with that of the NHEV one and applied the t-test for significance. Following conventions, when the P value obtained equals or is lower than 0.05, it is considered statistically significant. When equal or lower than 0.01, very statistically significant, and when it equals or is lower than 0.001, it is regarded as extremely statistically significant. This test is not necessary in order to determine whether a verb preserves its historical valence, i.e. it shows HEV in all of its attestations, or whether it is labile, namely when it displays some cases of NHEV, even if it is just one. However, this test can be applied to establish further fine-grained distinctions within the group of labile verbs. When applied to the objective in question, this test allows to determine which of the two valences of the verb under analysis is dominant from a statistical point of view, in spite of its lability. Thus, by means of this test it can be established whether the difference between the attestations of HEV and NHEV is statistically significant and to what degree it is so, depending on the level of significance of the results obtained i.e. just statistically significant, very or extremely statistically significant. When the results of the comparison between the two valences turn out to be not significant, it means that none of the valences displayed by the verb under analysis are dominant statistically speaking. From a typological point of view, verbs that present both valences will still be categorised as labile, as opposed to purely intransitive or transitive in the traditional sense. However, more fine-grained distinctions may prove useful to provide key information that helps to shed light on the causes that may be related to the process of labilization.

Once this statistical test has been applied to each verb taken into account, I have compared the difference in valence of both members of the causative / non-causative pair, that is, each of the causative verbs (prefixed and unprefixed) with its non-causative counterpart in the cases where this was possible. The aim of this comparison is to establish whether the relationship between both verbs has been kept, i.e. causative / non-causative, in which case the two verbs must display HEV in all of their attestations; or whether the original historical relationship has been blurred, namely in cases where

one or both verbs become labile. As is the case with the analysis of the valence of individual verbs, the statistical analysis has been used in order to determine further subcategorization within the group of verbs in which the original relationship no longer holds. The application of the t-test for significance has two possible outcomes in this case. First, there can be a statistical difference between both members of the pair. This entails that, in spite of lability, in most of their attestations the historical relationship between verbs still holds. This, of course, does not imply that this historical relationship is not blurred. It can also be the case that the verbs in question present a statistical difference in their valences for a completely different reason, that is, because both of them favour their NHEV. Such a result would indicate that the historical relationship between verbs is completely blurred. As for the second outcome, the analysis may determine that there exists no statistical difference between both verbs under comparison. This result would show that the historical relationship between verbs does no longer hold in the majority of their attestations. Again, such subcategorization is used in this work as a methodological tool that helps to establish which of the valences is dominant in each individual verb or verb pair as well as shedding light on some of the factors that may have some connection with the labilization process.

It is important to mention as well at this point that the t-test for significance cannot be applied in all circumstances. This test cannot be applied to just one example, for instance. Unfortunately, this is the case of some of the verbs taken into consideration in this study since some of them have only been attested once in my corpus. Since these verbs cannot be commented on from a statistical perspective, they will be dealt with briefly in the following analysis.

Likewise, the t-test cannot be applied when results are perfect. With the term perfect results, I refer to cases in which the results of the two terms of comparison are exactly the same or exactly the opposite. Thus, if two verbs under analysis present their HEV or NHEV in all of their attestations, or if one of them keeps HEV in all cases and the other one, on the contrary, NHEV in all cases, the t-test for significance, in addition to being completely unnecessary, cannot be applied.

It must be pointed out at this stage that the results presented in this chapter are global results for the whole Old English period. As explained in the introduction, the analysis in terms of date of composition and text type is discussed in chapter 5.

Finally, it should be borne in mind that, as it is always the case with corpus languages, results are influenced by the uncertainty that attestation entails.

## 4.2. Results of the analysis per verb pair

The results of the analysis, and the t-test for significance as well as the consequences they have for this study are commented on following each of the tables mentioned above. In this analysis, I try to shed light on phenomena that may be related to the fact that some of these verbs display a dual valence. Once the results for all verbs have been presented and analysed a section discussing the general conclusions will be provided.

### 4.2.1 *Būgan* – *Bīgan*

The first pair dealt with in this section is the one made up of *būgan* ‘bow, bend; submit (intr.; caus.)’ and *bīgan* ‘bend (caus.; intr.); submit (caus.)’ and their prefixed forms.

Table 4.1. Valence data of the verb *būgan* and prefixed counterparts.

Verb	Intr. (HEV)	Trans. (NHEV)
<i>Būgan</i>	119 (98.3%)	2 (1.6%)
	Total: 121	
<i>Ābūgan</i>	15 (100%)	0 (0%)
	Total: 15	
<i>Bebūgan</i>	4 (66.6%)	2 (33.3%)
	Total: 6	
<i>Forbūgan</i>	1 (1.7%)	55 (98.2%)
	Total: 56	
<i>Gebūgan</i>	64 (94.1%)	4 (5.8%)
	Total: 68	
<i>Onbūgan</i>	10 (100%)	0 (0%)

Total: 10
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Table 4.2. Valence data of the verb *bīgan* and prefixed counterparts.

Verb	Intr. (NHEV)	Trans. (HEV)
<i>Bīgan</i>	4 (17.3%)	19 (82.6%)
	Total: 23	
<i>Ābīgan</i>	1 (100%)	0 (0%)
	Total: 1	
<i>Forbīgan</i>	0 (0%)	4 (100%)
	Total: 4	
<i>Gebīgan</i>	17 (19.3%)	71 (80.6%)
	Total: 88	
<i>Onbīgan</i>	0 (0%)	1 (100%)
	Total: 1	

The first verb to be discussed is *būgan* ‘bow, bend; submit (intr.; caus.)’ (strong). This verb shows a clear preference for intransitive valence, i.e. its historically expected one in almost all of its attestations. *Būgan*, thus, provides a good example of a verb with dominant HEV. In spite of this, it does show lability. Similarly, its causative counterpart *bīgan*, meaning ‘bend (caus.; intr.); submit (caus.)’, shows an extremely significant preference for historically expected valence, even though, in this case, percentages differ with 17.3% of cases showing a non-historically expected valence versus a 1.6% in the case of the non-causative verb. As expected, the difference in valence between these two verbs is extremely significant (less than 0.0001). This morphological pair is, therefore, a very good example of a case in which, even though already slightly blurred, the original relationship holding between verbs is still preserved in the majority of their attestations.

Similarly, *ābūgan* ‘bow, bend; submit; withdraw (intr.)’ clearly favours historically expected valence. Contrary to its counterpart, this is a purely intransitive verb. More interesting for the purpose of this study is the case of *ābīgan* ‘bow, bend; submit, convert (intr.; caus.)’. The only example of this verb included in this corpus shows non-



historically expected valence. Unfortunately, the fact that only one example has been found does not allow for me to make generalisations in this case.

The verb *bebūgan* ‘surround; avoid; flow around (caus.; intr.)’ is the only verb of this group that shows no preference for any of the valences. The two-tailed P value of the t-test for significance equals 0.2897, i.e. not statistically significant. Interestingly, contrary to the case of the *ā*-prefixed verbs above, an important change in meaning with respect to the unprefixed verb can be observed in this case. As will be explained in the section on prefixes (chapter 6 section 6.4.1), it is typical for the prefix *be-* to add a nuance of surroundedness, completeness, etc. that is clearly present in this verb. *Bebūgan* represents the first verb in this study in which the effect of the prefix on the semantics of the verb, as well as on its valence is evident. Additionally, it is important to comment on the fact that no comparison of this verb with a causative counterpart is possible since there is no attested verb *\*bebīgan* in Old English.

A similar case is presented by *forbūgan* ‘decline, avoid; flee from, escape; bend from, pass by’. Its meanings as well as its valence are rather different to that of its unprefixed counterpart. With the exception of one example, all cases of this verb show NHEV, an extremely statistically significant difference according to the t-test applied. This is not surprising if one has a look at the meanings of the verb, since normally meanings such as ‘avoid, flee from, bend from’, etc. are accompanied by objects. This is clearly another good example of the effects that prefixes may have on meaning and valence. *Forbīgan* ‘bow, bend down; humiliate, abase, depreciate; avoid, pass by’, on the other hand, is a purely transitive verb since it displays transitive valence in all cases. As expected, there is no statistical significance in the difference in valence between *forbūgan* and *forbīgan* (0.7918).

Contrary to *be-* and *for-*, the forms with *ge-* behave almost exactly like their unprefixed counterparts both from a semantic (*gebūgan* ‘bow, bend (intr.; caus)’; *gebīgan* ‘cause to move; bend, incline, subdue (caus.)’) and valence point of view (see Table 4.1 and 4.2). In both verbs their preference for a historically expected valence is extremely statistically significant, as is the difference between strong verb and derived causative as

far as valence is concerned. It must be emphasised that even though both verbs present HEV in most cases, they do show examples of NHEV. As is the case with the unprefixated verbs, the original relationship holding between both members of the pair is preserved in most examples although signs of labilization are detected.

As is the case with *ābūgan*, the verb *onbūgan* ‘bend (in reverence), bow; submit, deviate (intr.)’ is intransitive (HEV) in all cases. It, therefore, presents no sign of labilization. The causative *onbīgan* ‘cause to bend; subdue, subjugate (caus.)’ also behaves as historically expected. However, conclusions with respect to this latter verb as well as with the relationship with its counterpart are only tentative since there is only one attestation of this verb in the corpus compiled in this study.

#### 4.2.2 *Byrnan* – *Bārnan*

Table 4.3. Valence data of the verb *byrnan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Byrnan</i>	68 (95.7%)	3 (4.2%)
	Total: 71	
<i>Ābyrnan</i>	1 (100%)	0 (0%)
	Total: 1	
<i>Forbyrnan</i>	27 (100%)	0 (0%)
	Total: 27	
<i>Gebyrnan</i>	2 (50%)	2 (50%)
	Total: 4	

Table 4.4. Valence data of the verb *bārnan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Bārnan</i>	3 (4%)	71 (95.9%)
	Total: 74	
<i>Forbārnan</i>	4 (3.1%)	124 (96.8%)
	Total: 128	
<i>Gebārnan</i>	1 (4.5%)	21 (95.4%)
	Total: 22	

<i>Onbǣrnan</i>	2 (18.1%)	9 (81.8%)
Total: 11		

Similarly to the case of *būgan – bīgan*, the verbs *byrnan* ‘burn (intr.; caus.)’ and *bǣrnan* ‘burn (caus.; intr.)’ are good examples of a pair in which the original causative / non-causative relationship still holds in most cases. In both cases the preference for HEV is extremely significant. So is the comparison of the valence of both verbs, as expected. Interestingly, however, both verbs do show examples of NHEV and are consequently labile. Even though the percentages are very low, these verbs do not keep their original valence intact.

*Ābyrnan* ‘burn, be on fire; blaze (intr.)’, presents a historically expected valence, intransitive in this case. Nevertheless, as said with respect to previous verbs, no solid conclusions can be provided since this example is unique in the corpus.

The following pair, *forbyrnan* ‘burn up, completely; be consumed, destroyed by fire; burn down, burn to death (intr.)’ - *forbǣrnan* ‘burn up; consume by fire; burn down, burn to death; inflame (caus.; intr.)’, contrary to the *for-* verbs in the case of *būgan* and *bīgan*, does not display great variation concerning valence compared with their unprefixed counterparts. Both verbs favour HEV in an extremely significant way (less than 0.0001). The two-tailed P value is the same when both members of the pair are compared with each other. However, it must be pointed out that there exists an important difference between both verbs, i.e. while the causative *forbǣrnan* is labile, its strong counterpart keeps its HEV intact. In spite of signs of blurring, the historical relationship between these two verbs holds in the majority of cases. Additionally, it is interesting to point out the fact that even though there is a semantic nuance in these *for-* verbs not present in the non prefixed ones, namely completeness, higher affectedness, destruction, etc., the semantic difference is not as remarkable as it is in the case of the above discussed verbs. This emphasises the idea that semantic change may play an important role in valence changes.

*Gebyrnan* ‘burn; be consumed by fire, destroy by fire (intr.; caus.)’ is the only verb of this group that has no dominant valence. In fact, the t-test result is 1.000, which means that both valence types have exactly the same weight from a statistically point of view. Its causative counterpart, on the other hand, does preserve an extremely statistically significant HEV, even though it is equally labile. According to the t-test, the difference between verbs is very statistically significant (0.0073). It is worth mentioning though the fact that these two verbs are very restricted as far as their context of appearance is concerned. There are only four examples of *gebyrnan* in the whole Old English corpus according to DOE. Similarly, *gebærgan* ‘burn (caus.; intr.); destroy by fire; light (caus.)’ is attested around 20 times only in the whole Old English corpus. Most of these examples are restricted to early medical texts. If one has a close look at the meanings of these two verbs, it is easy to recognise a very close relationship to those of their *for*-counterparts. Analysing these data, one can hypothesise that the *for*-verbs, which have a much higher number of attestations, are taking over or have taken the role of their *ge*-counterparts. However, even though very similar at the semantic level, these pairs do present differences that will be analysed in detail in chapter 6 devoted to prefixes and their effects.

Lastly, *onbærgan* ‘set fire to, light, kindle; burn’ (intr.; caus.)’ will be discussed. This last verb is the most ambiguous in the *bærgan* group as far as valence is concerned: 18.1% NHEV vs. 81.8% HEV. However, in spite of these percentages, from a statistical point of view, the preference of this verb for its historically expected valence is very statistically significant (two-tailed P value equals 0.0015). The effect of the prefix does not have a great impact on the valence of the verb but does so on its semantics, since it adds a clear nuance of inchoativeness, that is, an emphasis on the beginning of the action, therefore its usual translation as ‘kindle’. Interestingly, a non-causative counterpart of this verb is not attested.

#### 4.2.3 *Calan* – *Cēlan*

Table 4.5. Valence data of the verb *calan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Calan</i>	5 (100%)	0 (0%)

	Total: 5	
<i>Ācalan</i>	2 (100%)	0 (0%)
	Total: 2	

Table 4.6. Valence data of the verb *cēlan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Cēlan</i>	1 (12.5%)	7 (87.5%)
	Total: 8	
<i>Ācēlan</i>	0 (0%)	1 (100%)
	Total: 1	
<i>Gecēlan</i>	4 (30.7%)	9 (69.2%)
	Total: 13	

The next pair that will be discussed in this section, *calan* ‘be or become cold; make cold’ – *cēlan* ‘cool or chill (sth), make cold; quench (thirst)’ follows the trend of the other previously analysed unprefixated pairs in that the relationship holding between pairs, although blurred, is maintained in a high number of cases. The strong verb *calan* shows no signs of labilization. Its counterpart, on the other hand, is labile since 12.5% of its attestations display NHEV. The t-test shows the preference of the latter for HEV to be extremely statistically significant as is the difference in valence between both verbs. In this case the two-tailed P value equals 0.0002.

The relationship between *ācalan* ‘be destroyed by cold’ and *ācēlan* ‘cool or chill (sth); quench (thirst)’, on the other hand, is completely blurred. All three attested examples show a transitive valence. This valence is historically expected in the case of the causative *cēlan* but not so in *calan*. Notice, however, that as in other cases that presented a high number of examples of non-historically expected valence, this verb also shows a substantial change in comparison with its unprefixated counterpart concerning meaning. Rather than a state, i.e being cold, that involves one participant, this verb conveys an accomplishment (destroying something by cold) that usually entails two participants, namely the causer of the destruction and the thing (chilblain in

the cases analysed) that is destroyed. Again, prefixes and the semantic load they entail are usually behind important changes as far as the valence of these verbs is concerned.

The last verb of this group is *gecēlan* ‘cool or chill (sth); quench (thirst); become cold’. As was the case with *bebūgan*, *gecēlan* is one of the verbs in this study that does not present any dominant valence. The t-test regards the difference between HEV and NHEV as not quite statistically significant (two-tailed P value equals 0.524). Its meaning is very similar to that of *ācēlan*, even though it is interesting to point out that the *ge-* form seems to be more common in Old English (14 attestations vs. 6). Once more, in a verb that shows no dominant valence, it is important to highlight the fact that there is no attested strong verb *\*gecalan* in Old English. *Gecēlan* encroaches on *\*gecalan*.

#### 4.2.4 *Deorfan - Dyrfan*

Table 4.7. Valence data of the verb *deorfan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Deorfan</i>	14 (100%)	0 (0%)
	Total: 14	
<i>Gedeorfan</i>	4 (100%)	0 (0%)
	Total: 4	

Table 4.8. Valence data of the verb *dyrfan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Dyrfan</i>	0 (0%)	1 (14.2%)
	Total: 1	

The fourth verb pair analysed in this chapter is the one made up of *deorfan* ‘labour, be in danger or trouble’ and *dyrfan* ‘bring into danger, afflict; engage in’. The results obtained from the analysis of this pair contrasts with the aforementioned ones in an important respect, namely, it is the only one where no sign of lability has been found.

*Deorfan*, the strong verb, is 100% intransitive, as historically expected. Its counterpart is transitive, on the other hand.

It must be pointed out, that despite the results obtained in this study, García García (2012) includes the pair *deorfan-dyrfan* as labile. This difference in results lies in the methodology followed in both studies. García García (2012) relies on dictionary data. The DOE does in fact register examples of *dyrfan*, though not *deorfan*, displaying NHEV, which means that cases of labile *dyrfan* are clearly attested. However, none of those examples meets the criteria established in the methodology of this study due to the fact that all of them are in the passive voice or in participial clauses, the only exception being the intransitive use taken into account in my corpus.

The only prefixed form in this group is *gedeorfan* ‘work, labour; perish at sea’. This verb shares basically the same meaning of its unprefixed counterpart plus ‘perish at sea’. From the point of view of valence, it behaves in exactly the same way as its counterpart, i.e. showing intransitive historically expected valence in all cases.

#### 4.2.5 *Hweorfan* – *Hwyrfan*

Table 4.9. Valence data of the verb *hweorfan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Hweorfan</i>	143 (100%)	0 (0%)
	Total: 143	
<i>Āhweorfan</i>	2 (66.6%)	1 (33.3%)
	Total: 3	
<i>Ēthweorfan</i>	1 (100%)	0 (0%)
	Total: 1	
<i>Behweorfan</i>	0 (0%)	10 (100%)
	Total: 10	
<i>Gehweorfan</i>	23 (88.4%)	3 (11.5%)
	Total: 26	
<i>Onhweorfan</i>	2 (100%)	0 (0%)
	Total: 2	

<i>Tōhweorfan</i>	5 (100%)	0 (0%)
	Total: 5	
<i>Ymbhweorfan</i>	1 (15%)	6 (85%)
	Total: 7	

Table 4.10. Valence data of the verb *hwyrfan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Hwyrfan</i>	13 (56.5%)	10 (43.4%)
	Total: 23	
<i>Āhwyrfan</i>	3 (30%)	7 (70%)
	Total: 10	
<i>Behwyrfan</i>	0 (0%)	6 (100%)
	Total: 6	
<i>Forhwyrfan</i>	1 (20%)	4 (80%)
	Total: 5	
<i>Gehwyrfan</i>	17 (36.9%)	29 (63%)
	Total: 46	
<i>Onhwyrfan</i>	1 (100%)	0 (0%)
	Total: 1	

The fifth verb pair dealt with is *hweorfan* ‘turn, change (intr.); go’ and *hwyrfan* ‘turn, change (caus.; intr.); exchange; go, return’. Each of the members of this pair shows a different behaviour as far as valence is concerned. The strong counterpart has HEV in all of its 143 attestations. Its causative counterpart, on the other hand, presents a very different behaviour. According to the t-test applied in this study, *hwyrfan* does not show any dominant valence. The difference between HEV and NHEV is not statistically significant (0.1467). When both verbs are compared though, even if blurred, their original relationship is maintained in the majority of cases since from a statistical point of view the difference in behaviour between these two verbs concerning valence is extremely statistically significant. It is interesting to note at this point that as mentioned in chapter 2, there are some forms of the paradigms of the verbs under analysis that may be identical as is the case with *hweorfan-hwyrfan*. As this verb pair shows, this could



have an effect on the valence these verbs display. This may be one reason behind the high number of examples showing non-historically expected valence in the case of *hwyrfan* as well as in other verbs that will be discussed below.

Even though valence is preserved as historically expected in *hweorfan*, the prefixed *āhweorfan* ‘turn away (intr.; caus.)’ does show signs of lability. The difference between HEV and NHEV in this verb is not significant (0.5185) which means that no valence is dominant in this instance. Similarly, *āhwyrfan* ‘turn away (sth); change, transform (caus.)’ also shows no valence dominance. The two-tailed P value equals 0.0806, i.e. not quite statistically significant. Contrary to the case of the unprefixed counterparts, then, the relationship between the *ā*- forms is completely blurred from a historical point of view (0.2904 = not statistically significant).

The following prefixed form dealt with is *æthweorfan* ‘return (intr.)’, with no counterpart. Unfortunately, there is little to comment on this form since it is only attested once. As shown in Table 4.9, the only example in the corpus presents HEV.

The pair made of *behweorfan* ‘attend to; prepare (food, body for burial); embalm; treat, deal with’ and *behwyrfan* ‘turn around, revolve; encompass; change; exchange’ has several points to need to be commented on. As previously seen in the case of *bebūgan*, *be*- prefixed forms tend to be very interesting from the point of view of valence. This aspect will be treated more deeply in chapter 6. As for the valence of *behweorfan*, it is remarkable that all examples of both the strong verb and its derived causative are transitive. This means that *behweorfan* shows NHEV in all examples while exactly the opposite is true of *behwyrfan*. As was the case with *bebūgan*, it is relevant to pay attention to the changes in meaning these forms show with respect to their unprefixed counterparts. The causative verb differs with respect to its unprefixed counterpart in that it adds the adverbial meaning ‘around’ to the basic meaning of the verb. As commented on in *bebūgan*, this is not uncommon as far as the prefix *be*- is concerned. However, semantic changes in the non-causative counterpart are deeper. *Behweorfan* presents a highly specialized meaning that has noteworthy effects on its valence.

*Forhwyrfan* ‘turn; change; remove; pervert (intr.; caus.)’ presents no dominant valence. The difference between HEV and NHEV equals 0.0667, namely not quite statistically significant. Semantic changes might have had a role to play - notice for instance the meaning ‘pervert’. This is to be expected since according to some authors, the prefix *for-* may add the nuance of destruction, negative effect, etc. to the main meaning of the verb (see chapter 6 section 6.1.5).

The verbs *gehweorfan* ‘turn, turn away; change; (intr.; caus.); return (intr.)’ and *gehwyrfan* ‘turn (sth); cause to move, direct; (cause to) return; change, exchange, translate (intr.; caus.)’ represent an exception within the *hweorfan-hwyrfan* group as far as valence is concerned. In this pair, the dominant valence of both verbs is the historically expected one from a statistical point of view. The preference of *gehweorfan* for HEV is extremely statistically significant (less than 0.0001). Its causative counterpart also shows statistical preference for HEV, though in this case statistically significant only (0.374). In spite of this dominant HEV, both verbs are labile. When compared, the difference between them in terms of valence is extremely statistically significant. It is interesting to note as well that, even though that is the case, the causative verb is the one, as in many other pairs, whose valence is less close to the valence that could be expected from a historical perspective.

The behaviour of the verbs *onhweorfan* ‘change; return, reverse’ and *onhwyrfan* ‘turn, turn around; change (intr.; caus.)’ is identical regarding valence. They display intransitive valence in all cases. However, it must be pointed out that conclusions concerning the *on-* forms should be taken with caution due to the scarce number of examples attested in my corpus, especially *onhwyrfan*, only attested once.

The last two verbs dealt with within this group, namely *tōhweorfan* ‘part, separate, disperse’ and *ymbhweorfan* ‘go around, revolve around; go about, over, through; turn around (intr.; caus.)’ have no attested causative counterpart, as is typical of other cases in which the verb presents noteworthy semantic differences with respect to its unprefixated counterpart. *Tōhweorfan* has HEV in all its five attestations. On the contrary, the verb *ymbhweorfan* shows an extremely statistical preference for NHEV.

This is to be expected by having a look at the semantics of this verb, very similar to that of *be-* verbs in adding the nuance ‘around’.

#### 4.2.6 *Belīfan* - *Lāēfan*

Table 4.11. Valence data of the verb *belīfan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Belīfan</i>	41 (95.3%)	2 (4.6%)
	Total: 43	

Table 4.12. Valence data of the verb *lāēfan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Lāēfan</i>	1 (2.7%)	36 (97.2%)
	Total: 37	
<i>Belāēfan</i>	1 (16.6%)	5 (83.3%)
	Total: 6	
<i>Gelāēfan</i>	1 (100%)	0 (0%)
	Total: 1	

The verbs *belīfan* ‘be left over, remain’ and *lāēfan* ‘leave, remain’ form a causative / non-causative pair that also shows labiality although percentages of NHEV examples are low in general. As explained in the methodology chapter (chapter 2, section 2.1), *belīfan* is compared with *lāēfan* because there is no attested *\*līfan*. In more than 95% of cases the strong verb shows the historically expected intransitive valence. It is no surprise that the t-test regards this difference as extremely statistically significant. The same result concerning significance is shown by the causative counterpart *lāēfan*. The comparison between the two is also extremely statistically significant. In both cases HEV is dominant, although instances of NHEV are detected.

The prefixed form *belāēfan* shows a lower preference for HEV than its unprefix counterpart. According to the t-test for significance the difference between HEV and NHEV is simply statistically significant (0.0179). Interestingly, though, contrary to other *be-* forms already discussed, there is not a remarkable difference with respect to

semantics between *belāfan* and *lāfan*. Its valence is likewise very similar to that of its unprefixated counterpart, contrary to the previously mentioned cases of *be-*. This reinforces the idea that changes in meaning may be behind the adoption of a further non-historical valence value.

The other prefixed form in this group is *gelāfan* ‘leave; be left, remain’. In contrast to *lāfan* and *belāfan* this verb shows NHEV in its sole attestation, where it means ‘remain’.

#### 4.2.7 *Meltan* - *Myltan*

Table 4.13. Valence data of the verb *meltan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Meltan</i>	10 (76.9%)	3 (23%)
	Total: 13	
<i>Formeltan</i>	5 (100%)	0 (0%)
	Total: 5	
<i>Gemeltan</i>	6 (66.6%)	3 (33.3%)
	Total: 9	

Table 4.14. Valence data of the verb *myltan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Myltan</i>	6 (46.1%)	7 (53.8%)
	Total: 13	
<i>Formyltan</i>	3 (100%)	0 (0%)
	Total: 3	
<i>Gemyltan</i>	1 (9%)	10 (90.9%)
	Total: 11	

The following pair that will be analysed is the one made up of *meltan* ‘melt (intr.), be dissolved, be digested’, *myltan* ‘melt (caus.; intr.); digest’ and their prefixed counterparts. As was the case with the previously analysed verbs *hweorfan* and *hwyrfan*, these two verbs also present formal coincidences in their paradigms. The DOE

makes special reference to the present indicative form *formylt*. As will be seen, this pair also shows important discrepancies in their behaviour with respect to their historically expected valence, even in a higher degree to what has been mentioned above in relation to *hweorfan* and *hwyrfan*, thus reinforcing the hypothesis that formal coincidences may have played a role in the process of labilization undergone by the verbs under study. The strong verb *meltan* mostly favours HEV. According to the t-test, the two-tailed P value equals 0.0045, i.e. very statistically significant. Its counterpart *myltan*, on the other hand, presents no dominant valence. According to the t-test employed the difference between HEV and NHEV is not significant (0.7088). When compared, the difference in valence between the strong verb and the derived causative is considered not statistically significant (the two-tailed P value equals 0.1155), reinforcing the idea of blurring of the original causative-non-causative relationship holding between these verbs.

The analysis of *formeltan* ‘melt away, become liquefied or molten by heat (intr.)’ and *formyltan* ‘melt away, become liquefied’ supports this idea as well. The strong verb is an intransitive-only verb. As for its causative counterpart *formyltan*, it also presents intransitive valence in 100% of its attestations, which in this case, is exactly the opposite of what would be historically expected. All in all, then, the relationship between the two verbs is rather blurred. Additionally, I will draw attention to the change in semantics between the *for-* verbs and their unprefixated forms. As can be seen in the definitions above, they seem to add a nuance of completeness or total affectedness. This was the case as well with the pair *forbyrnan-forbærnian* compared to their unprefixated counterparts.

Concerning the last pair in this group, i.e. *gemeltan* ‘melt, digest; weaken (intr.; caus.)’ and *gemyltan* ‘melt, digest; cause to melt, soften’ (intr.; caus.)’, they highlight the fact that the relationship between causative and non-causative is already obscured. In this case, it is the strong verb *gemeltan* the one that shows no dominant valence. The two-tailed P value equals 0.1765, that is, not statistically significant. However, on the other hand, contrary to what was the case with *myltan* and *formyltan*, the causative *gemyltan* does show an extremely statistically significant preference for its historically expected

valence, even if it is still a labile verb. Interestingly, the statistical methods used in this study reveal that contrary to the case of *meltan* and *myltan*, the causative / non-causative relationship between the *ge-* forms is not as blurred as in other pairs since the difference between both verbs happens to be very statistically significant (0.0051).

#### 4.2.8 *Smēocan* – *Smīcan*

Table 4.15. Valence data of the verb *smēocan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Smēocan</i>	2 (50%)	2 (50%)
	Total: 4	

Table 4.16. Valence data of the verb *smīcan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Smīcan</i>	0 (0%)	4 (100%)
	Total: 4	

The case of *smēocan* ‘emit smoke (intr.); smoke, fumigate (sth)’ and *smīcan* ‘smoke, fumigate (sth)’ has some parallels to the previously analysed pair in that the historical relationship holding between these verbs is completely blurred. The causative *smīcan* does keep its original valence in all cases. However, its counterpart has appropriated certain causative meanings and the valence they entail, i.e. a transitive one. The attestations of *smēocan* analysed in this study are 50% intransitive and 50% transitive. As expected, this balance is considered to be non-statistically significant (two-tailed P value equals 1.000). When the results of these two verbs are compared, the t-test reveals their difference in valence to be not statistically significant. The two-tailed P value equals (0.1340).

#### 4.2.9 *Stincan* - *Stencan*

Table 4.17. Valence data of the verb *stincan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Stincan</i>	13 (92.3%)	0 (0%)
	Total: 13	

<i>Gestincan</i>	1 (16.6%)	5 (83.3%)
Total: 6		

Table 4.18. Valence data of the verb *stencan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Stencan</i>	2 (100%)	0 (0%)
Total: 2		
<i>Tōstencan</i>	0 (0%)	8 (100%)
Total: 8		

The next verb pair I will comment on is that made up of *stincan* and *stencan* plus the prefixed forms *gestincan* and *tōstencan*. First, the unprefixed verbs will be dealt with. *Stincan* ‘spring, leap; emit a smell’ is one of the verbs whose valence has remained as historically expected with no signs of labilization according to the data obtained in this study. All of its 13 attestations present HEV, that is, are intransitive. The original relationship holding between this verb and its counterpart *stencan* ‘to scatter’ is not preserved in this case though. The derived causative only presents intransitive examples as well. One of the factors behind this blurring might lie in the fact that according to the dictionaries consulted in this study, these two verbs may share identical forms in their paradigms. *Stincþ* can apparently be a form of both verbs. These formal coincidences also contribute to the blurring of the original relationship that probably held between these verbs in earlier stages of the language.

Interestingly, though, the effects of prefixes on these verbs seem to play an important role as far as their valence and semantics are concerned. *Gestincan* ‘perceive by the sense of smelling’ seems to have taken over a causative function and therefore, it also seems to have incorporated its valence since this verb shows a statistical significant preference for transitive NHEV (two-tailed P value equals 0.0179).

The verb *tōstencan* ‘scatter, disperse; destroy, dissipate, overthrow (caus.)’ maintains its transitive valence intact, contrary to its unprefixed counterpart. This may be a reflection

of the transitivising effects often attributed to prefixes. *Tō-* is discussed in detail in chapter 6, sections 6.1.8 and 6.3.8.

#### 4.2.10 *Swingan* - *Swengan*

Table 4.19. Valence data of the verb *swingan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Swingan</i>	2 (4.1%)	46 (95.8%)
	Total: 48	
<i>Beswingan</i>	0 (0%)	11 (100%)
	Total: 11	
<i>Geswingan</i>	0 (0%)	2 (100%)
	Total: 2	

Table 4.20. Valence data of the verb *swengan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Swengan</i>	0 (0%)	3 (100%)
	Total: 3	

The dominance of transitive valence is clear in the verbs *swingan* ‘swinge; chastise; whip (cream); strike; beat (the wings)’ and *swengan* ‘cause to swing; swing, fling, strike’. The latter presents NHEV in all of its attestations while the former does show signs of labilization. As can be seen in Table 4.19 above, two examples with intransitive valence have been registered in my corpus. Considering the data, the difference between both verbs in terms of their valence behaviour is, of course, not statistically significant (0.7249). It must be pointed out as well that as with previously analysed cases, these two verbs present formal coincidences in their paradigms, *swingb* for instance, which makes the blurring of the relationship easier and may be one of the factors to bear in mind concerning the practical disappearance of *swengan*, barely attested in comparison with its counterpart, with which it shares meanings.



The prefixed forms under analysis in this group, *beswingan* ‘flog, beat (someone); chastise’ and *geswingan* ‘scourge, beat (someone)’ have practically the same meanings as their unprefixed counterpart and show NHEV, i.e. transitive, in all cases.

#### 4.2.11 *Wācnan* – *Weccean*

Table 4.21. Valence data of the verb *wācnan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Wācnan</i>	11 (100%)	0 (0%)
	Total: 11	
<i>Āwācnan</i>	21 (100%)	0 (0%)
	Total: 21	
<i>Onwācnan</i>	20 (100%)	0 (0%)
	Total: 20	

Table 4.22. Valence data of the verb *weccean* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Weccean</i>	4 (19%)	17 (80.9%)
	Total: 21	
<i>Āweccean</i>	6 (12.5%)	42 (87.5%)
	Total: 48	
<i>Geweccean</i>	0 (0%)	1 (100%)
	Total: 1	
<i>Onweccean</i>	0 (0%)	1 (100%)
	Total: 1	
<i>Tōweccean</i>	0 (0%)	1 (100%)
	Total: 1	

The group of verbs I will deal with in the following paragraphs, i.e. *wācnan-weccean* plus prefixes, represents one of the least blurred ones in terms of valence. In fact, labile

valence is only detected in causatives but never in the strong counterparts, prefixed or not. The strong verb *wācnan* ‘come into being, be born, spring’, presents HEV in all cases. *Weccean*, on the other hand, does show signs of labilization: four out of 21 examples are intransitive, even if the statistical preference for HEV is extremely statistically significant. So is too, the difference between *wācnan* and *weccean*.

The *ā-* prefixed forms behave in practically the same way. While *āwācnan* ‘awake, wake up, arise; be born (intr.)’ is 100% intransitive, as historically expected, *āweccean* ‘awake, rouse, revive (caus.); awake (intr.)’ shows extremely statistical preference for HEV even though signs of labilization have been detected. Again, the difference in valence between strong base verb and derived causative is extremely statistically significant.

*Ge-* verbs are somehow different since they are barely attested at all. No form of *\*gewācnan* is attested in Old English according to the dictionaries consulted in this work. Its counterpart *geweccean* ‘rouse from sleep, excite (caus.)’, on the other hand, is only attested once in my corpus. This only example, following the trend of its counterparts, shows HEV.

*Onwācnan* ‘awake, arise; be born (intr.)’ again is an example of perfectly preserved valence, intransitive in all cases. The only example of *onweccean* ‘awake, rise; be roused, raised’ is transitive as historically expected.

Lastly, as is the case with *geweccean*, *tōweccean* ‘wake up, arouse (caus.)’ has no attested strong counterpart. As the *ge-* form did, *tōweccean* displays HEV.

#### 4.2.12 *Wegan* – *Wecgan*

Table 4.23. Valence data of the verb *wegan* and prefixed counterparts.

Verb	Intr. (HEV)	Trans. (NHEV)
<i>Wegan</i>	1 (5.2%)	18 (94.7%)
	Total: 19	
<i>Āwegan</i>	0 (0%)	2 (100%)

	Total: 2	
<i>Gewegan</i>	22 (100%)	0 (0%)
	Total: 22	

Table 4.24. Valence data of the verb *wecgan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Wecgan</i>	0 (0%)	4 (100%)
	Total: 4	
<i>Āwecgan</i>	0 (0%)	10 (100%)
	Total: 10	

The twelfth verb pair analysed in this section is *wegan-wecgan* and their prefixed forms. The strong counterpart of this pair, *wegan* ‘bear, carry; move (caus.; intr.)’ is a labile verb with a clear dominant NHEV. In more than 94% of its attestations the verb has transitive valence which makes this preference for NHEV extremely statistically significant. This may be due to the fact that in practically all of the cases analysed in this study, the verb *wegan* is used with the meaning ‘carry or cause to move’. This is interesting from the point of view of this study since it shows how advanced the labilization process is in this verb, being the meaning ‘cause to move’ closer to the original meaning ‘shake’ from which ‘weigh’ is a later development. Similarly to other previously analysed verbs, it is one of its prefixed counterparts the one that takes over the more typically intransitive meaning of ‘weigh’ as in *John weighs 80 kilos*. The causative counterpart *wecgan* ‘move, shake (sth)’, as can be expected from its semantics, does preserve its historical valence in all cases. Therefore, when the valence of these two verbs is compared from a statistical point of view, the result is non-statistically significant (0.6570), i.e. their relationship is completely blurred, since they show the same valence in most of their attestations.

Their respective *ā*- forms show a very similar behaviour as far as their valence and semantics are concerned. In this case both *āwegan* ‘carry off, move (sth); put away, disregard’ and *āwecgan* ‘move, agitate (sth); perturb, disturb’ are transitive in all cases.

The last form of this verbal group under study is *gewegan* ‘weigh, measure (intr.)’. This verb seems to have taken over the intransitive meaning ‘weigh’ that is also listed as one belonging to *wegan* in dictionaries. In fact, out of the 22 examples under study all of them present this meaning and intransitive valence as well. Thus, *gewegan* is the only verb of the *wegan* family that preserves its original valence frame.

#### 4.2.13 *Windan* - *Wendan*

Table 4.25. Valence data of the verb *windan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (HEV)</b>	<b>Trans. (NHEV)</b>
<i>Windan</i>	17 (94.4%)	1 (5.5%)
	Total: 18	
<i>Āwindan</i>	2 (66.6%)	1 (33.3%)
	Total: 3	
<i>Ētwindan</i>	23 (100%)	0 (0%)
	Total: 23	
<i>Bewindan</i>	1 (6.2%)	15 (93.7%)
	Total: 16	
<i>Gewindan</i>	5 (71.4%)	2 (28.5%)
	Total: 7	
<i>Opwindan</i>	3 (100%)	0 (0%)
	Total: 3	

Table 4.26. Valence data of the verb *wendan* and prefixed counterparts.

<b>Verb</b>	<b>Intr. (NHEV)</b>	<b>Trans. (HEV)</b>
<i>Wendan</i>	215 (82%)	47 (17.9%)
	Total: 262	
<i>Āwendan</i>	38 (31.6%)	82 (68.3%)
	Total: 120	
<i>Bewendan</i>	8 (80%)	2 (20%)
	Total: 10	
<i>Gewendan</i>	95 (91.3%)	9 (8.6%)

	Total: 104	
<i>Opwendan</i>	0 (0%)	1 (100%)
	Total: 1	
<i>Tōwendan</i>	0 (0%)	5 (100%)
	Total: 5	

The last group that will be discussed is the one made up of *windan* and *wendan* and their corresponding prefixed forms. The strong verb *windan* ‘spring (intr.); roll (intr.; caus.); weave (sth)’ shows an extremely significant preference for HEV, even though a case of NHEV has been detected. Exactly the opposite behaviour concerning HEV is displayed by the morphological causative *wendan* ‘turn (round), change (intr.; caus.); go (intr.)’. This verb is intransitive (NHEV) in 82% of the attested examples in this study. This difference is considered extremely statistically significant (less than 0.0001). This is not surprising if one bears in mind that this verb is used mostly with the intransitive sense ‘go, return’ rather than as a causative. This could be regarded as semantic change involving lexicalization that would end up with this verb as the past form of the verb *go* in later stages of the language. When these two verbs are compared for statistical significance regarding their valence, results show their differences to be not statistically significant (0.1870), since both verbs clearly favour intransitive valence.

The same result is obtained when the valences of *āwindan* ‘remove (sth), slip from’ and *āwendan* ‘turn, move; change, transform; translate (intr.; caus.)’ are compared, that is, their difference in valence is not statistically significant (0.1907) but in this case the preference is towards transitivity. The causative *āwendan* shows extremely statistical significance for transitivity (HEV), since in this case, this verb is mainly used with the transitive sense ‘translate’. On the other hand, the valence of *āwindan* is highly blurred since the statistical analysis (0.5185) shows that this verb displays no dominant valence. As will be explained in detail in chapter 6, these results might be related to the prefix attached to these verbs.

The next verb I will comment on, i.e. *ātwindan* ‘escape, flee (intr.)’, has no causative counterpart. This verb is intransitive, as historically expected, in all the 23 examples analysed in this study.

As is common with other *be-* verbs, both *bewindan* ‘wind, encompass, wrap (intr.; caus.)’ and *bewendan* ‘turn around, turn (sth) (intr.; caus.)’ are interesting from the point of view of their valence due to the high variation they show with respect to what is historically expected. The strong verb *bewindan* shows a clear preference for NHEV (extremely statistically significant), even though HEV is attested as well. Semantic changes seem to play an important part in this variation. As in other cases, such as *bebūgan*, the nuance of ‘around, surrounding’, typically entailing transitive valence, is present in this verb. In addition to this, in the case of *bewindan* the prefix also seems to be functioning as a purely grammatical marker, more precisely as an applicative prefix as this prefix commonly does in other sister languages such as German (see Haspelmath and Sims 2013: 242-3). As far as the causative *bewendan* is concerned, this verb shows an extremely statistical significant number of attestations of NHEV. Interestingly, the semantics of this verb differ little from that of its unprefixated counterpart. Usually, as seen in relation with other verbs, when a certain prefix form shows practically the same semantics as the unprefixated counterpart, both tend to share the same valence, be it the historically expected one or the non-historically expected one as in this case.

As was the case with *āwindan*, *gewindan* ‘roll together, roll up (intr.); go about; roll back, unroll (trans.)’ presents no dominant valence type. The two-tailed P value equals 0.1263. Its causative counterpart *gewendan* ‘cause to move, turn; come, go, return (intr.; caus.)’, on the other hand, behaves in practically the same way as its unprefixated counterpart both from a semantic and a valence point of view, showing extremely statistical preference (less than 0.0001) for NHEV and instances of HEV as well. When compared, due to the high degree of preference for non-historical valence of *gewendan*, the difference between both strong and derived verb is not statistically significant (0.1236), that is, both favour intransitivity in spite of their origins, a fact that obscures their original causative / non-causative relationship.

Contrary to most of the cases in the *windan-wendan* group, the verbs *opwindan* ‘get away, escape’ (intr.)’ and *opwendan* ‘turn away, divert (caus.)’ show a preference for their historically expected valence. Both *opwindan* and *opwendan* show HEV in all cases and therefore they display no signs of lability. Nevertheless, it is important to note that *opwendan* is only attested once, thus making results related to it less solid than desired.

The last verb analysed within this group is *tōwendan* ‘overthrow, upset, subvert, overturn; destroy (caus.)’, with no attested strong counterpart. As shown in Table 4.26, it presents its HEV in all cases.

### 4.3 Concluding remarks

The following paragraphs summarise the results obtained from the analysis of the valence of the verbs in this study commented on in detail above. It also aims at summarising and compiling the main factors that seem to have influence on the changes in valence from a historical perspective observed in the verbs in question.

As was mentioned in the methodology section (chapter 2, 2.1), this study focuses on the 13 Old English *-jan* pairs which according to García García (2012) show signs of labile valence, plus different prefixed forms which amount to a total number of 86 different verbs. Concerning the 13 unprefixated verb pairs, my results coincide with those reported in García García and demonstrate that in those 13 verb pairs, at least one member of the pair shows cases of labile behaviour. The only exception is the verb *dyrfan* ‘bring into danger, afflict; engage in’ which is not attested in my corpus as displaying labile behaviour. However, as explained in section 4.2.4 this is due to methodological reasons, since the attested examples in which this verb does show NHEV (see DOE for more precise information), as pointed out by García García (2012), were discarded due to the fact that they appear in passive or participial clauses only. Figure 4.1 below shows a list of the unprefixated verb pairs in which both members of the causative-non-causative pair display instances of NHEV. Figure 4.2, on the other hand, compiles unprefixated verb pairs in which only one of the verbs, in bold, presents cases of NHEV in my corpus.

Figure 4.1: Unprefixed verb pairs in which both members display NHEV.

<b>Strong base verbs</b>	<b>Derived causatives</b>
<i>Būgan</i> : ‘bow, bend; submit (intr.; caus.)’	<i>Bīgan</i> : ‘bend (caus.; intr.); submit (caus.)’
<i>Byrnan</i> : ‘burn (intr.; caus.)’	<i>Bērnan</i> : ‘burn (caus.; intr.)’
<i>Belīfan</i> : ‘be left over, remain’	<i>Lēfan</i> : ‘leave, remain’
<i>Meltan</i> : ‘melt (intr.), be dissolved, be digested’	<i>Myltan</i> : ‘melt (caus.; intr.); digest’
<i>Windan</i> : ‘spring (intr.); roll (intr.; caus.); weave (sth)’	<i>Wendan</i> : ‘turn (round), change (intr.; caus.); go (intr.)’

Figure 4.2: Unprefixed verb pairs in which only one member (in bold) displays NHEV.

<b>Strong base verbs</b>	<b>Derived causatives</b>
<i>Calan</i> : ‘be or become cold; make cold’	<b><i>Cēlan</i></b> : ‘cool or chill (sth), make cold; quench (thirst)’
<i>Hweorfan</i> : ‘turn, change (intr.); go’	<b><i>Hwyrfan</i></b> : ‘turn, change (caus.; intr.); exchange; go, return’
<b><i>Smēocan</i></b> : ‘emit smoke (intr.); smoke, fumigate (sth)’	<i>Smīcan</i> : ‘smoke, fumigate (sth.)’
<i>Stincan</i> : ‘spring, leap; emit a smell’	<b><i>Stencan</i></b> : ‘scatter’
<b><i>Swingan</i></b> : ‘swinge; chastise; whip (cream); strike; beat (the wings)’	<i>Swengan</i> : ‘cause to swing; swing, fling, strike’
<i>Wācnan</i> : ‘come into being, be born, spring’	<b><i>Weccean</i></b> : ‘waken, arise, spring (intr.; caus.)’
<b><i>Wegan</i></b> : ‘bear, carry; move (caus.; intr.)’	<i>Wecgan</i> : ‘move, shake (sth)’

In addition to these 13 verb pairs, 60 additional verbs, prefixed versions of the aforementioned ones, are included and their valence behaviour assessed as well. Considering the results of the unprefixed counterparts, it would not be surprising for the majority of prefixed verbs to display cases of NHEV as well. It is true that the number of prefixed verbs that show labile behaviour in my corpus is greater than those which do



not although the figures do not differ much in this case. The prefixed verbs which present labile valence in my corpus amount to 35, while 25 of them keep their historical valence intact. The former are listed in Figure 4.3. The latter in Figure 4.4. Notice that verbs with an asterisk are those that are only attested once in my corpus.

Figure 4.3: Prefixed verbs which present at least one example of NHEV.

Strong base verbs	Derived causatives
<p><i>Bebūgan</i>: ‘surround; avoid; flow around; reach, extend (caus.; intr.)’</p> <p><i>Forbūgan</i>: ‘decline, avoid; flee from, escape; bend from, pass by’</p> <p><i>Gebūgan</i>: ‘bow, bend (intr.; caus.)’</p>	<p>*<i>Ābīgan</i>: ‘bow, bend; submit, convert (intr.; caus.)’</p> <p><i>Gebīgan</i>: ‘cause to move; bend, incline, submit (caus.)’</p>
<p><i>Gebyrnan</i>: ‘burn; be consumed by fire, destroy by fire (intr.; caus.)’</p>	<p><i>Forbāernan</i>: ‘burn up; consume by fire; burn down, burn to death; inflame (caus.)’</p> <p><i>Gebāernan</i>: ‘burn (caus.; intr.), cause to burn; destroy by fire; light (caus.)’</p> <p><i>Onbāernan</i>: ‘set fire to, light, kindle; burn’ (intr.; caus.)’</p>
<p><i>Ācalan</i>: ‘be destroyed by cold’</p>	<p><i>Gecēlan</i>: ‘cool or chill (sth); quench (thirst); become cold’</p>
<p><i>Āhweorfan</i>: ‘turn away (intr.; caus.)’</p> <p><i>Behweorfan</i>: ‘attend to; prepare (food, body for burial), embalm; treat, deal with’</p>	<p><i>Āhwyrfan</i>: ‘turn away (sth); change, transform (caus.)’</p> <p><i>Forhwyrfan</i>: ‘turn; change; remove; pervert (intr.; caus.)’</p> <p><i>Gehweorfan</i>: ‘turn, turn away; change; <i>Gehwyrfan</i>: ‘turn (sth); cause to move,</p>

return (intr.; caus.)’	direct; (cause to) return; change, exchange, translate (intr.; caus.)’ <i>Onhwyrfan</i> : ‘turn, turn around; change (intr.; caus.)’
<i>Ymbhweorfan</i> : ‘go around, revolve around; go about, over, through; turn around (intr.; caus.)’	
	<i>Belāfan</i> : ‘leave (somebody, sth); spare, remain’ <i>Gelāfan</i> : ‘leave; be left, remain’
<i>Gemeltan</i> : ‘melt, digest; weaken (intr.; caus.)’	<i>Formyltan</i> : ‘melt away, become liquified’ <i>Gemyltan</i> : ‘melt, digest; cause to melt, soften’ (intr.; caus.)’
<i>Gestincan</i> : ‘perceive by the sense of smelling’	
<i>Beswingan</i> : ‘flog, beat (someone); chastise’ <i>Geswingan</i> : ‘scourge, beat (someone)’	
	<i>Āweccean</i> : ‘awake, rouse, revive (caus.); awake (intr.)’
<i>Āwegan</i> : ‘carry off, move (sth)’	
<i>Āwindan</i> : ‘remove (sth), slip from’	<i>Āwendan</i> : ‘turn, move; change, transform; translate (intr.; caus.)’
<i>Bewindan</i> : ‘wind, encompass, wrap (intr.; caus.)’	<i>Bewendan</i> : ‘turn around, turn (sth) (intr.; caus.)’
<i>Gewindan</i> : ‘roll together, roll up (intr.); go about; roll back, unroll (trans.)’	<i>Gewendan</i> : ‘cause to move, turn; come, go, return (intr.; caus.)’

Figure 4.4: Prefixed verbs which keep their historical valence in all attestations.

Strong base verbs	Derived causatives
<i>Ābūgan</i> : ‘bow, bend; submit; withdraw (intr.)’	

	<i>Forbīgan</i> : ‘bow, bend down; humiliate, abase, depreciate; avoid, pass by’
<i>Onbūgan</i> : ‘bend (in reverence), bow; submit, deviate (intr.)’	<i>*Onbīgan</i> : ‘cause to bend; subdue, subjugate (caus.)’
<i>*Ābyrnan</i> : ‘burn, be on fire; blaze (intr.)’	
<i>Forbyrnan</i> : ‘burn up, completely; be consumed, destroyed by fire; burn down, burn to death (intr.)’	
	<i>*Ācēlan</i> : ‘cool or chill (sth); quench (thirst)’
<i>Gedorfan</i> : ‘work, labour; perish at sea’	
<i>*Ēthweorfan</i> : ‘return (intr.)’	
	<i>Behwyrfan</i> : ‘turn around, revolve; encompass; change; exchange’
<i>Onhweorfan</i> : ‘change; return, reverse’	
<i>Tōhweorfan</i> : ‘part, separate, disperse’	
<i>Formeltan</i> : ‘melt away, become liquefied or molten by heat (intr.)’	
	<i>Tōstencan</i> : ‘scatter, disperse; destroy, dissipate, overthrow (caus.)’
<i>Āwācnan</i> : ‘awake, wake up, arise; be born (intr.)’	
	<i>Geweccean</i> : ‘rouse from sleep, excite (caus.)’
<i>Onwācnan</i> : ‘awake, arise; be born (intr.)’	<i>Onweccean</i> : ‘awake, rise; be roused, raised’
	<i>Tōweccean</i> : ‘wake up, arouse (caus.)’
	<i>Āwecgan</i> : ‘move, agitate (sth)’
<i>Gewegan</i> : ‘weigh, measure (intr.)’	
<i>Ētwindan</i> : ‘escape, flee (intr.)’	
<i>Opwindan</i> : ‘get away, escape’ (intr.)’	<i>Opwendan</i> : ‘turn away, divert (caus.)’
	<i>Tōwendan</i> : ‘overthrow, upset, subvert,

overturn; destroy (caus.)'
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The aforementioned data concerning individual prefixed verbs may lead to the assumption that prefixed verbs are less prone to undergo labilization. This may be explained by bearing in mind one important factor mainly having to do with dearth of attestation. Several of the verbs in Figure 4.3 and 4.4 are only attested once in my corpus and therefore, it is impossible to know to what extent they represent a trend or they are the reflection of an uncommon NHEV use. Additionally, as has been pointed out throughout this chapter, some of the prefixed verbs taken into account in this study lack a counterpart. In some cases this is due to the fact that my corpus does not include all Old English texts for the reasons explained in chapter 2. In others, however, there exists no single example of them in the whole Old English corpus as can be deduced from the fact that none of the dictionaries consulted, including DOE, record them, as is for instance the case with the hypothetical verbs *\*bebīgan* or *\*ymbhwyrfan*. As has been shown in Figure 4.2 above, it is not rare for one member of a blurred causative / non-causative pair to keep its historical valence intact. This could be precisely the case of some of the prefixed verbs that lack an attested counterpart in Figure 4.3. They may be the only survivor left to a modern readership of a blurred verb pair even if that remaining member shows no signs of labile valence. Of course, unless further Old English material appears where these verbs were attested, such an idea must remain a conjecture.

When verb pairs rather than individual verbs are considered, results are very similar to the ones obtained in relation with unprefixes verb pairs. The great majority of surviving prefixed verb pairs show signs of lability. Out of 19 of them, eight represent cases of a partially blurred relationship, i.e. only one member of the pair (in bold in the figure below) displays NHEV. These verbs are listed in Figure 4.5.

Figure 4.5: Prefixed verb pairs in which only one member (in bold) displays NHEV.

Strong base verbs	Derived causatives
<i>Ābūgan</i> : ‘bow, bend; submit; withdraw (intr.)’	<b><i>*Ābīgan</i></b> : ‘bow, bend; submit, convert (caus.)’

<i>Forbūgan</i> : ‘decline, avoid; flee from, escape; bend from, pass by (caus.)’	<i>Forbīgan</i> : ‘bow, bend down; humiliate, abase, depreciate; avoid, pass by’
<i>Forbyrnan</i> : ‘burn up, completely; be consumed, destroyed by fire; burn down, burn to death (intr.)’	<i>Forbāernan</i> : ‘burn up; consume by fire; burn down, burn to death; inflame (caus.)’
<i>Ācalan</i> : ‘be destroyed by cold’	<i>Ācēlan</i> : ‘cool or chill (sth); quench (thirst)’
<i>Onhweorfan</i> : ‘change; return, reverse’	<i>*Onhwyrfan</i> : ‘turn, turn around; change (intr.; caus.)’
<i>Formeltan</i> : ‘melt away, become liquefied or molten by heat (intr.)’	<i>Formyltan</i> : ‘melt away, become liquefied’
<i>Āwāecnan</i> : ‘awake, wake up, arise; be born (intr.)’	<i>Āweccēan</i> : ‘awake, rouse, revive (caus.); awake (intr.)’
<i>Āwegan</i> : ‘carry off, move (sth)’	<i>Āwegan</i> : ‘move, agitate (sth)’

On the other hand, other prefixed verb pairs are completely blurred as far as their historical causative / non-causative relationship is concerned. They are exactly the same number as partially blurred ones, namely eight. Figure 4.6 below is a compilation of these verb pairs.

Figure 4.6: Prefixed verb pairs in which both members display NHEV.

<b>Strong base verbs</b>	<b>Derived causatives</b>
<i>Gebūgan</i> : ‘bow, bend (intr.; caus.)’	<i>Gebīgan</i> : ‘cause to move; bend, incline, subdue (caus.)’
<i>Gebyrnan</i> : ‘burn; be consumed by fire, destroy by fire (intr.; caus.)’	<i>Gebāernan</i> : ‘cause to burn; destroy by fire; light (caus.); burn (intr.)’
<i>Āhweorfan</i> : ‘turn away (intr.; caus.)’	<i>Āhwyrfan</i> : ‘turn away (sth); change, transform (caus.)’
<i>Gehweorfan</i> : ‘turn, turn away; change; return (intr.; caus.)’	<i>Gehwyrfan</i> : ‘turn (sth); cause to move, direct; (cause to) return; change, exchange, translate (intr.; caus.)’

<i>Gemeltan</i> : ‘melt, digest; weaken (intr.; caus.)’	<i>Gemyltan</i> : ‘melt, digest; cause to melt, soften’ (intr.; caus.)’
<i>Āwindan</i> : ‘remove (sth.), slip from’	<i>Āwendan</i> : ‘turn, move; change, transform; translate (intr.; caus.)’
<i>Bewindan</i> : ‘wind, encompass, wrap (intr.; caus.)’	<i>Bewendan</i> : ‘turn around, turn (sth) (intr.; caus.)’
<i>Gewindan</i> : ‘roll together, roll up (intr.); go about; roll back, unroll (trans.)’	<i>Gewendan</i> : ‘cause to move, turn; come, go, return (intr.; caus.)’

Lastly, contrary to what was the case with unprefix verb pairs, with the already commented on exception of *deorfan-dyrfan*, three of the prefixed verb pairs under analysis in this study still preserve their HEV in all attestations. They are listed in Figure 4.7 below. Unfortunately, attestation caveats must be born in mind again in these cases since the causative counterparts of these preserved prefixed pairs are only attested once. However, it is interesting to point out that none of the dictionaries relied on in this study lists any causative meaning related to any of these verbs. In spite of this interesting point, my data cannot demonstrate with certainty whether these verbs show underspecification of valence or not in general terms.

Figure 4.7: Prefixed verb pairs displaying HEV in all their attestations.

<b>Strong base verbs</b>	<b>Derived causatives</b>
<i>Onbūgan</i> : ‘bend (in reverence), bow; submit, deviate (intr.)’	* <i>Onbīgan</i> : ‘cause to bend; subdue, subjugate (caus.)’
<i>Onwācnan</i> : ‘awake, arise; be born (intr.)’	* <i>Onweccēan</i> : ‘awake, rise; be roused, raised’
<i>Opwindan</i> : ‘get away, escape’ (intr.)’	* <i>Opwendan</i> : ‘turn away, divert (caus.)’

Given the results summarised in the previous pages, it seems to be the case that prefixed verbs are slightly less prone to labilization, if pairs are considered. As far as individual verbs are concerned, the difference in numbers between prefixed and unprefix forms is greater. As pointed out above, attestation issues may have some bearing on these results. On the other hand, the effects of prefixes themselves, the main evident

difference between both groups discussed above, should be taken into consideration when dealing with possible aspects that might influence the labilization process undergone by the verbs under study. In the following section, the influence of prefixes as well as other possible factors on the labilization of the verbs under analysis are explored.

#### 4.3.1 *Possible influences on labilization*

Once the raw data have been summarised, different factors that may have played a role in the loss of the causative alternation from a historical perspective will be discussed.

The first factor dealt with in this section is prefixes. In this case, focus will be laid on the effects they may have on valence only, since different effects on transitivity as a whole are explored in chapter 6. As it is observed in the above paragraphs dealing with the detailed analysis of each of the verbs under study, many of the verbs whose valence presents a disagreement from what is historically expected are prefixed forms. In what follows I will try to demonstrate whether prefixes do have a role in this valence change from a quantitative and statistical point of view or whether they simply stand out in the analysis because their number is much higher than the number of unprefixated verbs analysed in this study. To be more precise there are 60 prefixed verbs versus 26 unprefixated ones. The exact verbs referred to can be checked in the preceding tables.

The first comparison of data that will be carried out is between prefixed and unprefixated verbs individually, not as pairs. Concerning the group of unprefixated verbs, nine of them (34.6%) keep their valence intact as opposed to 17 (65.3%). In the case of their prefixed counterparts, percentages do not differ much. Out of the 60 prefixed verbs analysed in this study, 25 keep their valence intact (41.6%), while 35 (58.3%) display NHEV. The statistical analysis carried out in this study determines that there is no statistical difference between these two sets of data (0.5446). Thus, from an individual point of view, prefixed verbs do not seem to be more prone to labilization than their unprefixated counterparts.

Differences are not noteworthy either when the results concerning unprefixes and prefixed pairs are compared. As for the former, only one pair out of 13 (7.6%) keeps its valence intact in my corpus, *deorfan-dyrfan*, although NHEV attestations are found elsewhere. In seven pairs (53.8%), one of the members only shows signs of labilization. The remaining five pairs (38.4%) are completely blurred concerning their valence. As for prefixed pairs, three out of 19 (15.7%) show no signs of labilization. On the other hand, 16 of them do. In eight of them (42.1%), the original causative / non-causative relationship is partially blurred, i.e. only one member displays NHEV; while in the rest of them the relationship is completely blurred. The difference between both sets of verbs is again not statistically significant. The t-test score is 0.8597 in this case.

Thus, all in all, these results point to the fact that it cannot be concluded that prefixes themselves, or lack of them, are a clear factor for the unstability of valence in the verbs taken into consideration in this study. This is so in spite of the alleged transitivity effect of prefixes that will be dealt with extensively in chapter 6. They do not seem to prevent or make the detransitivisation of causatives easier either, since the number of strong verbs displaying HEV is greater, 14, though very similar, to the number of causatives showing no sign of labilization, 11 in this case.

Prefixes, however, seem to be connected with a common feature shared by several of the verbs that have acquired a new valence, namely remarkable semantic change. Semantic change has featured frequently in the analysis of the individual verbs as an important factor to bear in mind in relation to those verbs that develop a non-historically expected valence.

For instance, verbs like *forbūgan*, *behweorfan* and *yimbhweorfan* have undergone a remarkable semantic change in comparison with their causative counterparts which may have influenced the development of a non-historical valence, transitive in this case. Such semantic change seems in turn to be related to the addition of the prefix and the adverbial meanings they are connected with. These will be dealt with in detail in chapter 6. Figure 4.8 below summarises the meanings of the aforementioned verbs and their causative counterparts.



Figure 4.8: Some verbs displaying remarkable semantic change.

<i>Forbūgan</i> : ‘decline, avoid; flee from, escape; bend from, pass by (caus.)’	<i>Forbīgan</i> : ‘bow, bend down; humiliate, abase, depreciate; avoid, pass by’
<i>Behweorfan</i> : ‘attend to; prepare (food, body for burial), embalm; treat, deal with’	<i>Behwyrfan</i> : ‘turn around, revolve; encompass; change; exchange’
<i>Ymbhweorfan</i> : ‘go around, revolve around; go about, over, through; turn around (intr.; caus.)’	

Semantic change, however, is not related to the effects of prefixes only. As pointed out throughout the individual analyses in this chapter, some unprefixed verbs have also undergone noteworthy semantic changes that may have contributed to their development of a new valence. This is most clearly seen in the case of *wendan* ‘turn (round), change (intr.; caus.); go (intr.)’ much more commonly attested with the intransitive sense ‘go’ than with any of its original causative meanings. Such a semantic change is seen by some authors as a sign of lexicalization. Using Ramat’s definition (1992: 550-1), a verb like *wendan* which has undergone a remarkable semantic change with respect to their history or their unprefixed counterparts is no longer perceived as linguistic sign derived by different grammatical rules, but as a different lexical entry. This seems to be confirmed by the later evolution of this verb which grammaticalises into the past tense form of the verb *go* in the Middle English period.

Not all the cases in which valence is not preserved as historically expected can be explained on the basis of semantic change, though. As can be observed in the tables above, there are cases of individual verbs such as *hwyrfan* or pairs such as *meltan* – *myltan* which do not preserve HEV but do not show any significant semantic change other than the causative / non-causative expected opposition. As Visser (1963: 127-133), García García (2012: 135-9) or Ottósson (2013: 374) mention, (see chapter 3 section 3.3.2 for more details) in addition to syntactic issues such as the ones analysed in this study, phonological ones also contribute to the gradual dissolution of causative

pairs in Old English. Different phonological changes operating in proto Old English caused a further lack of formal transparency between strong verb and derived causative compared to other Germanic languages. Thus, the two members of the Gothic pair in (4.2a) (repeated here for convenience's sake) can be easily identified through the different ablaut grade and the *-jan* suffix that differentiate the derived causative from its counterpart.

(4.2)

a. GOT *sigqan* 'sink (intr.)' – *sagkjan* 'cause to sink'

b. OE *sincan* 'sink (intr.)' – *sencan* 'cause to sink'

However, in the case of Old English (4.2b) the only way to identify the different verbs is through a vowel alternation in which the direction of the derivation is not visible any more. In addition to this, this vowel alternation is not systematic either in differentiating between strong verb and derived causative. In other cases, the difference between both verbs may be a consonantal change as the verb pair *wegan* – *wecgan* exemplifies.

This formal confusion can go beyond that displayed by the examples above and may render the identification of strong verb and derived causative virtually impossible, since several of the verbs analysed in this study share certain forms of their paradigms as has already been commented on in the methodology section (see for instance Figure 2.4 in chapter 2, section 2.1). This is well observed in *hwyrfan* and in the *meltan-myltan* group. In the case of the latter, none of the verbs shows any dominant valence and in spite of this, no change in their semantics is detected. Therefore, it is possible to assume that their confusion in terms of valence, as may be the case with *hwyrfan*, is due to the impossibility that already Old English speakers had in distinguishing between the two verbs from a formal point of view. In fact, I hypothesize that contexts in which no formal distinction whatsoever was possible, such as (4.3) below, may have contributed to the blurring and eventual disappearance of one or even both verbs in the pairs analysed in this study. Exposed to examples like (4.3), a foreign learner or a child may easily conclude that there is no difference between the two members of the causative

opposition. This confusion could then spread to other contexts where no formal confusion is possible such as (4.4) and these forms would end up collapsing in just one, as is the case in the Present-day English forms of some of these verbs, i.e. *bow*, etc.

(4.3)

*Sona seo blædder to selran gehwyrfeð [...]*

Soon the bladder to better turns

‘As soon as the bladder gets better’

LchI (Herb) [0850 (94.8)]

(4.4)

[...] *seo adl & þæt sar hwyrfeð in hyre innoðas.*

The sickness and the pain revolved in her entrails.

‘The sickness and the pain revolved in her entrails.’

Bede 4 [0529 (24.338.22)]

Interestingly, it is noteworthy of comment that a confusion such as the one specified above is not alien to speakers of Present-day English. Two of the surviving *-jan* pairs nowadays, namely *lie-lay* and *fall-fell*, display a similar case of dual valence and syncretism in some forms of their paradigms. In some cases confusion may arise in identifying verbs used in a clause as belonging to the paradigm of the base verb or to that of its causative counterpart (see Ruiz Narbona 2012: 90-91 and the entries LIE 15 and LAY43a in the *Oxford English Dictionary*). Additionally, it must be born in mind, of course, that formal confusion is not incompatible with semantic change. Actually, formal syncretism in the cases of verbs that already display semantic change may have helped to accelerate the already existing blurring between base verb and derived causative.

It must be pointed out, however, that authors such as McMillion (2006: 196) reject the influence of verbs displaying formal similarities on the spread of labile verbs in English. According to this author the number of causatives with total or partial formal coincidences is not enough in order to have exercised an analogical influence on other

verbs. Nevertheless, I argue, as Visser (1963: 127-133) and García García (2012: 135-9) do, that the number of verbs belonging to a morphological causative / non-causative pair is indeed large enough as to influence other verbs. The fact that a high percentage of them are labile already in the Old English period seems crucial in the latter practical dissolution of this formation. The fact that this dissolution may in turn have influenced the labilization process on other groups of verbs seems therefore possible contrary to what McMillion argues, see García García (forthcoming).

To sum up, the data analysed in this study help to identify two possible influences on the changes undergone by morphological causatives and their base verbs in Old English. On the one hand, semantic change and on the other, the lack of transparency in formal terms between both members of the verb pairs as well as the intransparency of the causative construction already put forth by Visser (ibid) and García García (ibid) (see chapter 3, section 3.3.2). As has been seen, the fact that several verbs in this study undergo semantic change may have favoured the development of the valence type associated with its counterpart from a historical point of view. Likewise, the fact that phonological changes make it impossible to distinguish between members of the pairs may be another catalyst for change or an accelerator that makes the distinction between already different verbs even more difficult. All in all, the data presented in this section serve to support such a view.

#### *4.3.2 The direction of the development of labile verbs from former causative oppositions*

The data of this study can still provide more insights concerning the development of these verbs by shedding some light on the direction of the labilization process. What is meant by this is whether in general terms these verbs have undergone a process of transitivity, that is, strong base verbs have gradually become labile, or detransitivity, i.e. derived causative verbs have been the ones that have become labile.

The literature on this topic provides examples of supporters of both theories. For instance, van Gelderen (2011) argues that there is an increase in transitivity in the

history of English as put forth by Visser (1963: 99). This means that English, today and throughout its history, has favoured the existence of morphological operations that imply transitivity (such as the *-jan* causatives) rather than operations that imply detransitivisation such as the Romance anticausative *se*. These authors see the process of labilization undergone by verbs such as the ones under study as a process whereby the strong verbs acquire a transitive valence and therefore become labile.

Other authors such as Ottósson (2013: 377), on the other hand, argue in favour of the detransitivising hypothesis. He admits that there are examples of strong verbs becoming labile through transitivity. However, he emphasises that many of the morphological causatives, such as *hwyrfan*, *myltan* or *læfan* become labile through a process of detransitivisation, following Hermodsson (1952: 104, 195, 208f, 308f), who argues that it is most often the case that the intransitive use is secondary. According to Ottósson (2013: 356), “this directionality fits well into the general picture which emerges of the Old Germanic languages becoming more valence-decreasing”.

McMillion (2006: 196), dealing with Old English inchoative / causative pairs, argues that there are not data supporting either of these views. According to this author, all that can be said is that transitive and intransitive forms become formally identical and that it cannot be concluded whether labile verbs undergo a process of transitivity or detransitivisation.

In what follows I will argue that the data obtained from this study seem to support Hermodsson’s (1952) and Ottósson’s (2013) views, namely that the process of labilization seems to be one more related to detransitivising devices than transitivity ones, since, as will be shown, data point to the fact that labilization is favoured by the causative member of the pair rather than by the strong verb, even though cases of both abound in my data.

When the number of strong verbs that show signs of lability and those which do not are compared with the same groups of causatives, results reveal that there is no significant

difference between them. This may lead to the conclusion that neither detransitivisation nor transitivity is more relevant than the other in the labilization process.

However, one comparison proves to be useful in order to establish whether there exists a difference between strong and causative verbs becoming labile. This comparison is the one that can be established, on the one hand, between strong verbs that show no signs of lability with those that do; and on the other hand, between causatives whose HEV is intact and those that are labile. This comparison would show whether the number of verbs in each group that retain their valence is higher, lower, or equal.

As for strong verbs, out of the 44 verbs included in this study, 20 show their HEV in all their attestations, while, 24 of them have become labile. In light of this parity in results, it is not surprising to find out that the difference between strong labile and strong intransitives is not statistically significant, 0.3996. Therefore, such a result shows that neither labile verbs nor those retaining their valence intact are dominant within the group of strong verbs. This, in turn, supports that transitivity does not play such a remarkable role in the labilization process.

Regarding causatives, however, differences arise. The number of causative verbs analysed in this study amounts to 42. Of these, only 15 are transitive in all cases. The remaining 27 show signs of lability. In this case, such difference is important from a statistical point of view. The two-tailed P value equals 0.0084, i.e. very statistically significant. This result, shows, contrary to what was the case with strong verbs, that there is a rather strong tendency for these verbs to become labile, even if that is not always so. This results fit in well with the hypothesis put forth by Hermodsson (1952) and followed by Ottósson (2013) that detransitivisation is a stronger tendency in the development of labile verbs than transitivity.

The analysis of verb pairs also sheds light on the direction of the change analysed in this section. As was the case with individual verbs, the comparison of verb pairs reveals that generally neither strong nor causatives tend to be more prone to labilization with the exception of one group of verbs. To this group belong verb pairs which display signs of

lability but only to a low degree, i.e. cases in which verbs present a statistical difference between the HEV of strong base verbs and derived causatives. They are compiled in Table 4.27 below.

Table 4.27: Pairs of verbs presenting a statistical difference between the HEV of strong base verbs and derived causatives.

<b>Strong verb</b>	<b>Examples Intr. / Trans. Percentage NHEV</b>	<b>Causative Verb</b>	<b>Examples Intr. / Trans. Percentage NHEV</b>	<b>Two-tailed P value</b>
<i>Būgan</i>	119 / 2 (1.6%)	<i>Bīgan</i>	3 / 19 (13.6%)	0.0047
<i>Gebūgan</i>	64 / 4 (5.8%)	<i>Gebīgan</i>	17 / 71 (19.3%)	0.0146
<i>Byrnan</i>	68 / 3 (4.2%)	<i>Bērnan</i>	2 / 72 (2.7%)	0.6184
<i>Forbyrnan</i>	27 / 0 (0%)	<i>Forbērnan</i>	6 / 122 (4.6%)	0.2540
<i>Gebyrnan</i>	2 / 2 (50%)	<i>Gebērnan</i>	1 / 21 (4.5%)	0.0073
<i>Calan</i>	5 / 0 (0%)	<i>Cēlan</i>	1 / 7 (12.5%)	0.4533
<i>Hweorfan</i>	143 / 0 (0%)	<i>Hwyrfan</i>	14 / 9 (39.1%)	<0.0001
<i>Gehweorfan</i>	23 / 3 (11.5%)	<i>Gehwyrfan</i>	18 / 28 (39.1%)	0.0130
<i>Belīfan</i>	41 / 2 (4.6%)	<i>Lāfan</i>	1 / 36 (2.7%)	0.6524
<i>Gemeltan</i>	6 / 3 (33%)	<i>Gemyltan</i>	1 / 10 (9%)	0.0051
<i>Wācnan</i>	11 / 0 (0%)	<i>Weccean</i>	3 / 18 (14.2%)	0.1998
<i>Awācnan</i>	21 / 0 (0%)	<i>Aweccean</i>	7 / 41 (14.5%)	0.0664

The objective of the comparison presented in Table 4.27 is to analyse whether it is the strong verb or rather the causative the one that shows a higher percentage of cases of NHEV in verb pairs displaying signs of lability. The statistical result of the comparison between strong and causative verb is also provided. This analysis could offer some interesting insights concerning the labilization undergone by these verbs. The fact that causatives tend to present higher percentages of NHEV examples would point to the fact that the detransitivisation process is a likelier influence than transitivity for the labilization process observed in the verbs under analysis. This must be taken with caution, nonetheless, since as has been mentioned with regards to the previous groups,

the number of causatives and strong verbs that have undergone valence change is not statistically different in general terms.

The results in Table 4.27 show that, normally, it is the causative counterpart of the pair the one that displays a higher percentage of cases of NHEV. There seems to be a tendency for transitive verbs to become labile to a higher extent than their intransitive counterparts, many of which, contrary to causatives, remain intact as far as their historical valence is concerned, see *forbērnan*, *calan*, *wēcnan* and *āwēcnan*. Out of the 12 verb pairs on Table 4.27, only four feature a strong verb with a higher percentage of NHEV cases than their counterparts, namely *byrnan-bērnan*, *gebyrnan-gebērnan*, *belīfan-lāefan* and *gemeltan-gemyltan*. In two of these, namely, *byrnan-bērnan* and *belīfan-lāefan*, the difference in the results is not statistically significant. On the contrary, the statistical difference in the case of *gemeltan-gemyltan* and *gebyrnan-gebērnan* displays important differences. This should not be surprising though due to the high degree of merger that exists in the *meltan-myltan* family, perhaps the highest of all the verbs analysed in this study, as mentioned previously, and the particularities of use regarding *gebyrnan* and *gebērnan* commented on elsewhere in this work.

The majority of pairs, eight, however, show a clear tendency for transitives to become detransitivised rather than the other way around. This fact seems, thus, to favour the hypothesis that the labilization shown by these verbs has more to do with detransitivisation. Nonetheless, it must be borne in mind that these results are not as conclusive as percentages only may suggest.

To sum up, the analysis of the historical direction of the development of the labile verbs discussed in this study shows that the number of cases of both transitivising and detransitivising verbs is rather close. However, the detailed analysis of some specific sets of data reveals a higher tendency for causative verbs to detransitivise. Additionally, the study of verb pairs with few labile examples determines that the tendency for causatives to take on the valence value of their counterparts is higher than that of strong verbs. On the other hand, the analysis of individual verbs also provided evidence in support of the detransitivising hypothesis since the comparison of strong and causative



verbs that retain their valence and those that do not, shows results in support of the detransitivising hypothesis. The statistical analysis carried out in this study serves to conclude that the number of strong verbs that keep their historical valence is, from a statistical point of view, equal to the number of those that become labile. However, in the case of causatives, the t-test for significance shows that the number of causatives that become labile is very significantly higher from a statistical point of view in comparison with those that keep their original valence intact.

## CHAPTER 5: EFFECTS OF TEXT TYPE AND DATE OF COMPOSITION ON VALENCE CHANGE

### 5.1 Introduction

Once I have dealt with the analysis of valence and suggested what could be some of the aspects that might have acted upon labilization, I will discuss the influence of factors that are textual in nature. These two factors, as already mentioned in the methodology and objectives sections, are date of composition and text type. Dialectal factors were also considered in the first stages of this study. However, they were finally discarded due to the difficulty in establishing the language variety of several texts as well as to the fact that the great majority of Old English texts are written in the West-Saxon dialect. Therefore, the data did not allow for generalizations concerning dialectal variation. In spite of this, some comments with regards to dialectal variation are made in connection with late glosses.

The objective of this chapter is to shed light on the influence that the aforementioned textual factors may have on the valence of the verbs under study. The methodology followed in carrying out this task is basically the same as the one employed in analysing valence in the previous chapter. Thus, I will present the raw data related to each of the categories in which texts have been divided, namely early (up to ca. 950) and late (c. 950-1150) prose, early and late verse and early, late and undated gloss. Additionally other larger categories including one or more of the aforementioned seven have been taken into consideration. I will refer to them as macrocategories throughout this chapter. These macrocategories, together with the smaller categories they comprise, are listed in Figure 5.1 below.

Figure 5.1: List of large textual categories and the smaller categories they comprise.

<b>Macrocategory</b>	<b>Categories comprised</b>
Prose totals	Early and late prose
Verse totals	Early and late verse
Gloss totals	Early, late and undated gloss

Early text totals	Early prose, verse and gloss
Late text totals	Late prose, verse and gloss
Complete total	All seven categories

As in the case of the valence data, the t-test for significance has been applied to each group of data in order to determine the statistical significance of the figures in question. Firstly, I have applied those data within each of the aforementioned categories, i.e. early prose, late prose, etc., individually in order to check what type of valence, HEV or NHEV, they favour, if any at all. Secondly, I have compared the data obtained in each of the categories and macrocategories with others with the objective of determining whether the differences they present compared to each other are in fact different from a statistical point of view. This methodology will enable this study to get to insightful conclusions concerning the role that different text types or the difference in date of composition may have in the development of labiality in Old English. However, it must be borne in mind that the data analysed in this study are necessarily patchy since, of course, they represent only a tiny portion of each of the possible text types available to Old English speakers.

## **5.2 Analysis of the data**

In what follows, the raw data of each of the categories taken into account will be presented. In addition to this, I will discuss the results of the t-test for significance in each of the categories individually in order to determine whether they show any preference for any of the valence types.

Results show that when analysed individually, the number of HEV examples is higher than that of NHEV cases from a statistical point of view in each of the categories and macrocategories. These data show that although labialization is widespread, as mentioned in chapter 4, from a quantitative point of view, the cases of HEV in the verbs under study far outnumber those of NHEV in all kind of text types taken into account in this work.

In the case of all prose categories, early prose (Table 5.1), late prose (Table 5.2) and the macrocategory prose totals (Table 5.3), the preference for historical expected valence is extremely statistically significant in all cases. The t-test for significance equals less than 0.0001.

Table 5.1: Early prose totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 451 (74.7%)	Total: 152 (25.2%)
Total: 603	

Table 5.2: Late prose totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 664 (62.8%)	Total: 392 (37.1%)
Total: 1056	

Table 5.3: Prose totals.

	<b>Historically expected</b>	<b>Non-historically expected</b>
Early prose	451	152
Late prose	664	392
Total	1115 (67.2%)	544 (32.7%)
Total prose	1659	

As far as the categories related to verse texts are concerned (see Table 5.4, 5.5 and 5.6 below), results are exactly the same as in their prose counterparts, i.e. the difference in favour of HEV is extremely statistically significant (less than 0.0001).

Table 5.4: Early verse totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 68 (87.1%)	Total: 10 (12.8%)
Total: 78	

Table 5.5: Late verse totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 167 (70.7%)	Total: 69 (29.2%)
Total: 236	

Table 5.6: Verse totals.

	<b>Historically expected</b>	<b>Non-historically expected</b>
Early verse	68	10
Late verse	167	69
Total	235 (74.8%)	79 (25.1%)
Total verse	314	

With regards to glosses, the statistical analysis could only be applied to late ones, since only one example of early gloss is included in my corpus. It is a case of the verb *deorfan* in a glossed version of Boethius' *De Consolatione Philosophiae* and it shows HEV (Table 5.7). As for late gloss (Table 5.8), the difference between cases of HEV and NHEV is less remarkable than in previous categories, "just" very statistically significant (0.0019). This difference with respect to prose and verse will be commented on in more detail when dealing with the comparison of late gloss with other categories below. In the case of the undated gloss example, a clause including *gebyrnan*, it presents HEV (Table 5.9). Lastly, the macrocategory gloss totals (Table 5.10) displays the same statistical results as the previous ones, i.e. extremely statistically significant (0.0007).

Table 5.7: Early gloss totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

Table 5.8: Late gloss totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 52 (61.9%)	Total: 32 (38%)
Total: 84	

Table 5.9: Undated gloss totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

Table 5.10: Gloss totals.

	<b>Historically expected</b>	<b>Non-historically expected</b>
Early gloss	1	0
Late gloss	52	32
Undated gloss	1	0
Total	54 (62.7%)	32 (37.2%)
Total gloss	86	

In conclusion, with the exception of late gloss, all other categories show an extremely statistical significant preference for HEV. These results, thus, do not help a lot in determining the role of text type or date of composition or simply confirm that these parameters play no role in the variation displayed by these verbs. When only the parameter of date of composition is taken into account irrespective of text type, results confirm once more the extremely statistically difference (less than 0.0001) in favour of HEV shown by both early and late texts (see Table 5.11 and 5.12). The same result is obtained when the t-test is applied to all examples taken into consideration, subsumed under the macrocategory complete total in table 5.13.

Table 5.11: Early texts totals (Up to c.950).

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 520 (76.2%)	Total: 162 (23.7%)
Total: 682	

Table 5.12: Late texts totals (c.950-1150).

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 883 (64.1%)	Total: 493 (35.8%)
Total: 1376	

Table 5.13: Complete total.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 1403 (68.1%)	Total: 655 (31.8%)
Total: 2058	

Although the results presented so far in relation to text type and date of composition point to the fact that these parameters may have no influence on the phenomenon investigated in this study, the comparison of the results obtained in different categories reveals that there exist noteworthy differences between groups. In what follows, I will discuss in detail the results of this comparative analysis, which provide relevant insights concerning the role that text type and date of composition play in the phenomenon under study.

The first question that I will try to answer is related to the role of date of composition. As otherwise stated in this work, the formation under study undergoes an important collapse reflected in the almost total obliteration of this construction in the early Middle English period. Abrupt as this change may seem, it is obvious that no linguistic change takes place overnight. It is therefore to be expected that the data compiled in this study reveal that there are differences between earlier and later texts concerning labilization.

The first comparison between different sets of data I will refer to is that between the macrocategories early texts and late texts. This information is on Table 5.11 and 5.12 on the previous page. Even though from an individual point of view both early and late texts present a clear tendency towards HEV, their comparison reveals that there exist important differences, as could be expected. The t-test for significance shows the difference between both categories to be extremely statistically significant (less than

0.0001). These results prove, therefore, that there is important variation in the use of the verbs under study between earlier and later periods of Old English, thus supporting the idea of an evolution that would culminate in the aforementioned almost disappearance of morphological causatives in the early Middle English period.

Additionally, the data in this study allow for more detailed insights concerning the role of date of composition. Due to the division into different categories it is possible to determine whether various text types display different behaviour from a chronological point of view. By comparing the early and late data of a specific text type, relevant information can be obtained in relation to the behaviour of that specific text type throughout time. Unfortunately, due to the almost non-existent data in the category early gloss, it is impossible to carry out that comparison in that text type in particular. However, prose and verse do provide interesting new results.

Concerning prose, there exists an important difference in the percentages of cases of NHEV between early and late texts, as can be observed in Table 5.1 and 5.2 presented below again for convenience's sake. The percentage of verbs displaying HEV in early prose and late prose differ in 11.9 percentage units. The t-test for significance reveals this difference to be extremely statistically significant (less than 0.0001). This analysis then proves that prose presents a very high degree of variation in the valence displayed by the verbs under analysis throughout the 400 years that comprise the Old English period. The result is the same, from a statistical point of view, that the one displayed by early and late texts in general terms.

Table 5.1: Early prose totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 451 (74.7%)	Total: 152 (25.2%)
Total: 603	



Table 5.2: Late prose totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 664 (62.8%)	Total: 392 (37.1%)
Total: 1056	

Verse, on the other hand, does not behave in exactly the same way as far as the date of composition is concerned. Even though the percentage difference between cases of verbs showing HEV in early and late verse is even greater than in the case of prose, 16.4 percentage units (see Table 5.4 and 5.5 copied below for convenience's sake), statistics determine that the difference is not as significant as in the case of prose. The t-test for significance equals 0.0037, that is, very statistically significant. These results show that even though there is an evolution in the behaviour of the verbs registered in verse texts towards lability, the split between earlier and later forms is not as wide as in the case of prose, thus revealing the fact that verse is more conservative both from a synchronic and diachronic point of view.

Table 5.4: Early verse totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 68 (87.1%)	Total: 10 (12.8%)
Total: 78	

Table 5.5: Late verse totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 167 (70.7%)	Total: 69 (29.2%)
Total: 236	

The resilience of the causative / non-causative alternation in verse texts is easily seen when early prose and early verse and their late counterparts are compared from a statistical point of view. The comparison of early prose and early verse shows that there is no significant difference between both sets of data from a statistical point of view. The results of the t-test equal 0.0661, that is, the difference is not quite statistically significant. This proves, then, that from a statistical point of view, the verbs under

analysis show a similar behaviour concerning their valence in early Old English in both prose and verse.

However, this changes in the late period. The comparison between late prose and late verse reveals that, in this case, the difference is statistically significant (0.0223). This emphasises the idea that not all text types behave in the same way from a chronological point of view. While the evolution towards lability is less acute (although significant) in the case of verse, as shown above, it is more radical in the case of late prose as demonstrated by the difference in statistical significance mentioned above.

A similar comparison can be made between late prose and late verse with respect to late gloss, even though in this case, no chronological analysis can be made due to the scarcity of data of early gloss. It is, however, interesting to determine the differences between text types regardless of chronological issues. As already mentioned in the introduction to this chapter, its objective is to shed light on both the effects of date of composition and text type. As far as the behaviour of verbs in late gloss with respect to their valence is concerned, it seems that this group represents a middle ground between the more stable verse and the more innovative or prone to variation prose. The statistical analysis reveals that there is no statistically significant difference in the behaviour of the verbs in late gloss either with respect to late prose (two-tailed t-test equals 0.8591) nor late verse (0.1344). These results show that glosses do not differ in a significant way concerning valence with respect to any of the other two text types. However, the results of the t-test reveal that the behaviour of verbs in glossed texts is closer to that of prose and is relatively close to being statistically significant with respect to verse. Thus, it seems to be the case that in a scale of labilization, verse is the most conservative category, prose the most innovative one, while gloss follows prose closely though not as closely as to be far away from a statistical point of view from verse.

Table 5.2: Late prose totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 664 (62.8%)	Total: 392 (37.1%)
Total: 1056	

Table 5.5: Late verse totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 167 (70.7%)	Total: 69 (29.2%)
Total: 236	

Table 5.8: Late gloss totals.

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 52 (61.9%)	Total: 32 (38%)
Total: 84	

Once the results obtained from the comparisons of the different textual categories taken into account in this study have been commented on, it is still necessary to compare another set of results, namely those of the three textual macrocategories, i.e. prose, verse and gloss totals. I have already discussed the results concerning early prose and verse and related to their late counterparts together with glossed texts. However, it is interesting to check whether statistical results support the hypothesis of the degree of labilization undergone by verbs in each of the text types already detailed above.

First, focus will be laid on the relationship between prose and verse texts. The tables containing these data (5.3 and 5.6) have been reproduced below once more for convenience's sake. Statistical results show the difference in the number of verbs displaying NHEV between these two text types to be very statistically significant. The t-test equals 0.0076. These results, thus, support the idea that the evolution towards labilization is more marked in prose than in verse, not only during late Old English, but taking into consideration Old English as a just one block as well.

On the other hand, when the number of examples in prose texts is compared to those in glossed texts, the t-test for significance reveals that the difference between these two textual types is not statistically significant. In this case the t-test results are 0.3856. This is not surprising, though, bearing in mind the scarce incidence that glossed texts have

except for late gloss, whose results in comparison to late prose have already been commented on above.

Last but not least, the final two sets of data analysed in this study, reveal that the difference between glossed text and verse text as a whole in the number of verbs showing NHEV is statistically significant. The two-tailed P value equals 0.0270 in the case of glossed versus verse texts.

Table 5.3: Prose totals.

	<b>Historically expected</b>	<b>Non-historically expected</b>
Early prose	451	152
Late prose	664	392
Total	1115 (67.2%)	544 (32.7%)
Total prose	1659	

Table 5.6: Verse totals.

	<b>Historically expected</b>	<b>Non-historically expected</b>
Early verse	68	10
Late verse	167	69
Total	235 (74.8%)	79 (25.1%)
Total verse	314	

Table 5.10: Gloss totals.

	<b>Historically expected</b>	<b>Non-historically expected</b>
Early gloss	1	0
Late gloss	52	32
Undated gloss	1	0
Total	54 (62.7%)	32 (37.2%)
Total gloss	86	

These last results emphasise the ideas already explained in detail when commenting on the comparisons between the late text types only. The statistical analysis shows that the

more innovative text type of the three concerning the number of verbs displaying NHEV is prose. It shows an important statistical difference with respect to verse (0.0076, very statistically significant), which is the more conservative of the three according to the statistical analysis carried out in this study. As for glossed texts, they seem to represent a middle ground between prose and verse. Results show that while there is no statistical difference between the valence of verbs in glossed texts and prose (0.3856), there is a statistical difference with respect to the more conservative verse (0.0270) and their glossed counterparts. However, it must be borne in mind that the difference between glossed texts and verse is statistically significant just by a short margin, unlike what results showed when other categories were compared. These results, thus, reveal glossed texts to be closer to the behaviour of prose ones than verse ones even though with not a great difference with the latter. Of course, it cannot be forgotten that the vast majority of glossed texts used in this study are prose in nature. However, as has been shown, results in these two categories are not exactly the same. These data help to support the idea that even though the glossed texts taken into consideration may have a nature close to prose texts, there are still differences between them that make glossed texts a bit more conservative with respect to the object of study of this work than original (to a higher or lower extent) prose texts are.

Such a difference between gloss and prose texts might be related to dialectal issues. The great majority of examples from gloss texts in my corpus have been taken from three texts copied in northern areas of England, namely the *Durham Ritual* and the *Lindisfarne Gospels*, both written in the Northumbrian variety of Old English (Fernández Cuesta and Pons-Sanz (2016: 1)), and the *Rushworth Gospels*, which provide the greater number of examples to my corpus. *The Rushworth Gospels* are in fact made up of two different glosses, known as Ru<sup>1</sup> or Farman's Rushworth 1, which presents features of the Mercian variety, and Ru<sup>2</sup> also called Rushworth 2 or Owun's gloss, with a clear Northumbrian character, see Kotake (2016). Therefore, it makes sense to hypothesise that the language of these texts presents differences with respect to their prose counterparts that go beyond text type itself and that could have influenced the results obtained in this study concerning valence change. The fact that gloss texts happen to be more conservative, though not to a great extent, than prose ones goes in

line with the conclusions put forth by García García (2016). In her study of the causative formation in the *Lindisfarne Gospels* she concludes that this text is not more innovative than other non-Northumbrian texts as far as derivational morphology is concerned in spite of the clear innovative character that this Old English variety presents with regards to inflectional morphology compared to other southern texts, see Cole (2016), Millar (2016), and Rodríguez Ledesma (2016), all included in the same volume focused on the study of the *Lindisfarne Gospels*.

As for the data in connection with date of composition, the results obtained in this study also present some interesting insights. Perhaps the most relevant one is the statistical confirmation that later texts (from ca 950 onwards) are much more innovative as far as the labilization of morphological causatives and their counterparts is concerned. This would be a trivial observation were it not for the fact that studies on OE rarely make a precise quantitative assessment of the variation within the period itself. In fact, such a chronological evolution of labilization is not accepted by all scholars. In his study of English labile verbs, McMillion (2006: 193-5) points out that OE is not particularly prone to lability since the number of labile verbs it presents is rather similar to that of Present-day Swedish or German. The statistical analysis showed the difference between early and late texts in general to be extremely statistically significant as mentioned above. In addition to this information, the analysis detailed in this section also revealed that not all types of texts considered in this study behave in exactly the same way chronologically speaking. Results showed that even though there is a movement towards a higher number of verbs exhibiting NHEV in Old English in general, the difference between earlier and later periods varies depending on the text type analysed. While prose texts show an important variation between earlier and later texts, verse is more stable. These data reveal, then, that even though chronological changes do take place in verse, they are much more gradual in the case of this text type than in prose, where the difference suggests that this change took place in a more radical way.

These results show that even though it may seem obvious that later texts would display a higher number of cases of NHEV (bearing in mind how these verbs evolved in later stages of the language), it is still relevant to analyse data in detail. Although much has

been written and discussed about the changes that take place in the evolution from Old to Middle English, especially morphological ones, little attention has been paid to details in relation to some phenomena, such as the dissolution of the morphological causative formation, as well as others falling outside the range of this study. In this chapter, I have tried to offer a picture as detailed as possible of the time frame and textual mapping of the rise of labile constructions in Old English, given the fragmentary nature of the data, reflecting the dynamic nature of the phenomenon under study and the historical depth of the Old English period, frequently overlooked. This work intends to corroborate that the holistic pictures of the Old English language, convenient as they are, also entail a simplistic reduction of a much more complex reality.

## CHAPTER 6: EFFECTS OF VERBAL PREFIXES ON TRANSITIVITY AND THEIR INTERACTION WITH THE CAUSATIVE FORMATION

So far the causative and non-causative members of the pairs under study have been compared and contrasted in order to map the valence changes of causative pairs during the Old English period. In this chapter, rather than the members of a *jan*-pair, simple verbs will be compared with their prefixed formations with the objective of analysing the effects that verbal prefixes may have on transitivity, not only seen in the traditional dual view but from the multiple parameter scope offered by the cardinal transitivity approach. Several of the effects attributed to prefixes are connected to some of the parameters that conform cardinal transitivity according to Hopper and Thompson (1980), such as number of participants, aspect or affectedness of O. This chapter, then, has as its main objective to assess to what extent prefixes have an effect on these parameters, if at all, as well as to analyse whether (some of the) prefixes can be associated with a higher transitivity as a whole too. Secondly, the analysis discussed in this chapter aims at providing insights concerning the interaction of the causative suffix and the effects of prefixation, since both prefixes and the causative suffix involve an increase in the transitivity scale, especially in relation to the parameter Participants. The analysis in this chapter, thus assesses whether any of the prefixes express causativity-transitivity in the verbs selected, and tries to clarify to what extent the causative formation has been overridden (if it all) by prefixes. This possibility has been mentioned in previous literature, but has been little explored so far (Visser 1963: 97-100). Lindemann (1970: 30), on the other hand, rejects the role of prefixes, more specifically *ge-*, as transitivising force. In addition to these objectives, I intended to offer a mapping of the transitivising effects of prefixes taking into account chronological and genre-related data, as in the previous chapter concerning the loss of the causative opposition in causative pairs. However, this had to be discarded due to scarcity of examples and especially to their unevenly distribution in terms of date of composition and genres in my corpus.

This study does not include an analysis of each of the prefixes in question outside the 13 verb pairs on which this whole work is based. This work cannot include every single



example of prefixes attached to the causative verb pairs under analysis. Although obviously a comprehensive corpus would yield conclusive results, it is considered that the number of examples and the variety they present in terms of different verbs, different text types, etc. conform a representative enough corpus in order to investigate the influence these prefixes may have on transitivity. Additionally, the fact that this particular corpus is based on labile verbs allows for the assessment of the influence of prefixes on Participants in a way that would not be possible in corpora that only take into consideration verbs that present no valence variation. More specifically, it makes it possible to contrast whether and how prefixes influence the choice of valence in the verbs under study.

The structure of this chapter is as follows: firstly, an overview of the effects and functions of Old English verbal prefixes according to the literature is given. Secondly, the methodology employed in the analysis of the data is explained in detail. This section is followed by results of the analysis of the effects of each of the prefixes taken into account in this study on transitivity in alphabetical order, beginning with *ā-*. The corresponding verbs to which the prefix under analysis is attached are also dealt with alphabetically, with the exception of the verbs with *for-*, in which case, due to the remarkable semantic changes undergone by one group of verbs, it was deemed more appropriate to divide verbs into two different subgroups so that results could be explained in a clearer way. Lastly, the chapter closes with the concluding remarks obtained from the analysis discussed in the previous section.

## **6.1 Old English verbal prefixes**

According to several standard grammars of Old English and other Germanic languages, such as Quirk and Wrenn (1957: 109-19) or Krahe and Meid (1967: 36-9), as well as different studies concerning Old English verbal prefixes, e.g. de la Cruz (1975), Hiltunen (1983: 47-53) and Brinton (1988: 199-212), Old English verbal prefixes have meanings and functions related to transitivity both in the traditional dual sense and the cardinal one. More specifically, Old English verbal prefixes have often been discussed in connection with affectedness of O and aspect, in addition to number of participants.

The present section offers an overview of the literature concerning the functions and meanings that have been often attributed to the prefixes under study.

As Brinton (1988: 199) points out, the idea of Germanic verbal prefixes having meanings such as completive, perfective or intensive goes back to Streitberg (1891). For this author, the Gothic prefix *ga-* (cognate of Old English *ge-*) represented a perfect example of a perfectivizing only prefix, an idea that, as will be explained in more detail below, has been contested by some later scholars.

The original meaning of *ga-* and other verbal prefixes dealt with in this study, however, does not seem to be related to aspect or *Aktionsart* meanings. In Brinton's view (1988: 185), those meanings related to aspectual notions might have developed from former spatial meanings. She mentions (1988: 191-4) that this change in meaning has typically been explained through the notions of semantic bleaching and metaphor. However, since the latter seems to affect exclusively adverbial particles in phrasal verbs, I will deal only with semantic bleaching.

The idea of semantic bleaching as the main mechanism causing this change from spatial to perfective meaning was first put forth by Streitberg (1891: 102-3), who in the same work where he deals with the perfective meaning of Gothic *ga-* also concluded that the meanings of the prefixes had "disappeared", "evaporated" or "been blown away". De la Cruz elaborates on this view and explains that "the modification (of the prefixes) developed through the abstraction of the locative notion" (1975: 75), similarly to Brinton, though as will be shown, by means of a change mechanism that is not semantic bleaching.

As Brinton argues (1988: 192-4), both the semantic bleaching and metaphor hypotheses present certain flaws and objections that make the search for an alternative hypothesis necessary. She mentions two fundamental aspects that weaken these explanations. The first one has to do with the fact that both concrete and non-concrete meanings can appear in the same expression. De la Cruz (1975: 56, 71, 75) exemplifies this through Old English *ofthowed*, both 'thawed away' or 'completely thawed'. Perhaps the point is

more easily observed using a Present-day English example, as Bolinger (1971: 101) does. He uses the expression *grow up* which, as he points out, has both spatial (movement upward) and perfective meaning. Indeed, the coexistence of these two meanings goes against the semantic bleaching hypothesis, since according to this view, a gradual fading of meaning, rather than the coexistence of both in the same expression is to be expected. In fact, the process resembles the semantic effects of grammaticalization (see Hopper and Traugott (2003) for a comprehensive account of this phenomenon). The second aspect that must be borne in mind is even more important, according to Brinton. Quoting her exact words “none of these theories accounts for how or why the semantic change takes place” (1988: 194). Neither through metaphor nor through bleaching are we able to explain what allows particles such as *up* or *on* or prefixes like *be-* (originally meaning ‘about, around’) or *for-* (‘away, forth’) to acquire aspectual or *Aktionsart* meaning from an original spatial meaning.

This is the specific question that authors such as Bolinger (1971) and Traugott (1978) try to answer. I would like to comment especially on the latter’s views, as Brinton (1988: 194-7) does. According to Traugott (1978: 388-93) telic markers seem to be derived from terms that denote either a goal or path, e.g. *through*; the vertical plane, e.g. *down, up, over, off* and source as in *out*. What is relevant about these terms is that they presuppose sources and goals. On the other hand, continuative or progressive markers are derived from terms which denote continuity or withinness as is the case with *in, at* or *on*.

Traugott’s suggestion represents a localist view of *Aktionsart*. The main point here is that different situations are analysed as having a spatial dimension which means that their movement through the time dimension is represented as movements through space: the very common and well-known space to time metaphor (see Lakoff and Johnson (2003) for a complete account on metaphors). For example, activities or states, since they do not have an inherent terminal point, could be represented as an unbounded line, whereas accomplishments are best represented by means of a bounded line ending at some point due to their implicit telicity. Thus, particles such as the ones mentioned above, or their older prefix counterparts, come to indicate movement towards a goal.

Movement towards a goal usually implies either the attainment of the goal in question, that is, completive or perfective meaning, or the going beyond the goal, i.e. intensive meanings which are often related to negative connotations. As will be seen below, these are some of the meanings commonly associated with Old English verbal prefixes in the literature. On the other hand, particles and prefixes whose meaning indicates stasis or location end up indicating atelic or continuing situations, as Brinton (1988: 195) points out.

The situation explained above is best illustrated by an example. In this case a German example used by Stöcklein cited by Stern will be used to illustrate this point (1931 [1964]: 380). The type of prefix dealt with in this study first appears with verbs of motion or of physical action where the spatial meaning is primary. That is the case of the German verb *anziehen* which originally meant ‘to draw on (boots, gloves, etc)’. From a verb denoting a purely physical action of pulling, speakers’ attention shifts to the notion of result or endpoint, that is, the moment where the boot or glove is already on. Thus the verb meaning changes to ‘get’ or ‘put on’, but in this case, its object can be any article of clothing, even those that do not necessarily imply any kind of pulling or drawing as in (6.1) below:

(6.1)

*Helmut wollte das blaue Hemd anziehen*

Helmut wanted the blue shirt put on

‘Helmut wanted to put on the blue shirt’

Once I have commented on the origin and meaning shift undergone by some verbal prefixes in Germanic, focus will be laid on the precise meaning attributed to each of the prefixes under study. Figure 6.1 provides a list of the different prefixes taken into account in this study, that is, those attached to the 26 verbs analysed in this work in the different texts where examples were searched for. As mentioned in the introduction, the list includes the most common Old English prefixes. Additionally, their original spatial meanings are included in this same figure.

Figure 6.1: List of the different Old English prefixes taken into account.

OE Prefix	Meaning
<i>ā-</i>	‘away, out’
<i>ǣt-</i>	‘at, to, from’
<i>be-</i> , <i>bī-</i>	‘about, around’
<i>for-</i>	‘forth, away’
<i>ge-</i>	‘together?’
<i>of-</i>	‘from, away’
<i>tō-</i>	‘apart, away’
<i>ymb-</i>	‘around’

### 6.1.1 *Ge-*

I will start the overview of the different meanings proposed for each of the prefixes with *ge-*, since this was the prefix to which a meaning related to cardinal transitivity, more specifically aspectual meaning, was first attributed as mentioned above. In his 1891 study, Streitberg argued that *ge-* constituted a great example of perfectivizing only prefix, a view shared by more recent scholars such as van Kemenade and Los (2003). This theory has been contested by several authors, of which Lindemann (1970) is perhaps the most often cited. Lindemann (1970: 11-8) showed that *ge-* does not necessarily convey perfective meaning. For instance, he demonstrates that *ge-*prefixed verbs can have durative meaning, may express present tense or may occur with adverbs that express extent in time. According to this author, Streitberg’s work presents a serious confusion of the concepts of aspect and *Aktionsart* (see chapter 3, section 3.4 for an overview of these two concepts). He concludes that the meaning conveyed by this prefix is not aspectual in nature but has to do with *Aktionsart*, more precisely with the feature [+telic], a view supported by Brinton as well (1988: 202), who considers preverbal prefixes in general (not just *ge-*) expressions of telic *Aktionsart* rather than of perfective and intensive meaning. Additionally, other scholars have emphasised the resultative function of the prefix *ge-* (see Lloyd (1979) and Eythórsson (1995)). Following this trend, in a very recent study, McFadden (2015) analyses *ge-* as the default realization of a resultative head in the sense of Ramchand (2008). In his panchronic study of the prefix, Martín Arista (2012) puts forth that *ge-* evolves from a

derivational affix with a telic *Aktionsart* function to a later inflectional affix having a perfective, that is aspectual, function. Examples of verbs to which the prefix *ge-* is attached abound in my corpus, e.g. *gebyrnan* ‘burn (intr.)’, *gebīgan* ‘bend, bow down; humble (caus.)’, *gemeltan* ‘melt (intr.), be dissolved, be digested’ or *gewendan* ‘turn, cause to move; go, return’.

### 6.1.2 $\bar{A}$ -

Together with *ge-*, the prefix  $\bar{a}$ - is the one in which the shift from spatial to *Aktionsart* meaning is less clear, as Brinton (1988: 211) states. As she explains, this is due to the fact that, again together with *ge-*, it is by far the most widely extended verbal prefix. For Quirk and Wrenn, the main function of  $\bar{a}$ - is “to change aspect from durative to perfective” (1957: 109). They also add that it may be an intensifier or simply lacks any clear semantic function. The intensifying meaning is highlighted by de la Cruz (1975: 73). This latter function together with change from durative to perfective aspect are taken into account by Bosworth and Toller (1898). To these they add other functions such as commencement, origin, outward direction and transitivity. (6.2) below is a list exemplifying Old English verbs with the prefix  $\bar{a}$ -.

(6.2)

<i>āfyllan</i>	‘to fill up or full’
<i>āhweorfan</i>	‘to turn, turn away; convert (intr.)’
<i>āwenden</i>	‘avert, turn aside; change; translate’
<i>āwrītan</i>	‘to write out, down’
<i>āscūfan</i>	‘to drive away, expel’

### 6.1.3 $\bar{A}t$ -

The prefix  $\bar{a}t$ - appears together with the verbs *hweorfan* and *windan* in my corpus. As pointed out by Bosworth and Toller (1898) this verbal prefix is closely linked to the preposition *æt*. According to this dictionary, it denotes the meanings “at, to and from”. This is well illustrated through the meanings of the verbs *æthweorfan* and *ætwindan*, i.e. ‘turn, return, go back’ and ‘wind off, turn away, escape and flee away’ respectively.

#### 6.1.4 *Be-*

The prefix *be-* is often linked to the idea of traditional transitivity. If attached to certain verbs, it turns an intransitive verb (with one macrorole) into a transitive one (with two) as pointed out by de la Cruz (1975: 64-5) and Bosworth and Toller (1898). It must be pointed out here that transitivity through this prefix always implies the addition of an undergoer argument with the syntactic function of object, (see 6.3 below) contrary to causatives, which as explained in chapter 3, section 3.3, add A arguments with the syntactic function of A.

(6.3)

& *hi behwurfon hi buton ðære wicstowe*

and they buried them outside the camp

‘And they buried them outside the camp’

Num B8.1.4.4 [0067 (11.32)]

Additionally, Bosworth and Toller (1898) also refer to the intensive meaning of the prefix *be-*. Furthermore, Quirk and Wrenn (1957: 110) highlight the fact that *be-* has the meaning ‘round over’, often with an intensifying or perfective effect. In fact, contrary to the cases of the aforementioned prefixes, *be-* is perhaps the one in which the shift from spatial, more specifically surrounding or encompassing, to *Aktionsart* is most easily seen. As Brinton puts it in relation to this surrounding movement “by moving around something, one reaches the point where one began, simultaneously the beginning and the endpoint” (1988: 209), which is one of the clearest ways of expressing attainment of a goal. The verbs in (6.4) exemplify some uses of *be-*:

(6.4)

*behwyrfan* ‘turn, change, convert (trans.)’

*bewindan* ‘to wind around’

*befyllan* ‘to befoul, pollute’

*bewēpan* ‘to bewail’

*befaran* ‘to encompass’

### 6.1.5 *For-*

Another prefix often related to a transitivising function in a traditional way is *for-*. This function is put forth by Bosworth and Toller (1898). These scholars, together with Quirk and Wrenn (1957: 110) also make reference to other more concrete meanings such as deterioration or destruction. Rejection, exhaustion, destruction and prohibition are some other meanings proposed by Onions, Friedrichsen and Burchfield (1966). De la Cruz (1975: 51) emphasizes the frequent connotations of wrongness and negativity associated with this prefix. If Brinton's reasoning (1988: 208) is followed, none of these should be unexpected. The adverbial notion of 'forth' original to this prefix conveys the idea of endpoint of an activity. This in turn, may highlight the idea of deterioration and destruction, e.g. if something burns to the end, it will end up being completely destroyed, which of course is a negative consequence. The prefix *for-* is very common with verbs meaning 'wither away', 'burn up' or 'eat up' as exemplified below (6.5).

(6.5)

<i>forbæрман</i>	'cause to burn, burn up, destroy by fire, consume by fire'
<i>formeltan</i>	'to melt away, liquify'
<i>forrotian</i>	'to become wholly rotten'
<i>forgnagan</i>	'to gnaw, eat up'
<i>forwisnian</i>	'to wither, to wizen away'

### 6.1.6 *On-*

The next prefix I will deal with is *on-*. Contrary to what is the case with the aforementioned ones, this prefix has not been claimed to have any meaning or function related to transitivity in the traditional sense. However, it is often discussed in connection with aspectual notions, more precisely, this prefix is usually described as a marker of continuation, hence related to atelicity. Quirk and Wrenn (1957: 111-2) mention inception of the action (ingressive aspect), as one of its meanings; following Sasse (1991) the ingressive meaning is connected to telicity, rather than atelicity. In this case, it is the initial border of the event, rather than the final one, the one that is signalled. This latter ingressive meaning is exemplified below:



(6.6)

<i>onbāernan</i>	‘to set fire to, to kindle’
<i>onhāetan</i>	‘to heat, inflame’
<i>onslāpan</i>	‘to fall asleep’
<i>ontendan</i>	‘to set fire to, to kindle’

#### 6.1.7 *Op-*

The prefix *op-*, as *æt-*, is not one of the major Old English prefixes and as such is not taken into account in Brinton’s (1988) work. However, I have included it in this brief overview because it does appear attached to some of the verbs analyzed in this study, more specifically *opwendan* ‘to turn away, deprive’ and *opwindan* ‘to escape’. According to Bosworth and Toller (1898) this prefix conveys the meaning ‘from’ or ‘away’. To these Quirk and Wrenn (1957: 117) also add the meanings ‘at, close to’ as in *oðstandan* ‘to stand still’, even if they point out that the meanings put forth by Bosworth and Toller are more common. Additionally, Clark-Hall (1960) mentions departure and separation, as is clearly seen in the aforementioned verbs as well as in *opfeallan* ‘to fall off, decline; to fall away from’.

#### 6.1.8 *Tō-*

Another verbal prefix that is regarded as conveying perfective aspect is *tō-* according to Quirk and Wrenn (1957: 114). The notions of separation and intensification are highlighted by some other authors such as Bosworth and Toller (1898) and Bechler (1909: 12). Fraser (1980: 187-8) also adds the meaning of dispersion to the aforementioned list. These notions of separation and dispersion are more easily seen when the verb the prefix is attached to already shows this meaning, for instance *tōbreccan* ‘to break to pieces’. Below other examples of verbs with *tō-* are shown.

(6.7)

<i>tōstencan</i>	‘scatter, disperse, drive apart’
<i>tōberstan</i>	‘to burst asunder’
<i>tōdāelan</i>	‘to divide, separate, distribute; to separate with the mind’
<i>tōflōwan</i>	‘to flow in different ways, disperse in flowing; to be distracted’

*tōcnawan* 'to examine in detail, enquire into the several parts of a subject'

### 6.1.9 *Ymb-*

The last verbal prefix taken into account in this study is *ymb-*. Similarly to *be-*, the adverbial meaning of this prefix ('around') is very clearly seen. So much so that scholars such as Quirk and Wrenn (1957: 119) consider it a prefix with a purely adverbial meaning lacking any functions associated with telic *Aktionsart*. For Brinton (1988: 210) though, *ymb-* acquires *Aktionsart* meaning just like *be-* does. The verbs below are good examples of this combination of both *Aktionsart* and adverbial meaning:

(6.8)

<i>ymbhweorfan</i>	'to surround, encompass'
<i>ymbhlennan</i>	'to crowd about, surround'
<i>ymbfrætewian</i>	'to surround with ornament'
<i>ymbscinan</i>	'to shine round, surround with brightness'

## 6.2 Methodology

The aim of the following section is to explain in detail the methodology employed in the analysis of the effects and functions of prefixes on transitivity in the verbs taken into account in this study and their interaction with the causative formation.

As mentioned above, this study analyses the different attestations in my corpus of the prefixed counterparts of the 13 *-jan* pairs on which focus is laid. This corpus of examples contains instances of all major Old English prefixes commented on above. As for tools for analysis, cardinal transitivity serves as the main methodological tool because it has been found to be the most comprehensive treatment of transitivity so far, and one that suits perfectly the object of study. As has been pointed out in the introduction, a few of the parameters of cardinal transitivity coincide with the functions sometimes attributed to prefixes. Moreover, in spite of its being several decades old, it is still regarded as a valid theory on transitivity, applied for example by Naess (2007) in her monograph on this phenomenon and by Hollmann (2003) dealing with the study of

causative sentences. The parameters that comprise cardinal transitivity are repeated below in Figure 6.2.

Figure 6.2: Parameters of cardinal transitivity.

	High	Low
A. Participants	2 or more participants, A and O	1 participant
B. Kinesis	Action	Non-action
C. Aspect	Telic	Atelic
D. Punctuality	Punctual	Non-punctual
E. Volitionality	Volitional	Non-volitional
F. Affirmation	Affirmative	Negative
G. Mode	Realis	Irrealis
H. Agency	A high in potency	A low in potency
I. Affectedness of O	O totally affected	O non affected
J. Individuation of O	O highly individuated	O non-individuated

Hopper and Thompson (1980: 252)

The Cardinal Transitivity Hypothesis and what each of the parameters and values represent has already been commented on in detail in chapter 3, section 3.2.1. Even though the analysis offered in this study is clearly based on this model, I have seen it fit to add certain modifications in a similar vein to what Hollmann (2003: 185) does in his study of the analysis of causative sentences. However, it must be pointed out that these modifications do not follow Hollmann's one to one. In what follows, I will detail what these subtle alterations consist of and the reasons why they have been applied.

First of all, as pointed out by Hollmann (*ibid*), the table offered by Hopper and Thompson presents an important shortcoming when a quantitative and comparative analysis of a large number of sentences is intended, namely the lack of a kind of numerical scoring system. Since one of the objectives of this analysis is to present quantitative data of the sentences under analysis and a comparison between them, the use of a scoring system was considered inevitable.

In addition to this, as Hollmann also does, though not in exactly the same way, I have introduced certain changes in some of the parameters. More specifically, some pairs of parameters have been united under just one. On the one hand, parameter E, Volitionality, has disappeared and has been fused with parameter H, Agency, under a parameter that takes the name of the latter. On the other hand, parameters I, Affectedness of O, and J, Individuation of O, have also been analysed together as just one, which I have termed in a very unoriginal way Affectedness-Individuation of U<sup>1</sup>. The reasons why I have decided to carry out these two fusions of parameters will be explained in detail when I describe the different parameters and their scores below. Notice also that I refer to U, rather than O as Hopper and Thompson do, because contrary to them, I will be analysing the affectedness and individuation sustained by the undergoer argument of the clause, independently of whether it functions as A or O from a syntactic point of view. Thus, the undergoers in (6.9) (a) and (b) below will be analysed for Affectedness-Individuation even if in Hopper and Thompson's model only the undergoer in (b), the one functioning as O, would be eligible for such an analysis.

(6.9)

a. *Donne byrnð seo eorðe:*

Then burns the earth

'Then the earth burns.'

ÆCHom I, 22 B1.1.24 [0086 (360.170)]

b. [...] *He eal þæt land mid sweflenum fyre forbærnde.*

[...] He all that land with sulphurous fire burnt up.

'He burnt up all that land with a sulphurous fire'.

Or 1 B9.2.2 [0217 (3.23.4)]

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<sup>1</sup> Notice that the names of the parameters under study will be written with capital letters: e.g. there exist differences in parameter Telicity. When referring to a certain property with the same name, lower case will be used, e.g. the verb *byrnan* presents a tendency towards telicity, i.e. the property of being +telic.

Lastly, I have also modified the order in which parameters appear (see Figure 6.3 below). This change, of course, does not affect the results in any way, but it made the analysis of sentences faster and easier due to the fact that the effect on other parameters (such as Agency) that negation and the irrealis values may have was taken into consideration from the very beginning of the analysis of the sentence, thus avoiding numerous errors more easily. Furthermore, some of the parameters related to *Aktionsart* categories have also received a new name. Kinesis and aspect will be referred to as dynamicity and telicity respectively. This decision was made in order to keep names in accordance with the names of the different features of *Aktionsart* used in van Valin (2005), whose model I follow as explained in chapter 3.

The list of parameters employed in this study in the analysis of the different components of transitivity includes eight parameters numbered from 1 to 8. They are the following:

Figure 6.3: Parameters of transitivity used in this study.

Parameter 1	Affirmation
Parameter 2	Mode
Parameter 3	Dynamicity
Parameter 4	Telicity
Parameter 5	Punctuality
Parameter 6	Participants
Parameter 7	Agency
Parameter 8	Affectedness-individuation of U

In what follows I will explain what each of the parameters consists of. Focus will be laid on the possible values each of them may present, as well as on their corresponding score. Detailed information concerning the selection of the different values will be offered. Additionally, each of the different values of every parameter will be correspondingly exemplified with clauses taken from the corpus used in this study in order to clarify any remaining doubts or questions that the accompanying previous explanation may raise.

The first parameter included in my analysis is affirmation. In this case, this parameter presents no differences with respect to Hopper and Thompson's proposal and, as theirs, this parameter is self-explanatory. According to this parameter, the clauses under analysis have been labelled using two different values only, i.e. affirmative and negative. The former get 1 point in this parameter while the latter get 0 points. Clauses (6.10a) and (6.10b) below are examples of an affirmative and a negative clause respectively.

(6.10)

a. *Hi forbærndon ða ða burh*

They burnt up then the city

'Then they burnt the city completely'

Josh B8.1.4.6 [0069 (6.24)]

b. *Ne belaf nan ceaster on eallum þisum eared*

NEG remained no town in all this earth

'No town remained in the whole earth'

ÆCHom I, 38 B1.1.40 [0158 (516.262)]

More interesting is, however, the fact that negation acts as a feature-switching operator. As pointed out by Næss (2007-114-8), negation has effects on certain of the features both agents and patients present and that are directly connected with some of the parameters analysed in this study, specially on parameters 7 and 8, namely Agency and Affectedness-individuation of U. The precise effects negation has on these parameters will be described when commenting on those. A detailed account of how feature-switching operators work is available in chapter 3, section 3.2.2.

The second parameter I make use of, i.e. mode, is also quite self-explanatory and similar to what is taken into account in the Cardinal Transitivity Hypothesis. Mode is a two-valued parameter since only two different values are possible. A clause may be realis, that is, in the realis mode, meaning portraying an event, action, etc. that is described as actually taking or having taken place. Realis clauses get 1 point in the

scoring system used in this study. Irrealis clauses, on the other hand, are those that present an action as not occurring, as hypothetical or as occurring or having occurred in a non-real world. Clauses in which the verb is in the subjunctive mood (a usual means to express irrealis mode in Old English) or accompanied by a modal verb indicating futurity, likelihood, probability, etc. such as equivalents of PDE *will*, *may*, or *should* have been considered irrealis and therefore get 0 points. At this stage, it must be indicated that negative clauses (i.e. negative in parameter 1) are automatically irrealis since they portray an event that is not taking place, regardless of the tense or mood of the main verb. Clause (6.11a) is an example of realis clause. (6.11b) and (6.11c) are irrealis. The former has a verb in the subjunctive mood and the latter a modal verb indicating willingness.

(6.11)

a. *se anwald siððan on Mæðe gehwearf*

the power afterwards to Persia turned

‘The power turned to Persia afterwards’

Or 1 B9.2.2 [0278 (8.27.23)]

b. *buton se mon his agenes willes to his lare gebuge*

except the man his own will to his knowledge bends

‘Except the man that bends his own will to his knowledge’

ÆCHom I, 1 B1.1.2 [0056 (183.118)]

c. *ða wolde ic minne þurst lehtan & celan*

then wanted I my thirst relieve & quench

‘Then I wanted to relieve and quench my thirst’

Alex B22.1 [0075 (13.3)]

The next three parameters, namely 3 (Dynamicity), 4 (Telicity) and 5 (Punctuality) make reference to features of *Aktionsart*. As was the case with the previous parameters, only two possible values can be given to each of these: either + dynamic / telic /

punctual or – dynamic / telic / punctual. Similarly to the above described parameters, the + values get 1 point while the – categories are awarded 0 points.

As far as *Aktionsart* is concerned, I have followed van Valin and LaPolla (1997) and van Valin's (2005) views, as already mentioned in chapter 3 section 3.4. In that same section I described in detail the different tests I have made use of in order to determine the specific *Aktionsart* of each of the clauses analysed in this study and therefore the value they get in each of the parameters I am commenting on. As explained there these tests are based on the compatibility of specific *Aktionsart* features, +telic, +punctual, etc. with certain constructions, usually adverbials.

The test for dynamicity is based on the compatibility of +dynamic *Aktionsart* types with adverbs that code dynamic action such as *vigorously*, *violently*, etc. As for punctuality, this feature can be distinguished through pace adverbs, i.e. those that involve duration in time, for instance *quickly*, *slowly*, since only non-punctual verbs are compatible with such adverbs. Telic and atelic *Aktionsart* types can be differentiated by means of two different tests. Test 4 refers to the possibility of a verb to appear with a duration adverb such as *for an hour*. This determines the property of a certain verb to have duration in time. Lastly, test 5 can be used to assess whether a verb is compatible with terminal points. If something can be done *in x time* an explicit reference is being made to the endpoint of the situation in question [+telic]. The given state of affairs began at some time and finished after x time.

In spite of the fact that they are exemplified using English sentences, these tests are not intended for the study of English only. One of the fundamental goals of the RRG framework, as pointed out by van Valin and LaPolla (1997: 15) is to serve as a descriptive framework that can be used by field linguists for writing grammars of languages that have been poorly studied so far. This goal clearly points to a universal application of this framework of which the aforementioned tests are part. Considering this, there is no reason why the application of these tests to the study of a natural language such as Old English should be avoided. However, the fact that Old English is a dead language with no native speakers presents a challenge concerning the use of



these tests since these cannot be applied freely to any clause with absolute certainty, and obviously, the adverbials mentioned above do not appear in all clauses conforming the corpus analysed in this work. In spite of this added difficulty, it must be pointed out that examples of the adverbials proposed above abound in the surviving Old English corpus. This shows that Old English is indeed compatible with such adverbials and that speculative as the application of these tests to any clause might be, we have the certainty that such adverbials are not alien to Old English and that the degree of conjecture in the application of these tests is not as high as might seem at first sight. Such adverbials are exemplified in (6.12) below. (6.12a) illustrates the use of the adverb *hetelice* ‘violently’ that can be used to determine the dynamicity of the clause. (6.12b) includes the pace adverb *swiftlice* ‘quickly’ indicating duration in time and therefore non-punctuality. Clause (6.12c) exemplifies the use of the duration adverbial *lange hwile* ‘for a long while’ involving duration in time, i.e. atelicity. Lastly, (6.12d) serves to illustrate an adverbial that explicitly makes reference to an endpoint in time, namely *on seofan gearan* ‘in seven years’.

(6.12)

a. *And se dema het beswingan þa halgan*  
 And the.NOM judge ordered beat the.ACC holy

*hetelice swyðe mið leadenum swipum*  
 violently very with leather whips

‘And the judge ordered the holy ones to be beaten extremely violently’

ÆLS (Abdon & Sennes) B1.3.24 [0015 (46)]

b. *Þa gelæhte se engel abbacuc be þam feaxe and bær hine*  
 Then seized the.NOM angel Habakkuk by the hair and brought him

*swiftlice to þære foresædan byrig*  
 quickly to the aforesaid fort

‘Then the angel seized Habakkuk by the hair and brought him quickly to the aforesaid fort’

ÆCHom 22 B1.4.22 [0015 (46)]

c. & *seo sæ bærnde lange hwile*

& the.NOM sea burned long.ACC while.ACC

‘And the sea was burning for a long while’.

LS 29 (Nicholas) B3.3.29 [0112 (315)]

d. & *þæt temple wæs on seofan gearan geworht*

& the.NOM temple was in seven years constructed

‘And the temple was built in seven years’.

Notes 26.3 (Nap) B24.26.3 [0010 (25)]

Before discussing other parameters, it is also important to highlight the fact that the aforementioned adverbials are not the only ones that help to determine the *Aktionsart* of the clauses analysed in this study. Adverbs that imply the attainment of a goal such as *to ahsan* ‘to ashes’ in (6.13a) or lack of it, for instance *ecelice* ‘eternally’ in (6.13b) which are attested in my corpus of examples may also be useful in identifying some of the *Aktionsart* features dealt with in this study. In these cases, *to ahsan* and *ecelice* serve to classify clauses (6.13a) and (6.13b) as +telic and –telic respectively.

(6.13)

a. *genim deade beon, gebærne to ahsan*

take.IMPTV dead.ACC bee.ACC burn.IMPTV to ashes

‘Take a dead bee, burn (it) to ashes’

Lch II (1) (Cockayne) B21.2.1.1.1 [0742 (87.1.4)]

b. & *nan leoht. ac ecelice byrnð on sweartum þeostrum*

& no light however eternally burn in gloomy darkness

‘And however, no light will burn eternally in gloomy darkness’

ÆCHom I, 35 B1.1.37 [0106 (482.195)]

To conclude the section on parameters Dynamicity, Telicity and Punctuality, examples of clauses showing both + and – values for dynamicity (+ example (6.14a), - example (6.14b)), telicity (+ example (6.15a), - example (6.15b)) and punctuality (+ example (6.16a) (the second coordinate clause following &), - example (6.16b)) are offered below.

(6.14)

a. *ða beah eal Leuies mægð to Moyse*  
then submitted all Levi's people to Moses  
'Then the whole people of Levi submitted to Moses'  
Exod B8.1.4.2 [0572 (32.26)]

b. *& eal Sinai munt smeac*  
& all Sinai mount smoked  
'And the whole mount Sinai was smoking'  
Exod B8.1.4.2 [0388 (19.18)]

(6.15)

a. *& com se Wulfnoþ sona, & þa scypo forbærnde*  
& came the Wulfnoth soon, & the ships burnt up  
'And Wulfnoth came immediately and burnt the ships completely'  
ChronD (Cubbin) B17.8 [0607 (1009.17)]

b. *& I pund beana gewiþ IV penegum læsse þonne pund wætres*  
& 1 pound of beans weighs 4 pennies less than pound of water  
'And 1 pound of beans weighs 4 pennies less than one pound of water'  
Lch II (2) (Cockayne) B21.2.1.2.2 [0535 (67.1.6)]

(6.16)

a. *þa gelomp þæt þæt hus eall wæs in fyren & ongon semninga byrnan*  
then happened that the house all was on fire & began immediately burn  
'Then it happened that the whole house was on fire and began to burn immediately'

Bede 3 (Miller) B9.6.5 [0196 (8.180.26)]

b. *And þa æfter þon þe se here wæs ham hweorfende &...*

And then after that the army was home returning &...

‘And then after that the army was returning home &...’

Bede 1 (Miller) B9.6.3 [0197 (12.54.7)]

The sixth parameter I have taken into account in the analysis of transitivity as a whole is the one associated with transitivity in the traditional sense, namely Participants. The two possible values this parameter may have reflect the number of participants in the event in question. With number of participants I refer to the number of macroroles that the clause under analysis takes. Therefore, the parameter Participants can only get two different values: either 1 participant, be it an actor or an undergoer; or 2 participants, an actor and an undergoer. Clauses with just one participant score 0 points while those with two get 1 point in my scoring system. Clauses (6.17a) and (6.17b) are examples of a one-participant clause and a two-participant clause respectively.

(6.17)

a. *O, mi domine, nimium laboro*

*Eala, leof hlaford, þearle ic deorfe*

Alas, dear lord, too much I work

‘Alas, dear lord, too much I work’

Æcoll C3 [0015 (23)]

b. *God eac for þi hi tostencte:*

God yet for this them destroyed:

‘Yet God destroyed them for this reason:’

ÆCHom I, 22 B1.1.24 [0058 (358.115)]

Before discussing the next parameter, it is important to point out that reflexive clauses, such as (6.17c) below, have been classified as one participant clauses. This is due to the

fact that from a semantic point of view these clauses involve just one macrorole and therefore they are regarded as having just one participant in this study.

(6.17)

*c. þa bewende he hine to þan þrim cnihtum*

then turned he himself to the three boys

‘Then he turned to the three boys’

LS 29 (Nicholas) B3.3.29 [0203 (571)]

Parameter number 7 is Agency named after parameter H in Hopper and Thompson (1980). However, there are differences with respect to the parameter discussed by these two authors. In fact, the way I treat agency is based on the work by Hollmann (2003: 186). The main objective of analysis of this parameter is to determine whether the actor of the clause should be considered an agent or not. Even though closely related, these two labels do not refer to exactly the same thing. As pointed out in chapter 3, section 3.1.3.1, van Valin (2005: 56) emphasises that agents are intentional and volitional participants. Likewise, Næss (2007: 29) defines agents as + instigator and + volitional. Since volition is a central part in determining whether an actor is an agent or not, I decided to analyse volition and agency in just one parameter, rather than separately as Hopper and Thompson do. As a consequence of what has been explained, actors that are considered agents receive a different label and score in my system. These are labelled A+ and get 1 point. On the contrary, actors that are not instigators, do not act volitionally and so on are labelled A- and their score is 0 points. (6.18a) exemplifies an A+ clause and (6.18b) an A- clause.

(6.18)

a. *& heora cyning ða beah to þæs caseres <willan>.*

& their king then bent to the.GEN Caesar.GEN will

‘& their king then bent to the will of the Caesar’

ÆJudgEp B8.1.7.3 [0017 (65)]

b. *and se lig him wand wælhreowlice onbutan swa þæt [...]*

and the.NOM flame him turned violently around so that

‘And the flame turned about him violently so that [...]’

ÆLS (Martin) B1.3.30 [0210 (860)]

At this point, I would like to comment on a problematic group of actors from the point of view of agency. I refer specifically to groups or associations of people such as the very frequent in my corpus *se here* ‘the army’. Although an entity such as an army can only be made out of people, that is, sentient animate beings capable of volitional actions, I have considered that groupings like *here* or similar ones like *folc* ‘people’ (in the sense of nation rather than persons) should not be regarded as capable of volition etc. based on the fact that from my point of view, an army or a people itself is not able to make decisions or to feel the consequences of certain actions like individuals do. When the *Anglo-Saxon Chronicle* for instance reports that an certain army headed to a certain place, it is not the army as such that makes the decision or instigates the event, but rather a certain commander or king. For this reason, I have considered that collective nouns such as the ones above should in no case be labelled as A+ even if they can only be formed by human beings.

So far I have only commented on two possible labels concerning Agency. The analysis involving this parameter is more complex though. As Hollmann (ibid) points out, in the case of causatives, the undergoer may also display characteristics often only associated with actors, such as volition or resistance in case they are animate, sentient beings. Consequently, this implies that clauses in which both actor and undergoer are animate, sentient beings are higher in transitivity. This idea is reflected in the work by Talmy (1976, 1985, 1988), who devices a four-way classification of causation types in which inductive causation, that is, the one having both animate, sentient actors and undergoers is the more highly transitive.

Taking these views into account I have classified two-participant clauses in my corpus into three main groups concerning Agency depending on the nature of their participants. By far, the most common clauses are what Talmy calls volitional clauses, namely those

having a volitional, sentient agent as actor (A+) and an inanimate undergoer (U-). This is labelled as A+ / U- in my analysis. As in the case of A+ only clauses, these get 1 point. (6.19a) below exemplifies such a clause.

(6.19)

a. *ac hi godes tempel bræcan ond bærndon*  
yet they God's temple destroyed and burnt  
'Yet they destroyed and burnt the temple of God'  
Christ ABC (Krapp & Dobbie) A3.1 [0198 (706)]

Less common than volitional clauses are the aforementioned inductive ones, i.e. the ones having an agent Actor (A+) and an animate, sentient Undergoer (U+). The label for this type of clause is A+ / U+ and gets 1.5 points in my score (see (6.19b) for an example).

(6.19)

b. *forþon þe hie ær Mul forbærndon*  
because they before Mul burnt up  
'Because they had burnt up Mul before'  
ChronA (Bately) B17.1 [0211 (694.1)]

The other two remaining types are comparatively rare in my corpus. On the one hand, there are affective causatives, the ones having a non-agent actor, that is, an actor that is not animate, not sentient or not volitional or instigating and an animate, sentient Undergoer (A- / U+). These clauses are awarded 0.5 points. Lastly, there are clauses in which both actor and undergoer are labelled -. They are called physical causatives in Talmy's terms. The label I have used in my study is A- / U- and their score is 0 points. A- / U+ and A- / U- clauses are exemplified in (6.19c) (the second coordinate clause) and (6.19d) respectively.

(6.19)

c. & ðy us deriað & ðearle dyrfað fela ungelimpa  
& that.INST us hurt & exceedingly endager many misfortunes

‘& with that (they) hurt us and a lot of misfortunes endanger (us) exceedingly’

WHom 3 B2.1.3 [0007 (20)]

d. & *se here ða ferde sum to Denemearce*

& the.NOM army then travelled some to Denmark

& *XL scypa belaf mid þam cynige Cnute*

& 40 ships left with the King Cnut

‘And then part of the army travelled to Denmark, and left 40 ships with the king Cnut’

ChronC (O'Brian O'Keefe) B17.7 [0715 (1018.1)]

In addition to the aforementioned values, I have contemplated two additional possible labels for cases that have not yet been discussed. Up to this point, references have been made only to cases in which there is an actor in the clause. However, as has been mentioned concerning the previous parameter, it is perfectly possible for a one-participant clause to have an undergoer rather than an actor. When that is the case (see (6.19e) below), the clause in question is labelled No A and receives 0 points in the score.

(6.19)

e. *þonne þeos woruld [...] in scome byrneð*

Then this world [...] in disgrace burns

‘Then this world will burn in disgrace’

Phoen (Krapp & Dobbie) A3.4 [0124 (500)]

There is still another case that must be born in mind. As pointed out when discussing the first two parameters, affirmation and mode, some of their values, namely negative and irrealis, were said to be capable of altering some of the other parameters taken into account in this study. Agency is one of the parameters where that effect is clearly seen. As explained in more detail in chapter 3, section 3.2.2, Næss (2007: 114-8) emphasises the role played by negation and irrealis mode as feature-switching operators. These operators are able to change the sign of certain features of agents and patients from + to -. In the specific case of agency, irrealis mode, as well as negation, causes the feature



+INST, i.e. instigator, to switch to –INST. If the agent in question ceases to instigate any event it becomes a Frustrative and is no longer an agent. When A+ arguments are affected by irrealis mood I have used a different value, namely No A (Irre) in order to distinguish them from inanimate actors unable to show agency in any context (A-), even if the score they get is the same in both cases, i.e. 0 points. (6.19f) below includes a clause, the subordinate one, with a No A (Irre) Actor.

(6.19)

f. *Ic bidde eow þæt he hider ne gewende*

I command you that he hither not turn

‘I command you not to let him turn hither’

ÆCHom I, 31 B1.1.33 [0023 (440.45)]

Figure 6.4 is a summary of the different values that can be obtained with respect to Agency in my analysis together with a brief description of what they represent and the score they are assigned in my scoring system.

Figure 6.4: Different possible values of the Parameter Agency.

Value	Description	Points
No A	No actor argument	0
No A (Irre)	No agent due to effect of irrealis mode	0
A-	Actor is no agent	0
A- / U-	Actor is no agent. Undergoer is inanimate / non-sentient	0
A- / U+	Actor is no agent. Undergoer is animate / sentient	0.5
A+	Actor is an agent	1
A+ / U-	Actor is an agent. Undergoer is inanimate / non-sentient	1
A+ / U+	Actor is an agent. Undergoer is animate / sentient	1.5

The last parameter included in the analysis is the so-called Affectedness-individuation of U. As commented on above, this parameter is a fusion of two different parameters in Hopper and Thompson’s account. On the one hand, parameter I, Affectedness of O and on the other hand, parameter J, Individuation of O. The former refers to the degree of

affectedness undergone by the object (undergoer in the case of this study), to whether it is affected only partially or in its entirety as Hollmann (2003: 183) puts it. Thus, in a sentence like (6.20a) the undergoer is conceptualised as having been affected in its entirety, we know that Roberto drank all the beer he had at his disposal, while that is not the case in sentence (6.20b), where he may not have drunk all the available beer.

(6.20)

a. *Roberto drank 4 liters of beer*

b. *Roberto drank some beers*

Individuation of O is presented as a complex parameter in Hopper and Thompson as mentioned in chapter 3. They offer certain parameters to distinguish between what should be considered individuated O's and non-individuated ones. Figure 3.3 is repeated below for convenience's sake.

Figure 3.3: Parameters differentiating individuated from non-individuated noun phrases.

<b>Individuated</b>	<b>Non-individuated</b>
Proper	Common
Human, animate	Inanimate
Concrete	Abstract
Singular	Plural
Count	Mass
Referential, definite	Non-referential

Hopper and Thompson (1980: 253)

As can be observed in example (6.20a) and (6.20b) above, English typically codifies partially affected objects using features connected to the non-individuated scale rather than to the individuated one that seems to be preferred when total affectedness is to be conveyed. Thus, objects that need to be portrayed as partially affected are usually non-referential, indefinite nouns, while the opposite tends to be true of affected objects. A sentence like *He ate the hamburger* implies that the whole hamburger was affected

while in *He ate hamburgers* it is not so clear. In fact, the latter seems not to work very well together with a verb that implies high affectedness such as *devour*. *He devoured the hamburger* sounds more appropriate than the awkward *He devoured hamburgers*. During the process of analysis of the Old English clauses included in this study, it was observed that this language makes use of a similar strategy in order to differentiate between objects that are clearly affected in their entirety and those in which such an implication is not so clear. Therefore, due to this connection between individuation and affectedness I decided to fuse these two parameters in Hopper and Thompson (1980) into just one. Thus, undergoers that are portrayed as being affected in their entirety are labelled Affected and get 1 point in the scoring system. On the other hand, undergoers that are partially affected have been tagged with the term Partial and their score is 0.5 points. (6.20c) is an example of a clause with a completely affected undergoer and (6.20d) of one with partially affected undergoers, namely *menn*, *hus* and *corn*.

(6.20)

c. *hi man swang mid swipum, and on sæ adrincte*

they one beat with whips, and in see drowned

‘One beat them with whips and drowned (them) in the sea’

ÆLS (Maurice) B1.3.28 [0031 (125)]

d. & *þa Ryðrenan dydan mycelne hearm abutan Hamtune [...]*

& then Rythrena did great harm around Northhampton [...]

*ægbær þæt hi ofslogon menn & bærndon hus & corn*

in that they killed men & burnt house & corn

‘And the Rythrena did great harm around Northampton [...] in that they both killed men and burnt houses and corn’

ChronD (Cubbin) B17.8 [0899 (1065.27)]

In addition to the aforementioned categories, I have included a further one. This category has been termed Highly Affected. This decision was made on the basis that, according to the dictionaries consulted in this study and to my own interpretation of the clauses in question, certain prefixed verbs under analysis add the nuance of

completeness, destruction, i.e. complete affectedness, to their unprefixing counterparts. See for example the difference between *bāernan* ‘burn (caus.; intr.)’ and the prefixed form *forbāernan*: ‘burn up; consume by fire; burn down, burn to death; inflame (caus.)’. The above definition implies that the use of the *for-* form is reserved to cases in which the affectedness of the undergoer is specially high, that is, in cases where the affectedness undergone by the object needs to be emphasised or goes beyond what would be expressed with the unprefixing form of the verb. In a similar fashion, it is common for Old English scribes to highlight the affectedness of an undergoer by means of certain adverbials that convey the idea of destruction or complete obliteration of the object in question such as *to duste* ‘to dust’ or *to ahsan* ‘to ashes’, very frequently used together with the verb *gebāernan* ‘cause to burn; destroy by fire; light (caus.)’. Thus, when an undergoer appears in the contexts specified in this paragraph, they have been labelled Highly Affected and are awarded 1.5 points in the parameter Affectedness-individuation of U. Below there are two examples of clauses containing a highly affected undergoer.

(6.20)

e. *Ðæt godspel cwyð. þæt he heora burh forbærnde*

The gospel says that he their town burnt up

The gospel says that he burnt up their town...

ÆCHom I, 35 B1.1.37 [0062 (479.109)]

f. *Wið blæce genim heorotes horn, gebærn to ahsan*

Against leprosy take hart’s horn, burn to ashes

‘Against leprosy, take the horn of a hart, burn (it) to ashes’

Lch II (1) (Cockayne) B21.2.1.1.1 [0219 (8.2.5)]

So far I have only commented on cases where the undergoer is actually affected, be it partially or completely. However, as expected, there are cases in which the undergoer is not affected or simply there is no undergoer in the clause to be analysed. The latter is perfectly possible since as explained in connection to macroroles, clauses may have just one participant and this could be an actor or undergoer. When the clause under analysis

has just one participant that happens to be an actor they get the label No U and get 0 points in the parameter Affectedness-individuation of U (see & *beah ða to Cnute* in (6.20g) below).

(6.20)

g. & *Eadric ealdorman aspeon þa feowerti scipa fram ðam cinge*

& Eadric aldorman enticed then forty ships from the king

& *beah ða to Cnute*

& submitted then to Cnut

‘& then aldorman Eadric enticed 40 ships from the king and then submitted to Cnut’

ChronC (O'Brian O'Keefe) B17.7 [0673 (1015.14)]

Moreover, as was the case with Agency, negation and irrealis play an important role with regards to Affectedness-individuation of U. Negation and irrealis mode do not only switch the features of agents from + to -, they do so in the case of patients (undergoers in the terminology used in this study) as well. The only + feature prototypical patients display (as explained in chapter 3, section 3.2.2) is AFF (affectedness). Under the effect of negation and irrealis their affectedness feature turns to -. Thus, prototypical patients (-VOL -INST +AFF) become what Næss (2007: 116) calls Neutral, that is, an argument with the features -VOL -INST -AFF. If the event in question is portrayed as not taking or not having taken place, the undergoer in question does not undergo any effect whatsoever. In a sentence like *The kid did not break the window*, the window in question is intact and therefore not affected. This type of argument receives the label No U (Irre) and gets 0 points. (6.20h) below is an example of a clause containing such an unaffected undergoer.

(6.20)

h. [...] *ðæt he awecce his broðor sæd*

[...] that he wakes his brother's seed

‘[...] so that he may wake his brother's seed’

Deut B8.1.4.5 [0185 (25.5)]

It must be pointed out at this stage that the fact that examples presenting the feature negative in parameter Affirmation and / or irrealis in Mode have, of course, important consequences regarding quantitative data. A verb that is mostly attested in irrealis mode will display a very low degree of Affectedness-individuation of U, for example, thus distorting the results. Therefore, I contemplated excluding the examples in irrealis. However, I have rejected the idea, as they shed some light on other parameters. It seems more useful for the analysis to retain them with the due caveats.

Figure 6.5 is a summary of the different values that can be obtained with respect to Affectedness-individuation of U in my analysis together with a brief description of what they represent and the score they are assigned in my scoring system.

Figure 6.5: Different possible values of the parameter Affectedness-individuation of U.

<b>Value</b>	<b>Description</b>	<b>Points</b>
No U	No U argument in the clause	0
No U (Irre)	U not affected due to effect of Irrealis Mode	0
Partial	U is portrayed as partially affected	0.5
Affected	U is portrayed as affected in its entirety	1
Highly Affected	U is portrayed as having undergone the utmost affectedness possible	1.5

Once each of the examples taken into account in this study have been analysed per parameter, that is, given a label and a score in each of them, these scores have been added in order to get a score for what I have termed its Total Transitivity score. This number is used in order to determine the degree of transitivity a certain clause has bearing in mind each of the parameters analysed in this work. This final score is useful to shed light on the contribution a certain prefix may have on transitivity as a whole and not just in relation with a specific parameter.

As for the scores themselves, the lowest score a clause can get in their Total Transitivity is 0. This, of course, means that the clause in question gets 0 in all parameters analysed,

as is the case with (6.21) below, more specifically the second clause *þæt þær nan ne belaf cucu* ‘so that no one remained alive there’.

(6.21)

*and he hi acwealde þæt þær nan ne belaf cucu*  
 and he them killed that there no one not remained alive  
 ‘And he killed them so that no one remained alive there’  
 ÆLS (Book of Kings) B1.3.19 [0045 (140)]

Figure 6.6: Results of the analysis of example (6.21).

Parameter	Lable	Score
Affirmation	Negative	0
Mode	Irrealis	0
Dynamicity	-Dynamic	0
Telicity	-Telic	0
Punctuality	-Punctual	0
Participants	1 participant	0
Agency	No A	0
Affectedness-individuation of U	No U (Irre)	0
Total Transitivity		0

On the other hand, the highest punctuation possible is 8. The reader may have realised that if the highest score of all parameters is added the total result would amount to 9, not 8. However, it must be born in mind that there is no *Aktionsart* type in which Dynamicity, Telicity and Punctuality are marked +. The highest possible score that a clause can get in these three parameters at the same time is 2 and therefore, the highest possible score can never reach 9 points, but 8. An example of a clause showing the highest possible Total Transitivity score is illustrated by (6.22).

(6.22)

*forþon þe hie ær Mul forbærndon*

therefore they before Mul burnt up

‘Therefore they had burnt up Mul’

ChronA (Bately) B17.1 [0146 (694.1)]

Figure 6.7: Results of the analysis of example (6.22).

Parameter	Label	Score
Affirmation	Affirmative	1
Mode	Realis	1
Dynamicity	+Dynamic	1
Telicity	+Telic	1
Punctuality	-Punctual	0
Participants	2 participants	1
Agency	A+/U+	1.5
Affectedness-individuation of U	Highly Affected	1.5
Total Transitivity		8

Of course, the analysis of the data yield all kinds of intermediate results as well, ranging from 0.5 points to 7.5 and all possible scores in 0.5-point intervals. (6.23) is an example of a clause scoring 4 points in Total Transitivity.

(6.23)

*Mid þy he þa wæs eft hweorfende to Breotone*

With that he then was first returning to Britain

‘With that he was first coming back home to Britain’

Bede 5 (Miller) B9.6.7 [0473 (17.462.1)]

Figure 6.8: Results of the analysis of example (6.23).

Parameter	Label	Score
Affirmation	Affirmative	1
Mode	Realis	1



Dynamicity	+Dynamic	1
Telicity	-Telic	0
Punctuality	-Punctual	0
Participants	1 participant	0
Agency	A+	1
Affectedness-individuation of U	No U	0
Total Transitivity		4

All of the clauses included in this study have been subjected to such an analysis as commented on above. The complete results for each parameter have been listed per verb as shown in Table 6.1 below by way of example. The tables including the results per parameter for each of the verbs analysed in this work are available in appendix B. Notice that in addition to the raw data, i.e. the one indicating the number of clauses that display a certain feature (40 in the case of Affirmative below, for instance), the average scores in the form of mean, median and mode have also been added.

Table 6.1: Complete results per parameter of all clauses containing the verb *gehwyrfan*.

**GEHWYRFAN:** 46 examples

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 40	Real: 36	[+Dynamic]: 46	[+Telic]: 40	[+Punctual]: 0
Negative: 6	Irre: 10	[-Dynamic]: 0	[-Telic]: 6	[-Punctual]: 46
Mean: 0.86	Mean: 0.78	Mean: 1	Mean: 0.86	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 18	No A (Irre): 10	No U: 17	2 points: 3	
2 part: 28	A-: 3	No U (Irre): 8	3 points: 5	
	A-/U-: 1	Partial: 2	4 points: 10	
	A+: 12	Affected: 19	5 points: 7	
	A+/U-: 12		6 points: 1	

A+/U+: 8			6.5 points: 2
			7 points: 10
			7.5 points: 8
Mean: 0.60	Mean: 0.69	Mean: 0.43	Mean: 5.32
Median: 1	Median: 1	Median: 0	Median: 5
Mode: 1	Mode: 1	Mode: 0	Mode: 4 / 7

Once all clauses per verb were labelled and scored as shown above, I focused on the analysis of this information in order to get the conclusions concerning transitivity and the effects of prefixes that these data could provide. The method I have made use of is similar to the one employed when analysing the valence behaviour of the verbs under analysis and the effects that text type may have on it. I have made a comparison of the data obtained in a specific prefixed form, e.g. *beswingan*, with that of its unprefixed counterpart (*swingan* in this case) concerning the parameters Participants, Telicity and Affectedness-individuation, since these are the parameters of the cardinal transitivity scale which might be affected by preverbal prefixes in Old English according to the literature (see section 6.1 above). The comparison has been made by means of the t-test for significance whose usefulness and functioning has already been detailed in previous sections.

In addition to a comparison in the aforementioned three parameters, I have also compared the results obtained in Total Transitivity in the prefixed form and its unprefixed counterpart. This is due to the fact that in some cases, even though none of the three parameters usually connected to preverbal prefixes turns out to be affected by the prefix, it may still be the case that the prefixed form shows a statistically significant difference with respect to its counterpart as far as Total Transitivity is concerned, thus providing certain clues for further investigation. Such a result would also show that the effects of prefixes may not be limited to the parameters repeatedly mentioned in the literature.

The comparisons I have carried out in this analysis have not been limited to verb to verb ones though. This kind of comparison allows for an analysis of the function of the

prefix in that specific verb but may not be valid if what is sought is information concerning the general behaviour of that prefix with respect to transitivity. It may perfectly be possible that the comparison of a certain *for-* verb with its counterpart may show that prefix to have an effect on telicity while revealing the opposite when the comparison is made between another *for-* form and its respective unprefixated counterpart. In order to ascertain the actual effect of the prefix, I have also compared results in Participants, Telicity and Affectedness-individuation of U, as well as Total Transitivity, obtained from all verbs with a specific prefix, e.g. *tō-*, with the results obtained from all the verbs in my corpus to which that prefix is attached, namely *hweorfan*, *stencan*, *weccean* and *wendan*. This comparison is expected to help to obtain more reliable general results concerning a specific prefix since the results of the comparison of individual verbs and its counterpart may reflect other specific processes undergone by that verb in question, as may be the case with a remarkable semantic change.

Finally, in addition to the aforementioned comparisons, the results obtained from the analysis of each of the prefixed verbs in every causative pair, that is, the strong prefixed verb and its corresponding prefixed causative, have also been compared. The objective of such a testing is to shed light on the interaction of causativity and prefixation as mechanisms affecting transitivity as explained in the previous paragraphs. With regards to this comparison, only results concerning the parameter Participants will be discussed in this case, even if comparisons between causative and strong prefixed counterparts in other parameters have been carried out as well. This decision was made based on the fact that results showed no particular effect of semantic causativity on either Telicity or Affectedness-individuation of U. Therefore the comparison of prefixed strong and causative verbs proved to be relevant only with respect to Participants, a parameter with which causativity is clearly related. In addition to this, considering the effects of prefixes overviewed above, it is expected that these could have influenced this particular parameter in several cases, as will be discussed in detail below. Of course, the Participants data discussed in this chapter are the same as the ones dealt with in chapter 4. The difference lies in that while in chapter 4 focus is laid on the differences in valence between verbs, in the present one, comments concentrate specifically on the

possible effects of the prefixes in question and on evaluating to what extent these might have overridden the causative formation.

Before proceeding to the results in question, it must be pointed out that these have been presented in different tables such as the one below. Of course, they present label changes depending on the parameter analysed in each case. Thus, Participants is substituted by Telicity, Affectedness-individuation of U and Total Transitivity in the corresponding tables. The numbers to the right of 1 participants, 2 participants (and corresponding categories within each parameter) and total are raw numbers, i.e. the number of examples of the verb in question presenting the feature under analysis in the corresponding table. On the other hand, the numbers referring to mean, median and mode are statistical in nature. This is applied to all following tables in the present section of this chapter.

Table 6.2: Results of *būgan* and *ābūgan* in the parameter Participants.

Participants	<i>Būgan</i>	<i>Ābūgan</i>
1 Part	119	15
2 Part	2	0
Total	121	15
Mean	0.01	0
Median	0	0
Mode	0	0

### 6.3. Analysis of the effects of verbal prefixes on transitivity

#### 6.3.1 *Ā-*

The first prefix I will concentrate on is *ā-*. Together with *ge-*, this prefix is the most widely extended one in my corpus since it is attached to 13 out of the 26 simple verbs taken into consideration. It is also the second most frequent preverb in Old English, after *ge-*. Consequently, due to its spread, it is not surprising that *ā-* is one of the prefixes in which the original spatial meaning is less clear, as pointed out by Brinton

(1988: 211). Several meanings and functions have been proposed in the literature. For Bosworth and Toller (1898), as well as Quirk and Wrenn (1957: 109), the main function of this prefix is the addition of the nuance of perfectiveness to otherwise durative verbs, which points to a connection with the telicity parameter. The former also make reference to other meanings, such as outward direction, commencement, origin or transitivity. This last function is clearly related to the parameter participants that will be analysed in the following paragraphs. In addition to perfective meaning, Quirk and Wrenn (ibid), and other scholars such as de la Cruz (1975: 73), also mention that *ā-* may have an intensifying meaning (connected with parameter Affectedness-individuation of U). However, it may also be the case that as Quirk and Wrenn (ibid) state, this prefix in question may not have any clear semantic function at all. In what follows, the aim is to shed light on these issues and try to clarify whether this prefix has all these three functions, some, or none of them, both taken as a whole or in certain individual verbs only.

#### 6.3.1.1 *Būgan – Ābūgan*

The first verb pair I will focus on is the one made up of the verbs *būgan* and *ābūgan*. Something striking about the semantics of these two verbs is that they barely show any differences at all: *būgan* ‘bow, bend; submit (intr. caus.)’ and *ābūgan* ‘bow, bend; submit; withdraw (intr.)’. This may point to a complete lack of semantic function of the prefix as mentioned in the introduction above. Actually, as will be seen in more detail below, both verbs behave in practically the same way as far as the parameters under study are concerned.

Table 6.2: Results of *būgan* and *ābūgan* in the parameter Participants.

Participants	<i>Būgan</i>	<i>Ābūgan</i>
1 Part	119	15
2 Part	2	0
Total	121	15
Mean	0.01	0
Median	0	0

Mode	0	0
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Regarding the parameter Participants, both verbs conform to their HEV in practically all cases, that is, they appear almost exclusively in one-participant clauses. While *ābūgan* does so in all cases, its unprefixated counterpart does it in practically, though not all, of the examples in my corpus as can be seen in Table 6.2 above. As a consequence, as far as this verb is concerned, it makes little sense to assume a transitivity function in the traditional sense of the prefix *ā-*. As could not be otherwise, the statistical test carried out in this work reveals that the practically imperceptible contrast in the data between prefixed and unprefixated form is not statistically significant (0.6190).

Table 6.3: Results of *būgan* and *ābūgan* in the parameter Telicity.

Telicity	<i>Būgan</i>	<i>Ābūgan</i>
[+Telic]	96	13
[-Telic]	25	2
Total	121	15
Mean	0.79	0.86
Median	1	1
Mode	1	1

In the case of parameter Telicity, differences are more remarkable, though. As shown in Table 6.3, both verbs display a preference for telic contexts. However, that tendency is perhaps clearer in the case of *ābūgan* (0.86 mean score) than in *būgan* (0.79). This is to be expected, if the prefix *ā-* had a telic function as claimed in some of the works dealing with Old English verbal prefixes. The telic tendency of *ā-* is clear in this case, whether it shows an important difference with its counterpart or not. Actually, statistics show once more that the disparity in the data is not statistically significant (0.5058). Nevertheless, contrary to the case of Participants, results point to the fact that a possible telic function of *ā-* should be taken into consideration. Another possibility is that the high preference of *ābūgan* for telic contexts may just come from its counterpart, with which it shares very similar semantics in the first place.

Table 6.4: Results of *būgan* and *ābūgan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Būgan</i>	<i>Ābūgan</i>
No U	119	15
Affected	2	0
Total	121	15
Mean	0.01	0
Median	0	0
Mode	0	0

The data obtained from the parameter Affectedness-individuation of U present exactly the same results as the parameter Participants (see Table 6.4), to which it is intimately connected. Once more, as was the case with Participants the unprefix counterpart is slightly higher in the scale of transitivity than its counterpart, although, of course, differences are too small to be statistically significant. The result is again 0.6190. According to these data, then, it does not seem the case that the prefix *ā-* could be claimed to have an intensifying function either at least in connection with this verb.

Table 6.5: Results of *būgan* and *ābūgan* in Total Transitivity.

Total transitivity	<i>Būgan</i>	<i>Ābūgan</i>
1 Point	2	1
2 Points	15	2
3 Points	14	4
4 Points	35	6
5 Points	53	2
7 Points	1	0
7.5 Points	1	0
Total	121	15

Mean	4.07	3.4
Median	4	4
Mode	5	4

Bearing in mind the fact that the results of the individual parameters analysed above were practically identical in the two verbs, it would be expected for their Total Transitivity to display the same tendency. Table 6.5 above shows similar results. The mean, median and mode scores do not differ greatly. This, together with the previous results, may lead us to think that the difference between both verbs is almost non-existent. Statistics show this view to be wrong, though. The two-tailed P value of the t-test equals 0.0358, which means that the difference in score between prefixed and unprefixed counterpart is statistically significant. However, no statistical difference was detected in the parameters above. This significance must be due to the parameter Agency, which is not analysed individually in this section, but is taken into account when calculating the Total Transitivity score. As can be seen in appendix B, both verbs differ significantly in this parameter. The mean score of the unprefixed counterpart is 0.54 while that of *ābūgan* is only 0.13. What is interesting is that the unprefixed verb is the one that displays a higher degree of transitivity in a total sense, in spite of the different functions often attributed to this prefix. The only one of these that could be claimed to apply in the case of *ābūgan* is Telicity, since clearly, differences in parameters Participants, Affectedness-individuation of U as well as Total Transitivity, showed similar, if not lower, transitivity in the case of the examples of the prefixed verb.

#### 6.3.1.2 *Bīgan* – *Ābīgan*

The following verb pair I will discuss is the one formed by *bīgan* ‘bend (caus.; intr.); submit (caus.)’ and *ābīgan* ‘bow, bend; submit, convert (intr. caus.)’. As was the case with the pair analysed above, these two verbs present very similar semantics. Therefore, similarities in their behaviour could be expected. Unfortunately, as will be the case with certain verbs under study, *ābīgan* is only attested once in my corpus. This means that although an analysis can be made, no statistics can be applied and consequently, the impressionistic conclusions that can be obtained from it should be taken with caution.



When analysed, verbs that appear only once will be commented on only briefly due to the reasons explained above.

Table 6.6: Results of *bīgan* and *ābīgan* in the parameter Participants.

Participants	<i>Bīgan</i>	<i>Ābīgan</i>
1 Part	3	1
2 Part	19	0
Total	22	1
Mean	0.86	0
Median	0	N/A
Mode	0	N/A

Table 6.7: Results of *bīgan* and *ābīgan* in the parameter Telicity.

Telicity	<i>Bīgan</i>	<i>Ābīgan</i>
[+Telic]	20	0
[-Telic]	2	1
Total	22	1
Mean	0.90	0
Median	1	N/A
Mode	1	N/A

Table 6.8: Results of *bīgan* and *ābīgan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Bīgan</i>	<i>Ābīgan</i>
No U	3	1
No (Irre)	4	0
Partial	1	0
Affected	14	0
Total	22	1

Mean	0.65	0
Median	1	N/A
Mode	1	N/A

Table 6.9: Results of *bīgan* and *ābīgan* in Total Transitivity.

Total Transitivity	<i>Bīgan</i>	<i>Ābīgan</i>
2 Points	1	0
4 Points	5	1
5 Points	1	0
6.5 Points	1	0
7 Points	12	0
7.5 Points	2	0
Total	22	1
Mean	6.02	4
Median	7	N/A
Mode	7	N/A

Regarding the first parameter, Participants, an important difference in the data can be observed (see Table 6.6). While *bīgan* clearly keeps its HEV, transitive, the only example of *ābīgan* shows the exact opposite. Results differ greatly in Telicity too (Table 6.7). While the strong counterpart is telic in most attestations the example of *ābīgan* is not, thus contradicting the data in the previous pair. The scarce role of *ā-* in parameter Affectedness-individuation of U is reflected in the data in Table 6.8. In this case, however, the difference between verbs is smaller due to the effects of irrealis on *bīgan* frequently attested displaying his feature. Lastly, as expected, the aforementioned disparities are reflected in Total Transitivity (Table 6.9). The unprefix verb displays a much higher score than its counterpart, thus emphasizing the lack of effect on Total Transitivity of the prefix in this particular case.

### 6.3.1.3 *Ābūgan* – *Ābīgan*

The analysis of the two pair of verbs above reveals a non-existent role of the prefix *ā-* on Total Transitivity and other parameters, at least on these two verbs in question. Results concerning the comparison of the prefixed forms *ābūgan* ‘bow, bend; submit; withdraw (intr.)’ and *ābīgan* ‘bow, bend; submit, convert (intr.; caus.)’ additionally show that the *-jan* suffix also seems to bear little relation to a higher degree of transitivity. In the case of the comparison of strong and causative prefixed verbs, with transitivity it is meant the parameter Participants in this case, as explained in the methodology section.

Table 6.10: Results of *ābūgan* and *ābīgan* in the parameter Participants.

Participants	<i>Ābūgan</i>	<i>Ābīgan</i>
1 Part	15	1
2 Part	0	0
Total	15	1
Mean	0	0
Median	0	N/A
Mode	0	N/A

As expected given the results mentioned above regarding these verbs, they reveal no role of the prefix on Participants. As shown in Table 6.10 above, none of the attested examples of these verbs displays transitive valence which supports the lack of transitivity effect of the prefix on this parameter, bearing in mind, of course, the dearth of attestation.

### 6.3.1.4 *Byrnan* – *Ābyrnan*

The next *ā-* prefixed form dealt with is *ābyrnan* ‘burn, be on fire; blaze (intr.)’, which will be compared with its unprefix counterpart *byrnan* ‘burn (intr.; caus.)’. As was the case with the two pairs analysed above, semantic differences between both verbs are not great and do not a priori lead us to expect important differences regarding results.

Conclusions with respect to this pair are necessarily tentative since *ābyrnan* is only attested once, just like *ābīgan*.

Table 6.11: Results of *byrnan* and *ābyrnan* in parameter Participants.

Participants	<i>Byrnan</i>	<i>Ābyrnan</i>
1 Part	68	1
2 Part	3	0
Total	71	1
Mean	0.04	0
Median	0	N/A
Mode	0	N/A

Table 6.12: Results of *byrnan* and *ābyrnan* in parameter Telicity.

Telicity	<i>Byrnan</i>	<i>Ābyrnan</i>
[+Telic]	70	1
[-Telic]	1	0
Total	71	1
Mean	0.98	1
Median	1	N/A
Mode	1	N/A

Table 6.13: Results of *byrnan* and *ābyrnan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Byrnan</i>	<i>Ābyrnan</i>
No U (Irre)	19	0
Partial	7	0
Affected	45	1
Total	71	1

Mean	0.68	1
Median	1	N/A
Mode	1	N/A

Table 6.14: Results of *byrnan* and *ābyrnan* in Total Transitivity.

Total Transitivity	<i>Byrnan</i>	<i>Ābyrnan</i>
1 Point	9	0
2 Points	10	0
3.5 Points	6	0
4 Points	42	1
4.5 Points	1	0
5 Points	1	0
7 Points	1	0
7.5 Points	1	0
Total	71	1
Mean	3.40	4
Median	4	N/A
Mode	4	N/A

With respect to the parameter Participants, results in both verbs are practically identical. The two of them clearly favour their original historical intransitive valence as shown in Table 6.11. As in the previous cases there seems to be little connection between *ā-* and this parameter. This parity in results is seen in Telicity as well (see Table 6.12). Both verbs appear in telic contexts almost exclusively. This serves to reinforce the hypothesis of the telic function of the prefix. As for Affectedness-individuation of U, differences are more remarkable. The mean score of 1 (Table 6.13) displayed by *ābyrnan* may point to the effect of the prefix on this parameter, especially when compared with the lower mean score of 0.68 of the unprefix counterpart. Thus, a tendency towards higher affectedness-individuation seems likely even though more examples should be necessary in order to check whether that tendency is indeed maintained or not. Given the aforementioned results, it is expected for the prefixed form to show a higher score in

Total Transitivity. This is exactly the case as can be seen in Table 6.14 above. These differences, although not remarkable, may point to certain effects of this prefix on Total Transitivity. However, considering the scarcity of data in this case such a hypothesis must be contrasted with further examples provided by the verbs below.

### 6.3.1.5 *Calan* – *Ācalan*

Contrary to the verb pairs discussed above, the one formed by *calan* and *ācalan* does present certain semantic differences. The unprefixated verb means ‘be or become cold; make cold’. On the other hand, the prefixed counterpart has a different meaning although also related to cold, as expected, i.e. ‘be destroyed by cold’. This could be explained as an intensification of meaning, a function already associated to *ā-* by Quirk and Wrenn (1957: 109) or de la Cruz (1975: 73) as mentioned above. Considering such a difference, it would not be surprising to find more remarkable differences between the behaviour of *calan* and *ācalan* concerning the parameters of transitivity analysed in this section than in the case of the previously analysed counterparts.

Table 6.15: Results of *calan* and *ācalan* in parameter Participants.

Participants	<i>Calan</i>	<i>Ācalan</i>
1 Part	5	0
2 Part	0	2
Total	5	2
Mean	0	1
Median	0	1
Mode	0	1

The first of those remarkable differences is to be found in the parameter Participants. The disparity in the data is clear in this case. As can be seen in Table 6.15 above, while the unprefixated verb preserves its HEV, intransitive, in all cases, *ācalan* displays the complete opposite behaviour, appearing in two-participant clauses in its two attestations in my corpus. Of course, bearing in mind the meaning associated with the act of destroying something that this verb represents, it is to be expected that it normally

present transitive valence. In fact, it seems to be the case that the prefix is taking over the causative functions expected of the *-jan* suffix.

Table 6.16: Results of *calan* and *ācalan* in parameter Telicity.

Telicity	<i>Calan</i>	<i>Ācalan</i>
[+Telic]	0	2
[-Telic]	5	0
Total	5	2
Mean	0	1
Median	0	1
Mode	0	1

Perfect data, unanalysable through statistics, are also obtained in parameter Telicity. Results in *ācalan* confirm the telic-favouring tendency that *ā-* verbs have shown up to this point in the analysis. As seen in Table 6.16, the prefixed form always appears in telic contexts. Its unprefixed counterpart, on the other hand, is only attested in my corpus in atelic contexts. Once more, these results are not surprising if the semantics of these verbs is taken into account. While *calan* is a state from the point of view of *Aktionsart*, *ācalan* is an active accomplishment. Thus, summing up, results obtained in the analysis of this verb reinforce the idea that the prefix *ā-* is somehow related to telic functions.

Table 6.17: Results of *calan* and *ācalan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Calan</i>	<i>Ācalan</i>
No U (Irre)	2	2
Affected	3	0
Total	5	2
Mean	0.6	0
Median	1	0
Mode	1	0

The data related to the parameter Affectedness-individuation of U are not the ones that could be expected taking into consideration the large gap in the results in parameter Participants. As can be seen in Table 6.17, the prefixed counterpart shows a lower score, as far as this parameter is concerned, than *calan*. This is due, in this case, in part to the influence that irrealis mode has on this parameter and the distortion in the data already pointed out in section 6.2 and that does not allow for me to assess certain sets of data properly. The t-test for significance reveals the difference in the data to be not statistically significant. The two-tailed P value equals 0.231.

Table 6.18: Results of *calan* and  $\bar{a}calan$  in Total Transitivity.

Total transitivity	<i>Calan</i>	$\bar{A}calan$
0 Points	2	0
3 Points	3	0
4 Points	0	2
Total	5	2
Mean	1.8	4
Median	3	4
Mode	3	4

As far as Total Transitivity is concerned, results present remarkable differences between both verbs especially with regards to mean score (see Table 6.18 above). These data serve to highlight the transitivising function of the prefix  $\bar{a}$ -. However, the t-test for significance reveals that the difference in the data is not statistically significant (0.1336). Such a result must be taken with caution though, due to the high influence that the irrealis parameter has in the case of  $\bar{a}calan$ . It is clear, given its meaning, that had the attestations of this verb not been influenced by the irrealis factor, results would have differed to a greater extent, since as commented on concerning the parameter Participants, this case represents one of the clearer ones in which the prefix seems to be overtaking causative functions related to the *-jan* prefix.



### 6.3.1.6 *Cēlan* – *Ācēlan*

The following verb pair I will discuss is the one made up of the causative counterparts of the previous ones, namely *cēlan*: ‘cool or chill (sth), make cold; quench (thirst)’ and *ācēlan*: ‘cool or chill (sth); quench (thirst)’. The semantic relationship holding between these two verbs, as can be seen, is rather different to the one between *calan* and *ācālan* since barely any difference can be detected between these two morphological causative verbs. In what follows, it will be shown that they do not seem to display many contrasts as far as their behaviour with respect to the parameters analysed in this study is concerned.

Table 6.19: Results of *cēlan* and *ācēlan* in parameter Participants.

Participants	<i>Cēlan</i>	<i>Ācēlan</i>
1 Part	1	0
2 Part	7	1
Total	8	1
Mean	0.87	1
Median	1	N/A
Mode	1	N/A

Table 6.20: Results of *cēlan* and *ācēlan* in parameter Telicity.

Telicity	<i>Cēlan</i>	<i>Ācēlan</i>
[+Telic]	8	0
[-Telic]	0	1
Total	8	1
Mean	1	0
Median	1	N/A
Mode	1	N/A

Table 6.21: Results of *cēlan* and *ācēlan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Cēlan</i>	<i>Ācēlan</i>
No U (Irre)	3	0
Partial	1	1
Affected	4	0
Total	8	1
Mean	0.56	0.5
Median	0.75	N/A
Mode	1	N/A

Table 6.22: Results of *cēlan* and *ācēlan* in Total Transitivity.

Total Transitivity	<i>Cēlan</i>	<i>Ācēlan</i>
1 point	1	0
3 points	2	0
5 points	1	0
5.5 points	1	1
6 points	3	0
Total	8	1
Mean	4.43	5.5
Median	5.25	N/A
Mode	6	N/A

In relation to the parameter Participants, both verbs stick mostly to their HEV, which is transitive-causative. The only example of *ācēlan* appears in a two-participant clause, while *cēlan* examples do so in 87% of examples as is recorded in Table 6.19. Results point to a transitivity function of *ā*- bearing in mind the limitations of this case. The data with regards to Telicity are rather different. While *cēlan* is telic in all attestations, the only example of *ācēlan* is not (see Table 6.20). However, it is impossible to ascertain to what extent this sole attestation represents a trend. As in the case of Participants, the Affectedness-individuation of U data are very similar, 0.56 vs. 0.5, as

seen in Table 6.21. No particular effect on this parameter can be detected relying solely on this data. As for the Total Transitivity scores, they do not differ greatly (see Table 6.22 above), even if a difference of one point may be crucial when analysing a large set of data. Interestingly, in spite of the data commented on above, the mean score of *ācēlan* turns out to be higher than that of its counterpart. In this case, this can be explained through the influence of another parameter, not dealt with explicitly in this analysis, but included in Total Transitivity, namely Agency. As can be seen in appendix B, *ācēlan* ranks very high in Agency (1 point), while the mean score for that parameter is just 0.5 in the case of *cēlan*.

### 6.3.1.7 *Ācalan* – *Ācēlan*

Table 6.23: Results of *ācalan* and *ācēlan* in the parameter Participants.

Participants	<i>Ācalan</i>	<i>Ācēlan</i>
1 Part	0	0
2 Part	2	1
Total	2	1
Mean	1	1
Median	1	N/A
Mode	1	N/A

The comparison of the Participants data of the verbs *ācalan* ‘be destroyed by cold’ and *ācēlan* ‘cool or chill (sth); quench (thirst)’ shows that their behaviour is very similar. Both verbs present exactly the same results, i.e. they are transitive in all of their attestations as can be seen in Table 6.23. This implies, then, that it is the prefix, rather than the causative marker, the one that acts as transitivity force. This, in turn, emphasizes the idea of the obsolescence of morphological causatives as genuine causative markers during the Old English period.

### 6.3.1.8 *Hweorfan* – *Āhweorfan*

The verbs *hweorfan* ‘turn, change (intr.; caus.); go’ and *āhweorfan* ‘turn away (intr.; caus.)’ will be the next pair under analysis in this work. As was the case with the

majority of the verbs studied in this section, at first sight they present little differences as far as their meaning is concerned. However, as can be observed in Table 6.24 below, they display certain differences in some parameters.

Table 6.24: Results of *hweorfan* and *āhweorfan* in parameter Participants.

Participants	<i>Hweorfan</i>	<i>Āhweorfan</i>
1 Part	143	2
2 Part	0	1
Total	143	3
Mean	0	0.33
Median	0	0
Mode	0	0

A first look at the results of parameter Participants would lead to the conclusions that the difference in behaviour of these two verbs in connection with this parameter is scarce. Both verbs show a clear tendency for their HEV, i.e. intransitive, even though *āhweorfan* is also attested in two-participant clauses in one out of the three examples taken into account in my corpus. Small as this difference may seem in terms of mean, median and mode scores (see Table 6.24), the t-test applied in this study reveals it to be extremely statistically significant, less than 0.0001. The only other verb pair in which a statistical difference showing higher transitivity in the prefixed verb in the parameter Participants was *calan-ācalan*. The aforementioned one and that of *hweorfan-āhweorfan* are, thus, the only two cases in which a kind of transitivity effect, in the traditional sense, has been detected up to this point. However, *ācalan* showed important semantic differences with respect to its counterpart, while *āhweorfan* does not. In spite of this, these results should not be considered especially surprising, given the fact that the verb pair *hweorfan-hwyrfan* is one of the most unstable from the point of view of their historical valence, as was already discussed in detail in chapter 4.

Table 6.25: Results of *hweorfan* and *āhweorfan* in parameter Telicity.

Telicity	<i>Hweorfan</i>	<i>Āhweorfan</i>
[+Telic]	103	3
[-Telic]	40	0
Total	143	3
Mean	0.72	1
Median	1	1
Mode	1	1

On the other hand, as far as Telicity is concerned there are little discrepancies in the results obtained from the analysis of these two verbs. As has been shown to be usual with *ā*- verbs, the +telic value is clearly favoured, 100% of cases in fact. The unprefix verb also shows a favouring tendency towards telic contexts even if it is lower, in 72% of cases. The preference for the value +telic is clear in both verbs though. As demonstrated by the t-test for significance, the difference in results is not statistically significant (0.2855).

Table 6.26: Results of *hweorfan* and *āhweorfan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hweorfan</i>	<i>Āhweorfan</i>
No U	143	2
No U (Irre)	0	1
Total	143	3
Mean	0	0
Median	0	0
Mode	0	0

Despite the extremely statistical difference that these verbs showed in the parameter Participants, results reveal that in parameter Affectedness-individuation of U, the difference between both verbs is non-existent (see Table 6.26). These two verbs score 0

in all cases. These results match perfectly what is to be expected of *hweorfan* but not of its counterpart. As has been the case with other verbs, this score of 0 is due to the fact that the only example including an undergoer happens to be in the irrealis mode and therefore gets no points. Having in mind these results, the role of  $\bar{a}$ - in Affectedness-individuation of U in this case is impossible to evaluate with any certainty.

Table 6.27: Results of *hweorfan* and *āhweorfan* in Total Transitivity.

Total Transitivity	<i>Hweorfan</i>	<i>Āhweorfan</i>
2 Points	13	1
3 Points	24	0
4 Points	32	1
5 Points	74	1
Total	143	3
Mean	4.16	3.66
Median	5	4
Mode	5	2 / 4 / 5

Bearing in mind the general similarity in results obtained in the analysis of these two verbs, with the exception of Participants, we would expect *hweorfan* and *āhweorfan* to differ little as far as their Total Transitivity is concerned. This is indeed the case. Table 6.27 above summarises the scores in Total Transitivity. Their mean and median scores do not differ greatly, especially the former. However, the great difference in number of examples between the unprefixated counterpart and *āhweorfan* is of special importance when assessing the differences in score these two verbs present. It is not surprising, then, that when the statistical method used in this study is employed, it shows the difference in Total Transitivity between these two verbs to be not statistically significant (0.4023). Generally, once more, it seems to be the case that the prefixed form is not necessarily more transitivising than the unprefixated one and that  $\bar{a}$ - may have little repercussion on transitivity after all. It cannot be forgotten though that the connection with Telicity of this prefix seems to be certainly firm.

### 6.3.1.9 *Hwyrfan* – *Āhwyrfan*

Once the verbs *hweorfan* and *āhweorfan* have been discussed, it is the turn of their causative counterparts *hwyrfan* and *āhwyrfan*. These two verbs, as the strong base ones, show little differences as far as their semantics is concerned, with the exception of the meaning ‘transform’ in *āhwyrfan*: ‘turn away (sth); change, transform (caus.)’ vs. *hwyrfan*: ‘turn, change (caus.; intr.); exchange; go, return’. This meaning could be related to the effect of the prefix and might be behind the noteworthy discrepancies that both verbs present in parameter Telicity, which as commented in this section is perhaps the clearest function that can be associated with the prefix *ā-*.

Table 6.28: Results of *hwyrfan* and *āhwyrfan* in parameter Participants.

Participants	<i>Hwyrfan</i>	<i>Āhwyrfan</i>
1 Part	14	3
2 Part	9	7
Total	23	10
Mean	0.39	0.70
Median	0	1
Mode	0	1

As was already mentioned in chapter 4 with respect to *hwyrfan* and their prefixed forms, this group of verbs is one in which lability is most easily seen since they normally show no preference for any of the valences. This tendency can be seen in the case of *hwyrfan* and *āhwyrfan*. While the unprefixed counterpart displays a higher, though not much, preference for NHEV, (0.39 mean score as seen in Table 6.28), *āhwyrfan* appears more commonly in two-participant clauses (in seven out of the 10 examples, 0.70 mean score). The tendency towards HEV of the latter is clear. However, the t-test for significance reveals that the difference between both of them is not statistically significant (0.1094). In conclusion, these results show that neither of these verbs shows a definite preference for any kind of valence and are therefore, a paradigmatic example of how far lability has already extended to certain verbs in the Old English period.

Table 6.29: Results of *hwyrfan* and *āhwyrfan* in parameter Telicity.

Telicity	<i>Hwyrfan</i>	<i>Āhwyrfan</i>
[+Telic]	13	10
[-Telic]	10	0
Total	23	10
Mean	0.56	1
Median	1	1
Mode	1	1

As I mentioned in the introduction to this verb pair, differences in Telicity can be appreciated in these two forms. Both of them show a preference for telic contexts even though that preference varies greatly from verb to verb. Table 6.29 shows that *hwyrfan* has the value +telic in barely half of its attestations in my corpus, 56%. On the other hand, the preference for telic contexts of *āhwyrfan* is definite, since there are no attested examples of atelic contexts with this verb in my corpus. The test for significance indicates that the difference between these two verbs is statistically significant (0.0115). These results reinforce the hypothesis of the implied telic function associated with the prefix *ā-* pointed out by several scholars as mentioned above.

Table 6.30: Results of *hwyrfan* and *āhwyrfan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hwyrfan</i>	<i>Āhwyrfan</i>
No U	14	4
No U (Irre)	2	2
Partial	1	0
Affected	6	4
Total	23	10
Mean	0.28	0.4
Median	0	0



Mode	0	0 / 1
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The results corresponding to the parameter Affectedness-individuation of U present little discrepancies in the data. Both verbs seem to behave similarly from the point of view of this parameter. As seen in Table 6.30, their mean values are comparable even if higher in the case of *āhwyrfan*, something understandable considering the fact that this verb has a higher score in the parameter Participants. Focusing on the statistics of Affectedness-individuation of U, it is not surprising that the t-test for significance shows that the difference between these verbs is not statistically significant (0.5134). Once again, the only parameter that seems undisputably influenced in *ā*- verbs is Telicity.

Table 6.31: Results of *hwyrfan* and *āhwyrfan* in Total Transitivity.

Total Transitivity	<i>Hwyrfan</i>	<i>Āhwyrfan</i>
2 Points	2	1
3 Points	9	2
4 Points	1	2
5 Points	4	1
6 Points	1	0
6.5 Points	1	0
7 Points	5	3
7.5 Points	0	1
Total	23	10
Mean	4.45	4.95
Median	4	4.5
Mode	3	7

Table 6.31 above shows that results in Total Transitivity of both *hwyrfan* and *āhwyrfan* are rather similar. Their mean and median scores differ little, even though that resemblance is not reflected in the mode value. Those similarities are to be expected given what has been commented on with respect to the three parameters analysed in this

section. The statistical analysis reveals that the difference between these two verbs in terms of their Total Transitivity is not statistically significant. The two-tailed P value equals 0.4917. Thus, by way of summary, this verb pair bolsters the idea that the prefix *ā-*, in general, seems to be connected only with the notion of Telicity, but not others, even if that can be the case of certain individual verbs as has been shown throughout this section.

#### 6.3.1.10 *Āhweorfan* – *Āhwyrfan*

Table 6.32: Results of *āhweorfan* and *āhwyrfan* in the parameter Participants.

Participants	<i>Āhweorfan</i>	<i>Āhwyrfan</i>
1 Part	2	3
2 Part	1	7
Total	3	10
Mean	0.33	0.70
Median	0	1
Mode	0	1

The comparison of the results of the verbs *āhweorfan* ‘turn away (intr.; caus.)’ and *āhwyrfan* ‘turn away (sth); change, transform (caus.)’ shows that there exist very little difference in Participants between the prefixed causative and its non-causative counterpart. A priori, the data available in Table 6.32 above, may lead us to think that the causative *āhwyrfan* is clearly more transitive than its counterpart. Nevertheless, statistics show these intuitions to be wrong. The t-test for significance reveals that the difference between both verbs is not statistically significant (0.2904). This result emphasises, once again, the fact that prefixed causative verbs show a very similar behaviour with respect to their counterparts, contrary to what would be expected were the causative construction productive.

#### 6.3.1.11 *Wāecnan* – *Āwāecnan*

The following pairs that will be discussed are *wāecnan-weccean* and their respective forms with the prefix *ā-*. As will be seen, these verbs are the ones in which the fewest

differences can be observed. Both prefixed and unprefixed forms behave in practically the same way. Once again the tendency towards telicity is observed. Likewise, the parameter Affectedness-individuation of U is higher than in the case of other verbs. However, the difference between the score of the prefixed forms is not significantly higher than that of its counterpart in any case.

The first verb pair whose results will be presented are *wācnan* ‘come into being, be born, spring’ and *āwācnan* ‘awake, wake up, arise; be born (intr.)’. As can be observed, they do not differ much in terms of semantics. These similarities are mirrored in the results as has already been briefly mentioned in the paragraph above.

Table 6.33: Results of *wācnan* and *āwācnan* in parameter Participants.

Participants	<i>Wācnan</i>	<i>Āwācnan</i>
1 Part	11	21
2 Part	0	0
Total	11	21
Mean	0	0
Median	0	0
Mode	0	0

As far as the parameter Participants is concerned, it is clear that, in this case, the prefix *ā-* does not have any effect on traditional transitivity. Both verbs invariably maintain their original intransitive valence as can be seen in Table 6.33. Since results are perfect, they cannot be analysed for statistical significance, even though the null role of the prefix in this case is clear.

Table 6.34: Results of *wācnan* and *āwācnan* in parameter Telicity.

Telicity	<i>Wācnan</i>	<i>Āwācnan</i>
[+Telic]	11	21
[-Telic]	0	0
Total	11	21

Mean	1	1
Median	1	1
Mode	1	1

A perfect score is once again obtained in the analysis of the parameter Telicity. All examples of both *wācnan* and *āwācnan* appear in telic contexts exclusively. This supports the idea that telicity is an important component related to the prefix *ā-*.

Table 6.35: Results of *wācnan* and *āwācnan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wācnan</i>	<i>Āwācnan</i>
No U	0	1
No U (Irre)	2	3
Partial	4	2
Affected	5	15
Total	11	21
Mean	0.63	0.76
Median	0.5	1
Mode	1	1

The results related to Affectedness-individuation of U are not perfect, but very similar in these two verbs. As can be observed in Table 6.35, the mean score of both verbs is very close but slightly higher in the prefixed form, 0.63 in *wācnan* versus 0.76 in *āwācnan*. The fact that the mean score is higher in the prefixed form might suggest a certain role of the prefix in connection with Affectedness-individuation of U. However, the statistical analysis shows that the difference between these two verbs is not statistically significant (0.4084), which means that both verbs behave in a similar way in relation to this parameter.

Table 6.36: Results of *wācnan* and *āwācnan* in Total Transitivity.

Total Transitivity	<i>Wācnan</i>	<i>Āwācnan</i>
1 Point	1	3
2 Points	1	0
3.5 Points	4	2
4 Points	5	15
5 Points	0	1
Total	11	21
Mean	3.36	3.57
Median	3.5	4
Mode	4	4

In light of the similarities observed in all parameters, it is not surprising to find out that results are practically identical as far as Total Transitivity is concerned. The mean scores of these verbs in this respect only differ in 0.21 points. As could be expected, the t-test for significance reveals that this difference is not statistically significant (0.9673) as has been the case with the rest of verb pairs in relation to *ā-*, thus emphasizing the idea that the role of this prefix in Total Transitivity is not very significant.

#### 6.3.1.12 *Weccean* – *Āweccean*

As was the case with their strong counterparts, the results obtained in the analysis of *weccean* and *āweccean* are very similar to each other. The semantics of these two verbs, as is common with the *ā-* forms, does not present significant changes as can be seen in the following definitions: *weccean*: ‘waken, arise, spring (intr.; caus.)’; *āweccean*: ‘awake, rouse, revive (caus.); awake (intr.)’.

Table 6.37: Results of *weccean* and *āweccean* in parameter Participants.

Participants	<i>Weccean</i>	<i>Āweccean</i>
1 Part	3	7
2 Part	18	41
Total	21	48

Mean	0.85	0.85
Median	1	1
Mode	1	1

As far as the parameter Participants is concerned, results are practically identical. In fact, curiously, the mean scores for both verbs are exactly the same (see Table 6.37 above). Clearly, the  $\bar{a}$ - form is not higher in transitivity in this precise parameter. This is demonstrated by the statistical analysis that reveals that the difference in results is not statistically significant (0.9747).

Table 6.38: Results of *weccean* and  $\bar{a}$ *weccean* in parameter Telicity.

Telicity	<i>Weccean</i>	$\bar{A}$ <i>weccean</i>
[+Telic]	19	47
[-Telic]	2	1
Total	21	48
Mean	0.90	0.97
Median	1	1
Mode	1	1

Concerning Telicity, the parity in scores is maintained to a similar degree. With 97% of attestations in telic contexts in  $\bar{a}$ *weccean*, the effect of this prefix on this parameter is patent once more. As it appears in Table 6.38, the mean score in Telicity of the unprefix counterpart is very close, 0.90. As could not be otherwise by having a look at the aforementioned table, the statistical analysis shows that the difference between these two verbs in terms of Telicity is not statistically significant. The two-tailed P value equals 0.2546 in this case. It could be argued, that as is the case with  $\bar{a}$ *w\bar{e}cnan* above, the unprefix verb already has a telic meaning, ingressive as put forth by Sasse (1991). That telic meaning seems to be reinforced by the prefix. This reinforcement could explain the fact that the prefixed forms are more often attested than their unprefix counterpart in these particular cases.

Table 6.39: Results of *weccean* and *āweccean* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Weccean</i>	<i>Āweccean</i>
No U	1	3
No U (Irre)	5	6
Partial	2	2
Affected	13	37
Total	21	48
Mean	0.66	0.79
Median	1	1
Mode	1	1

The disparity in the data in the parameter Affectedness-individuation of U is slightly higher than in Telicity and Participants. As Table 6.39 shows, the mean scores differ in 0.13 points. It is somewhat higher in *āweccean*, which could point to a certain effect on this parameter as was commented on in relation to *āwācnan* above. This is so in spite of the fact that the difference between *āweccean* and the unprefix counterpart is not statistically significant. The two-tailed P value equals 0.2546. This statistic result, however, does not invalidate the fact that the Affectedness-individuation of U value of *āweccean* is quite high.

Table 6.40: Results of *weccean* and *āweccean* in Total Transitivity.

Total Transitivity	<i>Weccean</i>	<i>Āweccean</i>
2 Points	0	1
3 Points	2	1
4 Points	5	7
4.5 Points	1	0
5 Points	1	3
5.5 Points	0	1

6 Points	2	1
6.5 Points	1	1
7 Points	6	15
7.5 Points	3	18
Total	21	48
Mean	5.64	6.37
Median	6	7
Mode	7	7.5

Table 6.40 above presents the results of *weccean* and *āweccean* in Total Transitivity. As can be observed, the mean scores differ more than could be expected, 0.73 points, to be precise, given the almost identical results presented in the parameters analysed above. However, this may be due to the remarkable difference that these verbs present in the parameter Agency. *Weccean* has a mean score of 0.59 while its counterpart almost doubles that score, 0.97. The complete information including all parameters is available in appendix B. Focusing on Agency, even though the difference in results is higher than in the other parameters, statistics shows that the disparity in this result cannot be considered significant either. The two-tailed P value equals 0.0718. This bolsters the idea mentioned some paragraphs above, namely that in the cases of *wācnan-weccean* their counterparts behave in no statistically significant different way with respect to their prefixed counterparts, this could point to the redundant effect of the prefix, commented on with respect to Telicity, that serves to reinforce the meaning of the base.

### 6.3.1.13 *Āwācnan* – *Āweccean*

Table 6.41: Results of *āwācnan* and *āweccean* in the parameter Participants.

Participants	<i>Āwācnan</i>	<i>Āweccean</i>
1 Part	21	7
2 Part	0	41
Total	21	48
Mean	0	0.85



Median	0	1
Mode	0	1

So far, the comparison of causative and non-causative verbs with  $\bar{a}$ - have revealed that the causative component has a small or no effect on any or most of the parameters of transitivity. The comparison of the Participants values of  $\bar{a}w\bar{a}cnan$  and  $\bar{a}weccean$  (see Table 6.41 above) shows that this is one of the pairs in which the original transitivity effect of the  $-jan$  suffix is best preserved. This, in turn, reinforces the little influence of  $\bar{a}$ - on this parameter with regards to these verbs. The difference in Participants between strong verb (0 points mean score) and its causative counterpart (0.85 mean score) are, as expected, extremely statistically significant.

#### 6.3.1.14 *Wegan* – $\bar{A}wegan$

The next verb pair that will be discussed in this section is the one made up of the verbs *wegan* ‘bear, carry; move (caus.; intr.)’ and  $\bar{a}wegan$  ‘carry off, move (sth)’. As usual with the verbs to which the prefix  $\bar{a}$ - is attached, the meaning of both verbs does not differ much, even if subtle differences related to Telicity, such as the one between ‘carry’ and ‘carry off’ can be detected. Therefore, disparities with regards to that parameter are expected.

Table 6.42: Results of *wegan* and  $\bar{a}wegan$  in parameter Participants.

Participants	<i>Wegan</i>	$\bar{A}wegan$
1 Part	1	0
2 Part	18	2
Total	19	2
Mean	0.94	1
Median	1	1
Mode	1	1

In relation to the parameter Participants, it can be observed in Table 6.42 above that both verbs clearly favour transitive valence over their historically expected one. *Wegan*

appears in transitive contexts in 94% of its attestations, while *āwegan* does so in all of them. This could be regarded as a case of change in meaning in the case of the strong verb that causes it to acquire a new valence frame. In fact, from its original Germanic meaning of ‘shake’ it develops the ones related to carrying and bearing attested in Old English. As is to be expected, statistics reveal that the small difference in the data between these two verbs regarding the parameter Participants is not statistically significant. The two-tailed P value in this case equals 0.7547.

Table 6.43: Results of *wegan* and *āwegan* in parameter Telicity.

Telicity	<i>Wegan</i>	<i>Āwegan</i>
[+Telic]	1	2
[-Telic]	18	0
Total	19	2
Mean	0.05	1
Median	0	1
Mode	0	1

The parameter Telicity reveals, however, very different results. These could once more point to an effect of the prefix in question on Telicity. On the one hand, the unprefix form *wegan* appears almost exclusively in atelic contexts, 95% of examples do so. On the other, *āwegan* is only attested in telic contexts in my corpus. These data are shown in Table 6.43 above. According to the t-test for significance carried out in this study, this difference is extremely statistically significant, less than 0.0001. Contrary to what was mentioned regarding the parameter Participants, the prefix seems to have a noteworthy influence on this parameter.

Table 6.44: Results of *wegan* and *āwegan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wegan</i>	<i>Āwegan</i>
No U	1	0
No U (Irre)	7	0

Partial	3	0
Affected	8	2
Total	19	2
Mean	0.5	1
Median	0.5	1
Mode	0 / 1	1

In spite of the practically identical results in relation to parameter Participants, results in the parameter Affectedness-individuation of U do present noteworthy differences. The prefixed verb *āwegan* favours a higher degree of affectedness-individuation (1 point mean score) than its counterpart (0.5 mean score), as can be seen in Table 6.44 above. Relevant as this may seem at first sight, it does not reflect any kind of statistically significant difference. The t-test for significance reveals that the difference in the data is not statistically significant in this case (0.1590), just as it was not regarding the parameter Participants.

Table 6.45: Results of *wegan* and *āwegan* in Total Transitivity.

Total Transitivity	<i>Wegan</i>	<i>Āwegan</i>
1 Point	2	0
2 Points	5	0
4 Points	2	0
4.5 Points	3	0
5 Points	6	0
6 Points	1	1
7 Points	0	1
Total	19	2
Mean	3.65	6.5
Median	4.5	6.5
Mode	5	6 / 7

Although both verbs have shown disparities in their results in all three parameters, with higher transitivity always favoured by the prefixed form, only the parameter Telicity showed important statistical differences. Therefore, it is surprising to check how much Total Transitivity results vary from the prefixed to the unprefixed verb. As can be seen in Table 6.45 above, *āwegan* almost doubles the mean Total Transitivity score of its counterpart. This score mirrors the disparity in the parameter Telicity and also the difference in Affectedness-individuation of U pointed out above. Even though this happened to be not statistically significant, when results are considered as a whole, its importance shows up. In fact, the t-test for significance regarding Total Transitivity shows the difference in the data between these two verbs to be statistically significant (0.0252). In addition to this, both verbs present important differences regarding the parameter Agency, not directly related to any of the functions of this prefix according to the literature. As can be seen in appendix B, while *wegan* has a mean score of 0.47 in this parameter, *āwegan* has a mean score of 1. In conclusion, what is clear once more is the role that the prefix may play on Telicity as well as the relationship that it may have in connection with Participants and Affectedness-individuation of U. All of these implications will be analysed when the data of all *ā*-prefixed forms and their counterparts are examined together at the end of this section.

### 6.3.1.15 *Wecgan* – *Āwecgan*

Once the strong *wegan* and its *ā*-prefixed form have been discussed, focus will be laid on their causative counterparts *wecgan* ‘move, shake (sth)’ and *āwecgan* ‘move, agitate (sth)’. Concerning their semantics, there are little differences between the meanings of these two verbs in my corpus. This may entail small disparities in the data below.

Table 6.46: Results of *wecgan* and *āwecgan* in parameter Participants.

Participants	<i>Wecgan</i>	<i>Āwecgan</i>
1 Part	0	0
2 Part	4	10
Total	4	10
Mean	1	1

Median	1	1
Mode	1	1

From the point of view of valence, i.e. the parameter Participants, *wecgan* and *āwecgan* behave similarly to their strong counterparts in that both show strong preference for two-participant clauses. However, contrary to *wegan* and *āwegan*, this is what we would expect from a historical point of view. Results are perfect. Both verbs appear in transitive contexts in all of their attestations as summarized in Table 6.46 above. Consequently, the t-test for significance cannot be applied. As was the case with *āwegan*, transitivity is not attributable to the prefix.

Table 6.47: Results of *wecgan* and *āwecgan* in parameter Telicity.

Telicity	<i>Wecgan</i>	<i>Āwecgan</i>
[+Telic]	1	10
[-Telic]	3	0
Total	4	10
Mean	0.25	1
Median	0	1
Mode	0	1

The effect on Telicity, on the other hand, is clear once more. The verb *wecgan* does not normally appear in telic contexts, 25% of attestations, while its prefixed counterpart is only attested in clauses having the value +telic as shown in Table 6.47 above. The t-test for significance reveals this difference to be extremely statistically significant (0.0003). As was the case with *wegan* and *āwegan*, the influence of the prefix is clear in this case since what is a non-telic verb (normally) becomes a telic-only verb when the prefix is attached to it.

Table 6.48: Results of *wecgan* and *āwecgan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wecgan</i>	<i>Āwecgan</i>
No U (Irre)	1	10
Affected	3	0
Total	4	10
Mean	0.75	0
Median	1	1
Mode	1	0

The results concerning Affectedness-individuation of U are difficult to evaluate due to the high impact of the irrealis factor on the attestations of *āwecgan* in my corpus. As can be seen in Table 6.48, the difference in this parameter between these two verbs is enormous, extremely statistically significant in fact (0.0003), contrary to what could be expected taking into account the results of parameter Participants. As a consequence, the results presented in Table 6.48 are really of little value if solid conclusions are the objective.

Table 6.49: Results of *wecgan* and *āwecgan* in Total Transitivity.

Total Transitivity	<i>Wecgan</i>	<i>Āwecgan</i>
2 Points	0	6
3 Points	1	4
5 Points	1	0
6 Points	1	0
7 Points	1	0
Total	4	10
Mean	5.25	2.4
Median	5.5	2
Mode	N/A	2

Of course, results concerning the preceding parameter affect the Total Transitivity score. It must be also taken into account that irrealis mode, in turn, has similar effects with respect to the parameter Agency which also shows great differences between the unprefix form *wecgan* (0.5 mean score) and *āwecgan* (0 mean score) (see Appendix B). The effects of the irrealis mode are clearly mirrored in the results displayed in Table 6.49. In spite of the similarities in the parameter Participants and the extremely significant difference both verbs showed in Telicity (higher in the prefixed form), the data regarding Total Transitivity show an unprefix form with a clearly higher Total Transitivity score. Actually, statistics reveal that the difference in Total Transitivity is extremely statistically significant (0.0003). Even though these data offer little information concerning Agency or Affectedness-individuation of U, they have served at least to support the idea of the role of the prefix *ā-* on Telicity, clearly seen in this case as well as in others.

#### 6.3.1.16 *Āwegan – Āwecgan*

Table 6.50: Results of *āwegan* and *āwecgan* in the parameter Participants.

Participants	<i>Āwegan</i>	<i>Āwecgan</i>
1 Part	0	0
2 Part	2	10
Total	2	10
Mean	1	1
Median	1	1
Mode	1	1

Contrary to the case of *āwācnan* and *āweccean*, the verbs *āwegan* and *āwecgan* are a perfect example of verbs in which no trace of the older causative / non-causative relationship is left. With regards to Participants, the parameter being analysed in this case, both verbs present the exact same results, that is, they appear exclusively in two-participant clauses. Consequently, this represent a clear example of the obliteration of the causative formation and shows how prefixes, *ā-* in this case, may take over the transitivising role of this formation.

### 6.3.1.17 *Windan* – *Āwindan*

The last pairs analysed in relation to the prefix *ā-* are *windan-wendan* and their respective prefixed forms. As will be shown below, the analysis of both pairs reveals very different behaviours that rather than attributed to the prefix itself, should be linked to the high lexicalization undergone by the verb *wendan*.

As for the first pair discussed, *windan* ‘spring (intr.); roll (intr.; caus.); weave (sth)’ and *āwindan* ‘remove (sth.), slip from’, judging by their semantics, we might be lead to think that results will reveal important differences, in part due to the nuance ‘off, away’ displayed by the prefixed form and connected to Telicity. However, that is not the case, at least in most parameters.

Table 6.51: Results of *windan* and *āwindan* in parameter Participants.

Participants	<i>Windan</i>	<i>Āwindan</i>
1 Part	17	2
2 Part	1	1
Total	18	3
Mean	0.05	0.33
Median	0	0
Mode	0	0

In relation to the first of them, Participants, as can be observed in Table 6.51, both verbs keep their HEV in most cases. This is especially so in *windan* (0.05 mean score), since its prefixed counterpart seems more prone to transitive use. In fact, as shown in chapter 4, this verb does not show any statistical preference for any of the valences. The comparison of the results for this parameter reveal though that in spite of this high lability and the maintenance of HEV in most cases in *windan*, the disparity between these two verbs is not statistically significant (0.1426). Therefore, no effect on traditional transitivity of the prefix can be proven in this case.



Table 6.52: Results of *windan* and *āwindan* in parameter Telicity.

Telicity	<i>Windan</i>	<i>Āwindan</i>
[+Telic]	12	3
[-Telic]	6	0
Total	18	3
Mean	0.66	1
Median	1	1
Mode	1	1

What can indeed be proven, however, is the effect the prefix has on Telicity, apparent in almost all of the verb pairs analysed in this section. The verb *āwindan* appears in telic contexts in all of its attestations. *Windan*, on the other hand, does not, even though it also presents a statistical preference for this *Aktionsart* value. Actually, the t-test for significance shows that the difference between these two verbs is not statistically significant, two-tailed P value equals 0.2585, which means that both verbs favour telic contexts over atelic ones.

Table 6.53: Results of *windan* and *āwindan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Windan</i>	<i>Āwindan</i>
No U	17	2
No U (Irre)	1	0
Affected	0	1
Total	18	3
Mean	0	0.33
Median	0	0
Mode	0	0

Small as it may seem, and practically identical to the results in the parameter Participants, the difference between these two verbs in Affectedness-individuation of U

happens to be significant. The two-tailed P value equals 0.0102 in this case. The 0.05 points lower score in comparison with Participants of the verb *windan* does make a difference from a statistical point of view. However, claiming that the prefix *ā-* may have an effect on Affectedness-individuation of U based on the results presented in Table 6.53 is somehow risky. This is so because even though the results of *āwindan* are significantly higher than those of its unprefix counterpart, they are not very high at all, which is something that does not normally occur in a parameter such as Telicity, on which the effect of the prefix seems to be clear.

Table 6.54: Results of *windan* and *āwindan* in Total Transitivity.

Total Transitivity	<i>Windan</i>	<i>Āwindan</i>
3 Points	4	1
4 Points	10	1
5 Points	4	0
7 Points	0	1
Total	18	3
Mean	4	4.66
Median	4	4
Mode	4	N/A

Finally, as shown in Table 6.54 above, the results concerning Total Transitivity are very similar in both verbs. The verb *āwindan* presents a slightly higher mean score, presumably due to the differences in the parameters analysed above. Even though these differences were not statistically significant, they are mirrored in the Total Transitivity score. As could be expected, statistics reveal that the difference between these scores is not statistically significant either. The two-tailed P value equals 0.2679. Thus, in this case, it cannot be argued that the prefixed form is more transitive in general terms in any significant way. However, as has been pointed out above with respect to other verbs, the effect on Telicity is once more corroborated.

### 6.3.1.18 *Wendan* – *Āwendan*

Last, but not least, I will comment on the pair *wendan-āwendan*. This is no doubt the pair that presents the biggest discrepancies in results in this unprefixd vs. *ā-* group of verbs. From a semantic point of view, these two verbs may not seem to present radical differences: *wendan* ‘turn (round), change (intr.; caus.); go (intr.)’; *āwendan* ‘turn, move; change, transform; translate (intr.; caus.)’ although the ones they show could be attributed to the effect of the prefix.

Table 6.55: Results of *wendan* and *āwendan* in parameter Participants.

Participants	<i>Wendan</i>	<i>Āwendan</i>
1 Part	216	37
2 Part	45	83
Total	261	120
Mean	0.17	0.69
Median	0	1
Mode	0	1

As can be seen in Table 6.55, the highly lexicalized *wendan* (see chapter 4, section 4.2.13) appears in two-participant clauses in only 17% of its attestations. This is of special importance bearing in mind that *wendan* is by far the verb with the highest number of attestations in my corpus and therefore, results are solid enough. On the other hand, *āwendan* does show the valence behaviour typical of a historical causative in that it present dominant HEV, though with an important labile component. This verb appears in 69% of the examples in two-participant clauses. As could be expected the difference in results happens to be extremely statistically significant, less than 0.0001. Such a difference could be attributed to the prefix and represent a good example of a prefix displaying transitivity, in fact causativising, effects, thus taking over the role of the suffix *-jan*.

Table 6.56: Results of *wendan* and *āwendan* in parameter Telicity.

Telicity	<i>Wendan</i>	<i>Āwendan</i>
[+Telic]	215	117
[-Telic]	46	3
Total	261	120
Mean	0.82	0.97
Median	1	1
Mode	1	1

The mean scores concerning Telicity are much closer than in the parameter Participants. As can be seen in Table 6.56 above, both verbs clearly favour telic contexts. The unprefixed verb *wendan* appears in telic contexts in 82% of its attestations. *Āwendan* is a practically telic-only verb since only 3% of its attestations lack this feature. In spite of the similar results, surprisingly this time, statistics reveal that the difference in results is extremely statistically significant (less than 0.0001), which again bolsters the telic-favouring hypothesis of the prefix *ā-*.

Table 6.57: Results of *wendan* and *āwendan* in parameter Affectedness-individuation of U.

Affectednss-indiv	<i>Wendan</i>	<i>Āwendan</i>
No U	216	37
No U (Irre)	11	29
Partial	1	1
Affected	33	53
Total	261	120
Mean	0.12	0.44
Median	0	0
Mode	0	0

As for Affectedness-individuation of U, statistics show again the differences between these two verbs to be extremely statistically significant, less than 0.0001. According to the data in Table 6.57 above and the statistical analysis, it can be concluded that  $\bar{a}$ - has an effect on this parameter even if the mean score  $\bar{a}wendan$  shows is not especially high.

Table 6.58: Results of *wendan* and  $\bar{a}wendan$  in Total Transitivity.

Total Transitivity	<i>Wendan</i>	$\bar{A}wendan$
1 Point	4	2
2 Points	16	4
3 Points	22	15
4 Points	69	33
5 Points	116	12
6 Points	5	2
6.5 Points	1	1
7 Points	25	42
7.5 Points	3	9
Total	261	120
Mean	4.56	5.22
Median	5	5
Mode	5	7

The Total Transitivity scores of these two verbs differ considerably, in an extremely statistically significant way once more, to be precise less than 0.0001, even though that might not be the impression that one could get by having a look at Table 6.58 above. The mean scores of both verbs do not differ as greatly as in some other cases, for instance, and their median score is the same. However, results show that the prefixed verb is, from a statistical point of view, significantly more transitive than its unprefixed counterpart. Such results, thus point to a clear effect of the prefix as commented on above with respect to the individual prefixes analysed above.

### 6.3.1.19 *Āwindan* – *Āwendan*

The results of the analysis of the last verb pair to which *ā-* is attached are consistent with what has been claimed with respect to most other verbs with this prefix, namely that both members of the pair present quite similar data with respect to the parameter Participants. This bolsters the idea of the lack of impact of the *-jan* suffix.

Table 6.59: Results of *āwindan* and *āwendan* in the parameter Participants.

Participants	<i>Āwindan</i>	<i>Āwendan</i>
1 Part	2	37
2 Part	1	83
Total	3	120
Mean	0.33	0.69
Median	0	1
Mode	0	1

The comparison of results shows that the mean scores of both strong and causative counterpart differ in 0.36 points (see Table 6.59). Such a disparity might be considered remarkable enough a priori. However, statistics reveal that the difference between these two verbs is not statistically significant, 0.1907, in this case, thus reinforcing what has been put forth with regards to the causative suffix in the previous paragraph.

### 6.3.1.20 *Total Results: Unprefixed vs. Ā-*

Once I have dealt with the results of the *ā-*prefixed forms and their counterparts individually parameter per parameter, focus will be laid on results as a whole, that is, the results of all unprefixed and prefixed forms together will be compared in order to determine the possible effects that the prefix *ā-* may have on Participants, Telicity, Affectedness-individuation of U as well as Total Transitivity, regardless of the specific verb they are attached to. This approach serves to reduce the influence on statistics of verbs that are attested only once, so that statistics get more reliable and useful and also contributes to have a full picture of the effects of the prefix in general. As will be shown

in the following paragraphs, this analysis presents unexpected results in some of the parameters.

Table 6.60: Total results unprefixd vs.  $\bar{a}$ - in the parameter Participants.

Participants	Unprefixd	$\bar{A}$ -
1 Part	601	88
2 Part	126	149
Total	727	237
Mean	0.17	0.62
Median	0	1
Mode	0	1

The group of unprefixd plus  $\bar{a}$ - verbs is made up of 13 different verb pairs. Concerning the parameter Participants, in five of them the  $\bar{a}$ - verbs presented results in which a high score in this parameter is favoured. They are the following verbs: *ācēlan*, *āhwyrfan*, *āweccean*, *āwegan* and *āwecgan*. In addition to these, three of the prefixed forms also showed results that were statistically significantly higher with respect to their unprefixd counterparts in the parameter Participants. Those three verbs are *ācalan*, *āhweorfan* and *āwendan*. All in all, thus, in eight out of 13 verb pairs some kind of effect on the parameter Participants is detected, either because the score a verb in question presents is very high or because it is higher in comparison with that of its counterpart. As is shown in Table 6.60 above, differences between unprefixd and prefixed verbs with respect to this parameter are remarkable. While the mean score of the unprefixd forms is very low, only 0.17, their prefixed counterparts triple that score. When the t-test for significance is applied, it reveals that the difference between these two groups is extremely statistically significant (less than 0.0001). In conclusion, when results are taken as a whole, it is clear that the  $\bar{a}$ - prefix has some kind of transitivity effect in the traditional sense, at least regarding the verbs to which this analysis is applied to, namely, labile morphological causatives and their strong counterparts.

Table 6.61: Total results unprefixd vs.  $\bar{a}$ - in the parameter Telicity.

Telicity	Unprefixed	$\bar{A}$ -
[+Telic]	569	229
[-Telic]	158	8
Total	727	237
Mean	0.78	0.96
Median	1	1
Mode	1	1

No doubt, the clearest effect of the prefix  $\bar{a}$ - on the verbs analysed in the previous paragraphs was on Telicity as has been mentioned more than once. In the great majority of the 13 verb pairs discussed above, the prefixed form showed a clear preference for telic contexts. Actually, in six of them (*ābyrnan*, *ābūgan*, *āhweorfan*, *āwācnan*, *āweccean* and *āwindan*), the prefixed form showed very high scores in Telicity. Additionally, in five out of these 13 verb pairs, statistical results demonstrated that  $\bar{a}$ -forms showed a higher degree of Telicity than their unprefixd counterparts. Those verbs are the following: *ācalan*, *āhwyrfan*, *āwegan*, *āwecgan* and *āwindan*. What these results show is that in 11 out of the 13 verb pairs analysed in this section, the  $\bar{a}$ - form shows a high degree of preference for telic contexts, thus reflecting the relevance of this prefix on this parameter. As can be observed in Table 6.61 above, the mean score of the prefixed verbs is almost 1 (0.96, in fact), that is,  $\bar{a}$ - verbs are close to appearing in telic contexts in all of their attestations in my corpus. The results obtained from the analysis of unprefixd forms, though very high, is lower. In fact, when the t-test for significance is applied, it reveals that, as was the case with the parameter Participants, the difference between unprefixd and prefixed forms is extremely statistically significant. The two-tailed P value equals less than 0.0001. In light of these these results, it can be concluded that this prefix has also an effect on Telicity as has been shown clearly throughout the analysis above and as anticipated in the introduction, since the effect on Telicity of this prefix is a widely agreed upon fact in the literature taken into account in this study. By way of illustration of the conclusions summarised in this paragraph, a telic clause



including an  $\bar{a}$ -prefixed verb *āwendan* (6.24a) and an atelic one including its unprefixed counterpart (6.24b) are shown below:

(6.24)

a. *Ʒa hi ưa hamweard wendon mid Ʒære <herehyƷe>*,  
 Then they then homeward went with the war-booty,  
*Ʒa gemetton hi mycelne sciphere wicinga*,[...]  
 then met they great fleet of vikings,[...]

‘When they were on their way home with the war booty, they met a great fleet of vikings’.

ChronD (Cubbin) B17.8 [0316 (885.10)]

b. *Ʒa awendest Ʒu Ʒinne andwlitan fram me*, [...]  
 then turned away you your face from me, [...]

‘Then you turned your face away from me’.

PPs (prose) (Bright and Ramsay) B8.2.1 [0384 (29.7)]

Table 6.62: Total results unprefixed vs.  $\bar{a}$ - in the parameter Affectedness-individuation of U.

Affectedness-indiv	Unprefixed	$\bar{A}$ -
No U	514	65
No U (Irre)	57	53
Partial	20	6
Affected	136	113
Total	727	237
Mean	0.20	0.48
Median	0	0.5
Mode	0	0

Even though effects of the prefix on Telicity seemed clear as the analysis of the different verbs progressed, effects on the parameter Affectedness-individuation of U

could be regarded as less than certain taking into consideration the rather small number of verbs that displayed a high score in this parameter. This was so in spite of the hypotheses presented in the introduction, which point to effects on this parameter. Only six out of the 13 *ā*- forms included in this analysis, less than half of them, could be regarded as showing a high mean score (higher than 0.5) in this parameter. In four out of these six cases (*ābyrnan*, *āwēcnan*, *āweccean* and *āwegan*) the verbs do not show significantly higher scores than their unprefixated counterparts from a statistical point of view, while two do so, namely *āwindan* and *āwendan*. The data in Table 6.62 show that the mean score of the *ā*- verbs taken together in this parameter does not even reach what has been considered to represent partially affected undergoers, i.e. 0.5 points. Nevertheless, it must be taken into account that this result doubles that of the unprefixated counterparts which is just 0.20. This difference is of course noteworthy. As demonstrated by the t-test for significance, the disparity in the data concerning this parameter is, as was the case with the previous ones, extremely statistically significant. This result, thus, shows that there is a relevant difference in the degree to which undergoers are affected in the two groups under analysis. The difference, thus, between unprefixated and *ā*-prefixated verbs is clear. However, when the results of *ā*- verbs themselves are considered, since their mean and median scores do not go beyond that of partially affected undergoers, the mode score is even lower, it must be concluded that the effect of this prefix on Affectedness-individuation of U is very limited. As will be shown below with respect to other prefixes, when these clearly display an effect on this parameter, mean, median and mode scores are much higher generally, in fact, close to the maximum 1.5 points. Therefore, in spite of the clear difference in results between unprefixated and *ā*-prefixated verbs, I argue that these results do not support the hypothesis that the prefix *ā*- shows a remarkable effect on Affectedness-individuation of U. However, the influence of the irrealis mode should not be discarded as a factor to bear in mind with respect to these low results. Had this factor not played such a relevant role in these particular data, it is likely that the effect of *ā*- on this parameter could have been proven more clearly.

Table 6.63: Total results unprefixd vs.  $\bar{a}$ - in Total Transitivity.

Total Transitivity	Unprefixd	$\bar{A}$ -
0 Points	2	0
1 Point	19	6
2 Points	63	15
3 Points	81	27
3.5 Points	10	2
4 Points	206	69
4.5 Points	5	0
5 Points	262	20
5.5 Points	1	2
6 Points	13	4
6.5 Points	4	2
7 Points	51	62
7.5 Points	10	28
Total	727	237
Mean	4.29	5.02
Median	5	4
Mode	5	4

Lastly, focus will be laid on Total Transitivity results. As was the case with the parameter analysed just above, not many of the  $\bar{a}$ - verbs taken into consideration showed very high mean scores in Total Transitivity (higher than 4), nor did they present a statistical higher score than their unprefixd counterparts. Only five verbs could be included in the former group ( *$\bar{a}$ byrnan,  $\bar{a}$ cēlan,  $\bar{a}$ hwyrfan,  $\bar{a}$ weccean and  $\bar{a}$ windan*) while just two of them would be part of the latter, i.e.  *$\bar{a}$ wegan and  $\bar{a}$ wendan*. In addition to this, as can be seen in Table 6.63 above, the mean scores of unprefixd and prefixd forms do not seem to differ much. In fact, less than 1 point. Moreover, the median and mode scores are even higher in the case of unprefixd forms. However, bearing in mind the fact that prefixd verbs showed statistically significantly higher scores in all three parameters discussed above, it is to be expected that that is the case when Total

Transitivity is considered. And that is exactly the case. The two-tailed P value of the t-test for significance applied in this study shows that the difference, as in all three parameters above, is extremely statistically significance (less than 0.0001).

Thus, in conclusion, the analysis of the verbs taken into consideration in this work has clearly shown that the prefix *ā-* has relevant effects with regards to some of the parameters related to transitivity as a whole. These include Participants and Telicity, and to a certain extent, in comparison with its unprefixed counterparts, also Affectedness-individuation of U. Therefore, these results confirm that the *ā-* prefix could be regarded as transitivity and telic (or changing to telic aspect), though not as representing high Affectedness-individuation, as often described in the literature. Additionally, as shown in the previous paragraph, it also has important effects on Total Transitivity. Furthermore, it must be stated that both causative and non-causative prefixed forms show a very similar behaviour regarding Participants, with the exception of the particularly well preserved pair made of *āwācnan* and *āweccean*. Such a result, thus, supports the idea that the higher degree of transitivity in the different parameters analysed above can be safely attributed to the prefix rather than to the *-jan* suffix, which as my data imply, seems to have already lost most of its transitivity capacity in the Old English period.

### 6.3.2 *Æt-*

The second prefix I will discuss is *æt-*. As could be expected, this prefix is connected with the homophonous preposition *æt* ‘at, to, from’. These are the only meanings associated with verbs to which this prefix is attached according to Bosworth and Toller (1898). From this information it could be deduced that this prefix might be prone to transitivity in the traditional sense by adding a syntactic object which would be the object of the preposition *æt*. This phenomenon is common in languages related to English such as German, as illustrated by the transitive verb *überfallen* ‘to assault’, literally ‘to fall over someone’, a prefixed verb made up of the verb *fallen* ‘to fall’ and the prepositional prefix *über* ‘over’. The analysis below will try to shed light on whether that behaviour is replicated in similar Old English examples.

### 6.3.2.1 *Hweorfan* – *Æthweorfan*

The prefix *æth-* appears attached only to two of the verbs included in my analysis, i.e. *hweorfan* and *windan*. As for the former, there is little to discuss from a statistical point of view since there is only one example of *æthweorfan* in the whole corpus. The meaning of this verb is ‘return (intr.)’ and it reflects the meanings associated to this prefix by Bosworth and Toller (1898), adding the nuance of return, movement from, to the unprefixes *hweorfan* ‘turn, change (intr.; caus.); go’. In what follows I will concentrate on the effects this prefix may or may not have on transitivity as a whole and in certain parameters often associated with prefixes, as discussed in the methodology section above.

Table 6.64: Results of *hweorfan* and *æthweorfan* in the parameter Participants.

Participants	<i>Hweorfan</i>	<i>Æthweorfan</i>
1 Part	143	1
2 Part	0	0
Total	143	1
Mean	0	0
Median	0	N/A
Mode	0	N/A

Table 6.65: Results of *hweorfan* and *æthweorfan* in the parameter Telicity.

Telicity	<i>Hweorfan</i>	<i>Æthweorfan</i>
[+Telic]	103	1
[-Telic]	40	0
Total	143	1
Mean	0.72	1
Median	1	N/A
Mode	1	N/A

Table 6.66: Results of *hweorfan* and *ǣthweorfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hweorfan</i>	<i>ǣthweorfan</i>
No U	143	1
Total	143	1
Mean	0	0
Median	0	N/A
Mode	0	N/A

Table 6.67: Results of *hweorfan* and *ǣthweorfan* in Total Transitivity.

Total Transitivity	<i>Hweorfan</i>	<i>ǣthweorfan</i>
2 Points	13	0
3 Points	24	0
4 Points	32	0
5 Points	74	1
Total	143	1
Mean	4.16	5
Median	5	N/A
Mode	5	N/A

Concerning Participants, as can be observed in Table 6.64 above, both verbs behave in the same way. All of the clauses analysed in my corpus have just one participant. Both verbs, thus, follow their HEV in all cases and therefore, there is no observable effect of the prefix on this parameter. This is so as well in Affectedness-individuation of U (Table 6.66), which presents exactly the same results. As for Telicity (Table 6.65) both verbs show similar tendencies. The unprefixd verb shows a clear preference for telicity with a 0.72 mean score. This tendency is also reflected in the prefixed counterpart. As was the case with the previous parameter, the prefix does not seem to be altering the nature of the unprefixd counterpart in this respect either. Results concerning Total Transitivity do not differ much either (Table 6.67). Although the mean score shows a

disparity of 0.84 points, both median and mode scores are the same, i.e. 5. All in all, the comparison of these two verbs seems to point to the fact that the prefix has little effect on transitivity as a whole and on the parameters under study in this section, even if results cannot be taken as conclusive given the limited number of attestations of *ǣthweorfan*.

### 6.3.2.2 *Windan* – *ǣtwindan*

Fortunately, in relation to the number of attestations, the situation is far better in the case of *windan* ‘spring (intr.); roll (intr.; caus.); weave (sth)’ and *ǣtwindan* ‘wind off, turn away, escape and flee away’ because in this case, it is possible to carry out a statistical analysis.

Table 6.68: Results of *windan* and *ǣtwindan* in the parameter Participants.

Participants	<i>Windan</i>	<i>ǣtwindan</i>
1 Part	17	23
2 Part	1	0
Total	18	23
Mean	0.05	0
Median	0	0
Mode	0	0

As can be observed in Table 6.68, the results obtained in relation to the parameter Participants are practically the same in both verbs. Both of them show a clear preference for one-participant clauses. These results coincide with the ones of the previous verb-pair. The t-test for significance shows the difference between *windan* and *ǣtwindan* in the parameter Participants to be not statistically significant (0.2635).

Table 6.69: Results of *windan* and *ǣtwindan* in the parameter Telicity.

Telicity	<i>Windan</i>	<i>ǣtwindan</i>
[+Telic]	12	8
[-Telic]	6	15

Total	18	23
Mean	0.66	0.34
Median	1	0
Mode	1	0

The first differences between *windan* and *ǣtwindan* can be seen when comparing their results in Telicity. The data in Table 6.69 show that the unprefix counterpart appears in telic contexts more often than its counterpart does. In fact, this difference is statistically significant. The two-tailed P value equals 0.0425. What is surprising is that the verb having a more telic tendency is the unprefix form rather than its counterpart since as explained in section 6.1, a higher telicity is often associated with prefixes. However, as these results show, that is not the case of the prefix *ǣt-*. These results are somehow unexpected bearing in mind the meanings displaying typical telic nuances such as ‘off’ or ‘away’. It might be the case that they reflect etymological knowledge assuming that the prefix is indeed telic although actual data do not seem to support this idea.

Table 6.70: Results of *windan* and *ǣtwindan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Windan</i>	<i>ǣtwindan</i>
No U	17	23
No U (Irre)	1	0
Total	18	23
Mean	0	0
Median	0	0
Mode	0	0

Differences in the parameter Affectedness-individuation of U are not detected, on the other hand. In this case, these two verbs show exactly the same result as the previous analysed pair, that is, there are no affected undergoers whatsoever in any example.



Therefore, it is clear that this prefix has little effect on this parameter as well as on Participants. The results concerning Affectedness-individuation of U are displayed in Table 6.70 above.

Table 6.71: Results of *windan* and *ætwindan* in Total Transitivity.

Total Transitivity	<i>Windan</i>	<i>Ætwindan</i>
1 Point	0	5
2 Points	0	2
3 Points	4	2
4 Points	10	11
5 Points	4	3
Total	18	23
Mean	4	3.21
Median	4	4
Mode	4	4

The relevant statistical difference in terms of the behaviour in parameter Telicity has important consequences in relation to Total Transitivity (see Table 6.71). Even though differences may not look relevant at first sight, the statistical analysis determines that they are statistically significant. The two-tailed P value equals 0.0374, which means that the unprefixd counterpart is higher in transitivity than its prefixed counterpart. These results confirm that the role of *æt-* in connection with Total Transitivity is non-existent.

### 6.3.2.3 Total Results: Unprefixed vs. *Æt-*

Although conclusions concerning the effects of the prefix *æt-* on transitivity seem clear enough considering what has been explained above, the results obtained from the comparison of all unprefixd and prefixed forms will be discussed in the following paragraphs.

Table 6.72: Total results unprefixes vs.  $\bar{a}t-$  in the parameter Participants.

Participants	Unprefixed	$\bar{a}t-$
1 Part	160	24
2 Part	1	0
Total	161	24
Mean	0.006	0
Median	0	0
Mode	0	0

In relation to the parameter Participants (see Table 6.72) there is little to add to what has already been commented on when analysing the two verb pairs above. Both verbs in each pair display a very close behaviour, so no effect of the prefix could be appreciated with respect to this parameter. The statistical analysis, as expected, shows that differences in Participants are not statistically significant (0.7005).

Table 6.73: Total results unprefixes vs.  $\bar{a}t-$  in the parameter Telicity.

Telicity	Unprefixed	$\bar{a}t-$
[+Telic]	115	9
[-Telic]	46	15
Total	161	24
Mean	0.71	0.37
Median	1	0
Mode	1	0

There is a relevant difference though in terms of Telicity, as shown in Table 6.73 above. In this case, statistics reveal that the difference between unprefixes and prefixed form is extremely statistically significant, 0.0009. This means that unprefixes forms tend to appear in telic contexts much more often than their counterparts do. The unprefixes counterparts do so in 71% of cases, while the prefixed verbs in just 37% of their

attestations. This result leaves no doubt as for the null role that this specific prefix has on telicity.

Table 6.74: Total results unprefixd vs.  $\bar{a}t-$  in the parameter Affectedness-individuation of U.

Affectedness-indiv	Unprefixd	$\bar{a}t-$
No U	160	24
No U (Irre)	1	0
Total	161	24
Mean	0	0
Median	0	0
Mode	0	0

As for the parameter Affectedness-individuation of U, results are even more similar than in the case of Participants. In fact, as shown in Table 6.74 above, the data in both groups are identical. Both groups score 0 in all the statistical categories included in the table above, i.e. mean, median and mode. These results highlight the fact that the prefix under study plays no role in connection with this parameter as already put forth when discussing the individual verb pairs some paragraphs above.

Table 6.75: Total results unprefixd vs.  $\bar{a}t-$  in Total Transitivity.

Total Transitivity	Unprefixd	$\bar{a}t-$
1 Point	0	5
2 Points	13	2
3 Points	28	2
4 Points	42	11
5 Points	78	4
Total	161	24
Mean	4.14	3.29

Median	4	4
Mode	5	4

Taking into account the low score shown by prefixed verbs in most of the parameters analysed above, it is not surprising to find out that this is also reflected in their Total Transitivity. As can be seen in Table 6.75, the mean score, as well as the mode one is lower in the case of the *ā̄t-* verbs. Irrelevant as they may seem, these differences are important from a statistical point of view, though, since the t-test for significance determines that they are statistically significant, 0.0429, which means that the group of unprefixed verbs displays a higher degree of Total Transitivity than their counterparts. Again, these results emphasise the idea that the prefix under study in this section has nothing to do with higher transitivity in spite of what is commonly assumed with respect to prefixes in general, even though, it must be noticed, no specific transitivity effect is attributed to *ā̄t-* in the literature as mentioned above.

### 6.3.3 *Be-*

The next prefix I will discuss is *be-*. The functions with which this prefix is usually connected are closely linked to the parameters under study in this section. According to de la Cruz (1975: 64-5) and Bosworth and Toller (1898) *be-* can have transitivity effects when attached to certain verbs. The latter authors also associate this prefix with intensification as they did with respect to the analysed above *ā-*. Other authors, such as Quirk and Wrenn (1957: 110), make an emphasis on the meaning of ‘round over’ that verbs with this prefix often present. They also point out that this meaning normally has an intensifying and perfective effect, that is, it is related to the parameters Affectedness-individuation of U and Telicity as they are analysed in this study. According to Brinton (1988: 209), the shift from spatial to *Aktionsart* meaning is best exemplified by this prefix. As she puts it (ibid) “by moving around something, one reaches the point where one began, simultaneously the beginning and the endpoint”. This is certainly one of the best ways in which attainment of a goal can be expressed. As commented on with respect to *ā̄t-*, given the meaning of the prefix, it could be deduced that this prefix might be prone to transitivity through the addition of a syntactic object, namely the object of the preposition ‘around’ this prefix conveys.

In relation to the prefix *be-*, it appears attached to seven different verbs in my corpus, namely *būgan*, *hweorfan*, *hwyrfan*, *lāfan*, *swingan*, *windan* and *wendan*. As in previous sections, results of all seven *be-* verbs plus their unprefixated counterparts will be analysed in relation to the parameters Participants, Telicity and Affectedness-individuation of U with which this prefix seems to be connected according to the literature, as well as with Total Transitivity.

### 6.3.3.1 *Būgan – Bebūgan*

The first verb pair I will focus on is the one made up of the verbs *būgan* ‘bow, bend; submit (intr.)’ and *bebūgan* ‘surround; avoid; flow around (caus.; intr.)’. As can be observed by the translations, these verbs differ significantly from a semantic point of view. The verb *bebūgan* seems to have little connection with its unprefixated counterpart and as mentioned in the introduction to this prefix, the semantic component of ‘round over’ is clearly present.

Table 6.76: Results of *būgan* and *bebūgan* in the parameter Participants.

Participants	<i>Būgan</i>	<i>Bebūgan</i>
1 Part	119	4
2 Part	2	2
Total	121	6
Mean	0.01	0.33
Median	0	0
Mode	0	0

After this brief comment on the semantic differences of these two verbs, focus will be laid on their differences or similarities concerning the parameter Participants. The results of these verbs are presented in Table 6.76. As can be observed, the unprefixated form presents its HEV almost in all cases. In fact, this is so in 99% of them. The valence of *bebūgan*, however, shows HEV in only 66% of cases. As shown in chapter 4, section 4.2.1, *bebūgan* displays no preference for either of the two valence types, HEV

or NHEV (intransitive or transitive-causative, in this case). Under the effect of the prefix, it clearly takes a further valence value barely attested in *būgan*. The statistical analysis of the differences in parameter Participants between *būgan* and *bebūgan* confirms the fact that, in terms of traditional transitivity, these two verbs are extremely significantly different from a statistical point of view. The two-tailed P value equals less than 0.0001. These two verbs, thus, serve to support the transitivity view of some of the authors cited in the introduction.

Table 6.77: Results of *būgan* and *bebūgan* in the parameter Telicity.

Telicity	<i>Būgan</i>	<i>Bebūgan</i>
[+Telic]	96	2
[-Telic]	25	4
Total	121	6
Mean	0.79	0.33
Median	1	0
Mode	1	0

Another function typically associated with the prefix *be-* has to do with Telicity. Contrary to the case of Participants, though, the results of *būgan* and *bebūgan* in this respect do not confirm that hypothesis. As is shown in Table 6.77 above, while the unprefix verb *būgan* clearly shows preference for telic contexts with 79% of its attestations in my corpus, *bebūgan* appears much more commonly in atelic clauses. In this case, it does so in 66% of its attestations in my corpus. These results, thus, do not support the idea that *be-* is connected with Telicity. The t-test for significance shows, actually, that the difference between these two verbs is very statistically significant (0.0085). This difference entails that *bebūgan* is lower in Telicity than its unprefix counterpart from a statistical point of view, which, at least in the case of this verb, refutes the telic function of this prefix.

Table 6.78: Results of *būgan* and *bebūgan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Būgan</i>	<i>Bebūgan</i>
No U	119	4
No U (Irre)	0	1
Affected	2	1
Total	121	6
Mean	0.01	0.16
Median	0	0
Mode	0	0

The intensifying function of the prefix *be-*, also commented on in the introduction, is, however, supported by the data obtained from my corpus to a certain extent, even though differences between these verbs are not remarkable *a priori*. As can be seen in Table 6.78, the score in Affectedness-individuation of U displayed by the verb *būgan* is extremely low, just 0.01. The mean score presented by its counterpart is not precisely very high either and seems to differ little, just 0.15 points, in a way that may lead to think that their behaviour is the same as far as this parameter is concerned. Nevertheless, the statistical analysis reveals its importance once more in this study. As determined by the application of the t-test for significance, the difference between these two verbs, though apparently small, is indeed statistically significant. In this case the two-tailed P value equals 0.0179. Therefore, the intensifying effect of the prefix *be-* seems to be confirmed, at least in relation to *bebūgan* and its unprefixated counterpart. Nevertheless, it must be borne in mind that although *bebūgan* displays a significantly higher score in Affectedness-individuation of U, its mean score is by no means high, which points to the fact that the prefix may not have such a remarkable effect on this parameter.

Table 6.79: Results of *būgan* and *bebūgan* in Total Transitivity.

Total Transitivity	<i>Būgan</i>	<i>Bebūgan</i>
1 Point	2	0

2 Points	15	0
3 Points	14	5
4 Points	35	0
5 Points	53	0
7 Points	1	0
7.5 Points	1	1
Total	121	6
Mean	4.07	3.75
Median	4	3
Mode	5	3

Lastly, I will concentrate on the evaluation of the results concerning Total Transitivity. The results analysed in the previous paragraphs showed that *bebūgan* displayed a significantly higher degree of transitivity in parameters Participants and Affectedness-individuation of U with respect to its counterpart, while in the case of Telicity it was the unprefix form the one that got a higher score from a statistical point of view. Given these data, it could be expected that *bebūgan* showed a higher mean score in Total Transitivity, as well as a significant difference in comparison with the unprefix *būgan*. Results in Table 6.79 above show these assumptions to be wrong. As can be observed, the verb *būgan* presents a higher mean score than its counterpart, 0.32 points to be precise. Likewise their median and mode scores are also higher. These results, certainly, do not point to a higher Total Transitivity of the prefixed *bebūgan*, as could be expected considering the supposed effects of this prefix on some parameters. In fact, from a statistical point of view, neither of the verbs can be considered more transitive (in total terms) than the other. The two-tailed P value equals 0.5167, that is, not statistically significant. However, there is a factor causing *būgan* to present a higher mean score that, of course, is not reflected in the three parameters analysed above. The differing factor lies in the parameter Agency. As can be seen in appendix B, the difference in the parameter Agency between these two verbs is very high (0.54 *būgan* vs. 0.16 *bebūgan*) and presents a crucial point of disparity between both verbs even if it is not considered in the literature. Once this parameter is taken into consideration, the



differences in Total Transitivity presented by these two verbs are easily understood in spite of the effects that statistics have shown that the prefix *be-* has in the case of *bebūgan*.

### 6.3.3.2 *Hweorfan* - *Behweorfan*

The following pairs that will be analysed are the ones made up of the verbs *hweorfan-hwyrfan* and their respective *be-*prefixed forms. The first one that will be dealt with in this work is the pair including *hweorfan* ‘turn, change (intr.; caus.); go’ and *behweorfan* ‘attend to; prepare (food, body for burial); embalm; treat, deal with’. As can be seen from the definitions of these two verbs, the semantic differences in this case go beyond an adverbial meaning such as ‘around’ added to the prefixed form. The verb *behweorfan* represents a paradigmatic example of semantic specialization probably influenced by the addition of the prefix. One can hypothesise that such meanings derive from the fact that bodies or food are usually turned around or manipulated when prepared for burial in the case of the former or ready for being cooked or preserved somehow in the latter. Such a specialised meaning may have in turn affected the valence of the verb, as will be seen below.

Table 6.80: Results of *hweorfan* and *behweorfan* in the parameter Participants.

Participants	<i>Hweorfan</i>	<i>Behweorfan</i>
1 Part	143	0
2 Part	0	10
Total	143	10
Mean	0	1
Median	0	1
Mode	0	1

The first clear effect is on the parameter Participants. Differences in this respect are outstanding. As can be seen in Table 6.80 above, while the unprefixed form *hweorfan* shows its HEV in all cases, *behweorfan* behaves in exactly the opposite way and

according to the data obtained in my corpus, this verb has transitive valence only, most likely due to the influence of the prefix as put forth above.

Table 6.81: Results of *hweorfan* and *behweorfan* in the parameter Telicity.

Telicity	<i>Hweorfan</i>	<i>Behweorfan</i>
[+Telic]	103	7
[-Telic]	40	3
Total	123	10
Mean	0.72	0.7
Median	1	1
Mode	1	1

Another of the reported effects of the prefix *be-* in the literature has to do with Telicity as mentioned above. The verb *bebūgan* did not support this idea though. However, *behweorfan* does. This verb clearly shows a preference for telic contexts. 70% of its attestations are in clauses that have been tagged as +telic, thus supporting the supposed telic effect of this prefix. On the other hand, this effect could be explained through the tendency for the unprefix form to appear in telic contexts as well. In fact, as seen in Table 6.81, the unprefix form does so in a slightly higher percentage of its attestations, 72% in my corpus, in fact. Statistics show that the behaviour of these two verbs concerning this parameter is the same from a statistical point of view since the difference between them turns out to be not statistically significant, 0.8912. Thus, it can be argued that the prefix is compatible with telicity although it cannot be concluded that the prefix is the factor behind it.

Table 6.82: Results of *hweorfan* and *behweorfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hweorfan</i>	<i>Behweorfan</i>
No U	143	0
No U (Irre)	0	3
Partial	0	2

Affected	0	5
Total	143	10
Mean	0	0.6
Median	0	0.75
Mode	0	1

Taking into consideration the great difference between these two verbs in the parameter Participants, it is not surprising to check that that noteworthy difference is maintained in the parameter Affectedness-individuation of U, even though to a lesser degree due to the effect of irrealis mode mainly. As can be observed in Table 6.82, *hweorfan* presents the lowest possible mean score in this parameter, namely 0. On the other hand, its prefixed counterpart shows quite a high mean score, i.e. 0.66. This big difference seems to support the view displayed in the introduction to this section, namely that this prefix may have some connections with the notion of intensification and is therefore, connected with Affectedness-individuation of U. This view is bolstered by the statistical results obtained after applying the t-test for significance, since this reveals the difference in score between these two verbs to be extremely statistically significant, less than 0.0001.

Table 6.83: Results of *hweorfan* and *behweorfan* in Total Transitivity.

Total Transitivity	<i>Hweorfan</i>	<i>Behweorfan</i>
2 Points	13	0
3 Points	24	3
4 Points	32	0
5 Points	74	0
5.5 Points	0	2
7 Points	0	3
7.5 Points	0	2
Total	143	10
Mean	4.16	5.3

Median	5	6.25
Mode	5	N/A

All in all, due to the relevant disparities in results in relation to two of the three parameters analysed above, it is expected for this difference to be mirrored in Total Transitivity as well. When the data recorded in Table 6.83 above are observed, it is clear that there is an important gap in Total Transitivity as far as *hweorfan* and *behweorfan* is concerned. Their mean scores differ in more than one point (4.16 vs. 5.3), as their median scores do (5 vs. 6.25). Statistics help to determine to what extent this variation in results is significant. What the t-test for significance reveals is that the disparity in results between these two verbs is extremely statistically significant. In conclusion, then, the data have shown that the difference in Total Transitivity between these two verbs is very relevant and supports the idea of the remarkable effects that the prefix may have on the transitivity parameters under analysis.

#### 6.3.3.3 *Hwyrfan* - *Behwyrfan*

The following paragraphs will be devoted to the analysis of the causative counterparts of the above analysed pair, namely *hwyrfan* ‘turn, change (caus.; intr.); exchange; go, return’ and *behwyrfan* ‘turn around, revolve; encompass; change; exchange’. Contrary to the case of the strong verb pair, these two verbs do not present such noteworthy differences from the point of view of their semantics although the effects of the prefix on the meanings of *behwyrfan* can be detected.

Table 6.84: Results of *hwyrfan* and *behwyrfan* in the parameter Participants.

Participants	<i>Hwyrfan</i>	<i>Behwyrfan</i>
1 Part	14	0
2 Part	9	6
Total	23	6
Mean	0.39	1
Median	0	1
Mode	0	1

Once semantics have been briefly dealt with, focus will be laid on the different parameters, the first of which is Participants. The analysis of *hwyrfan* and *behwyrfan* serves to reinforce the alleged transitivity effect of *be-*. The prefixed form, as can be seen in Table 6.84, always appears in two-participant clauses. Contrary to what could be expected *a priori*, *hwyrfan* does not. Considering these data, it is not surprising to find out that the difference between these two verbs in terms of the parameter Participants is very statistically significant (0.0065). This shows that the original transitive valence of the verb is kept intact in the prefixed form but has changed to a labile model in the unprefixated counterpart, thus reinforcing the transitivity nature of the prefix also shown in the verb *behweorfan*.

Table 6.85: Results of *hwyrfan* and *behwyrfan* in the parameter Telicity.

Telicity	<i>Hwyrfan</i>	<i>Behwyrfan</i>
[+Telic]	13	6
[-Telic]	10	0
Total	23	6
Mean	0.56	1
Median	1	1
Mode	1	1

From the point of view of Telicity, *behwyrfan* also reflects what could be expected of a *be-* verb bearing in mind the works of scholars cited in the introduction to this section. Its preference for telic contexts is clear. In fact, it appears in telic contexts in all its attestations in my corpus as reflected in Table 6.85. The tendency towards telicity is not by far as clear in the case of its unprefixated counterpart. It appears in telic clauses in practically half of its attestations, only 56% of them to be more specific. A tendency towards telicity of *hwyrfan* exists but it is not very strong and as determined by the statistical method used in this study, the difference between both verbs concerning Telicity is very statistically significant (0.0478). These results, thus, support the hypothesis of the telic effects of the prefix *be-* in this case.

Table 6.86: Results of *hwyrfan* and *behwyrfan* in the Affectedness-individuation of U.

Affectedness-indiv	<i>Hwyrfan</i>	<i>Behwyrfan</i>
No U	14	0
No U (Irre)	2	3
Partial	1	1
Affected	6	2
Total	23	6
Mean	0.28	0.41
Median	0	0.25
Mode	0	0

In spite of the significant difference *hwyrfan* and *behwyrfan* showed in parameter Participants, scores in parameter Affectedness-individuation of U are closer. As can be seen in Table 6.86 above, their mean scores do not differ much, in fact in just 0.13 points. Their median and mode scores do not present important differences either. The cause lies in the high number of examples of *behwyrfan* that appear in irrealis clauses, half of them not to be precise. Due to this irrealis effect, the difference in the behaviour of *hwyrfan* and *behwyrfan* regarding this parameter is not statistically significant (0.5270), which in this case makes the claim for the alleged intensifying effect of the prefix impossible to prove with certainty.

Table 6.87: Results of *hwyrfan* and *behwyrfan* in Total Transitivity.

Total Transitivity	<i>Hwyrfan</i>	<i>Behwyrfan</i>
2 Points	2	0
3 Points	9	0
4 Points	1	3
5 Points	4	0
6 Points	1	0
6.5 Points	1	1

7 Points	5	2
Total	23	6
Mean	4.45	5.41
Median	4	5.25
Mode	3	4

As far as Total Transitivity is concerned, these two verbs show how important statistical analysis is in a study that relies on quantitative results such as this one. By having a look at Table 6.87, it would be easy to get to the conclusion that *behwyrfan* is significantly higher in transitivity than its counterpart. Their mean scores differ in practically one point (4.45 vs. 5.41), as their mode does (4 vs. 5), while differences in median score are even higher, i.e. 1.25 points. If the statistical differences in the parameters Participants and Telicity are taken into account, it would be surprising to discover that these two verbs do not differ in their Total Transitivity from a statistical point of view. However, the t-test for significance shows exactly this to be the case. The two-tailed P value of the significance test is 0.2445, that is, not statistically significant. In spite of the aforementioned differences in parameters Participants and Telicity, or others such as the one in parameter Mode (see appendix B), these two verbs do not show many further disparities. For instance, their mean score in Agency is practically the same, i.e. 0.47 in the case of *hwyrfan* and 0.5 in *behwyrfan*. To sum up, then, this time, it cannot be proven on statistical grounds that the addition of the prefix *be-* necessarily entails higher Total Transitivity. However, the analysis of these two verbs has served to reinforce the idea that this prefix is linked to transitivity in the traditional sense, on the one hand, as well as to Telicity, on the other.

#### 6.3.3.4 *Behweorfan* – *Behwyrfan*

Table 6.88: Results of *bewheorfan* and *behwyrfan* in the parameter Participants.

Participants	<i>Behweorfan</i>	<i>Behwyrfan</i>
1 Part	0	0
2 Part	10	6
Total	10	6

Mean	1	1
Median	1	1
Mode	1	1

As was the case with verbs with the prefix *ā-*, the comparison of verbs with *be-* reveals how little effect on Participants the causative suffix actually has in the period under study and how those functions have been taken over by prefixes. This is clearly seen in the verbs *behweorfan* and *behwyrfan*. Both causative and non-causative present exactly the same behaviour. As reflected in Table 6.88, both verbs are attested in two-participant clauses only.

#### 6.3.3.5 *Lāefan* – *Belāefan*

The next verb pair that will be discussed is the one made up of *lāefan* ‘leave, remain’ and *belāefan* ‘leave (somebody, sth); spare, remain’. In the case of these verbs, semantic differences are practically non-existent and there is no trace either of the aforementioned adverbial meaning of *be-*. Actually, as will be shown throughout the analysis of these verbs, they present little differences in their behaviour concerning the parameters taken into account in this chapter.

Table 6.89: Results of *lāefan* and *belāefan* in parameter Participants.

Participants	<i>Lāefan</i>	<i>Belāefan</i>
1 Part	1	1
2 Part	36	5
Total	37	6
Mean	0.97	0.83
Median	1	1
Mode	1	1

Regarding the parameter Participants, both verbs show very similar results. As displayed in Table 6.89 above, both verbs show a clear preference for their HEV,



namely transitive. In fact, examples of *lāfan* and *belāfan* intransitive clauses have only been attested once per verb. This high mean score of *belāfan* in two-participant clauses may be regarded as supportive of the transitivity effect of the prefix. However, it may just reflect the tendency already displayed by the unprefixated counterpart. From a statistical point of view, actually, both verbs behave in the same way regarding this parameter. The difference between both is not statistically significant, 0.1383, which means that their transitive tendency is clear statistically speaking.

Table 6.90: Results of *lāfan* and *belāfan* in parameter Telicity.

Telicity	<i>Lāfan</i>	<i>Belāfan</i>
[+Telic]	0	0
[-Telic]	37	6
Total	37	6
Mean	0	0
Median	0	0
Mode	0	0

If in the parameter Participants both verbs behaved similarly, concerning Telicity, they do so identically. As can be observed in Table 6.90, no example of either of the verbs in a telic context has been attested in my corpus. Given these results, the assumption that *be-* is connected with the Telicity should be taken with care since results show that it may not be applicable to all cases at all.

Table 6.91: Results of *lāfan* and *belāfan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Lāfan</i>	<i>Belāfan</i>
No U	0	0
No U (Irre)	11	6
Partial	8	0
Affected	18	0
Total	37	6

Mean	0.59	0
Median	0.5	0
Mode	1	0

Effects on Affectedness-individuation of U, on the other hand, are difficult to judge. As has been the case with other verbs, *belāfan* appears in irrealis clauses in all of the attestations in my corpus. Consequently, its mean score in this parameter is 0, that is, much lower than that of its counterpart, which presents a mean score of 0.59 points. Of course, as expected, the disparity in results between these two verbs is statistically significant. In fact, it is very statistically significant since the two-tailed P value equals just 0.0021. These results, however, should be taken with caution due to the irrealis effect.

Table 6.92: Results of *lāfan* and *belāfan* in Total Transitivity.

Total Transitivity	<i>Lāfan</i>	<i>Belāfan</i>
0 Points	0	1
1 Point	5	5
2 Points	6	0
3 Points	1	0
4.5 Points	8	0
5 Points	9	0
5.5 Points	8	0
Total	37	6
Mean	3.91	0.83
Median	4.5	1
Mode	5	1

In spite of the similarities in scores in Participants and Telicity, differences in Total Transitivity between these two verbs are huge. As explained above, this is due to the effect of the parameter Mode. Since *belāfan* is only attested in irrealis mode in my corpus, the mean score of many of the parameters, Affirmation, Mode, Agency and

Affectedness-individuation of U in this case, as shown in appendix B, is 0. These low scores in many parameters contribute to a very low total score. As can be seen in Table 6.92 above, the mean score of this verb in Total Transitivity is just 0.83. This presents an important contrast with the mean score of 3.91 obtained in the analysis of its counterpart. As expected, the difference in terms of statistics turns out to be extremely significant. Nevertheless, as already pointed out above, it is difficult to assess the real consequences and the usefulness these data may have on my analysis, since they are the result simply of the scarcity of examples available of the verb *belāfan* that happens to have important consequences on the evaluation of certain parameters taken into account in this study. All in all, the analysis of this verb has served to highlight the effects this prefix may have on Participants, as well as to make us rethink the role of the prefix in terms of Telicity that will be examined closely when taking into account the results of all different *be-* verbs at the end of this subsection.

#### 6.3.3.6 *Swingan* - *Beswingan*

The verb pair made up of *swingan* and *beswingan* will be discussed next. These two verbs present practically no difference as far as their semantic content is concerned as can be observed in the following definitions: *swingan*: ‘swinge; chastise; whip (cream); strike; beat (the wings)’; *beswingan*: ‘flog, beat (someone); chastise’. Not only do they present close similarities in this respect; as will be detailed in the subsequent paragraphs, their behaviour in the three parameters analysed in this section as well as in Total Transitivity is practically identical.

Table 6.93: Results of *swingan* and *beswingan* in parameter Participants.

Participants	<i>Swingan</i>	<i>Beswingan</i>
1 Part	2	0
2 Part	46	11
Total	48	11
Mean	0.95	1
Median	1	1
Mode	1	1

The above statement can be clearly confirmed by having a look at Table 6.93. Both verbs show preference for their NHEV, that is, transitive, in virtually all of their attestations in my corpus, 95% in *swingan* and 100% in *beswingan*. These data show that *be-* is compatible with transitivity even though not necessarily the main factor behind it, since *swingan* clearly favours transitive valence. As expected, from a statistical point of view the minimal disparity in results between these verbs is not statistically significant (0.4994).

Table 6.94: Results of *swingan* and *beswingan* in parameter Telicity.

Telicity	<i>Swingan</i>	<i>Beswingan</i>
[+Telic]	2	0
[-Telic]	46	11
Total	48	11
Mean	0.04	0
Median	0	0
Mode	0	0

Again, as in the case of Participants, the results obtained from the analysis of these verbs concerning Telicity are practically identical. However, contrary to Participants, they contradict the alleged telic effect of the prefixed verb which as pointed out above with respect to other verbs, does not show that telic character consistently. The tendency towards atelicity is clear in both verbs. Only in 4% of its attestations does *swingan* appear in telic clauses while *beswingan* never does. The t-test for significance has exactly the same result as in Participants, i.e. 0.4994, which means the difference is not statistically significant. The very similar behaviour concerning this parameter is thus confirmed. Additionally, these results also provide clues that may point to the fact that this prefix may not be as telic-favouring as sometimes assumed.

Table 6.95: Results of *swingan* and *beswingan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Swingan</i>	<i>Beswingan</i>
No U	2	0
No U (Irre)	5	1
Partial	2	0
Affected	39	10
Total	48	11
Mean	0.83	0.90
Median	1	1
Mode	1	1

Similarities in the behaviour of these two verbs are also observable in the parameter Affectedness-individuation of U. As shown in Table 6.95 above, both mean scores are very similar and only differ in 0.7 points. Their median and mode scores are exactly the same. Clearly a high affectedness-individuation of U is favoured by both verbs. This could be considered a reflection of the intensifying effect this prefix may have on the verbs it attaches to. However, it could also simply be a consequence of the preference for high affectedness-individuation of U displayed by its unprefix counterpart. What is clear, nevertheless, is that the tendency for high Affectedness-individuation of U is there in both *swingan* and *beswingan*. Once more, the difference in results is not statistically significant. In this case the two-tailed P value equals 0.5227.

Table 6.96: Results of *swingan* and *beswingan* in Total Transitivity.

Total Transitivity	<i>Swingan</i>	<i>Beswingan</i>
1 Point	1	0
2 Points	3	0
3 Points	2	1
4 Points	1	0
5.5 Points	2	0
6 Points	4	0

6.5 Points	33	10
7 Points	2	0
Total	48	11
Mean	5.84	6.18
Median	6.5	6.5
Mode	6.5	6.5

Not surprisingly, taking into account the results analysed above, the data regarding Total Transitivity in both verbs are very close. As can be observed in Table 6.96 above, the mean score of *beswingan* is slightly higher, in 0.34 points to be precise, though not significant as will be seen. The two other statistical scores in the table, median and mode, are, in fact, exactly the same, namely 6.5. The t-test for significance has the result 0.4807, which means the difference in score in Total Transitivity between these two verbs is not statistically significant. Thus, they behave in practically the same way, as far as their Total Transitivity is concerned. What the analysis of these verbs has shown with respect to the effects of the prefix *be-* is that it may indeed have certain effects on Participants and Affectedness-individuation of U although these may be due to the behaviour of the base verb itself rather than to the addition of the prefix. This aspect will be analysed when results of all verbs are taken together some pages below. Equally important is the fact that the analysis of *swingan* and *beswingan*, as well as that of other verbs, has shed light on the role of this prefix concerning Telicity. As mentioned above, effects on this parameter have not been displayed so far by many of the verbs analysed in this section.

#### 6.3.3.7 *Windan - Bewindan*

The two last verbs to which the prefix *be-* is attached in my corpus are *windan* and *wendan*. First, results obtained from the analysis of *windan* and *bewindan* will be discussed. From a semantic point of view, the verb *bewindan* serves as a clear paradigmatic example of the adverbial meaning associated with this prefix. As can be observed in the following definitions, *windan*: ‘spring (intr.); roll (intr.; caus.); weave (sth)’; *bewindan*: ‘wind, encompass, wrap (intr.; caus.)’; the ‘around’ meaning is an

important component of the semantics of the prefixed verb with respect to its counterpart. Considering these semantic differences and what they entail in relation to the parameters taken into consideration in this study, it is expected that these two verbs behave differently as far as some of their transitive parameters is concerned, as is indeed the case.

Table 6.97: Results of *windan* and *bewindan* in the parameter Participants.

Participants	<i>Windan</i>	<i>Bewindan</i>
1 Part	17	1
2 Part	1	15
Total	18	16
Mean	0.05	0.93
Median	0	1
Mode	0	1

Regarding the parameter Participants, results are almost exactly the opposite in both verbs. While *windan* shows a clear preference for its HEV, intransitive, *bewindan* behaves in a radically different way, appearing in two-participant clauses in 93% of the attestations in my corpus (see Table 6.97 above). This is to be expected if the semantics of the latter are taken into account, since the action of encompassing or surrounding clearly needs two participants. Of course, the statistical analysis carried out in this study shows that the difference in the parameter Participants between these two verbs is extremely statistically significant, less than 0.0001.

Table 6.98: Results of *windan* and *bewindan* in the parameter Telicity.

Telicity	<i>Windan</i>	<i>Bewindan</i>
[+Telic]	12	14
[-Telic]	6	2
Total	18	16
Mean	0.66	0.87

Median	1	1
Mode	1	1

With respect to Telicity, however, both verbs show a similar behaviour. As can be seen in Table 6.98, these two verbs present a preference for telic contexts. *Windan* appears in telic clauses in 66% of its attestations while *bewindan* does so more often, in 87% of them. In spite of this difference, their behaviour is statistically the same. The t-test for significance reveals that the disparity in results is not statistically significant in this case (0.1623). Contrary to some of the verbs analysed in this section, *bewindan* gives credit to the telic hypothesis of *be-* put forth in the literature.

Table 6.99: Results of *windan* and *bewindan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Windan</i>	<i>Bewindan</i>
No U	17	1
No U (Irre)	1	2
Affected	0	13
Total	18	16
Mean	0	0.81
Median	0	1
Mode	0	1

Bearing in mind the great difference between *windan* and *bewindan* in the parameter Participants, it could be expected that this is reflected in the connected parameter Affectedness-individuation of U. Results in Table 6.99 show this to be the case. The disparity in the data is once again great. *Windan* has the lowest possible mean score in this parameter, i.e. 0, while that of *bewindan* is quite high, 0.81. This difference is clear and is supported by the statistical analysis that reveals it to be extremely statistically significant, less than 0.0001. As was the case with Participants, these results also support the idea that the prefix *be-* is somehow connected with higher Affectedness-individuation of U.



Table 6.100: Results of *windan* and *bewindan* in Total Transitivity.

Total Transitivity	<i>Windan</i>	<i>Bewindan</i>
2 Points	0	1
3 Points	4	1
4 Points	10	1
5 Points	4	0
6 Points	0	1
7 Points	0	5
7.5 Points	0	7
Total	18	16
Mean	4	6.40
Median	4	7
Mode	4	7.5

Taking into account the results obtained in the parameters analysed above, it would be surprising to find out that these two verbs do not present disparities in their Total Transitivity scores. Expectations are fulfilled as can be observed in Table 6.100. These data show that *bewindan* is a highly transitivity verb in general terms with a mean score of 6.40. Its median and mode scores are even higher, 7 and 7.5 respectively. The scores corresponding to *windan* are not very low. However, differences with respect to its counterpart are clear. Its mean score is 2.40 points lower, while that of its mean and mode differ even to a higher degree, 3 points and 3.5 respectively. Thus, *bewindan* is definitely a much more transitivity verb than its counterpart, as reflected in the t-test for significance that shows the difference between them to be extremely statistically significant, less than 0.0001. These results point to the fact that *be-* has certain effects which are especially well seen in the parameters Participants and Affectedness-individuation of U.

### 6.3.3.8 *Wendan* - *Bewendan*

Finally, the last verb pair dealt with in this section is the one made up of *wendan* and *bewendan*. They represent a clear contrast in terms of their relationship with respect to *windan-bewindan*. As can be seen in the following definitions, the meaning of these two verbs is practically identical: *wendan*: ‘turn (round), change (intr.; caus.); go (intr.)’; *bewendan*: ‘turn around, turn (sth) (intr.; caus.)’. This similarity is also reflected in the results obtained when analysing the different parameters included in this section since both verbs behave in a practically identical way.

Table 6.101: Results of *wendan* and *bewendan* in the parameter Participants.

Participants	<i>Wendan</i>	<i>Bewendan</i>
1 Part	216	8
2 Part	45	2
Total	261	10
Mean	0.21	0.20
Median	0	0
Mode	0	0

As anticipated above, both verbs behave in a very similar way in all parameters. This is clearly seen in the parameter Participants. As shown in Table 6.101 above, both verbs present nearly the exact same mean score, namely, 0.21 in the case of *wendan* and 0.20 in that of its counterpart. Their original causative valence is almost completely lost. As is expected, the t-test for significance reveals that the difference in results between these two verbs is not statistically significant as it equals 0.8476.

Table 6.102: Results of *wendan* and *bewendan* in the parameter Telicity.

Telicity	<i>Wendan</i>	<i>Bewendan</i>
[+Telic]	215	8
[-Telic]	46	2
Total	261	10

Mean	0.82	0.80
Median	1	1
Mode	1	1

Once more, as was the case with the parameter Participants, results in Telicity are virtually the same. In this case they differ in just 0.02 points in terms of their mean scores as can be seen in Table 6.102. This difference is not statistically significant again and the two-tailed P value equals exactly the same as in the parameter Participants, i.e. 0.8476. However, it is important to highlight the fact that even though there are no differences between these two verbs concerning their Telicity, their preference for +telic is very high in both cases. These results may then serve to support the fact that the addition of *be-* is compatible with telicity though not necessarily the result of it.

Table 6.103: Results of *wendan* and *bewendan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wendan</i>	<i>Bewendan</i>
No U	216	5
No (Irre)	11	3
Partial	1	0
Affected	33	2
Total	261	10
Mean	0.12	0.20
Median	0	0
Mode	0	0

In the case of the parameter Affectedness-individuation of U, differences are slightly bigger even though not noteworthy at all. As shown in Table 6.103, the difference in mean score is 0.08 points, 0.12 in *wendan* vs. 0.20 in *bewendan*. This disparity in results is once again not statistically significant. The two-tailed P value equals 0.5100. Contrary to what was commented on with respect to Telicity, the preference for a high affectedness-individuation of U is not one of the salient characteristics of these verbs.

These results, thus, do not support the hypothesis of the effect of the prefix *be-* on this parameter. However, it cannot be forgotten that these verbs differ radically both from a semantic and especially morphosyntactic point of view to what could be expected of them based solely on historical grounds.

Table 6.104: Results of *wendan* and *bewendan* in Total Transitivity.

Total Transitivity	<i>Wendan</i>	<i>Bewendan</i>
1 Point	4	1
2 Points	16	1
3 Points	22	1
4 Points	69	1
5 Points	116	4
6 Points	5	0
6.5 Points	1	0
7 Points	25	1
7.5 Points	3	1
Total	261	10
Mean	4.56	4.45
Median	5	5
Mode	5	5

Taking into consideration the similar results these two verbs have shown throughout their previous analysis, it is to be expected that they do not differ much in terms of Total Transitivity. As can be seen in Table 6.104 above, this is precisely the case. The mean score of these two verbs in Total Transitivity is practically identical only differing in 0.11 points. The other statistical results registered in this table, mean and mode are exactly the same, namely 5 in all cases. Not surprisingly, the statistical analysis reveals that the difference between verbs is not statistically significant (0.7857). The case of *wendan* and *bewendan* represents a good example of how little effect prefixes may have on some of the parameters they are often associated with in the literature. However, as

the analysis of the previous verbs has shown, this is not always the case by any means, since in other verbs the role of the prefix can be more easily detected.

#### 6.3.3.9 *Bewindan* - *Bewendan*

The comparison of the data obtained from the analysis of *bewindan* and *bewendan*, as was the case with *behweorfan* and *behwyrfan* above, show clearly that the transitivity functions often associated to causativity (its effects on Participants) have been taken over by prefixes.

Table 6.105: Results of *bewindan* and *bewendan* in the parameter Participants.

Participants	<i>Bewindan</i>	<i>Bewendan</i>
1 Part	1	8
2 Part	15	2
Total	16	10
Mean	0.93	0.20
Median	1	0
Mode	1	0

*Bewendan* rarely appears in two-participant contexts, as would be expected given its historical origins. On the other hand, *bewindan* behaves in quite the opposite fashion, being attested almost exclusively in two-participant clauses, contrary to what might be anticipated. As can be guessed from the data in Table 6.105, the difference between both verbs is extremely statistically significant, less than 0.0001. Such results, thus clearly show how distorted the original causative / non-causative relationship is between these two verbs. In this case the lexicalization undergone by *wendan*, to which the prefix is later attached, might be one of the main factors behind this blurring.

#### 6.3.3.10 Total Results: Unprefixed vs. *Be-*

In the following section, once the results of all individual verbs have been dealt with, the goal is to check to what extent the prefix *be-* can be said to have effects on the different parameters taken into account in this study independently of the verb it is

attached to. Thus, as was the case with *ā-* and *āēt-* above, results of all *be-* forms and their unprefixated counterparts will be analysed as a whole in order to shed light on some of the issues that remain unsolved in spite of the detailed analysis presented on the previous pages, such as the influence on telicity of *be-*.

Table 6.106: Total results unprefixated vs. *be-* in the parameter Participants.

Participants	Unprefixated	<i>Be-</i>
1 Part	512	14
2 Part	139	51
Total	651	65
Mean	0.21	0.78
Median	0	1
Mode	0	1

Considering the comments made throughout the analysis of the *be-* verbs and their counterparts, it is evident that results in the parameter Participants differ significantly when unprefixated verbs and *be-* prefixated ones are compared. This prefix is attached to seven different verbs in my corpus. Out of these, six present a high mean score (higher than 0.5) with respect to Participants. Additionally, in four out of these six verbs, namely *bebūgan*, *behweorfan*, *behwyrfan* and *bewindan* the disparity in results compared to their counterparts is statistically significant, thus reinforcing more clearly the effect of the prefix. The other two verbs, *belāefan* and *beswingan* show a clear preference for two-participant clauses even though this could argueably be due to the fact that their counterparts also favour this kind of valence. Table 6.106 above shows that the difference between unprefixated forms and *be-* ones is certainly noteworthy. The mean scores of both groups differ in 0.57 points and their preference for different types of valence is manifest. The statistical analysis corroborates this by signalling that the disparity in results is extremely statistically significant. The two-tailed P value equals less than 0.0001. Thus, all in all, it seems definite, bearing in mind these results, that the prefix *be-* does play a role as far as transitivity in the traditional sense is concerned with respect to the labile verbs under study in this work. An example of *hweorfan* in a one-

participant clause (6.25a) and *behweorfan* in a two-participant one (6.25b) illustrate this difference below.

(6.25)

a. & *hi behwurfon hi buton ðære wicstowe.*

& they buried them outside the camp

‘& they buried them outside the camp’.

Num B8.1.4.4 [0067 (11.32)]

b. *Ond he sibþan hwearf hamweard to Babylonia.*

And he after turned homeward to Babylon

‘And he returned home to Babylon afterwards’.

Or 3 B9.2.4 [0253 (9.73.34)]

Table 6.107: Total results unprefixd vs. *be-* in the parameter Telicity.

Telicity	Unprefixd	<i>Be-</i>
[+Telic]	441	37
[-Telic]	210	28
Total	651	65
Mean	0.67	0.56
Median	1	1
Mode	1	1

As mentioned in the analysis above more than once, the less conclusive assessment of the effects of *be-* concerns the parameter Telicity. The effect on this parameter is less than clear taking into account the verb-by-verb data. It is revealing in this respect, for instance, that only one of the seven verbs to which *be-* is attached, namely *behwyrfan*, presents a statistically significant preference for telic contexts over that of its unprefixd counterpart. In addition to this, however, other three verbs present a tendency towards telicity, i.e. *behweorfan*, *bewindan* and *bewendan*, even though that preference is reflected in their counterparts too and may be argued to simply mirror the behaviour of

the simple unprefixed forms rather than an effect of the prefix. The data in Table 6.107 show that results concerning this parameter are quite similar in both groups. They only differ in 0.11 and the telic-favouring tendency of both groups is clear. However, interestingly, the group that presents a higher percentage of telic clauses is that of the unprefixed verbs rather than that of the *be-* forms. This already points to a lack of effect on Telicity. However, the difference between both groups is not as remarkable as to be statistically significant though. The two-tailed P value equals 0.0777 in this case. What is relevant to this study is that results taken as a whole help to see more clearly that the effects on Telicity of the prefix *be-* are scarce, even if it could be argued to exist in some of the verbs. In general, terms, nevertheless, it has been proven through quantitative and statistical means that the tendency towards telicity of verbs with *be-* in the group of labile verbs is in no way higher than that of their counterparts.

Table 6.108: Total results unprefixed vs. *be-* in the parameter Affectedness-individuation of U.

Affectedness-indiv	Unprefixed	<i>Be-</i>
No U	511	10
No U (Irre)	30	19
Partial	12	3
Affected	98	33
Total	651	65
Mean	0.15	0.53
Median	0	1
Mode	0	1

Table 6.108 above summarises the results related to the parameter Affectedness-individuation of U. The difference between the two groups with respect to this parameter is remarkable, as was the case with the parameter Participants. This is to be expected, given the results of the individual verbs commented on in the previous analyses. In fact, four out of the seven *be-* verbs present high degrees of Affectedness-individuation of U. On the one hand, in the case of *swingan* and *windan*, it is very high



but similar to that of their counterparts in statistical terms. On the other, *būgan* and *behweorfan* show high scores in Affectedness-individuation of U and significant differences statistically speaking with respect to their respective unprefixes. As can be observed in the table above, results between the unprefixes and the *be-* group differ considerably, actually in 0.38 points, and the preference for high and low affectedness-individuation of U respectively is patent, as reflected in their median and mode scores. This disparity is demonstrated statistically by the t-test that reveals it to be extremely statistically significant, less than 0.0001, as was the case with the parameter Participants. Taking these results into consideration, thus, it could be concluded that the effect of *be-* on this parameter is clear. However, it must be pointed out, as in the case with *ā-* above, that although differences between both groups of verbs are noteworthy and significant from a statistical point of view, the mean score displayed by the prefixed group in this category is not very high. A mean score of 0.53 indicates that normally undergoers in clauses with *be-* verbs are partially affected, as opposed to totally or highly affected, even though median and mode scores show otherwise.

Table 6.109: Total results unprefixes vs. *be-* in Total Transitivity.

Total Transitivity	Unprefixes	<i>Be-</i>
0 Points	0	1
1 Point	12	6
2 Points	55	2
3 Points	76	11
4 Points	148	5
4.5 Points	8	0
5 Points	260	4
5.5 Points	10	2
6 Points	10	1
6.5 Points	35	11
7 Points	33	11
7.5 Points	4	11
Total	651	65

Mean	4.42	5.09
Median	5	6.5
Mode	5	3 / 6.5 / 7 / 7.5

Last, but not least, results concerning Total Transitivity will be briefly dealt with. As could be expected from the results commented on above, especially concerning Participants and Affectedness-individuation of U, both groups present important differences in their Total Transitivity scores. Five out of the seven *be-* verbs presented high results (higher than 4) in Total Transitivity. In two of them, *behweorfan* and *bewindan*, the difference in score with respect to their unprefixated counterparts is indeed statistically significant. The difference in terms of points between the group of unprefixated verbs and *be-*verbs is relevant as well. As shown in Table 6.109 above, unprefixated forms have a mean score of 0.67 points. Their median scores differ even more, in 1.5 points, in fact. If these numbers were not indicative enough of the difference between both groups, the t-test for significance shows that the disparity in results is once again extremely statistically significant (0.0004). Therefore, in conclusion, the effects of the prefix *be-* on transitivity as a whole is clear. As mentioned above, this is due to the effect it has on certain parameters, more precisely, Participants and Affectedness-individuation of U, to a certain extent at least in the case of the latter, though not Telicity. These differences make a significant impact on the scores registered in most of the prefixated verbs and of course, as shown in Table 6.109, in all of them taken as a group.

#### 6.3.4 *For-*

One of the functions traditionally associated with the prefix *for-* is the transitivising one in the traditional sense of the term. This is the function attributed to this prefix by Bosworth and Toller (1898). To this, other scholars add more specific meanings such as destruction or deterioration (see Quirk and Wrenn 1957: 110). Onions, Friedrichsen and Burchfield (1966) also make reference to meanings such as rejection, exhaustion, destruction and prohibition. De la Cruz (1975: 51), on the other hand, highlights the frequent connotations of wrongness and negativeness usually portrayed by verbs to which this prefix is attached. As Brinton (1988: 208) puts it, none of the above

aforementioned affects or functions should be unexpected. The prefix *for-* derives originally from the adverbial ‘forth’. This adverbial conveys the idea of endpoint of an activity, that is, it is somehow related to the notion of telicity. The notion of telicity, completeness, etc. may end up emphasising the notion of deterioration or destruction as well as their opposites: wholeness, completion or perfect achievement. The complete destruction sense is well exemplified by the verbs *forbyrnan* ‘burn up, completely; be consumed, destroyed by fire; burn down, burn to death (intr.)’ and *forbærnian* ‘burn up; consume by fire; burn down, burn to death; inflame (caus.; intr.)’. If something is burnt to the end, it will end up being completely destroyed. This in turn, is, of course, a negative consequence. It is therefore not surprising that this prefix is attached to verbs meaning ‘burn up’ as the ones exemplified above or ‘wither away’, ‘eat up’, etc.

Bearing in mind the description of the functions usually attributed to this prefix, it could be expected that parameters such as Participants, Telicity and Affectedness-individuation of U are somehow affected by it. This prefix is attached to seven different verbs in my corpus, namely *forbyrnan*, *forbærnian*, *formeltan*, *formyltan*, *forbūgan*, *forbīgan* and *forhwyrfan*. Contrary to what has been the case with the analysis of the previous verbs in this section, I will not analyse these verbs in alphabetical order. This is due to the fact that results show that these verbs can be divided into two groups attending to the functions and meanings of the respective verbs. The first group I will comment on is made up the verbs *forbyrnan*, *forbærnian*, *formeltan* and *formyltan* together with their unprefixed counterparts. As will be seen, these four verbs show similar results in relation to the effects of the prefix *for-*, which in this case reflect what has been stated in the introduction to this prefix, i.e functions related to Telicity, Affectedness-individuation of U etc. On the other hand, the verbs *forbūgan*, *forbīgan* and *forhwyrfan* present remarkable semantic changes that may be the most relevant factor behind the disparity in the data they display with respect to their unprefixed counterparts.

### 6.3.4.1 *For-*: First Subgroup

#### 6.3.4.1.1 *Byrnan* - *Forbyrnan*

First, the analysis will concentrate on the verbs that reflect some of the functions and meanings put forth in the introduction two paragraphs above. Focus will be laid in the first place on the verbs *byrnan* ‘burn (intr.; caus.)’ and *forbyrnan* ‘burn up, completely; be consumed, destroyed by fire; burn down, burn to death (intr.)’. As can be observed in the translations above, the semantics of these two verbs is very similar in general terms. Both of them mean ‘to burn’. However, there is an important and clear nuance that differentiates them, namely, completeness. The difference between the semantics of these two verbs lies basically in the fact that *forbyrnan* adds the meaning of completion, related to Telicity, which in turns has effects on Affectedness-individuation of U, that is, on the degree up to which the undergoer is affected as has been explained above. Thus, these two verbs are expected to show differences in the behaviour with respect to these two parameters. It must also be borne in mind that the *for-* prefix is usually associated with the notion of traditional transitivity as well, that is, with parameter Participants. I will start with the analysis of these two verbs with the examination of the results concerning this parameter, as was the case with the previously dealt with verbs.

Table 6.110: Results of *byrnan* and *forbyrnan* in the parameter Participants.

Participants	<i>Byrnan</i>	<i>Forbyrnan</i>
1 Part	68	27
2 Part	3	0
Total	71	27
Mean	0.04	0
Median	0	0
Mode	0	0

If the prefix *for-* had effects on traditional transitivity, we would expect the verb *forbyrnan* to show a higher preference for two-participant clauses than its counterpart, or at least a clear preference for this valence irrespective of that of its counterpart. However, as can be observed in Table 6.110, neither of these statements is true. The

unprefixed form *byrnan* displays dominant HEV, namely intransitive, since only in 4% of its attestations in my corpus does it present transitive valence. *Forbyrnan*, on the other hand, contrary to what could be expected, is even more traditional from a historical point of view as it simply never appears in two-participant clauses. Therefore, the hypothesis of the transitivising effects of *for-* is refuted by these data. From a statistical point of view, not surprisingly, the difference between both verbs is not statistically significant (0.2828) because both of them definitely show the same behaviour, i.e. they clearly stick to their HEV.

Table 6.111: Results of *byrnan* and *forbyrnan* in the parameter Telicity.

Telicity	<i>Byrnan</i>	<i>Forbyrnan</i>
[+Telic]	70	27
[-Telic]	1	0
Total	71	27
Mean	0.98	1
Median	1	1
Mode	1	1

Once the results concerning transitivity in the traditional sense have been commented on, it is necessary to assess to what extent Telicity is affected by the prefix *for-* in the case of these verbs. As can be observed in Table 6.111 above, the difference in score between these two verbs is practically non-existent even though it is slightly higher in the case of the prefixed form. This difference is not statistically significant though (0.5402). Clearly, *forbyrnan* favours telicity. These results point to the fact that the telic component in the verb *forbyrnan* is a crucial one as can be foreseen by its semantics. On the other hand, it must be pointed out that this telic effect might not be related to the prefix since the unprefixed counterpart also displays a clear preference for telic contexts.

Table 6.112: Results of *byrnan* and *forbyrnan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Byrnan</i>	<i>Forbyrnan</i>
No U	19	3
Partial	7	0
Affected	45	2
Highly affected	0	22
Total	71	27
Mean	0.68	1.29
Median	1	1.5
Mode	1	1.5

Attending to the semantics of the verbs as well as to previous studies on this topic, it is expected to find differences in the parameter Affectedness-individuation of U between *byrnan* and *forbyrnan*. Contrary to Telicity, differences in this parameter are very high. As shown in Table 6.112, the mean scores of both verbs differ in 0.61 points. On the other hand, the median and mode scores are 0.50 points higher in the case of *forbyrnan*. These results show that the most common score in this parameter in the case of *forbyrnan* is 1.5, highly affected rather than 1, affected, as is the case with its unprefixed counterpart. Given this disparity in results, it is not surprising that the t-test for significance reveals the difference in score between *byrnan* and *forbyrnan* to be extremely statistically significant, less than 0.0001. In conclusion, it is clear that at least in the case of these verbs, the prefix *for-* does have some influence on the parameter Affectedness-individuation of U making it much higher in the verb it is attached to, thus reflecting the meanings related to deterioration, destruction, etc. put forth in the literature. As will be shown below, similar results will be repeated in the rest of this group.

Table 6.113: Results of *byrnan* and *forbyrnan* in the Total Transitivity.

Total Transitivity	<i>Byrnan</i>	<i>Forbyrnan</i>
1 Point	9	1

2 Points	10	2
3.5 Points	6	0
4 Points	42	2
4.5 Points	1	22
5 Points	1	0
7 Points	1	0
7.5 Points	1	0
Total	71	27
Mean	3.40	4.14
Median	4	4.5
Mode	4	4.5

Finally, the data concerning Total Transitivity will be discussed. Even though differences between *byrnan* and *forbyrnan* in two out of the three parameters analysed above were not statistically significant, the data in Total Transitivity show important disparities as can be seen in Table 6.113. The Total Transitivity mean scores of both verbs differ in 0.74 points. More or less the same divergence can be observed in median and mode scores. Such divergencies are significant from a statistical point of view. The two-tailed P value of the t-test for significance equals 0.0084 in this case. This proves that the difference in Total Transitivity between these two verbs is relevant. The prefixed form turns out to show a higher transitivity in general than its counterpart. This points to the fact that, as far as transitivity is concerned, the prefix *for-* seems to have some effects. As was explained above, these are related to Telicity and Affectedness-individuation of U, though not to Participants, contrary to what could be expected considering the information offered by the authors consulted in this work.

#### 6.3.4.1.2 *Bāernan* – *Forbāernan*

Once the results concerning *byrnan* and *forbyrnan* have been commented on, focus will be laid on their causative counterparts *bāernan* and *forbāernan*. From a semantic point of view, the relationship between these two verbs is exactly the same as that linking their counterparts. Both have the same basic meanings. However, the prefixed form also

presents a clear nuance of completeness with all that entails. This can be seen in the following definitions: *bāernan*: ‘burn (caus.; intr.)’; *forbāernan*: ‘burn up; consume by fire; burn down, burn to death; inflame (caus.; intr.)’. Taking this information into account, it is expected that the results of the analysis of *bāernan* and *forbāernan* in terms of their behaviour in parameters Participants, Telicity and Affectedness-individuation of U are similar to the one in their strong counterparts.

Table 6.114: Results of *bāernan* and *forbāernan* in the parameter Participants.

Participants	<i>Bāernan</i>	<i>Forbāernan</i>
1 Part	2	6
2 Part	72	122
Total	74	128
Mean	0.97	0.95
Median	1	1
Mode	1	1

As for the first parameter, Participants, as was the case with their strong counterparts, *bāernan* and *forbāernan* present dominant HEV. In this case, their valence is transitive in the great majority of their attestations: 97% of the cases in *bāernan* and 95% of the cases in *forbāernan* as shown in Table 6.114. This difference is not statistically significant as expected. The two tailed P value equals 0.4883. What is interesting, though, is the fact that the mean score in this parameter is lower in the case of *forbāernan*. This is not something that should be expected if the prefix *for-* had indeed transitivity effects, in the traditional sense. As was the case with *byrnan* and *forbyrnan*, these results point to the fact that the prefix *for-* does not have any effect on the parameter Participants.

Table 6.115: Results of *bāernan* and *forbāernan* in the parameter Telicity.

Telicity	<i>Bāernan</i>	<i>Forbāernan</i>
[+Telic]	47	123
[-Telic]	27	5
Total	74	128



Mean	0.63	0.96
Median	1	1
Mode	1	1

The effects on Telicity are clear, on the other hand. In the case of *forbyrnan* telicity was favoured in 100% of cases. This percentage is very close to the one obtained from the analysis of *forbærnan*, i.e. 96% (see Table 6.115 above). Most importantly, in this case, the behaviour of the prefixed form undoubtedly contrasts with that of its less telic counterpart. The verb *bærnan* favours telicity, but does so to a significantly lower degree. In fact, the t-test for significance reveals that the disparity in results between both verbs is extremely statistically significant, less than 0.0001. This proves that telicity is definitely favoured in *for-* verbs at least in the group being analysed in these paragraphs, as put forth in the literature.

Table 6.116: Results of *bærnan* and *forbærnan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Bærnan</i>	<i>Forbærnan</i>
No U	9	1
No U (Irre)	0	19
Partial	23	0
Affected	33	9
Highly affected	9	99
Total	74	128
Mean	0.78	1.23
Median	1	1.5
Mode	1	1.5

As was the case with the above analysed *byrnan* and *forbyrnan*, differences in the parameter Affectedness-individuation of U are noteworthy. The mean scores of *bærnan* and *forbærnan*, in Table 6.116, differ in 0.45 points, which is a lot bearing in mind we

are dealing with a 1.5 point-scale. Their mode and median scores highlight this idea. They show that while the most common score in Affectedness-individuation of U in the case of the unprefix verb is 1, affected, undergoers in *forbærnan* are mostly highly affected, that is, their score is 1.5. Although differences in terms of raw numbers are not as big as in the case of *byrnan* and *forbyrnan*, statistics show that the disparity in results is still extremely statistically significant, less than 0.0001. Once more, the influence of the prefix *for-* on Affectedness-individuation of U in this group of verbs is corroborated by the data obtained in this study.

Table 6.117: Results of *bærnan* and *forbærnan* in Total Transitivity.

Total Transitivity	<i>Bærnan</i>	<i>Forbærnan</i>
2 Points	1	2
3 Points	4	4
4 Points	4	9
4.5 Points	1	4
5 Points	0	8
5.5 Points	18	0
6 Points	7	1
6.5 Points	5	7
7 Points	24	7
7.5 Points	10	64
8 Points	0	22
Total	74	128
Mean	6.09	6.76
Median	6.5	7.5
Mode	7	7.5

Taking into account how similar the behaviour of these two verbs is with respect to that of their counterparts, it is not surprising to find out that this is maintained in terms of their Total Transitivity. As can be seen in Table 6.117 above, the scores of these two verbs vary in important ways. Their mean scores differ in 0.67 points. Median and

mode scores also show that the tendency is for *forbærnan* to display a higher degree of transitivity. It is not surprising thus, that the t-test for significance shows this difference to be very statistically significant (0.0014). In conclusion, it is clear that *for-*, in spite of not showing transitivity effects in the traditional sense, i.e. in the parameter Participants, does so in Total Transitivity. Results have revealed that this is due to the significant role it has on parameters Telicity, on the one hand, and especially on Affectedness-individuation of U, on the other, at least in the case of *forbyrnan* and *forbærnan*.

#### 6.3.4.1.3 *Forbyrnan* – *Forbærnan*

The comparison of the results of the verbs *forbyrnan* and *forbærnan* in parameter Participants reveal interesting insights concerning the effects of the prefix in question and its interaction with the *-jan* suffix.

Table 6.118: Results of *forbyrnan* and *forbærnan* in the parameter Participants.

Participants	<i>Forbyrnan</i>	<i>Forbærnan</i>
1 Part	27	6
2 Part	0	122
Total	27	128
Mean	0	0.95
Median	0	1
Mode	0	1

As can be seen in Table 6.118 above, these two verbs clearly preserve their historically expected valence in most of their attestations. The strong verb is only attested in one-participant clauses in my corpus, while only six out of the 128 clauses including *forbærnan* taken into account in this study appear in one-participant contexts. The statistical difference between both sets of data is, of course, extremely significant (less than 0.0001). These results, thus, support the idea that even though the effects that the causative suffix has on certain parameters, including Participants, is on the most part

limited, and has been generally taken over by mechanisms such as prefixation, it is still preserved in some cases.

#### 6.3.4.1.4 *Meltan* - *Formeltan*

The third verb pair that will be analysed in this group is the one made up of *meltan* ‘melt (intr.), be dissolved, be digested’ and *formeltan* ‘melt away, become liquefied or molten by heat (intr.)’. As can be observed by their definitions, the semantic relationship between both forms is the same one presented by the verbs analysed above, that is, same basic meanings plus the addition of the nuance of completeness. Due to this coincidence in semantics and what it entails in terms of differences in some parameters, this verb pair, together with *myltan-formyltan* analysed below and *forbyrnan-forbærnan* plus counterparts, have been regarded as one subgroup within the verbs to which the prefix *for-* is attached. Bearing in mind the similarities in semantics, it is expected that *meltan* and *formeltan* present equivalent results to the ones commented on above with respect to the other two verb pairs. This is confirmed by the analysis discussed in detail below.

Table 6.119: Results of *meltan* and *formeltan* in the parameter Participants.

Participants	<i>Meltan</i>	<i>Formeltan</i>
1 Part	10	5
2 Part	3	0
Total	13	5
Mean	0.23	0
Median	0	0
Mode	0	0

As far as the parameter Participants is concerned, once more, the analysis of verbs reveals that *for-* does not seem to have any effect. Both *meltan* and *formeltan* favour their historically expected intransitive valence. However, contrary to what could be expected if the prefix *for-* had transitivity effects, *meltan* is the only member of the pair that appears in two-participant clauses. As shown in Table 6.119 above, none of the

examples of *formeltan* presents this valence. In spite of the fact that the valence of *meltan* is labile while that of *formeltan* is not, statistics show that the difference in this respect is not statistically significant (0.2652). This means that both verbs behave in the same way from a statistical point of view as far as the parameter Participants is concerned, namely favouring one-participant clauses, which supports the hypothesis of the lack of influence of *for-* in this parameter within this group of verbs.

Table 6.120: Results of *meltan* and *formeltan* in the parameter Telicity.

Telicity	<i>Meltan</i>	<i>Formeltan</i>
[+Telic]	9	5
[-Telic]	4	0
Total	13	5
Mean	0.69	1
Median	1	1
Mode	1	1

Regarding Telicity, statistics reveal that the behaviour of both verbs is not statistically significant either. The two-tailed P value equals 0.1790 in this case. However, as can be observed in Table 6.120, and contrary to what was commented on with respect to Participants, it is clear that both verbs present a tendency for telic contexts. In the case of the unprefixed form, the mean score is 0.69, while in the case of *formeltan*, it is 1. This means that the *for-* verb is attested in telic contexts only. This, no doubt, bolsters the idea that this prefix may have some connection with telicity as can also be deduced from its semantics. It is clear as well that this behaviour does present differences with respect to that of its counterpart. Even though not significant, the disparity in results is close to being so and could not simply be considered a reflection of the behaviour of the simple unprefixed form.

Table 6.121: Results of *meltan* and *formeltan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Meltan</i>	<i>Formeltan</i>
No U	1	1
No U (Irre)	8	0
Partial	3	0
Affected	1	1
Highly affected	0	3
Total	13	5
Mean	0.19	1.1
Median	0	1.5
Mode	0	1.5

As was the case with the two verb pairs analysed above, the most remarkable differences between verbs are found in the parameter Affectedness-individuation of U. So far, there is no doubt that this parameter is the most directly affected by the prefix *for-*. Differences between *meltan* and *formeltan* in Affectedness-individuation of U are great. As shown in Table 6.121, their mean scores differ in almost 1 point (0.91 to be precise), which is a huge difference when dealing with a 1.5-point scale. This difference is reflected in their respective median and mode scores. While undergoers in *meltan* are normally unaffected, those of *formeltan* are highly affected. As could not be otherwise, the statistical difference between the results of these two verbs turns out to be very statistically significant (0.0010), which shows once more that *for-* forms in this group display a much higher degree of affectedness-individuation of U than their counterparts in general terms. As mentioned above with respect to *forbyrnan* and *forbāernan*, this could be related to the meanings of destruction and deterioration pointed out by different authors.

Table 6.122: Results of *meltan* and *formeltan* in Total Transitivity.

Total	<i>Meltan</i>	<i>Formeltan</i>
1 Point	1	0

2 Points	6	1
3 Points	2	0
3.5 Points	2	0
4 Points	1	1
4.5 Points	0	3
5.5 Points	1	0
Total	13	5
Mean	2.73	3.9
Median	2	4.5
Mode	2	4.5

Finally, differences in Total Transitivity are also noteworthy. As can be observed in Table 6.122, the mean scores of the two verbs differ in 1.17 points. Their median and mean scores also present relevant differences in that the ones in *formeltan* more than double those of its unprefixated counterpart (2 vs. 4.5). In spite of this remarkable difference in terms of raw results, statistically speaking, this disparity is not quite significant as revealed by the t-test (0.0734), although it is close to being so. This may be due to the fact that, all in all, there are not many attestations of these two verbs in my corpus and therefore, what may seem huge differences when raw numbers only are taken into account, happen to be not so remarkable after all when a statistical analysis is applied. Most importantly, though, the analysis of these verbs has served to highlight the important role that this prefix plays on Telicity and Affectedness-individuation of U, as in the other pairs analysed above. Additionally, it also supports the idea that *for-* does not have influence on transitivity in the traditional sense (parameter Participants) in these verbs, contrary to what could be expected.

#### 6.3.4.1.5 *Myltan* - *Formyltan*

The last pair that will be examined in this subgroup within *for-* is *myltan-formyltan*. As was the case with the three pairs already commented on, these verbs display the same kind of semantic relationship shown by their counterparts: *myltan*: ‘melt (caus.; intr.);

digest’; *formyltan*: ‘melt away, become liquid (intr.)’. Therefore, results are expected to differ little to the ones discussed in the case of the previous verbs pairs.

Table 6.123: Results of *myltan* and *formyltan* in the parameter Participants.

Participants	<i>Myltan</i>	<i>Formyltan</i>
1 Part	6	3
2 Part	7	0
Total	13	3
Mean	0.53	0
Median	1	0
Mode	1	0

In the analysis of the three verb pairs above, it was shown that *for-* cannot be considered a transitivising prefix in the traditional sense. This idea is emphasised and seen even more evidently in the case of *myltan* and *formyltan*. The unprefix verb, though an original causative, shows a high tendency for labile valence. It presents no preference for its HEV nor for the NHEV, even though the mean score obtained in the parameter Participants slightly favours the former. More interestingly, however, as can be observed in Table 6.123 above, none of the examples of *formyltan* displays transitive valence. Not surprisingly, consequently, the differences in results are not significant from a statistical point of view. The two-tailed P value equals 0.1020. This shows how prone to NHEV this verb pair is. Moreover, these results, together with the ones in other pairs, certainly reveal the scarce influence that the prefix *for-* has on this parameter.

Table 6.124: Results of *myltan* and *formyltan* in the parameter Telicity.

Telicity	<i>Myltan</i>	<i>Formyltan</i>
[+Telic]	9	3
[-Telic]	4	0
Total	13	3
Mean	0.69	1



Median	1	1
Mode	1	1

The case of Telicity is quite different though. Here, it is manifest once more that *for*-forms show a tendency towards telicity. In fact, as shown in Table 6.124, all of the attestations of *formyltan* in my corpus are tagged with the value +telic. This telic effect of the prefix is reinforced by the fact that the mean score in this category is indeed lower in the case of its counterpart, even though it is not significantly so. The two-tailed P value equals 0.2983. However, the telic nature of the *for*- verbs in these group cannot be doubted since without the exception of *forbārnān* with a mean score of 0.95 (almost perfect), the rest of verbs had a mean score of 1, that is, telic in all of their attestations.

Table 6.125: Results of *myltan* and *formyltan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Myltan</i>	<i>Formyltan</i>
No U	1	0
No U (Irre)	7	0
Partial	3	0
Affected	2	3
Total	13	3
Mean	0.26	1
Median	0	1
Mode	0	1

Just as was the case with the rest of the members of this small subgroup, the more noteworthy differences are to be found in parameter Affectedness-individuation of U, certainly the one in which the influence of the prefix can be more easily quantified and noticed. As can be observed in Table 6.125, results between both verbs show relevant differences. Their mean scores differ in 0.74 points. Mean and median results reveal that while in the case of *myltan* most undergoers are not affected (0 points), they tend to be affected (1 point) in *formyltan*, even though not highly affected as was the case with

some of the verbs analysed above. In spite of the lower degree of affectedness-individuation of U displayed by *formyltan* in comparison with some previous *for-* verbs, differences in this regard with respect to its counterpart are still very statistically significant (0.0067). This result reveals thus clearly that *for-* verbs in this group are higher in Affectedness-individuation of U than their unprefixated counterparts.

Table 6.126: Results of *myltan* and *formyltan* in the Total Transitivity.

Total transitivity	<i>Myltan</i>	<i>Formyltan</i>
1 Point	2	0
2 Points	4	0
3 Points	2	0
3.5 Points	1	0
4 Points	0	3
4.5 Points	1	0
5.5 Points	1	0
6 Points	2	0
Total	13	3
Mean	3.19	4
Median	3	4
Mode	2	4

Results in Total Transitivity follow the trend commented on with respect to the parameters Telicity and Affectedness-individuation of U, which means that the prefixed form presents a higher mean, as well as median and mode scores, than its unprefixated counterpart. Differences, however, are not remarkable as can be observed in Table 6.126 above. In fact, from a statistical point of view, they are not significant. The t-test score is 0.4583 in this case. This result shows that although two verbs may differ clearly in certain parameters such as Telicity and Affectedness-individuation of U, that does not entail that the same result will be obtained with respect to Total Transitivity, as the case analysed in this paragraph and the previously analysed pair show.

#### 6.3.4.1.6 *Formeltan - Formyltan*

The comparison of the Participants data of the verbs *formeltan* and *formyltan* supports what was put forth above when commenting on *forbyrnan* and *forbærnan*, namely that the difference in results between strong and causative ‘burn’ verbs in Participants and Total Transitivity reflects the preservation of a historical pattern lost in most of the pairs analysed in this study.

Table 6.127: Results of *formeltan* and *formyltan* in the parameter Participants.

Participants	<i>Formeltan</i>	<i>Formyltan</i>
1 Part	5	3
2 Part	0	0
Total	5	3
Mean	0	0
Median	0	0
Mode	0	0

Considering the results in Table 6.127, it is clear that no transitivity effect can be attributed to the prefix in this case. Both strong and causative verbs appear in one-participant clauses only in my corpus. Therefore, it can be assumed that the high rate of two-participant clauses in *forbærnan* above reflects a preservation of the historical pattern rather than a transitivity effect of the prefix since this alleged effect is not present in *meltan* or *myltan*.

#### 6.3.4.2 *For-: Second Subgroup*

The three above mentioned verbs plus their unprefix forms, namely *būgan-forbūgan*, *bīgan-forbīgan* and *hwyrfan-forhwyrfan* will be the focus of the following paragraphs. I decided to carry out this division due to the similarities that the verbs I analysed above present both with respect to their semantics and the effects of the prefix. As will be explained in detail below, the main semantic feature that characterized the *for-* verbs above, that is, the addition of the nuance of completeness; is not shared by the ones analysed in the following lines. In this case, the semantic relationship between verbs is

more complex and reveals remarkable semantic changes, not observed in the case of the ‘burn’ and ‘melt’ verbs, whose semantic connection is very straightforward. As a consequence, the effects on transitivity are also different in the case of these verbs as will be seen when dealing with the parameter Participants, for instance.

#### 6.3.4.2.1 *Būgan* – *Forbūgan*

The first pair that will be discussed is the one made up of the verbs *būgan* ‘bow, bend; submit (intr.; caus.)’ and *forbūgan* ‘decline, avoid; flee from, escape; bend from, pass by’. As can be observed by the definitions above, the semantic relationship holding between these verbs is not that of the addition of the nuance of completeness but a more complex one. Not only are these verbs two completely different verbs from a semantic point of view, but also their behaviour with respect to the components of transitivity varies greatly in spite of the uniformity that could be observed in the case of the ‘burn’ and ‘melt’ verbs.

Table 6.128: Results of *būgan* and *forbūgan* in the parameter Participants.

Participants	<i>Būgan</i>	<i>Forbūgan</i>
1 Part	119	1
2 Part	2	55
Total	121	56
Mean	0.01	0.98
Median	0	1
Mode	0	1

The great disparity these two verbs present in their valence has already been discussed in detail in chapter 4, section 4.2.1. As shown in Table 6.128, the valence preferences of these two verbs are completely the opposite. While *būgan* presents HEV, that is, one-participant, in almost all of its attestations and its score in this parameter is therefore very low, just 0.04; *forbūgan* only presents this valence in one of its attestations and has a very high score of 0.98. This difference is, not surprisingly, extremely statistically significant. In this parameter, thus, we find the main difference with respect to the case

of the group analysed above, in which it was claimed that the prefix *for-* seemed to have no transitivity effect in the traditional sense. Meanings such as ‘escape, flee or avoid’ can be derived from ‘bend away from’ with a new object of the preposition similarly to the case of *be-*.

Table 6.129: Results of *būgan* and *forbūgan* in the parameter Telicity.

Telicity	<i>Būgan</i>	<i>Forbūgan</i>
[+Telic]	96	1
[-Telic]	25	55
Total	121	56
Mean	0.79	0.01
Median	1	0
Mode	1	0

Differences with respect to the parameter Telicity are also relevant. Once again, they contradict what the data related of the group of *for-* verbs above showed. As can be observed in Table 6.129, the mean score in Telicity of *forbūgan* is just 0.01. This extremely low score shows clearly that this verb does not favour telicity at all. However, its counterpart does, even if results are not as extreme, 0.79 in this case. These results show an extremely significant difference from a statistical point of view (less than 0.0001) and go against what was concluded in the analysis of the subgroup analysed above, namely that the prefix *for-* had an important effect on Telicity since all *for-* verbs favoured this *Aktionsart* feature. As will be shown below when commenting on the other verbs of this group, these results represent an exception and could be due to the remarkable semantic changes undergone by *forbūgan*.

Table 6.130: Results of *būgan* and *forbūgan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Būgan</i>	<i>Forbūgan</i>
No U	119	1
No U (Irre)	0	32

Partial	0	6
Affected	2	17
Total	121	56
Mean	0.01	0.35
Median	0	0
Mode	0	0

Given the noteworthy differences these two verbs showed in the parameter Participants, it is to be expected that these are maintained in Affectedness-individuation of U. This is exactly the case even if numerical differences are not as great as one could presume. This is due to the high number of attestations of *forbūgan* (32 out of 56) in irrealis clauses as shown in Table 6.130. This table shows that the mean score of the unprefixated form in this parameter is almost the lowest that can be got, 0.01 in this case. That of *forbūgan* is certainly higher 0.35, though not especially high taking into account that the possible highest score is four times higher. In spite of the relatively low mean score of *forbūgan*, the t-test for significance reveals that the difference in the data is extremely statistically significant once more. In the case of Affectedness-individuation of U, thus, *forbūgan* does behave in exactly the same way as its counterparts in the previously analysed group. This may lead us to conclude that the preference for high affectedness-individuation of U of *for-* verbs is clear in the group of verbs under study. However, the complete confirmation must wait until the analysis of *forbūgan* and *forhwyrfan* as well as of the entire set of *for-* verbs is presented.

Table 6.131: Results of *būgan* and *forbūgan* in Total Transitivity.

Total Transitivity	<i>Būgan</i>	<i>Forbūgan</i>
1 Point	2	0
2 Points	15	9
3 Points	14	24
4 Points	35	0
5 Points	53	2
5.5 Points	0	8

6 Points	0	10
6.5 Points	0	3
7 Points	1	0
7.5 Points	1	0
Total	121	56
Mean	4.07	3.99
Median	4	3
Mode	5	3

Finally, focus will be laid on transitivity as a whole. As commented on above, results have shown that there are remarkable differences in the behaviour of these verbs with respect to the parameters analysed above. The verb *būgan* presented a much higher degree of telicity than its counterpart. However, the prefixed form clearly favoured two-participant clauses over its counterpart. Additionally, the difference in Affectedness-individuation of U was also of extremely statistical relevance, much higher in the case of *forbūgan*, even though the difference in terms of raw numbers was not as great. This sort of balance is reflected in the Total Transitivity scores presented in Table 6.131 above. In spite of the apparent great differences, Total Transitivity scores are almost identical, 4.07 in the case of *būgan* and 3.99 in *forbūgan*. Surprisingly, perhaps, bearing in mind the results obtained from the analysis of the above group, the higher verb in transitivity is the unprefixd one. This is barely reflected in their mean scores. However, median and mode ones show the tendency of the unprefixd verb for higher Total Transitivity. Nevertheless, as could be expected, statistics show that the difference in terms of Total Transitivity between these two verbs is not statistically significant. The two-tailed P value equals 0.6821 in this case. This result is similar to the one obtained in the analysis of the ‘melt’ verbs. In spite of the fact that they showed noteworthy differences in certain parameters, their Total Transitivity scores were quite similar and did not present a statistically significant difference.

#### 6.3.4.2.2 *Bīgan* – *Forbīgan*

In what follows, I will concentrate on the causative counterparts of *būgan* and *forbūgan*, namely *bīgan* and *forbīgan*. As can be observed in the following definitions, *bīgan*: ‘bend (caus.; intr.); submit (caus.)’ and *forbīgan*: ‘bow, bend down; humiliate, abase, depreciate; avoid, pass by’, do not differ as much in their semantics as was the case with the above analysed pair. Considering these semantic similarities between *bīgan* and *forbīgan*, it is to be expected for them to show smaller differences in their behaviour concerning the parameters of transitivity discussed in this section than their strong counterparts.

Table 6.132: Results of *bīgan* and *forbīgan* in the parameter Participants.

Participants	<i>Bīgan</i>	<i>Forbīgan</i>
1 Part	3	0
2 Part	19	4
Total	22	4
Mean	0.86	1
Median	1	1
Mode	1	1

The first difference between the behaviour of *bīgan* and *forbīgan* and their strong counterparts can be seen in the parameter Participants. While the strong verbs showed noteworthy differences between one another, both *bīgan* and *forbīgan* are HEV-dominant, transitive, in the majority of their attestations. The unprefix form, as can be observed in Table 6.132, shows lability. However, the tendency of both verbs towards appearing mainly in two-participant clauses is clear. Actually, the statistical analysis corroborates this view. The two-tailed P value of the t-test for significance equals 0.4526, that is, not statistically significant. Contrary to what was the case with the ‘burn’ and ‘melt’ verbs, the *for-* verbs in this group do display a higher number of transitive uses in the traditional sense. However, it must be born in mind that *forbīgan* is a causative verb and therefore, the fact that it always shows transitive valence should



not be surprising, especially when its counterpart also definitely shows the same tendency.

Table 6.133: Results of *bīgan* and *forbīgan* in the parameter Telicity.

Telicity	<i>Bīgan</i>	<i>Forbīgan</i>
[+Telic]	20	4
[-Telic]	2	0
Total	22	4
Mean	0.90	1
Median	1	1
Mode	1	1

As for the parameter Telicity, the two verbs under analysis present a clear preference for the +telic value. Examples with *bīgan* are telic in 90% of its attestations, and in all of them in the case of *forbīgan* (see Table 6.133 above for further details). This difference is of course not statistically significant (0.5491). These data reinforce what has been observed in the case of all *for-* forms above, namely that these prefixed forms definitely favour telicity, with the exception of *forbūgan*. This might point to the fact, that as mentioned above with respect to other prefixes, *for-* is compatible with though not the cause of this telic preference.

Table 6.134: Results of *bīgan* and *forbīgan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Bīgan</i>	<i>Forbīgan</i>
No U	3	0
No U (Irre)	4	0
Partial	1	0
Affected	14	4
Total	22	4
Mean	0.65	1

Median	1	1
Mode	1	1

However, a parameter on which a clear influence of the prefix is perceived, and this time, with no exception, is in Affectedness-individuation of U. *Forbūgan* did not truly show an especially high mean score in this category. However, this was due to the fact that many of the examples where it appears are in the irrealis mode. In spite of this, the difference in this parameter with respect to its counterpart was extremely statistically significant. The verb *forbūgan* reproduces this tendency towards a high degree of affectedness-individuation of U shown by the rest of *for-* verbs. As shown in Table 6.134 above, all of the undergoers in clauses with *forbūgan* have been tagged affected. Therefore, this verb presents a high mean score of 1 in this category. The same tendency is shown by *būgan*, as can be observed in their median and mode scores. However, the tendency is not as strong since the mean score is 0.35 points lower. In fact the difference between them is not statistically significant (0.1690). However, in general, these results emphasise the hypothesis of the relevant influence that the prefix *for-* seems to exercise on this parameter regardless of the subgroup of *for-* verbs analysed.

Table 6.135: Results of *būgan* and *forbūgan* in Total Transitivity.

Total Transitivity	<i>Būgan</i>	<i>Forbūgan</i>
2 Points	1	0
4 Points	5	0
5 Points	1	0
6.5 Points	1	0
7 Points	12	4
7.5 Points	2	0
Total	22	4
Mean	6.02	7
Median	7	7
Mode	7	7

Taking into consideration the similarities these two verbs have shown in the whole analysis, it is not surprising to find out that their results in Total Transitivity do not vary much. As can be seen in Table 6.135, their mean scores differ in almost 1 point, which could be signalling a significant difference. However, the mean and median scores of 7 in both verbs point to the opposite conclusion. In fact, the t-test for significance reveals that the small difference in mean score between these verbs is not statistically significant. The two-tailed P value equals 0.2413 in this case. All in all, it can be concluded once more, that even if the prefix *for-* may have noteworthy effects on some of the parameters analysed in this study, as in Affectedness-individuation of U for instance, it does not seem to affect Total Transitivity to such a degree as to make it significantly higher than that of its counterpart. Actually, that has only been the case with the analyses of *forbyrnan* and *forb̄ernan*.

#### 6.3.4.2.3 *Forbūgan* – *Forbīgan*

Table 6.136: Results of *forbūgan* and *forbīgan* in the parameter Participants.

Participants	<i>Forbūgan</i>	<i>Forbīgan</i>
1 Part	1	0
2 Part	55	4
Total	56	4
Mean	0.98	1
Median	1	1
Mode	1	1

The comparison of the results in parameter Participants of *forbūgan* and *forbīgan* reflect very little differences. While *forbīgan* appears in two-participant clauses in all its attestation, *forbūgan* does so in practically all of them, as can be seen in Table 6.136 above. These results reflect the transitivity effect of the prefix clearly and show to what extent the causative formation has been overridden by prefixes as a transitivity mechanism, at least in certain cases.

#### 6.3.4.2.4 *Hwyrfan* - *Forhwyrfan*

Finally, the last verb pair that will be analysed in this section is the one made up of *hwyrfan* ‘turn, change (caus.; intr.); exchange; go, return’ and *forhwyrfan* ‘turn; change; remove; pervert (intr.; caus.)’. As can be observed in the definitions above, there are small differences in the meanings of these verbs. While ‘turn’ and ‘change’ are common to both, others like ‘pervert’ are only connected with *forhwyrfan*. This may be taken as a reflection of the negativeness in semantics associated with the prefix *for-* in the literature, as put forth in the introduction to this section.

Table 6.137: Results of *hwyrfan* and *forhwyrfan* in the parameter Participants.

Participants	<i>Hwyrfan</i>	<i>Forhwyrfan</i>
1 Part	14	1
2 Part	9	4
Total	23	5
Mean	0.39	0.8
Median	0	1
Mode	0	1

The verb *forhwyrfan* can be labile and, as is shown in the results presented in Table 6.137 above, it presents a clear tendency towards transitive valence with a mean score of 0.80. This is to be expected bearing in mind the fact that it is a causative verb. The unprefixated counterpart, however, is a paradigmatic example of labile verb that works as transitive or intransitive in approximately the same numbers, thus being one of the unprefixated forms in which this tendency is most clearly perceived. In spite of the differences in results, statistics show that these are not significant (0.1039), which means that both verbs share a tendency towards being labile with no clear preference for either HEV or NHEV. However, if only raw numbers are taken into consideration, *forhwyrfan* may be more inclined towards transitive valence, as has been the case with all *for-* verbs in this subgroup. This could point to the fact that *for-* may have a transitivity effect when analysed as a whole as is stated in the literature.

Table 6.138: Results of *hwyrfan* and *forhwyrfan* in the parameter Telicity.

Telicity	<i>Hwyrfan</i>	<i>Forhwyrfan</i>
[+Telic]	13	5
[-Telic]	10	0
Total	23	5
Mean	0.56	1
Median	1	1
Mode	1	1

Concerning the parameter Telicity, *forhwyrfan* shows the clear tendency towards +telic shared by all *for-* verbs with the exception of *forbūgan*. As can be seen in Table 6.138, this verb is telic in all of its attestations in my corpus. *Hwyrfan*, on the other hand, is predominantly telic, though barely so, since it shows this feature in only 56% of its attestations. In spite of this disparity in the data, differences between these verbs are not quite statistically significant (0.0700). This shows that both of these verbs present a tendency towards telicity which is very clear in the case of the prefixed form as has been usual in this section.

Table 6.139: Results of *hwyrfan* and *forhwyrfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hwyrfan</i>	<i>Forhwyrfan</i>
No U	14	1
No U (Irre)	2	1
Partial	1	0
Affected	6	3
Total	23	5
Mean	0.28	0.6
Median	0	1
Mode	0	1

With almost no exception up to this point, *for-* verbs have displayed a significantly higher score in the parameter Affectedness-individuation of U with respect to their counterparts<sup>2</sup>. The preference for relatively high affectedness-individuation of U can be observed in *forhwyrfan* as well, as shown in Table 6.139. Even though the mean score may not be particularly high, 0.6; median and mode scores point to a preference for affected, rather than partially affected, undergoers. Its counterpart *hwyrfan*, on the contrary, displays a tendency for its undergoers to be unaffected mostly, therefore the 0 points in median and mode. Despite these differences at first sight, statistics show that the disparity in results between these two verbs is not statistically significant (0.1780), which means that both verbs behave similarly with respect to this parameter. This could show, thus, that in this case, the effect of the prefix on Affectedness-individuation of U is not as high as it is in other cases, even though when the results of all verbs are taken together that influence is patent as will be detailed below.

Table 6.140: Results of *hwyrfan* and *forhwyrfan* in Total Transitivity.

Total Transitivity	<i>Hwyrfan</i>	<i>Forhwyrfan</i>
2 Points	2	0
3 Points	9	0
4 Points	1	2
5 Points	4	0
6 Points	1	0
6.5 Points	1	0
7 Points	5	2
7.5 Points	0	1
Total	23	5
Mean	4.45	5.9
Median	4	7
Mode	3	4 / 7

<sup>2</sup> The only exception is *forbīgan*. Although it had a quite high mean score of 1, the difference with respect to that of its counterpart, mean score of 0.65, was not considered statistically significant.

Bearing in mind the fact that *hwyrfan* and *forhwyrfan* presented no statistically significant difference in their behaviour with respect to any of the parameters analysed above, it is to be expected that this tendency is kept when their Total Transitivity is analysed. Their Total Transitivity mirrors the tendency seen when discussing the individual parameters in question. Both verbs present noteworthy differences in results *a priori* when their raw numbers, mean, median and mode scores are first examined but these are not reflected in the statistical analysis, which concludes that their behaviour is similar. This can be perfectly observed if the data in Table 6.140 are reviewed. The mean score of both verbs presents a remarkable difference of 1.45 points. Moreover, median and mode scores are much higher, especially the former, in the case of *forhwyrfan*. However, due to the fact that *forhwyrfan* is only attested five times in my corpus, when the statistical analysis is applied, those disparities in numbers turn out to reflect no difference at all in the behaviour of these verbs. In this case, the two-tailed P value of the t-test for significance applied in this study equals 0.1150, not statistically significant, as was the case with the individual parameters analysed above. This shows, in conclusion, that the behaviour of *forhwyrfan* does not differ significantly from that of its counterpart in either any of the parameters from an individual point of view, nor when taken as a whole in the form of Total Transitivity.

Before moving on to discussing the total results of the *for-* verbs, a brief summary of the results obtained in the analysis of the second subgroup of *for-* forms, namely, *forbūgan*, *forbīgan*, *forhwyrfan* and their unprefixated counterparts, will be offered.

Results have shown that this set of verbs does present differences with respect to the ones obtained in the analysis of the ‘burn’ and ‘melt’ verbs. The most relevant one has to do with the parameter Participants. Of all the *for-* verbs in the previous subgroup, only *forbērnian* showed preference for this valence and in a smaller degree, though very similar, to that of its counterpart. The tendency towards high transitivity in the case of the verbs belonging to the second subgroup, however, is noteworthy. With the exception of just one example of *forbūgan* and one of *forhwyrfan*, they are transitive in all cases, that is, in 63 cases out of 65 these verbs show a transitive valence in the

traditional sense. Interestingly, this is not necessarily due to the fact that two of these verbs are causatives, since the only strong verb on the list, *forbūgan* (0.98), presents a higher score than the causative *forhwyrfan* (0.80), for instance. The preference for high transitivity in this subgroup of *for-* verbs is thus undeniable. This trait should not be surprising if the studies mentioned in the introduction are taken into account.

Concerning the parameter Telicity, both subgroups within *for-* also show differences. In this case though, it is easily concluded that these are exclusively due to *forbūgan* and the fact that this verb has undergone a remarkable semantic change that makes it differ greatly from its counterpart in this parameter, as well as others such as *Participants*. Thus, *forbūgan* is the only verb in my corpus to which *for-* is attached that does not show a clear tendency towards telicity. The rest of verbs are telic in all of their attestations, with the exception of *forbāernan*, telic in “just” 96% of cases. The high tendency towards telicity these verbs present is therefore crystal clear if the unusual behaviour of *forbūgan* is excluded. As has been commented several times throughout this section, perfectiveness (telicity) is one of the most often cited properties of this prefix according to scholars.

The last function often attributed to *for-* has to do with intensification, etc. related to Affectedness-individuation of U. The tendency towards a very high degree of affectedness-individuation of U in the case of the ‘burn’ and ‘melt’ verbs was manifest. In the case of the other subgroup, that tendency is clearly seen as well even though perhaps not to such a significant degree, statistically speaking. In fact, the only verb whose higher affectedness-individuation of U over that of its counterpart can be proven statistically is that of *forbūgan*. The other two *for-* verbs do not present such a statistical difference with respect to their counterparts. However, their tendency towards a quite high (1 point mean score) and relatively high affectedness-individuation of U (0.6 points mean score) is present in *forbūgan* and *forhwyrfan* respectively. These results, together with those of the previous groups, offer little doubt as to the preference for high affectedness-individuation of U displayed by the *for-* verbs analysed in this study.



As far as their Total Transitivity is concerned, differences between prefixed and unprefixed forms are not statistically significant in any case in this second subgroup. If these data are born in mind, together with the ones of *formeltan* and *formyltan*, differences in Total Transitivity do not seem to be noteworthy in the case of *for-*. This shows that in spite of disparities in results in several parameters, Total Transitivity scores may still be very similar.

#### 6.3.4.3 Total Results: Unprefixed vs. *For-*

Once I have commented on the results obtained in this second subgroup, and the differences with respect to the results of the first subgroup have been briefly examined, it is time to focus on the results of the analysis of all unprefixed vs. *for-* forms in order to get to solid statistical conclusions regarding some of the influences on certain parameters that are not so clear when the two subgroups are studied individually.

Table 6.141: Total results unprefixed vs. *for-* in the parameter Participants.

Participants	Unprefixed	<i>For-</i>
1 Part	222	43
2 Part	115	185
Total	337	228
Mean	0.34	0.81
Median	0	1
Mode	0	1

The parameter that casts the biggest doubt as to what extent it might be influenced by *for-* is the parameter Participants since, as explained above, results vary greatly from one group to the other. While it was impossible to determine the statistical effect of the prefix on this parameter in the first group, the one made up of *byrnan* and *meltan* plus counterparts, the tendency in the second one was the opposite. What total results show (see Table 6.141 above) is that there is a clear disparity between unprefixed and prefixed forms. The mean score of the former is 0.34, that is, 0.47 points lower than that of prefixed forms, 0.81. Not surprisingly, the statistical analysis reveals that this

difference is extremely statistically significant, less than 0.0001. What these results reveal, in conclusion, is what was stated in the introduction to this section, namely that the prefix *for-*, in general, does have certain effects on this parameter and could be considered transitivity in the traditional sense even if this effect is not reflected in the case of all the verbs analysed in this study.

Table 6.142: Total results unprefix vs. *for-* in the parameter Telicity.

Telicity	Unprefixed	<i>For-</i>
[+Telic]	264	168
[-Telic]	73	60
Total	337	228
Mean	0.78	0.73
Median	1	1
Mode	1	1

Results concerning the parameter Telicity are less controversial *a priori* since, with the exception of *forbūgan*, all *for-* verbs show a clear preference for telic contexts. Moreover, in some cases there exists a statistical difference with respect to their counterparts. It is thus unanticipated to find out that the mean score in the parameter Telicity is slightly lower in the case of prefixed forms. Both groups of verbs clearly show a tendency towards telicity, as can be seen in their mean, median and mode scores (see Table 6.142 above). In fact, statistical results reveal that the differences between these two groups are not statistically significant. The two-tailed P value equals 0.2015 in this case. What statistics show, then, is that the behaviour of both groups with respect to this parameter is the same, i.e. telic-favouring. This, in turn, may imply that the telic component displayed by *for-* forms may not be a direct effect of the prefix but rather a reflection of the already telic tendency displayed by their unprefix counterparts

Table 6.143: Total results unprefixd vs. *for-* in the parameter Affectedness-individuation of U.

Affectedness-indiv	Unprefixed	<i>For-</i>
No U	166	7
No U (Irre)	21	52
Partial	38	6
Affected	103	39
Highly affected	9	124
Total	337	228
Mean	0.40	1
Median	0	1.5
Mode	0	1.5

Regarding Affectedness-individuation of U, it has been shown throughout this section that differences in this parameter between unprefixd and prefixed forms are always relevant. This disparity is perfectly reflected in the results as a whole compiled in Table 6.143 above. As observed there, the tendency in scores of both sets of verbs presents remarkable differences. The mean scores of both groups differ in 0.6 points. This difference is already relevant but it is even more so when focus is laid on median and mode scores. While in the case of unprefixd forms the tendency is 0, unaffected undergoers, the exact opposite is true in the group of prefixed forms. The tendency of the latter is towards high affectedness-individuation of U, 1.5 points. This great difference is necessarily mirrored in the statistical results. As is the case with the parameter Participants, the t-test for significance shows that the disparity in results is extremely statistically significant, less than 0.0001, in this parameter as well. All in all, these results confirm the hypothesis put forth in the introduction to the prefix *for-*, namely that this prefix has certain effects concerning intensification and similar meanings such as destruction or deterioration that are related to the parameter Affectedness-individuation of U, at least in the group of labile verbs analysed in this study.

Table 6.144: Total results unprefixed vs. *for-* in Total Transitivity.

Total Transitivity	Unprefixed	<i>For-</i>
1 Point	14	1
2 Points	39	14
3 Points	31	25
3.5 Points	9	0
4 Points	88	20
4.5 Points	3	29
5 Points	59	10
5.5 Points	20	8
6 Points	10	11
6.5 Points	7	10
7 Points	43	13
7.5 Points	14	65
8 Points	0	22
Total	337	228
Mean	4.44	5.67
Median	4	6
Mode	4	7.5

Finally, the last category analysed with respect to *for-* is Total Transitivity. Just like the parameter Participant, it is difficult to conclude any results beforehand. As commented throughout this section, only two out of the seven verbs to which *for-* is attached, namely *forbyrnan* and *forbærnan*, have a significantly higher score in Total Transitivity with respect to their counterparts, which would point to the fact that the original causative function has been assumed by the prefix. However, in other cases differences in score are noteworthy but not relevant from a statistical point of view. In spite of this difficulty, bearing in mind the results cast in the previous analysis of the parameters Participants and Affectedness-individuation of U, it is likely that *for-* verbs taken as a whole display significant differences with respect to their counterparts in this category as well. As can be seen in Table 6.144, this seems to be the case. The mean scores of

both groups differ considerably, in 1.23 points to be precise. Additionally, median and mode scores support this difference in that they show that the tendency is towards much higher Total Transitivity in the case of the prefixed verbs, especially if the mode score is considered. Thus, it is not unexpected to see that the t-test for significance reveals an extremely significant difference between these two groups from a statistical point of view (less than 0.0001).

All in all, then, results obtained from the analysis of *for-* verbs and their unprefixed counterparts as a whole have shown that the prefix has important effects on parameters Participants and Affectedness-individuation of U. The differences between both groups in these respects are extremely statistically significant, higher in the case of prefixed forms. These results agree with the opinion put forth by some scholars who emphasise the transitivity role, in the traditional sense, as well as the implications concerning intensification and related meanings such as destruction or deterioration displayed by this prefix. On the other hand, even though the idea that *for-* may also be related to Telicity is quite extended, it could not be definitely proven. Clearly, the prefixed forms taken into account in this section display a high preference for telicity. However, this is not higher than that of their counterparts either from the point of view of raw results nor from a statistical point of view. This may be actually revealing that the telicity shown by these verbs is just a reflection of a feature also shared by their unprefixed counterparts and not an effect added by the prefix. In terms of Total Transitivity, as discussed in the previous paragraph, the conclusion is that *for-* verbs are clearly higher than their counterparts in that respect. Therefore, this prefix is not only higher in transitivity in the traditional sense, but also in the more comprehensive version of cardinal transitivity taken into consideration in this study. Likewise, it could be proven through the comparison of strong and causative prefixed forms that the transitivity function of the causative construction is mostly overridden by prefixation even if the causative alternation still survives in certain cases, see *forbyrnan* and *forbærnann*.

#### 6.3.5 *Ge-*

As was explained in detail in the section devoted to the description of each prefix, the function most commonly associated with *ge-* is that of perfectivization. For one of the

first scholars who worked on this prefix, Streitberg (1891), *ge-* constitutes a perfect example of perfectivising only prefix. This view has been supported as well by more recent scholars such as Kemenade and Los (2003). This opinion is controversial, and is not shared, however, by all scholars. In his 1970 work, Lindemann rejects this view based on the fact that Streitberg's analysis presents a clear confusion, to his mind, between the concepts of aspect and *Aktionsart*. In fact, according to this author, the functions conveyed by the prefix *ge-* have to do with the latter concept rather than with aspect and more precisely with one of the features of *Aktionsart*, namely telicity. The telic function of *ge-* is also supported by Brinton (1988: 202), who considers all preverbal Old English prefixes expressions of telic *Aktionsart* and not of perfective aspect or notions such as intensification or similar ones. Martín Arista (2012) offers a panchronic approach and explains that *ge-* changes from a derivational affix with a telic function, associated with *Aktionsart*, to an inflectional affix having a perfectual, i.e. aspectual, function. In addition to perfective and telic meanings, the hypothesis of the resultative function of this prefix has also been put forth by some scholars, such as Lloyd (1979) and Eythórsson (1995). This trend is followed in a recent study by McFadden (2015), who analyses *ge-* as the default realization of a resultative head in the sense of Ramchand (2008). Other authors, such as Hiltunen (1983: 54), additionally emphasise the semantic and functional vagueness of this prefix, shown in the fact that many of the verbs to which it is attached display neither semantic nor morphosyntactic changes of any kind with respect to their unprefixated counterparts. As will be shown, this is the case of some of the verbs taken into account in this study.

Considering the brief account of the meanings and functions attributed to this prefix, it would be expected for *ge-* forms to be higher in Telicity only, since no other of the parameters analysed in this study is claimed to be connected to this prefix. It would not be surprising either to find out that both the unprefixated and the prefixed forms behave in the same way taking into account Hiltunen's view on the vagueness of this prefix. One of the aspects of *ge-* that draws attention is the fact that it is attached to a high number of the verbs analysed in this study, namely 17 out of 26, similarly to the prefix *ā-*. This could be a consequence of the vagueness or lack of meanings at all added by the prefix, as exemplified by *ā-* as well. Actually, so far, *ā-* is the prefix that adds less

semantic load to the verbs to which it is attached with respect to their counterparts. However, the analysis of verbs in total, though not always verb by verb, showed that verbs with *ā-* presented important disparities with respect to their counterparts in some of the parameters analysed in this study.

#### 6.3.5.1 *Būgan* – *Gebūgan*

Once the functions most often connected with this prefix have been introduced, focus will be laid on the analysis of the data obtained by verb pair. The first verb pair that will be discussed in this section is the one made up of *būgan* ‘bow, bend; submit (intr.; caus.)’, and *gebūgan* ‘bow, bend (intr.; caus.)’. As can be seen from the above definitions, the semantics of these verbs is very close, if not practically identical. Taking this similarity into consideration, it would not be surprising to find out that these verbs behave in very similar ways in relation to the parameters analysed in this study.

Table 6.145: Results of *būgan* and *gebūgan* in the parameter Participants.

Participants	<i>Būgan</i>	<i>Gebūgan</i>
1 Part	119	64
2 Part	2	4
Total	121	68
Mean	0.01	0.05
Median	0	0
Mode	0	0

Concerning the first of these parameters, namely Participants, this view is confirmed. As can be seen in Table 6.145 above, both verbs present a very low mean score in this parameter, reflecting the remarkable preference they have for their historically expected intransitive valence. Such a result is to be expected, not only for what is put forth by Hiltunen (ibid), but also due to the fact that none of the scholars consulted in this study relates *ge-* with transitivity in the traditional sense. Statistics reflect, of course, that the almost non-existent difference in the data between these two verbs is not statistically

significant (0.1126), which supports the idea that *ge-* does not play a role in making the scores in parameter Participants higher.

Table 6.146: Results of *būgan* and *gebūgan* in the parameter Telicity.

Telicity	<i>Būgan</i>	<i>Gebūgan</i>
[+Telic]	96	62
[-Telic]	25	6
Total	121	68
Mean	0.79	0.91
Median	1	1
Mode	1	1

Telicity, on the other hand, is the function most often attributed to *ge-*. In the case of these two verbs, the higher preference for telic contexts of the *ge-* verb is confirmed. The data collected in Table 6.146 show that the disparity in results between both verbs is not particularly high *a priori*. Their mean scores differ in just 0.12 points and both present a clear preference for telic contexts. However, in spite of this similarity in results, the statistical analysis employed in this study reveals that the difference in this case is statistically significant. The two-tailed P value equals 0.0351. These results, then, give credit to the hypothesis that states that the prefix *ge-* is related to Telicity since we would expect prefixed forms to show a higher degree of telicity than their counterparts, as is the case with *gebūgan*.

Table 6.147: Results of *būgan* and *gebūgan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Būgan</i>	<i>Gebūgan</i>
No U	119	64
No U (Irre)	0	2
Affected	2	2
Total	121	68



Mean	0.01	0.02
Median	0	0
Mode	0	0

No mention was made of the parameter Affectedness-individuation of U or notions such as intensification or similar in the introduction to this prefix. Therefore, it is not unexpected that in this case too, as in the parameter Participants, verbs show little differences in their data. Once more, these expected results are corroborated by what was obtained in my analysis. Results in Affectedness-individuation of U are practically identical in *būgan* and *gebūgan*. As shown in Table 6.147, they only differ in 0.01 points. They are also extremely close to 0 in both cases, which bolsters the idea that there is no connection between *ge-* and high affectedness-individuation of U. Bearing in mind this similarity in results, it is not surprising to find out that the t-test for significance reveals that the differences between these two verbs in this parameter are not statistically significant (0.5573).

Table 6.148: Results of *būgan* and *gebūgan* in Total Transitivity.

Total Transitivity	<i>Būgan</i>	<i>Gebūgan</i>
1 Point	2	0
2 Points	15	6
3 Points	14	20
4 Points	35	10
5 Points	53	30
7 Points	1	1
7.5 Points	1	1
Total	121	68
Mean	4.07	4.06
Median	4	4
Mode	5	5

So far, results concerning these two verbs have confirmed what could be expected given the account of the functions often associated with this prefix. If these results are taken into consideration, it is to be expected to find that results in Total Transitivity are very similar in both verbs. Once more, the data show this to be the case. As can be observed in Table 6.148 above, the results of these two verbs could not be closer to each other unless they were actually identical. Their mean scores only differ in 0.01 points as in parameter Affectedness-individuation of U. This similarity in results confirms the practically identical behaviour in terms of Total Transitivity, further corroborated by the t-test for significance, which shows that the almost non-existent disparity in results is not statistically significant (0.9451).

#### 6.3.5.2 *Bīgan* – *Gebīgan*

The results obtained in *būgan* and *gebūgan* were extremely similar in all cases with the exception of Telicity, higher in the prefixed form, as expected of a verb to which a supposedly telic prefix is attached. The results obtained from the analysis of their causative counterparts *bīgan* and *gebīgan* are even closer to each other. This emphasizes the idea that *ge-* has perhaps only a very small role in transitivity as a whole, with the exception of the parameter Telicity. To this, it could be added the lack of semantic differences also displayed by *bīgan*: ‘bend (caus.; intr.); submit (caus.)’ and *gebīgan*: ‘cause to move; bend, incline, submit (caus.)’.

Table 6.149: Results of *bīgan* and *gebīgan* in the parameter Participants.

Participants	<i>Bīgan</i>	<i>Gebīgan</i>
1 Part	3	17
2 Part	19	71
Total	22	88
Mean	0.86	0.80
Median	1	1
Mode	1	1

As far as the parameter Participants is concerned, as was the case with the previous pair, both verbs are clearly HEV-dominant, transitive in this case. Differences in results are minimal as shown in Table 6.149 above. The mean scores of these verbs differ in just 0.06 points. Interestingly, it is lower in the case of the prefixed verb, which could be interpreted as lack of influence of this prefix on this parameter. However, differences are too small to get to such a conclusion. As demonstrated in the statistical analysis, the disparity in results between these verbs is not statistically significant (0.5409), that is, from the point of view of this parameter they behave in the same way, which supports the hypothesis of the non-transitivising role of *ge-*.

Table 6.150: Results of *bīgan* and *gebīgan* in the parameter Telicity.

Telicity	<i>Bīgan</i>	<i>Gebīgan</i>
[+Telic]	20	84
[-Telic]	2	4
Total	22	88
Mean	0.90	0.95
Median	1	1
Mode	1	1

Disparities in results concerning the parameter Telicity are even lower, in fact just 0.05 points as shown in Table 6.150. These results, contrary to the ones obtained in relation to the previous parameter, may be surprising if it is born in mind that most scholars agree on the telic functions of the prefix *ge-*, a hypothesis bolstered by *gebūgan*. In spite of the almost null difference between prefixed and unprefixed form (not statistically significant (0.4057)), it is important to point out that the preference for telic contexts of *gebīgan* is extremely high, even if it is not higher than that of its counterpart. Clearly, the *ge-* verb favours telicity and is rarely found in contexts displaying the feature –telic. In fact, only four out of the 84 attestations in my corpus are atelic. The preference for telicity is thus clear. However, it is difficult to conclude whether that is an effect of the prefix or a reflection of the already telic preferences displayed by its counterpart and

from which this verb is ultimately derived, as has been the case with many of the verb pairs analysed in relation to other prefixes.

Table 6.151: Results of *bīgan* and *gebīgan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Bīgan</i>	<i>Gebīgan</i>
No U	3	13
No U (Irre)	4	30
Partial	1	1
Affected	14	44
Total	22	88
Mean	0.65	0.50
Median	1	0.75
Mode	1	1

In relation to the parameter Affectedness-individuation of U, once more, results show that both verbs behave in the same way from a statistical point of view. The t-test for significance scores 0.1961, not statistically significant. These data corroborate the idea that *ge-* has little connection with this parameter. In fact, as can be observed in Table 6.151 above, the mean score in this parameter is slightlier lower in the case of the prefixed form, 0.15 points. Additionally, the mean score it displays cannot be regarded as very high either, contrary to what would be expected if the prefix had a patent influence on this parameter. Therefore, all in all, data show, as was the case with the previously analysed pair, that *ge-* seems to have no connection with the parameter Affectedness-individuation of U.

Table 6.152: Results of *bīgan* and *gebīgan* in Total Transitivity.

Total Transitivity	<i>Bīgan</i>	<i>Gebīgan</i>
2 Points	1	1
3 Points	0	12
4 Points	5	21

5 Points	1	9
6.5 Points	1	1
7 Points	12	24
7.5 Points	2	20
Total	22	88
Mean	6.02	5.58
Median	7	6.75
Mode	7	7

Taking into consideration how similar results were in all of the parameters analysed above, it is not surprising to find out that variation in Total Transitivity between *bīgan* and *gebīgan* is quite scarce. As can be seen in Table 6.152 above, the mean scores of these two verbs differ in 1.07 points. Such a difference has turned out to be statistically significant in some of the pairs in this study. However, as indicated by median and mode scores, similarities between these two verbs seem to be stronger than what might be suggested if their mean scores only were considered. The similarity these two scores suggest is confirmed by the t-test for significance which reveals that this small disparity in results is not statistically significant (0.2923). Thus, once more, results show that *ge-* has little connection with a higher Total Transitivity score and that the only clear influence it displays is on Telicity, even though if in the case of *gebīgan* it could also be attributed simply to the fact that the unprefixated counterpart also shows a high preference for telic contexts and not to a difference in results as exemplified by *gebūgan*.

#### 6.3.5.3 *Gebūgan* - *Gebīgan*

The comparison of the prefixed verbs analysed above, *gebūgan* ‘bow, bend (intr.; caus.)’ and *gebīgan* ‘cause to move; bend, incline, submit (caus.)’ in terms of the parameter Participants reinforce the idea that has been put forth in the previous paragraphs.

Table 6.153: Results of *gebūgan* and *gebīgan* in the parameter Participants.

Participants	<i>Gebūgan</i>	<i>Gebīgan</i>
1 Part	64	17
2 Part	4	71
Total	68	88
Mean	0.05	0.80
Median	0	1
Mode	0	1

The difference in the behaviour of these two verbs is clear as can be seen in Table 6.153 above. Both of these verbs are HEV-dominant, which means that *ge-* is not having any kind of transitivity effect. This is so, especially in the case of the strong verb *gebūgan*. As could not be otherwise, the statistical analysis employed in this study shows that the difference between these two verbs is extremely statistically significant (less than 0.0001), thus supporting the idea that *ge-* does not push them into the same direction at all as far as parameter Participants is concerned.

#### 6.3.5.4 *Byrnan* - *Gebyrnan*

The following verbs that will be discussed in this section are those meaning ‘burn’, namely *gebyrnan* and *gebārnān*, together with their unprefixated counterparts. The analysis will begin with the former, the strong verbs. As can be observed by the definitions of these verbs, *byrnan*: ‘burn (intr.; caus.)’; *gebyrnan*: ‘burn; be consumed by fire, destroy by fire (intr.; caus.)’, their semantics shows little differences in general terms, even though it can be argued that the prefixed form has a certain component of destruction, full completeness or intensification attached to it in a similar fashion to what was the case with *byrnan* and *forbyrnan*. Thus, it would not be surprising to find out that the comparison of the data obtained from these two verbs coincides somehow with that of the aforementioned pair. However, as will be shown below, that is not exactly the case.

Table 6.154: Results of *byrnan* and *gebyrnan* in the parameter Participants.

Participants	<i>Byrnan</i>	<i>Gebyrnan</i>
1 Part	68	2
2 Part	3	2
Total	71	4
Mean	0.04	0.5
Median	0	0.5
Mode	0	0 / 1

The first difference between *gebyrnan* and *forbyrnan* with respect to their unprefix counterpart lies in the parameter Participants. Both *byrnan* and *forbyrnan* show a definite preference for their HEV, that is, intransitive. As can be observed in Table 6.154, though, that pattern is not followed by *gebyrnan*. This verb presents no preference for any valence since half of its attestations display intransitive valence (its historically expected one), while the other half shows transitive valence. The difference between *gebyrnan* and its unprefix counterpart in this parameter is extremely statistically significant according to the t-test for significance applied in this study. The two-tailed P value equals 0.0002.

In spite of this noteworthy difference in Participants, results must be taken with caution in this particular case. This is due to the fact that *gebyrnan* is a very rare verb in Old English. It is only attested four times in the entire corpus of the language according to the DOE, which means that all of its attestations have been taken into account in this study. Not only is this verb rare in terms of number of attestations, but also in terms of the kind of texts in which it survives. With the exception of *Beowulf*, *gebyrnan* is only preserved in glossed texts, glossing the Latin verbs *accendo* and *succendo*, both meaning ‘to kindle, set on fire, etc.’ Notice that in the case of the *Beowulf* example, the verb behaves as historically expected from the point of view of its valence. Bearing in mind the scarcity of attestations of *gebyrnan* as a whole and that this verb only appears in an archaizing conservative text such as *Beowulf* and Latin-influenced ones, it might be the case that *gebyrnan* is actually a relic of an older stage of Old English where it

served as a more transitive, in the cardinal sense, version of *byrnan*, i.e. showing higher telicity, affectedness, etc. This view is reinforced by the fact that *forbyrnan* is much more widespread, and it is transitive. Therefore, it could be argued that it might have taken the role of the rare *gebyrnan*. Another supporting point for this hypothesis is the fact that the causative counterpart of *gebyrnan*, *gebāernan*, has undergone a similar fate in that it is attested, with only few exceptions, in medical texts only, in contrast to the widely extended verb *forbāernan*.

Table 6.155: Results of *byrnan* and *gebyrnan* in the parameter Telicity.

Telicity	<i>Byrnan</i>	<i>Gebyrnan</i>
[+Telic]	70	4
[-Telic]	1	0
Total	71	4
Mean	0.98	1
Median	1	1
Mode	1	1

Taking into account what has been commented above with respect to *gebyrnan* and its relationship to *forbyrnan*, it is expected that both verbs behave similarly from the point of view of their Telicity. The high preference for telic contexts of *gebyrnan* is clear, as is recorded in Table 6.155 above, since this verb appears in telic contexts in all four of its attestations. However, as has been mentioned with respect to other verbs, this high preference might be mirroring the already high telicity of its unprefixated counterpart rather than a direct effect of the prefix. From a point of view of the statistical analysis, as could not be otherwise, the disparity in the results of these two verbs is not statistically significant (0.8142).

Table 6.156: Results of *byrnan* and *gebyrnan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Byrnan</i>	<i>Gebyrnan</i>
No U (Irre)	19	0



Partial	7	0
Affected	45	4
Total	71	4
Mean	0.68	1
Median	1	1
Mode	1	1

Differences in the parameter Affectedness-individuation of U are higher than in Telicity, although they are not as noteworthy as in the case of *byrnan-forbyrnan*. The data present a disparity of 0.32 points in mean score as can be seen in Table 6.156. However, the tendency towards having affected undergoers is clear in the case of both verbs since both have median and mode scores of 1. Bearing this in mind, it is not surprising to find out that the t-test for significance reveals that the difference in Affectedness-individuation of U these two-verbs present is not statistically significant (0.1576). This is, indeed, a relevant difference between *gebyrnan* and *forbyrnan*, since the tendency of the latter is towards highly affected undergoers. This fact may be pointing to the aforementioned vagueness of the prefix *ge-*, which might be a factor that could have influenced the abandonment of *gebyrnan* in favour of another verb, *forbyrnan*, which displayed a clearer semantic difference with the addition of destruction, completeness, intensification, etc.

Table 6.157: Results of *byrnan* and *gebyrnan* in Total Transitivity.

Total Transitivity	<i>Byrnan</i>	<i>Gebyrnan</i>
1 Point	9	0
2 Points	10	0
3.5 Points	6	0
4 Points	42	2
4.5 Points	1	0
5 Points	1	0
7 Points	1	2
7.5 Points	1	0

Total	71	4
Mean	3.40	5.5
Median	4	5.5
Mode	4	4 / 7

In terms of Total Transitivity, differences between *byrnan* and *gebyrnan* are remarkable as reflected in Table 6.157 above. This is to be expected, considering the great difference these verbs present in the parameter Participants, and the ones they also display in Affectedness-individuation of U, which in spite of being not statistically significant, are close to being so. Concerning Total Transitivity, the mean score of these verbs differs in 2.1 points. As can be seen in their median scores, the tendency towards higher Total Transitivity is definite in the case of *gebyrnan*. This is reflected in the statistical analysis that determines that the difference in score between these two verbs, with a two-tailed P value of 0.0031, is very statistically significant. These results show that the influence of the prefix *ge-* might go beyond Telicity, even though as mentioned some paragraphs above, results in this case should be taken with caution due to the particularly special situation of *gebyrnan* and the problems its analysis presents.

#### 6.3.5.5 *Bāernan* – *Gebāernan*

In the following paragraphs, I will discuss the results obtained from the analysis of the causatives *bāernan* and *gebāernan*. From the point of view of their semantics, the relationship holding between these two verbs is very similar to the one holding between their strong counterparts, that is, the prefixed form is very similar, but seems to add a nuance of completeness, destruction or intensification as can be seen in the definitions below in (6.26):

(6.26)

*Bāernan*: ‘burn (caus.; intr.)’

*Gebāernan*: ‘burn (caus.); destroy by fire; light (caus.); burn (intr.)’

Bearing this in mind, it would not be surprising that the analysis of the different parameters and Total Transitivity reveals a relationship similar to the one between *bāernan* and *forbāernan*, since the semantic relationship of these two verbs is practically identical.

Table 6.158: Results of *bāernan* and *gebāernan* in the parameter Participants.

Participants	<i>Bāernan</i>	<i>Gebāernan</i>
1 Part	2	1
2 Part	72	21
Total	74	22
Mean	0.97	0.95
Median	1	1
Mode	1	1

In terms of the parameter Participants, this premise is corroborated by the data. Both verbs present a very high preference for their historically expected transitive valence as can be seen in their mean scores, 0.97 and 0.95 as shown in Table 6.158 above. Coincidentally, the mean score of *gebāernan* in this parameter is exactly the same as that of *forbāernan*. The close similarity in results between the two verbs analysed in this section is reflected in their t-test for significance. The two-tailed P value equals 0.667, which means that the difference in results displayed by these two verbs is not statistically significant.

Table 6.159: Results of *bāernan* and *gebāernan* in the parameter Telicity.

Telicity	<i>Bāernan</i>	<i>Gebāernan</i>
[+Telic]	47	20
[-Telic]	27	2
Total	74	22
Mean	0.63	0.90
Median	1	1

Mode	1	1
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As far as Telicity is concerned, results are not as analogous. As can be observed in Table 6.159, the mean scores of the verbs in question differ in 0.27 points, even though the telic tendency of both of them is clear, as shown in their median and mode scores of 1 point. In spite of this, the 0.27-point difference is relevant since statistics determine it to be statistically significant. The two-tailed P value equals 0.0137 in this case. This result, thus, reinforces the association of this prefix to higher telicity often mentioned in the literature as put forth in the introduction to this prefix.

Table 6.160: Results of *bāernan* and *gebāernan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Bāernan</i>	<i>Gebāernan</i>
No U (Irre)	9	0
Partial	23	2
Affected	33	9
Highly affected	9	11
Total	74	22
Mean	0.78	1.25
Median	1	1.25
Mode	1	1.5

Even if effects on Affectedness-individuation of U are not reported in the literature in relation to the prefix *ge-*, the data of *bāernan* and *gebāernan* present important disparities with respect to this parameter. Bearing in mind the semantic differences these two verbs show, this is not unexpected, as was the case with *bāernan* and *forbāernan*. As can be seen in Table 6.160, the mean scores of *bāernan* and *gebāernan* differ in 0.47 points, which is a considerable difference in a 1.5-point scale. Median and mode scores emphasise the tendency towards a higher Affectedness-individuation of U displayed by the prefixed counterpart. This is confirmed by the t-test for significance. It determines that the disparity in results is extremely statistically significant in this case. So far, it is

the only verb in the *ge-* group whose Affectedness-individuation of U score is significantly higher than that of its counterpart from a statistical point of view.

Before moving on to discussing the Total Transitivity scores, focus will be laid on a certain feature displayed by *gebærnan* in particular, although it has also been attested in the group of ‘melt’ verbs. However, since it is more frequent and more easily corroborated in the case of *gebærnan*, it made more sense to include it in this section. This special feature has to do with the parameter Affectedness-individuation of U, more precisely with the individuation facet of this parameter. The fact that this characteristic is connected with individuation only rather than to Affectedness-individuation of U as a whole, made it difficult to be reflected more specifically in the set of numbers included in this section. However, due to the interesting difference in the behaviour concerning individuation between *bærnan*, *forbærnan* and *gebærnan* that this characteristic reflects, I deemed it interesting to dedicate some words to this matter.

The feature I will deal with has to do with object deletion. As can be seen in example (6.27) below, it is common for *gebærnan* to appear in clauses with transitive valence where the undergoer has been omitted.

(6.27)

*Eft genim elmes rinde, gebærn to ahsan*

First take elm-tree rind, burn to ashes

‘First take the rind of an elm-tree, burn to ashes’

Lch II (1) [0213 (6.8.1)]

In example (6.27), in the clause ‘*gebærn to ahsan*’, the object undergoing the effects of the fire is not stated. However, it is clear what the omitted undergoer is, since it is mentioned in the preceding clause. In this case the undergoer is of course, *elmes rinde* ‘elm-tree rind’. What is interesting from the point of view of this study is that although this phenomenon is common in *gebærnan*, it is very rare in *forbærnan*. In fact, it is only

attested twice in the 128 examples of this verb included in this study. Additionally, those two examples have been taken from the translation of Bede's *Historia Ecclesiastica*. Then, it is likely that this is due to the influence of Latin, since in this language object deletions of this kind are much more frequent than they are in Old English. This is a case of what Næss (2007:124) calls context-dependent object deletion i.e. deletion that takes place when the object has previously been mentioned or where the context provides clues that help identify the deleted object in question.

On the other hand, in context-independent object deletion, the objects must be interpreted as indefinite. Actually, it is not possible to omit an object that is clearly specified as definite in the context as put forth by Fillmore (1986: 97). This capacity has often been attributed to the lexical properties of verbs or verb classes. For instance, as Marantz (1984) and van Valin and LaPolla (1997) do, context-independent object deletion has frequently been related to ingestive verbs. Contrary to this view, Goldberg (2001) demonstrates that lexical semantics is not the only factor that may license context-independent object deletion. She shows that causative verbs, in contexts where they show iterative or generic meanings are perfectly felicitous without an object despite claims made by some authors such as Rappaport Hovav and Levin (1988), Grimshaw and Vikner (1993) or Brisson (1994).

Many of the verbs under study in this work are causatives and therefore, should be able to appear in the contexts that allow context-independent object deletion mentioned by Goldberg. As shown in example (6.28) below, these verbs are perfectly felicitous with an omitted object as predicted by this author.

(6.28)

*& dydon ealswa hi ær gewuna wæron, heregodon*

& did just as they before accustomed were, raided

*& bærndon & slogon swa swa hi ferdon*

& burnt & killed so so they went

‘And (they) did as they had been used to, they raided and burnt and killed as they went’

ChronC [0582 (1006.5)]

The verb that exemplifies this issue is *bāernan*, an unprefixd one. This is so because the property of appearing in context-independent object deletion has only been attested in unprefixd verbs in my corpus. In this case, in *bāernan* since the focus is on the ‘burn’ verbs in this case.

In conclusion, what is shown in the paragraphs above with respect to individuation concerning the ‘burn’ verbs is that their capacity to display object omission varies. While *forbāernan* is not compatible with any kind of object deletion, with the exception of two attested examples that may be showing Latin influence, *gebāernan* does allow objects to be omitted, but only when the context leaves no doubt as to what the omitted object is, i.e. context-dependent object deletion. *Bāernan*, however, when in a context that entails iteration or a general meaning, is able to omit objects also independently of the context, as has been shown in example (6.28) above. This shows that verbs may differ in their behaviour concerning a certain parameter even if it is not possible to capture this difference with figures.

Once a detailed analysis of the parameter Affectedness-individuation of U, has been offered, focus will be laid on the last set of data concerning *bāernan* and *gebāernan*, i.e. those related to Total Transitivity. Taking into consideration the data analysed in the previous paragraphs, especially those of Telicity and Affectedness-individuation of U, it is expected to find differences in the Total Transitivity data of these two verbs.

Table 6.161: Results of *bāernan* and *gebāernan* in Total Transitivity.

Total Transitivity	<i>Bāernan</i>	<i>Gebāernan</i>
2 Points	1	0
3 Points	4	0
4 Points	4	1
4.5 Points	1	0
5.5 Points	18	2

6 Points	7	0
6.5 Points	5	0
7 Points	24	8
7.5 Points	10	11
Total	74	22
Mean	6.09	6.97
Median	6.5	7.25
Mode	7	7.5

These differences may turn out to be not very noteworthy if only the mean scores are considered. As shown in Table 6.161, the mean scores vary in 0.88 points, not much when dealing with a 8-point scale. Mean and median scores are perhaps more relevant in this case as they show that the Total Transitivity tendency is higher in the case of the prefixed verb than in its counterpart. Actually, despite the relatively small variation in mean score, the t-test for significance determines that the difference between *bāernan* and *gebāernan* is very statistically significant. The two-tailed P value equals 0.0035. It is interesting to mention that the difference in Total Transitivity between *forbāernan* and its unprefix counterpart was also very statistically significant, which points to the similarity between the *for-* and the *ge-* forms, not only in terms of semantic but also in terms of their transitivity. This, in turn, supports the already mentioned hypothesis of the replacement of *gebāernan*, practically attested solely in medical texts, by the much more common *forbāernan*, since the meanings and functions of these verbs are practically identical and may have been taken over by the *for-* verb. Additionally, these results, together with those of *byrnan* and *gebyrnan* may be revealing that the prefix *ge-* may have an effect on transitivity that goes beyond that of Telicity, the only effect clearly mentioned in the literature.

#### 6.3.5.6 *Gebyrnan* – *Gebāernan*

Table 6.162: Results of *gebyrnan* and *gebāernan* in the parameter Participants.

Participants	<i>Gebyrnan</i>	<i>Gebāernan</i>
1 Part	2	1



2 Part	2	21
Total	4	22
Mean	0.5	0.95
Median	0.5	1
Mode	0 / 1	1

The comparison of the Participants data obtained from these two verbs reflects relevant differences in their behaviour. While the strong verb shows no preference for any valence, (0.5 mean score), *gebāernan* is clearly transitive (0.95 mean score), as shown in Table 6.162 above. The disparity in results is, according to the t-test for significance (0.0073), very statistically significant, thus supporting the hypothesis that not all *ge*-verbs, but rather only causatives that are preserved as such, present high scores in this parameter.

#### 6.3.5.7 *Cēlan* – *Gecēlan*

The next verb analysed in this section is *gecēlan* ‘cool or chill (sth); quench (thirst); become cold’, together with its unprefix counterpart *cēlan* ‘cool or chill (sth), make cold; quench (thirst)’. Their definitions leave little doubt as to how similar both verbs are in semantic terms. As has been usual throughout this whole section, this kind of verbs tends to show little discrepancies concerning their behaviour with respect to the parameters under study in this chapter. In the following paragraphs, it will be shown that, in fact, *gecēlan* displays very similar scores in comparison to those of its counterpart *cēlan*.

Table 6.163: Results of *cēlan* and *gecēlan* in the parameter Participants.

Participants	<i>Cēlan</i>	<i>Gecēlan</i>
1 Part	1	4
2 Part	7	9
Total	8	13
Mean	0.87	0.69

Median	1	1
Mode	1	1

The first parameter that will be discussed is Participants as usual. As can be observed in Table 6.163, both verbs show a tendency towards their HEV, transitive in this case. This is more clearly seen in the unprefix verb, with a mean score of 0.87. The comparison of the Participant data of these two verbs determines that their behaviour is the same, that is transitive-dominant, since the disparity in results is not statistically significant. The two-tailed P value equals 0.3649. These data support the idea that *ge-* has actually little influence on the parameter Participants.

Table 6.164: Results of *cēlan* and *gecēlan* in the parameter Telicity.

Telicity	<i>Cēlan</i>	<i>Gecēlan</i>
[+Telic]	8	13
[-Telic]	0	0
Total	8	13
Mean	1	1
Median	1	1
Mode	1	1

In the introduction to the *ge-* section, it was stated, however, that for most scholars this prefix has some bearing on the parameter Telicity. This hypothesis is bolstered by the data compiled in Table 6.164 above. As can be seen, *gecēlan* appears in telic contexts in all of its attestations in my corpus. Nevertheless, it cannot be concluded straightforwardly that this represents an effect of the prefix. The unprefix *cēlan* is also telic in all of its attestations and therefore, the prefixed verb might just be reflecting the behaviour of its base verb rather than mirroring any kind of effect exercised by the prefix, as expressed by Denison (1985: 38, 46) in relation to the meanings and functions often attributed to prefixes.

Table 6.165: Results of *cēlan* and *gecēlan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Cēlan</i>	<i>Gecēlan</i>
No U (Irre)	3	7
Partial	1	0
Affected	4	6
Total	8	13
Mean	0.56	0.46
Median	0.75	0
Mode	1	0

As for the parameter Affectedness-individuation of U, results vary little. In Table 6.165, it can be observed that mean scores of both verbs differ in just 0.10 points, being higher in the case of the unprefix verb. This may lead to the assumption that the behaviour of both verbs is fairly similar in this respect. However, median and mode scores point in different directions since disparities in these numbers are greater. In spite of this tendency towards a slightly higher affectedness-individuation of U presented by the unprefix form, the statistical analysis applied in this study determines that the behaviour of these two verbs in relation to this parameter is the same, that is, it presents no statistically significant differences (0.6648), as expected from a prefix that is not attributed an effect related to Affectedness-individuation of U.

Table 6.166: Results of *cēlan* and *gecēlan* in Total Transitivity.

Total Transitivity	<i>Cēlan</i>	<i>Gecēlan</i>
1 Point	1	0
2 Points	0	6
3 Points	2	1
5 Points	1	0
5.5 Points	1	0
6 Points	3	6
Total	8	13

Mean	4.43	3.92
Median	5.25	3
Mode	6	2 / 6

Last, but not least, focus will be laid on the Total Transitivity scores collected in Table 6.166. Taking into consideration how similar the data corresponding to *cēlan* and *gecēlan* are, it is hardly likely that they differ much in Total Transitivity. What is clear by having a look at the aforementioned table is that the prefixed verb is certainly not higher in Total Transitivity than its counterpart. The difference with its counterpart, however, is not big, 0.51 points in their mean scores, although the median score might suggest otherwise. The statistical analysis, on the other hand, leaves little doubt as to the equivalent degree of Total Transitivity displayed by these two verbs. The t-test for significance determines that the difference between verbs is not statistically significant, as expected, with a two-tailed P value of 0.5677. Thus, all in all, the analysis of this verb has shown that the only effect that *ge-* could have in this case is on Telicity, even though that statement must be taken with caution as it may just be a reflection of a tendency definitely favoured by the unprefixes counterpart as well.

#### 6.3.5.8 *Deorfan* - *Gedeorfan*

The following analysis focuses on a verb that has not been included so far in this chapter, since only the prefix *ge-*, and no other, is attached to it. The verb in question is *deorfan* ‘labour, be in danger or trouble’. Its prefixed counterpart, *gedeorfan* ‘work, labour; perish at sea’, shows similarities as well as disparities concerning semantics with respect to its counterpart. While both share a basic meaning having to do with work, the secondary meaning compiled by dictionaries of the prefixed verb, ‘perish at sea’ seems to be a kind of specialization of the broader in meaning ‘be in danger’ attributed to *deorfan*. In spite of this difference, as will be shown throughout the analysis, both verbs show a very similar behaviour in relation to the parameters under study in this chapter, with the exception of Telicity, which is much higher in the case of *gedeorfan*, as is to be expected bearing in mind the hypothesis put forth by different authors.

Table 6.167: Results of *deorfan* and *gedeorfan* in the parameter Participants.

Participants	<i>Deorfan</i>	<i>Gedeorfan</i>
1 Part	14	4
2 Part	0	0
Total	14	4
Mean	0	0
Median	0	0
Mode	0	0

Regarding the parameter Participants, there is not much to discuss. As can be seen in Table 6.167, both verbs follow their HEV, intransitive, in all of their attestations in my corpus. Clearly, thus, the prefix *ge-* shows no influence on this parameter in the case of *gedeorfan*.

Table 6.168: Results of *deorfan* and *gedeorfan* in the parameter Telicity.

Telicity	<i>Deorfan</i>	<i>Gedeorfan</i>
[+Telic]	0	3
[-Telic]	14	1
Total	14	4
Mean	0	0.75
Median	0	1
Mode	0	1

With respect to Telicity, however, results change. While the unprefixated counterpart definitely favours atelic contexts in all of its attestations, *gedeorfan* behaves in exactly the opposite way in most cases, 75%, three out of four examples are telic as can be observed in Table 6.168 above. There is a clear difference in this parameter between the prefixed and unprefixated verbs, which supports the hypothesis of the relationship between *ge-* and telicity. As could not be otherwise, the statistical analysis applied in

this study determines that the disparity in the data concerning Telicity are statistically significant, extremely so to be precise since the two-tailed P value equals less than 0.0001.

Table 6.169: Results of *deorfan* and *gedeorfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Deorfan</i>	<i>Gedeorfan</i>
No U	6	1
No U (Irre)	3	0
Partial	1	0
Affected	4	3
Total	14	4
Mean	0.32	0.75
Median	0	1
Mode	0	1

As can be seen in Table 6.169, there are also disparities between *deorfan* and *gedeorfan* concerning Affectedness-individuation of U. The mean scores of these verbs differ in 0.43 points and as their median and mode scores show, the tendencies of both verbs are also disparate. While *deorfan* has mainly unaffected undergoers, its counterpart has normally affected ones. Relevant as these differences may seem, statistics determine that they are not so. The statistical analysis shows that the *a priori* remarkable difference displayed by these verbs in terms of their affectedness-individuation of U is not statistically significant (0.1283). This result supports, thus, the idea that the effect displayed by *ge-* is related to Telicity only and not to other parameters.

Table 6.170: Results of *deorfan* and *gedeorfan* in Total Transitivity.

Total Transitivity	<i>Deorfan</i>	<i>Gedeorfan</i>
1 Point	3	0
2.5 Points	1	0
3 Points	5	0

4 Points	5	4
Total	14	4
Mean	2.89	4
Median	3	4
Mode	3 / 4	4

The final conclusion pointed out in the above parameter can also be applied to Total Transitivity. Even though the difference between *deorfan* and *gedeorfan* in terms of Total Transitivity might be considered very relevant, considering the data compiled in Table 6.170 – a difference of 1.11 points in mean score, and higher median and mode scores as well – they turn out to be not quite statistically significant. The two-tailed P value of the t-test for significance equals 0.0771. As pointed out in the introduction to this verb, thus, the only parameter in which these two verbs differ is Telicity, which seems to be the only one consistently affected in verbs with *ge-* in most cases, though not necessarily in every single verb.

#### 6.3.5.9 *Hweorfan* - *Gehweorfan*

The following lines concentrate on the analysis of the verbs *gehweorfan* and *gehwyrfan* as well as their unprefixated counterparts beginning with the strong verb pair. These strong counterparts, *hweorfan* ‘turn, change (intr.; caus.); go’, on the one hand, and *gehweorfan* ‘turn, turn away; change; (intr.; caus.); return (intr.)’, on the other, are practically identical from a semantic point of view. Little or no effect of the prefix can be detected in this respect. However, as will be shown below, the behaviour of these two verbs does differ in relation to some of the parameters taken into account in this section.

Table 6.171: Results of *hweorfan* and *gehweorfan* in the parameter Participants.

Participants	<i>Hweorfan</i>	<i>Gehweorfan</i>
1 Part	143	23
2 Part	0	3
Total	143	26

Mean	0	0.11
Median	0	0
Mode	0	0

The first difference between *hweorfan* and *gehweorfan* lies in how they behave in terms of the parameter Participants. The former keeps its HEV. This valence is displayed by all of its 143 attestations in my corpus, as shown in Table 6.171. It is therefore manifest that the labile capacity of this verb in question is close to none, bearing in mind that not every single attestation of this verb could have been taken into account in this study. *Gehweorfan*, on the other hand, has been attested in my corpus in cases where it displays transitive valence, although not in great numbers. Only in 11% of its attestations does this verb present NHEV. The HEV-favouring tendency of both verbs is therefore clear. Nonetheless, minimal as the disparity in results may seem, statistics point to the fact that this disagreement in figures is significant. It is extremely so, in fact, as determined by the t-test for significance score of less than 0.0001. What these data reveal is that the labile behaviour of the prefixed verb is relevant in comparison to the traditional one of its counterpart. As will be seen, the only stable verb in terms of valence in the *(ge)hweorfan*-*(ge)hwyrfan* group is indeed *hweorfan*.

Table 6.172: Results of *hweorfan* and *gehweorfan* in the parameter Telicity.

Telicity	<i>Hweorfan</i>	<i>Gehweorfan</i>
[+Telic]	103	23
[-Telic]	40	3
Total	143	26
Mean	0.72	0.88
Median	1	1
Mode	1	1

Unexpectedly, considering the functions often associated with *ge*-, the verbs analysed in this section have been shown to differ in their behaviour in parameter Participants.



However, regarding Telicity, the “canonical” function of *ge-*, these two verbs show little differences. As can be observed in Table 6.172 above, the tendency towards telicity of both *hweorfan* and *gehweorfan* is clear. The disparity in results is minimal, just 0.16. This small difference is determined to be not quite statistically significant (0.776) in this case. This points to the fact that *gehweorfan* is very close to present a statistically significant higher tendency towards telicity than its counterpart, which could be taken as a reflection of the telic effect of the prefix *ge-* already determined by statistics in some of the verbs analysed above. In spite of this lack of significance, what is clear is that the tendency towards telicity in the case of *gehweorfan* can undoubtedly be seen in the data. Therefore, this result reinforces the telic hypothesis put forth in the introduction to this section.

Table 6.173: Results of *hweorfan* and *gehweorfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hweorfan</i>	<i>Gewhweorfan</i>
No U	143	23
Affected	0	3
Total	143	26
Mean	0	0.11
Median	0	0
Mode	0	0

Regarding the third parameter, Affectedness-individuation of U, the data above leave little doubt as to what the result will be since they are exactly the same as in the case of the parameter Participant. The connection between these two parameters is manifest in this case. Small as this difference of 0.11 points in mean score may seem, it is considered to be extremely statistically significant, less than 0.0001. However, it is important to highlight the fact that the mean score of 0.11 displayed by *gehweorfan* is by no means high. This low score reinforces the idea that no effect on Affectedness-individuation of U should be attributed to *ge-* in spite of it being statistically higher than that of its counterpart. This is due to the fact that, surprisingly, a verb that appears very

often in the corpus under study, *hweorfan*, happens to behave in a very traditional way, from a historical point of view, with absolutely no exception. Consequently, the normal small deviations in that traditional behaviour exhibited by *gehweorfan* turn out to be statistically significant. As will be shown below in the case of *hwyrfan* and *gehwyrfan*, such small deviations do not often lead to significantly different results from the point of view of statistics.

Table 6.174: Results of *hweorfan* and *gehweorfan* in Total Transitivity.

Total Transitivity	<i>Hweorfan</i>	<i>Gehweorfan</i>
2 Points	13	0
3 Points	24	2
4 Points	32	10
5 Points	74	11
6.5 Points	0	1
7 Points	0	1
7.5 Points	0	1
Total	143	26
Mean	4.16	4.69
Median	5	5
Mode	5	5

Taking into account the analysis of the previous parameters, it is not surprising to find out that a small difference in mean scores implies an important statistical difference. Since *hweorfan* and *gehweorfan* show great statistical discrepancies in two of the parameters analysed above, it is expected that this difference is reflected in their Total Transitivity score as well. This is so indeed, and in a very similar way. With this, I make reference to the fact that in terms of mean (4.16 *hweorfan* vs. 4.69 *gehweorfan*), median and mode scores (5 in all cases; see Table 6.174), results are very similar and a difference *a priori* can barely be appreciated. However, the statistical analysis determines it to be significant from a statistical point of view. The two-tailed P value equals 0.0170 in this case. In light of these results, it could be concluded that the prefix

*ge-* may have an effect on other parameters that are not Telicity (even though this *Aktionsart* feature is clearly favoured), such as Participants and Affectedness-individuation of U, as well as Total Transitivity. Nevertheless, as mentioned above, these results may be a reflection of the particularly conservative, from a historical point of view, and therefore extremely rare, results of a verb that appears so often in the corpus taken into consideration in this study, i.e. *hweorfan*.

#### 6.3.5.10 *Hwyrfan* - *Gehwyrfan*

The relationship holding between the causatives *hwyrfan* and *gehwyrfan* reflects more closely the expectations of the effects of *ge-* bearing in mind the brief overview of the introduction to this section. As their counterparts, these verbs present little differences in their semantics (see definitions in 6.29), other than the addition of a meaning ‘translate’ to the prefixed form, not uncommon in verbs meaning ‘turn’ and the like, as pointed out in chapter 3, section 5.

(6.29)

*Hwyrfan*: ‘turn, change (caus.; intr.); exchange; go, return’

*Gehwyrfan*: ‘turn (sth); cause to move, direct; (cause to) return; change, exchange, translate (intr.; caus.)’

As will be shown in the discussion focused on these verbs, their behaviour in terms of the parameters analysed below is quite similar, with the exception of Telicity, as is to be expected.

Table 6.175: Results of *hwyrfan* and *gehwyrfan* in the parameter Participants.

Participants	<i>Hwyrfan</i>	<i>Gehwyrfan</i>
1 Part	14	18
2 Part	9	28
Total	23	46
Mean	0.39	0.60

Median	0	1
Mode	0	1

As can be seen in Table 6.175 above, both *hwyrfan* and *gehwyrfan* show different tendencies with respect to parameter Participants. While the former tends towards NHEV, the latter is HEV-dominant. However, in spite of these tendencies, it was already confirmed statistically in chapter 4, section 4.2.5, that neither of these verbs showed any preference for either HEV or NHEV. From a statistical point of view, there is no significant difference between both sets of data, (0.0903), which means that their behaviour concerning this parameter is rather similar and therefore no effect of *ge-* can be detected.

Table 6.176: Results of *hwyrfan* and *gehwyrfan* in the parameter Telicity.

Telicity	<i>Hwyrfan</i>	<i>Gehwyrfan</i>
[+Telic]	13	40
[-Telic]	10	6
Total	23	46
Mean	0.56	0.86
Median	1	1
Mode	1	1

The statistical analysis, on the other hand, does confirm that the behaviour of these verbs concerning the parameter Telicity is divergent. As shown in Table 6.176, the two of them present a telic-favouring tendency, although this is not particularly high in the case of the unprefix form. The mean score of *gehwyrfan*, however, does show that this verb is definitely telic in most of its attestations. The mean scores of both verbs vary in 0.30 points, which according to the t-test for significance, 0.0045, is a very significant difference in statistical terms. What these results show, thus, is that the telic tendency is higher in the case of the prefixed form, therefore reinforcing the hypothesis of the telic effect attributed to *ge-*, confirmed in most of the verbs analysed in this section so far.

Table 6.177: Results of *hwyrfan* and *gehwyrfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hwyrfan</i>	<i>Gehwyrfan</i>
No U	14	17
No U (Irre)	2	8
Partial	1	2
Affected	6	19
Total	23	46
Mean	0.28	0.43
Median	0	0
Mode	0	0

Regarding parameter Affectedness-individuation of U, given the results of parameter Participants, it is to be expected that the disparities between verbs are not noteworthy. In fact, as shown in Table 6.177, the 0.30-point divergence observed in Participants has even been reduced in half to just 0.15 points. In addition to this, contrary to what is the case with the parameter Participants, median and mode results show that the tendencies of both verbs are the same, in this case, towards unaffected undergoers. As could not be otherwise, thus, statistics determine that the disparity in results is not statistically significant, which means that no effect of the prefix on this parameter is detected. The two-tailed P value equals 0.2155 in this case.

Table 6.178: Results of *hwyrfan* and *gehwyrfan* in Total Transitivity.

Total Transitivity	<i>Hwyrfan</i>	<i>Gehwyrfan</i>
2 Points	2	3
3 Points	9	5
4 Points	1	10
5 Points	4	7
6 Points	1	1
6.5 Points	1	2

7 Points	5	10
7.5 Points	0	8
Total	23	46
Mean	4.45	5.32
Median	4	5
Mode	3	4 /7

Having in mind the fact that *hwyrfan* and *gehwyrfan* behave so similarly in the parameters analysed above, with the exception of Telicity, it would not be surprising to discover that in terms of Total Transitivity there is also little variation. A look at the data in Table 6.178 might suggest otherwise, though. The mean scores of both verbs differ in almost 1 point, 0.87 points to be precise. Median and mode scores, moreover, also suggest a tendency towards higher Total Transitivity in the case of the prefixed verb. This verb pair, thus, could represent one of the few cases in which a significant difference in Total Transitivity is displayed by the *ge-* verb. However, that is not the case. The statistical analysis determines that the disparity in results between these verbs is not quite statistically significant, 0.0640. Therefore, once more, the only possible effect of the prefix *ge-* that could be demonstrated on statistical terms is that on Telicity as accurately highlighted in the literature.

#### 6.3.5.11 *Gehweorfan* - *Gehwyrfan*

The comparison of the results of *gehweorfan* ‘turn, turn away; change; (intr.; caus.); return (intr.)’ and *gehwyrfan* ‘turn (sth); cause to move, direct; (cause to) return; change, exchange, translate (intr.; caus.)’ with regards to Participants shows that there are considerable disparities between both verbs.

Table 6.179: Results of *gehweorfan* and *gehwyrfan* in the parameter Participants.

Participants	<i>Gehweorfan</i>	<i>Gehwyrfan</i>
1 Part	23	18
2 Part	3	28
Total	26	46

Mean	0.11	0.60
Median	0	1
Mode	0	1

As can be seen in Table 6.179 above, *gehweorfan* appears in two-participant clauses in very few cases (11% of its attestations). Its causative counterpart favours two-participants clauses, however, in a rather low percentage compared to other verbs as to suggest that *ge-* has any transitivity effect. In spite of this relatively low 0.60 mean score, the preference of *gewhyrfan* for traditional transitive clauses is extremely statistically significant in comparison to that of *gehweorfan*. In this case the t-test for significance score is less than 0.0001. Such a difference should be attributed, thus, to a remnant of the causative construction that is still reflected in the behaviour of *gehwyrfan* in comparison to that of its counterpart, though by no means when analysed individually.

#### 6.3.5.12 *Lāefan* – *Gelāefan*

The following paragraphs deal with the analysis of the verb pair made out of the causative verbs *lāefan* ‘leave, remain’ and *gelāefan* ‘leave; be left, remain’. Unfortunately, the analysis cannot be carried out in much depth due to the fact that the latter has only been attested once in my corpus. Consequently, no statistical analysis could be applied and results cannot be considered as solid as in other cases.

Table 6.180: Results of *lāefan* and *gelāefan* in the parameter Participants.

Participants	<i>Lāefan</i>	<i>Gelāefan</i>
1 Part	1	1
2 Part	36	0
Total	37	1
Mean	1	0
Median	1	N/A
Mode	1	N/A

Table 6.181: Results of *lāḗfan* and *gelāḗfan* in the parameter Telicity.

Telicity	<i>Lāḗfan</i>	<i>Gelāḗfan</i>
[+Telic]	0	0
[-Telic]	37	1
Total	37	1
Mean	0	0
Median	0	N/A
Mode	0	N/A

Table 6.182: Results of *lāḗfan* and *gelāḗfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Lāḗfan</i>	<i>Gelāḗfan</i>
No U (Irre)	11	0
Partial	8	0
Affected	18	1
Total	37	1
Mean	0.59	1
Median	0.5	N/A
Mode	1	N/A

Table 6.183: Results of *lāḗfan* and *gelāḗfan* in Total Transitivity.

Total	<i>Lāḗfan</i>	<i>Gelāḗfan</i>
1 Point	5	0
2 Points	6	0
3 Points	1	1
4.5 Points	8	0
5 Points	9	0
5.5 Points	8	0



Total	37	1
Mean	3.91	3
Median	4.5	N/A
Mode	5	N/A

What the data in parameter Participants show, see Table 6.180, is that the tendencies of both verbs are completely the opposite. While the unprefix verb is HEV-dominant, the only attestation of *gelāfan* happens to be intransitive. The tendency towards atelicity of both verbs is clearer though, as can be expected given their meanings. Both verbs appear in –telic contexts only (see Table 6.181). Results concerning Affectedness-individuation of U are difficult to assess. The scores of *lāfan* and *gelāfan* do not differ much (Table 6.182). In fact, the influence on the former of the irrealis effect needs to be taken into account. If this effect had not been as influential in this case, results would probably be more similar. As for Total Transitivity, results do not vary much (Table 6.183). The mean scores of both verbs are not particularly high. Consequently, given the attestation caveats, these results do no point to any transitivity effect of the prefix, in this case.

#### 6.3.5.13 *Meltan - Gemeltan*

The next group of verbs on which focus will be laid is that of the verbs meaning ‘melt’, namely *(ge)meltan-(ge)myltan*. In the case of the strong verb pair, as can be observed by the following definitions, *meltan* ‘melt (intr.), be dissolved, be digested’; *gemeltan* ‘melt, digest; weaken (intr.; caus.)’, these verbs present little differences as far as their semantics is concerned. As will be shown in the following paragraphs, these similarities go beyond semantics and are maintained as well, from a general point of view, in the behaviour these verbs have in relation to the parameters analysed in this section.

Table 6.184: Results of *meltan* and *gemeltan* in the parameter Participants.

Participants	<i>Meltan</i>	<i>Gemeltan</i>
1 Part	10	6
2 Part	3	3

Total	13	9
Mean	0.23	0.33
Median	0	0
Mode	0	0

The first of those parameters is Participants. The tendency of these two verbs is clearly towards their HEV, i.e. intransitive. They normally appear in one-participant clauses as can be seen by having a look at their mean scores, 0.23, in the case of *meltan*; and 0.33, in the case of its counterpart as shown in Table 6.184. This small variation does not represent any statistically significant difference according to the t-test for significance employed in this study. The two-tailed P value equals 0.6159. Considering these data, thus, both verbs are definitely HEV-dominant, which shows that there is not perceptible effect of the prefix on this parameter as has often been stated in relation to other verbs analysed above.

Table 6.185: Results of *meltan* and *gemeltan* in the parameter Telicity.

Telicity	<i>Meltan</i>	<i>Gemeltan</i>
[+Telic]	9	7
[-Telic]	4	2
Total	13	9
Mean	0.69	0.77
Median	1	1
Mode	1	1

The effect on Telicity of *ge-*, on the other hand, has been more often detected in other verb pairs. In this case, however, differences in Telicity between both verbs are small as well. As the information compiled in Table 6.185 shows, the mean scores of both verbs in this category are very similar. They only differ in 0.08 points, and additionally, their median and mode scores are the same, 1 in all cases. Therefore, both verbs display a clear preference for telic contexts that is corroborated by the results of the t-test for

significance, 0.6762, not statistically significant. To sum up, then, the *ge-* form does not present a higher tendency towards telicity than its counterpart on statistical terms. However, as commented on above with respect to other verbs, the telic tendency of *gemeltan* is manifest. Perhaps, rather than being attributed to the effects of the prefix, this could be a reflection of the telic tendency already displayed by its unprefixated counterpart.

Table 6.186: Results of *meltan* and *gemeltan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Meltan</i>	<i>Gemeltan</i>
No U	1	0
No U (Irre)	8	2
Partial	3	3
Affected	1	4
Total	13	9
Mean	0.19	0.61
Median	0	0.5
Mode	0	1

The only parameter that presents relevant differences from the statistical point of view between *meltan* and *gemeltan* is Affectedness-individuation of U, a parameter not directly mentioned in the literature as connected with this prefix. Fortunately, there is a clear explanation for this particular behaviour as will be pointed out below. As can be seen in Table 6.186, the mean score of both verbs differ considerably, in 0.42 points to be precise. Additionally, mean and median scores highlight that these verbs have different tendencies concerning the more frequent degree to which their undergoers are affected, being higher in the case of the prefixed form. However, it must be borne in mind that these results have clearly been altered by the fact that many of the *meltan* examples appear in clauses with irrealis mode. More precisely, eight out of the 13 examples of *meltan*, that is 61.5% of its attestations, show this feature, which has a direct effect on the score on this parameter. That is why such a difference in the

behaviour of these two verbs is detected. The statistical analysis applied in this study reveals that this disparity in results should be considered statistically significant (0.0154), in fact.

Table 6.187: Results of *meltan* and *gemeltan* in Total Transitivity.

Total Transitivity	<i>Meltan</i>	<i>Gemeltan</i>
1 Point	1	1
2 Points	6	1
3 Points	2	0
3.5 Points	2	1
4 Points	1	4
5.5 Points	1	2
Total	13	9
Mean	2.73	3.72
Median	2	4
Mode	2	4

Finally, a few comments will be made on the Total Transitivity scores of these two verbs. Given the little variation between them, with the exception of Affectedness-individuation of U, no remarkable differences are expected in terms of Total Transitivity either. By having a look at what is displayed in Table 6.187 above, one might get the impression that results vary in a significant way between *meltan* and its prefixed counterpart. The mean score of *gemeltan* is indeed almost 1 point higher than that of *meltan*. Median and mode scores also emphasise the fact that the Total Transitivity of these verbs differs considerably, since they are 2 points higher. In spite of this, the t-test for significance shows that these *a priori* noteworthy differences turn out to be not quite statistically significant (0.0942), which means that from the point of view of Total Transitivity these two verbs behave in quite a similar way. All in all, thus, the analysis of these verbs has shown that with the exception of the difference in Affectedness-individuation of U, probably attributable to the high number of irrealis clauses in *meltan*, both verbs show very similar statistics. Additionally, in spite of not

presenting a higher telic component than its counterpart in statistical terms, it is clear, once more, that *ge-* forms are prone to displaying this *Aktionsart* feature often, an effect that might be associated to the prefix, although with some caution in this case in particular.

#### 6.3.5.14 *Myltan* - *Gemyltan*

The behaviour of the causatives *myltan* ‘melt (caus.; intr.); digest’ and *gemyltan* ‘melt, digest; cause to melt, soften’ (caus.; intr.)’ does not differ much with respect to that of their strong counterparts. As can be seen from the definitions above, semantically speaking, these two verbs do not vary much. Neither do they in terms of the parameters analysed in the following paragraphs even if, as is the case with *meltan* and *gemeltan*, some small differences do arise.

Table 6.188: Results of *myltan* and *gemyltan* in the parameter Participants.

Participants	<i>Myltan</i>	<i>Gemyltan</i>
1 Part	6	1
2 Part	7	10
Total	13	11
Mean	0.53	0.90
Median	1	1
Mode	1	1

The parameter Participants is, actually, the only one in which a statistical difference between these two verbs is detected. As shown in Table 6.188 above, both verbs display a tendency towards appearing in two-participant clauses more often than not, as expected bearing in mind their causative origins. However, the degree to which they adhere to this valence varies greatly. While statistically speaking, the unprefix verb shows no preference for any valence type (see chapter 4, section 4.2.7), its prefixed counterpart is almost exclusively transitive. Only in one of the attested examples in my corpus is it intransitive, in fact. This disparity between both verbs is clearly reflected in their mean scores, which differ in 0.37 points. As anticipated at the beginning of the

paragraph, the t-test for significance applied in this work determines that this difference is statistically significant. The two-tailed P value equals 0.0488 in this case. These results may point, therefore, to an effect of the prefix *ge-* on the parameter Participants, an effect that has not been displayed by this prefix in most of the verbs already analysed in this chapter, however.

Table 6.189: Results of *myltan* and *gemyltan* in the parameter Telicity.

Telicity	<i>Myltan</i>	<i>Gemyltan</i>
[+Telic]	9	8
[-Telic]	4	3
Total	13	11
Mean	0.69	0.72
Median	1	1
Mode	1	1

Telicity, on the other hand, seems a more likely effect to be attributed to *ge-*. Nevertheless, *gemyltan* does not show a statistically significant higher telic degree than its counterpart, 0.8589. In spite of this, bearing in mind the data in Table 6.189 above, it is clear that *gemyltan* does not precisely show atelic tendencies. Both verbs appear in telic contexts mostly and *gemyltan*, additionally, does so in a higher percentage of its attestations. The telic preference is therefore there to be seen, although as was the case with its strong counterpart, it might be simply a reflection of the tendency displayed by the unprefixated counterpart rather than of the effect of the prefix.

Table 6.190: Results of *myltan* and *gemyltan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Myltan</i>	<i>Gemyltan</i>
No U	1	0
No U (Irre)	7	6
Partial	3	3
Affected	2	2

Total	13	11
Mean	0.26	0.32
Median	0	0
Mode	0	0

In terms of Affectedness-individuation of U, once more, the variation between verbs is rather scarce. The preference for affectedness-individuation of U of these verbs is not particularly high. As both median and mode scores show, (0 in both cases, see Table 6.190), the majority of undergoers accompanying these verbs are unaffected ones. It is true that the mean score of the prefixed verb in this parameter is higher than that, though just barely, actually only 0.06 points out of a 1.5-point scale. Not surprisingly thus, the t-test for significance determines that the difference in score between these two verbs is not statistically significant, with a two-tailed P value of 0.7655. Consequently, as has often been the case with the previous verbs, no effect of *ge-* on Affectedness-individuation of U is detected.

Table 6.191: Results of *myltan* and *gemyltan* in Total Transitivity.

Total Transitivity	<i>Myltan</i>	<i>Gemyltan</i>
1 Point	2	0
2 Points	4	5
3 Points	2	1
3.5 Points	1	0
4.5 Points	1	0
5 Points	0	2
5.5 Points	1	3
6 Points	2	0
Total	13	11
Mean	3.19	3.5
Median	3	3

Mode	2	2
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Finally, focus will be laid on the Total Transitivity scores. As expected considering the scarce variation in scores between these two verbs, with the exception of Participants, results in Total Transitivity are very similar. The mean scores of *myltan* and *gemyltan* differ in just 0.31 points. The parity in results is moreover supported by the median and mode scores in Table 6.191. These two scores are 3 and 2 respectively for both verbs, which reflect an identical tendency in terms of Total Transitivity. As could not be otherwise, thus, this similarity is reflected in the t-test for significance. The two-tailed P value equals 0.5805, not statistically significant.

To sum up, in the case of *myltan* and *gemyltan*, the only parameter in which significant variation was detected was Participants. In this case, thus, the prefix has a clear transitivising effect in the traditional sense. This parameter is not normally affected by *ge-* as shown in previous analyses, although only the analysis of all verbs as a whole will be able to determine to what extent that effect is general or not. Additionally, concerning Telicity, the tendency shown by *gemyltan* follows that of other *ge-* verbs in displaying a clear preference for telicity. However, it is difficult to attribute it solely to the effect of the prefix due to the fact that it could just be reflecting a tendency already present in the unprefixed counterpart.

#### 6.3.5.15 *Gemeltan* – *Gemyltan*

Table 6.192: Results of *gemeltan* and *gemyltan* in the parameter Participants.

Participants	<i>Gemeltan</i>	<i>Gemyltan</i>
1 Part	6	1
2 Part	3	10
Total	9	11
Mean	0.33	0.90
Median	0	1
Mode	0	1



The comparison of the verbs *gemeltan* and *gemyltan* with regards to Participants reflects clear differences between the behaviour of the strong verb, more prone to one-participant clauses and its causative counterpart, more prone to two-participant ones. In the case of these verbs, their mean scores differ in 0.57 points (see Table 6.192). As expected, the t-test for significance reveals this difference to be very statistically significant (0.0051). This disparity in results, thus, shows that both verbs are HEV-dominant and that no transitivity effect affecting both equally can be observed. It can be argued, that although not directly implying causativity, the prefix may serve to reinforce the causative meaning of the causative verb, as shown in the case of *myltan-gemyltan*.

#### 6.3.5.16 *Stincan* - *Gestincan*

In the following paragraphs, the results obtained from the analysis of the verbs *stincan* ‘spring, leap; emit a smell’ and *gestincan* ‘perceive by the sense of smelling’ will be compared. As can be seen in the definitions, these verbs share their semantics only partially, i.e. as far as the original meaning of *stincan* ‘spring, leap’ is concerned. The meaning related to ‘smell’ is a later specialization with incorporated object of that meaning. In this case, smell is perceived as if it sprang or leapt.

Table 6.193: Results of *stincan* and *gestincan* in the parameter Participants.

Participants	<i>Stincan</i>	<i>Gestincan</i>
1 Part	13	1
2 Part	0	5
Total	13	6
Mean	0	0.83
Median	0	1
Mode	0	1

This is the case with the parameter Participants. As shown in Table 6.193 above, both verbs present important differences with respect to the number of participants of the clauses they appear in. On the one hand, *stincan* invariably keeps its HEV. On the other,

its prefixed counterpart presents quite the opposite tendency, displaying a transitive valence in most of its attestations. Tendencies are radically different as determined by the t-test for significance, extremely statistically significant. This noteworthy difference may be the reflection of a transitivity effect of the prefix.

Table 6.194: Results of *stincan* and *gestincan* in the parameter Telicity.

Telicity	<i>Stincan</i>	<i>Gestincan</i>
[+Telic]	0	0
[-Telic]	13	6
Total	13	6
Mean	0	0
Median	0	0
Mode	0	0

With respect to Telicity, results are exactly the same in both verbs. None of the clauses attested in my corpus with either of these two verbs is telic. As shown in Table 6.194, atelicity is predominant. This is surprising given the telic-favouring tendency of most *ge-* verbs as has been demonstrated in the different analyses so far in this chapter. However, the semantics of the verbs must also be taken into consideration, since this is in great part what determines its *Aktionsart*. Therefore, it makes sense to find out that a verb meaning ‘smell’ is never telic.

Table 6.195: Results of *stincan* and *gestincan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Stincan</i>	<i>Gestincan</i>
No U (Irre)	4	2
Partial	1	1
Affected	8	3
Total	13	6
Mean	0.65	0.58

Median	1	0.75
Mode	1	1

With respect to Affectedness-individuation of U, results are very similar, contrary to what could be expected considering the remarkable difference in the connected parameter Participants. As can be observed in Table 6.195, the mean scores of both verbs are very close. They only vary in 0.08 points, being higher in the unprefix verb, which would rule out an effect of the prefix on Affectedness-individuation of U. However, not surprisingly, such a small difference has no statistical relevance as determined by the t-test for significance whose result is 0.7691 in this case.

Table 6.196: Results of *stincan* and *gestincan* in Total Transitivity.

Total Transitivity	<i>Stincan</i>	<i>Gestincan</i>
0.5 Points	0	1
1 Point	4	2
2.5 Points	1	0
3 Points	8	3
Total	13	6
Mean	2.34	1.91
Median	3	2
Mode	3	3

The results above have shown that with the exception of Participants, both verbs present a very similar behaviour. The data compiled in Table 6.196 lead to the conclusion that the difference in Participants is not enough to cause an important disparity in terms of Total Transitivity. No effect of the prefix *ge-* is detected in the case of *gestincan* in relation to its Total Transitivity. Actually, its mean score is lower than that of its counterpart although just in 0.43 points. Moreover, its median score is also lower. In spite of this difference, the Total Transitivity of *stincan* is not significantly higher than that of its counterpart from a statistical point of view. The two-tailed P value of the t-test for significance equals 0.4082. Therefore, all in all, no major effect of the prefix has

been detected in this verb other than in parameter Participant. This result is interesting in that it points to the replacement of the causative suffix by the prefix as causativising force.

#### 6.3.5.17 *Swingan* - *Geswingan*

The next verb pair dealt with is the one made up of the verbs *swingan* ‘swinge; chastise; whip (cream); strike; beat (the wings)’ and *geswingan* ‘scourge, beat (someone)’. Their semantics are very similar, even though the unprefixated form presents certain specialised meanings absent in its less widespread, in terms of attestations, prefixed counterpart. These similarities in semantics are maintained in the behaviour these verbs present with respect to the parameters analysed in this study as will be shown in detail below.

Table 6.197: Results of *swingan* and *geswingan* in the parameter Participant.

Participants	<i>Swingan</i>	<i>Geswingan</i>
1 Part	2	0
2 Part	46	2
Total	48	2
Mean	0.95	1
Median	1	1
Mode	1	1

Concerning Participants, as can be observed in Table 6.197, these two verbs appear in two-participant clauses in most of their attestations. Their transitive tendency is manifest. This is corroborated by the t-test for significance that determines their minimal difference in mean score to be not statistically significant, 0.7739. Thus, it seems to be the case that the high score in *geswingan* cannot be attributed to the effect of the prefix.

Table 6.198: Results of *swingan* and *geswingan* in the parameter Telicity.

Telicity	<i>Swingan</i>	<i>Geswingan</i>
[+Telic]	2	0

[-Telic]	46	2
Total	48	2
Mean	0.04	0
Median	0	0
Mode	0	0

Exactly the same statistical result, 0.7739, is obtained from the application of the test to the parameter Telicity. The results compiled in Table 6.198 above contradict the idea that *ge-* has effects on this parameter once more. None of the attestations of *geswingan* present the value +telic, a value barely present in the *swingan* examples either. This atelic tendency could be, as is the case with *gestincan*, related to the semantics of the verbs. Beating is normally regarded as an activity with no end, hence its atelicity.

Table 6.199: Results of *swingan* and *geswingan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Swingan</i>	<i>Geswingan</i>
No U	2	0
No U (Irre)	5	0
Partial	2	1
Affected	39	1
Total	48	2
Mean	0.83	0.75
Median	1	0.75
Mode	1	1 / 0.5

Concerning Affectedness-individuation of U, it is expected for both verbs to show a high mean score in this parameter bearing in mind their highly transitivity nature. Both mean scores are indeed quite high as can be observed in Table 6.199. Once more, the *ge-* form is the one that displays a slightly lower degree. This fact does not support the effect of *ge-* on this parameter, barely attested in the verbs analysed above. In spite

of the small difference between verbs, statistics show that the behaviour of both *swingan* and *geswingan* with respect to Affectedness-individuation of U is very similar, that is, their disparity in scores is not statistically significant, 0.7512.

Table 6.200: Results of *swingan* and *geswingan* in Total Transitivity.

Total Transitivity	<i>Swingan</i>	<i>Geswingan</i>
1 Point	1	0
2 Points	3	0
3 Points	2	0
4 Points	1	0
5.5 Points	2	0
6 Points	4	1
6.5 Points	33	1
7 Points	2	0
Total	48	2
Mean	5.84	6.25
Median	6.5	6.25
Mode	6.5	6 / 6.5

Taking into account the small differences that these verbs have presented throughout their analysis, it is not surprising to discover that this balance is also kept in the case of Total Transitivity. Although a difference in mean score of 0.41 (see Table 6.200) has been considered significant in other cases, it is clear that the tendencies of both verbs are comparable, especially if median and mode scores are examined. As usual with *ge*-verbs, *geswingan* does not present a significantly higher degree of Total Transitivity with respect to its counterpart. The t-test for significance shows this, since the score of the two-tailed P value equals 0.7048, not statistically significant, which means that, overall and parameter per parameter, no significant effect of the prefix could be demonstrated in the case of *geswingan*.

### 6.3.5.18 *Weccean* - *Geweccean*

The following verb pair under analysis is the one made up of the verbs *weccean* ‘waken, arise, spring (intr.; caus.)’ and *geweccean* ‘rouse from sleep, excite (caus.)’. As is common with *ge-* verbs, the semantics of the members of this verb pair is quite similar. However, from a point of view of the parameters, it will be difficult to show up to what extent they differ, since, *geweccean* is only attested once in my corpus.

Table 6.201: Results of *weccean* and *geweccean* in the parameter Participants.

Participants	<i>Weccean</i>	<i>Geweccean</i>
1 Part	3	0
2 Part	18	1
Total	21	1
Mean	0.85	1
Median	1	N/A
Mode	1	N/A

Table 6.202: Results of *weccean* and *geweccean* in the parameter Telicity.

Telicity	<i>Weccean</i>	<i>Geweccean</i>
[+Telic]	19	1
[-Telic]	2	0
Total	21	1
Mean	0.90	1
Median	1	N/A
Mode	1	N/A

Table 6.203: Results of *weccean* and *geweccean* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Weccean</i>	<i>Geweccean</i>
No U	1	0

No U (Irre)	5	0
Partial	2	0
Affected	13	1
Total	21	1
Mean	0.66	1
Median	1	N/A
Mode	1	N/A

Table 6.204: Results of *weccean* and *geweccean* in Total Transitivity.

Total Transitivity	<i>Weccean</i>	<i>Geweccean</i>
3 Points	2	0
4 Points	5	0
4.5 Points	1	0
5 Points	1	0
6 Points	2	0
6.5 Points	1	0
7 Points	6	1
7.5 Points	3	0
Total	21	1
Mean	5.64	7
Median	6	N/A
Mode	7	N/A

Concerning the parameter Participants, both verbs appear mostly in two-participant clauses. As shown in Table 6.201, the unprefix verb does so in 85% of its attestations, while the only example of *geweccean* maintains that tendency. This points to the fact that the transitivity tendency of *geweccean* is a consequence of the behaviour of *weccean* rather than an effect of the prefix. The same can be concluded in the case of Telicity given the fact that *weccean* presents a mean score of 0.90 and the only example of *geweccean* is telic (see Table 6.202). The results with regards to Affectedness-



individuation of U follow a similar tendency as shown in Table 6.203. In this case, however, disparities are bigger due to the irrealis effect of some of the examples of *weccean*. As for Total Transitivity, results are, again, rather similar (see Table 6.204), especially when mode and median scores are considered. This seems to bolster the idea that the disparity between these two verb in terms of Total Transitivity is not high, as has been the case with most of the *ge-* verbs already commented on.

#### 6.3.5.19 *Wegan* - *Gewegan*

In what follows, the data of the verbs *wegan* ‘bear, carry; move (caus.; intr.)’ and *gewegan* ‘weigh, measure (intr.; caus.)’ will be analysed. According to the dictionaries consulted in this study, the semantics of the verbs in question differ little since *gewegan* is said to have the meanings ‘bear, carry, move (caus.)’ as its counterpart. Interestingly, however, these meanings are not attested in my corpus. While *wegan* appears with the meanings related to movement, *gewegan* is only registered with the meaning ‘weigh’, which leads to certain disparities in the behaviour of these verbs, especially regarding the parameter Participants as will be shown below. As is the case with *wendan* with respect to the meaning ‘go’ mentioned elsewhere, the meaning of ‘weigh’ in *gewegan* could be taken as a reflection of lexicalization undergone by this verb.

Table 6.205: Results of *wegan* and *gewegan* in the parameter Participants.

Participants	<i>Wegan</i>	<i>Gewegan</i>
1 Part	1	22
2 Part	18	0
Total	19	22
Mean	0.94	0
Median	1	0
Mode	1	0

With regards to the parameter Participants, as seen in Table 6.205 above, while *wegan* appears mostly in two-participant clauses, contrary to what would be historically expected, *gewegan* does so exclusively in intransitive ones following its HEV. The

difference in the data is therefore extremely statistically significant, less than 0.0001, and in no way does it support any transitivising effect of the prefix; on the contrary.

Table 6.206: Results of *wegan* and *gewegan* in the parameter Telicity.

Telicity	<i>Wegan</i>	<i>Gewegan</i>
[+Telic]	1	1
[-Telic]	18	21
Total	19	22
Mean	0.05	0.04
Median	0	0
Mode	0	0

In relation to the parameter Telicity, however, the data are extremely similar and the almost non-existent difference between verbs is not statistically significant, 0.9179. None of these verb favours telicity at all as can be seen in Table 6.206. Only in one example each, do these verbs display the +telic value. Moreover, it is the *ge-* verb the one that shows an even lower preference for telicity, which discards any effect of the prefix on this parameter. This is so at least in connection with *gewegan* since, as frequently pointed out above with respect to other verbs, the telic tendency of *ge-* forms is usually clear.

Table 6.207: Results of *wegan* and *gewegan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wegan</i>	<i>Gewegan</i>
No U	1	2
No U (Irre)	7	13
Partial	3	0
Affected	8	7
Total	19	22
Mean	0.5	0.31

Median	0.5	0
Mode	0 / 1	0

Considering the extreme difference in parameter Participants exhibited by these verbs, we could expect it to be maintained in Affectedness-individuation of U. However, in this case, Mode and Affirmation have a remarkable effect on the data since both verbs appear in irrealis contexts in many of their examples. As can be observed in Table 6.207, seven out of the 19 examples of *wegan* (36.8%) and 13 out of the 22 of *gewegan* (59%) show this feature. Statistics determine that the difference in the data between these two verbs is not statistically significant, 0.2213. Therefore, as is the case with Telicity, no effect can be attributed to the prefix in this particular case.

Table 6.208: Results of *wegan* and *gewegan* in Total Transitivity.

Total Transitivity	<i>Wegan</i>	<i>Gewegan</i>
1 Point	2	13
2 Points	5	1
3 Points	0	7
4 Points	2	0
4.5 Points	3	0
5 Points	6	1
6 Points	1	0
Total	19	22
Mean	3.65	1.86
Median	4.5	1
Mode	5	1

Finally, the Total Transitivity results presented in Table 6.208 will be discussed. As can be observed by just having a quick look at the data above, *wegan* and *gewegan* present noteworthy differences with regards to Total Transitivity. Interestingly, they do not, in any way, point to an effect of the prefix since the transitivity of *gewegan* is clearly lower, actually 1.79 points to be precise. Moreover, mean and median scores leave little

doubt as to the great difference between verbs. As expected, the t-test for significance determines that the difference between these two verbs with regards to Total Transitivity is extremely statistically significant, 0.0002. This difference is due mainly to two factors: on the one hand, the remarkable disparity in results in the parameter Participants, and on the other, the also significant difference that these verbs present in the parameter Agency, whose scores, although not discussed in this chapter, differ in 0.43 points in a 1.5-point scale. The results concerning Agency and the rest of the parameters not discussed in this section can be consulted in appendix B.

#### 6.3.5.20 *Windan* - *Gewindan*

The following pair of verbs that will be analysed in this section is the one made up of the verbs *windan* ‘spring (intr.); roll (intr.; caus.); weave (sth)’ and *gewindan* ‘roll together, roll up (intr.); go about; roll back, unroll (trans.)’. As can be observed from the definitions above, and as usual with respect to *ge-* forms, the meanings of these two verbs are very similar. Therefore, it is not surprising to find out that they differ little concerning the degree of variation with respect to most of the parameters discussed in this section.

Table 6.209: Results of *windan* and *gewindan* in the parameter Participants.

Participants	<i>Windan</i>	<i>Gewindan</i>
1 Part	17	5
2 Part	1	2
Total	18	7
Mean	0.05	0.28
Median	0	0
Mode	0	0

That lack of divergence is exemplified in the data corresponding to the parameter Participants, for instance. Both verbs present a preference for their HEV, intransitive in this case, as shown in Table 6.209 above. Median and mode results leave no doubt as to the one-participant preference of these two verbs. However, mean scores, on the other

hand, do show some differences, 0.23 points, in fact. Nevertheless, this disparity happens to be not statistically significant, considering the fact the there is not a particularly high number of attestations of any of these two verbs. The t-test for significance in this case equals 0.1213. Therefore, no statistical role of the prefix can be proven in connection with this parameter, as has often been the case with *ge-*.

Table 6.210: Results of *windan* and *gewindan* in the parameter Telicity.

Telicity	<i>Windan</i>	<i>Gewindan</i>
[+Telic]	12	3
[-Telic]	6	4
Total	18	7
Mean	0.66	0.42
Median	1	0
Mode	1	0

Effects on Telicity, however, turn out to be more frequently supported by the statistical analyses carried out in this section. As can be seen in Table 6.210 above, though, the same conclusion cannot be applied to *gewindan*. The tendencies of these two verbs with respect to telicity are not the same as shown by median and mode scores. While the unprefix form is more prone to telicity, the opposite is true of its counterpart. Nevertheless, differences in mean score are not remarkable by any means. Their respective scores only differ in 0.24 points, just 0.01 points more than in parameter Participant. Thus, as can be expected, the t-test for significance reveals this disparity in results to be not statistically significant as well, 0.2947, which shows that the behaviour of these two verbs regarding this parameter is basically the same. However, it must be pointed out that the *ge-* prefix, contrary to many other cases analysed above, presents no effect on Telicity in the case of *gewindan*.

Table 6.211: Results of *windan* and *gewindan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Windan</i>	<i>Gewindan</i>
No U	17	5
No U (Irre)	1	0
Affected	0	2
Total	18	7
Mean	0	0.28
Median	0	0
Mode	0	0

So far, both *windan* and *gewindan* have shown a similar behaviour with respect to Participants and Telicity. That is not the case with regards to Affectedness-individuation of U, although as can be seen in Table 6.211, both verbs display a clear tendency for low scores in this parameter. Their median and mode scores are 0 and additionally, their mean scores are not high at all, 0 in the case of *windan*, and only 0.28 in *gewindan*. Results are indeed very similar to the ones obtained in parameter Participants. In fact, they only differ in that the 0.05 score of *windan* has been reduced to 0 due to the fact that the only undergoer attested in a *windan* clause happens to be under the influence of the irrealis effect. This small difference of just 0.05 points happens to be significant from a statistical point of view though. The t-test for significance in this case equals 0.0170. This result, thus, shows that the *ge-* prefix can be considered to exercise some kind of influence on this parameter, at least in connection with the verb *gewindan*.

Table 6.212: Results of *windan* and *gewindan* in Total Transitivity.

Total Transitivity	<i>Windan</i>	<i>Gewindan</i>
2 Points	0	1
3 Points	4	1
4 Points	10	2
5 Points	4	1
7 Points	0	2

Total	18	7
Mean	4	4.57
Median	4	4
Mode	4	4 / 7

From the point of view of Total Transitivity, the similarities between both verbs are clear. As shown in Table 6.212, the mean scores of both verbs are rather close. They only differ in 0.57 points out of an 8-point scale. This similar tendency is also bolstered by the median score of 4 in both cases. These scores reflect what has been shown in the analysis of the three different parameters above, namely, that *windan* and *gewindan* behave in quite an analogous manner as far as their transitivity as a whole is concerned. Once more, no special effect of the prefix *ge-* on Total Transitivity is detected as determined by the t-test for significance. In this case the two-tailed P value equals 0.2707, not statistically significant.

#### 6.3.5.21 *Wendan* - *Gewendan*

Finally, the last verb pair that will be discussed with respect to the prefix *ge-* is the one made up of the verbs *wendan* ‘turn (round), change (intr.; caus.); go (intr.)’ and *gewendan* ‘cause to move, turn; come, go, return (intr.; caus.)’ which as shown in the preceding definitions, also share most of their meanings with each other. This will be reflected in a very similar behaviour in the parameters analysed below, with the exception of Telicity, as expected bearing in mind the literature on Old English prefixes.

Table 6.213: Results of *wendan* and *gewendan* in the parameter Participants.

Participants	<i>Wendan</i>	<i>Gewendan</i>
1 Part	216	93
2 Part	45	10
Total	261	103
Mean	0.17	0.09
Median	0	0

Mode	0	0
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Concerning the parameter Participants, both verbs clearly display a high tendency for NHEV, that is, intransitive (see Table 6.213), as commented on in detail in chapter 4, section 4.2.13. Only 17% of the attestations of *wendan* behave as historically expected from the point of view of valence. The percentage of verbs doing so is even lower in the case of its counterpart, which discards any kind of transitivising effect in the traditional way of the prefix in this particular case. The difference between both verbs, however, is not quite statistical significant, 0.0596. This result, thus, shows that both verbs behave in a similar way with respect to Participants and that no effect can be attributed to the prefix.

Table 6.214: Results of *wendan* and *gewendan* in the parameter Telicity.

Telicity	<i>Wendan</i>	<i>Gewendan</i>
[+Telic]	215	100
[-Telic]	46	3
Total	261	103
Mean	0.82	0.97
Median	1	1
Mode	1	1

Parameter Telicity, on the other hand, can be regarded as affected by the prefix *ge-*, as has often been the case with other *ge-*verbs. As shown in Table 6.214, the preference for telic contexts of both *wendan* and *gewendan* is manifest. This is reflected in median and mode scores of 1 but also in the very high mean scores displayed by both verbs, 0.82 in the case of the unprefixed one and an extremely high 0.97 in *gewendan*. Contrary to the difference in the parameter Participant, the disparity of results in Telicity is statistically significant. As determined by a two-tailed P value of 0.0002, it is, actually, extremely so. This result, thus, clearly supports the hypothesis put forth by many scholars working on Old English, prefixes, namely that the prefix *ge-* shows effects related to Telicity.



Table 6.215: Results of *wendan* and *gewendan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wendan</i>	<i>Gewendan</i>
No U	216	93
No U (Irre)	11	1
Partial	1	0
Affected	33	9
Total	261	103
Mean	0.12	0.08
Media	0	0
Mode	0	0

With respect to the parameter Affectedness-individuation of U, scores are very similar to the ones obtained in the analysis of Participants. The tendency of both verbs for unaffected undergoers is clear as shown in Table 6.215. Median and mode scores are 0 for both verbs and their mean scores are slightly lower than in the case of Participants and in fact, are even closer to each other. This similarity is reflected in the t-test for significance, which as cannot be otherwise, determines that the small disparity in results between these two verbs is not statistically significant, 0.2725. Thus, as is common in the case of other *ge-* verbs, no effect on parameter Affectedness-individuation of U could be proven on statistical grounds in *gewendan* either.

Table 6.216: Results of *wendan* and *gewendan* in Total Transitivity.

Total Transitivity	<i>Wendan</i>	<i>Gewendan</i>
1 Point	4	0
2 Points	16	4
3 Points	22	2
4 Points	69	18
5 Points	116	70
6 Points	5	0

6.5 Points	1	0
7 Points	25	9
7.5 Points	3	0
Total	261	103
Mean	4.56	4.84
Median	5	5
Mode	5	5

The above results have shown that with the exception of *Telicity*, *wendan* and *gewendan* seem to display a similar tendency as far as their transitivity as a whole is concerned. This similarity is reflected in their Total Transitivity scores as can be observed in Table 6.216 above. This is especially well seen when median and mode scores are compared. Both verbs have the same score of 5, which means that their statistical tendencies are analogous. Additionally, their mean scores differ little, only in 0.28 points, a very small difference bearing in mind we are dealing with a scale of 8 total points. This similar behaviour is corroborated by the statistical analysis. In this case the two-tailed P value of the t-test for significance equals 0.0510, not quite statistically significant. Thus, once more, no effect of the prefix *ge-* on Total Transitivity has been supported by statistical data. The analysis of all the *ge-* verbs plus prefixed counterparts below will determine to what extent this is so when all different verbs are taken into account and not just analysed individually as has been made so far.

#### 6.3.5.22 *Gewindan* - *Gewendan*

The comparison of the data concerning *gewindan* ‘roll together, roll up (intr.); go about; roll back, unroll (trans.)’ and *gewendan* ‘cause to move, turn; come, go, return (intr.; caus.)’ serves to discard the role that this prefix has in relation to Participants in this case.

Table 6.217: Results of *gewindan* and *gewendan* in the parameter Participants.

Participants	<i>Gewindan</i>	<i>Gewendan</i>
1 Part	5	93

2 Part	2	10
Total	7	103
Mean	0.28	0.09
Median	0	0
Mode	0	0

As seen in Table 6.217 above, both verbs clearly favour one-participant clauses. This is not strange in the case of the strong verb due to its historical origins but it is rare in the case of the historical causative *gewendan*. However, as mentioned elsewhere several times, this verb preserves little of its causative semantics and transitivity as part of the process of lexicalization it has undergone at this stage of the language, reflected in the non-causative meaning ‘go’ which happens to be the most commonly attested once. The mean score in Participants in these verbs only differs in 0.21 points, higher in the case of *gewindan*. This difference is not statistically significant, as could be expected (0.1236). None of these verbs shows a preference for two-participant clauses and therefore, any favouring effect of the prefix in this direction should be discarded.

#### 6.3.5.23 Total Results: Unprefixed vs. *Ge-*

In what follows, focus will be laid on the results obtained from the analysis of all *ge-* verbs and their counterparts as a whole. From an individual point of view, the analyses carried out in this section pointed out that some of the parameters could be affected by the addition of the prefix to some of the verbs under study. The objective of the following analysis is to shed light on the extent to what this is so when examples of all *ge-* verbs and their counterparts are taken as a whole, disregarding, thus, the effects that might be attributed to the behaviour, semantic or grammatical, of a particular verb.

Table 6.218: Total results unprefixed vs. *ge-* in the parameter Participants.

Participants	Unprefixed	<i>Ge-</i>
1 Part	633	262
2 Part	286	171
Total	919	433

Mean	0.31	0.39
Median	0	0
Mode	0	0

The first parameter I will concentrate on is Participants, as usual. As has been shown throughout the section discussing *ge-*, the effect on Participants has turned out to be more frequent than expected, bearing in mind that it is not considered a common effect of this particular prefix by the scholars taken into account in this work. Actually, five of the 17 *ge-* verbs studied in this section, namely *gebyrnan*, *gehweorfan*, *gemyltan*, *gestincan* and *geswingan*, showed a significantly higher score in parameter Participants with respect to their counterparts. Additionally, the tendency towards high transitivity in the traditional sense was remarkable in several other verbs as repeatedly pointed out above. A look at Table 6.218, which compiles the information of all verbs under analysis in the *ge-* section, may lead to think that the behaviour of both groups is very similar. It is undoubtedly the case, taking into account the median and mode scores displayed by these verbs, that these verbs appear normally in one-participant clauses. Additionally, their mean scores are very similar indeed. They only differ in 0.08 points. However, it must be born in mind that we are dealing with a much higher number of attestations than in the case of individual verbs and that, therefore, small disparities in mean or other scores may reflect important differences in statistical terms. The groups *ge-* and unprefix verb represent a good example of this situation. In fact, the t-test for significance reveals that the disparity in results displayed by these two groups is very statistically significant. The two-tailed P value equals 0.0024 in this case. This means, thus, that *ge-* verbs are more prone to transitive valence than their counterparts. However, given the fact that the mean score of this group is just 0.39, and its median and mode ones 0, it is difficult to argue that the prefix has an important transitivising effect at all since, as mentioned above, their preference is still clearly towards one-participant clauses. In conclusion, these results point to what has been put forth in the literature, namely that this prefix plays no important role in this parameter even if some kind of effect is detected in that the number of two-participant clauses is higher in *ge-* labile verbs than in their counterparts.

Table 6.219: Total results unprefixd vs. *ge-* in the parameter Telicity.

Telicity	Unprefixed	<i>Ge-</i>
[+Telic]	624	369
[-Telic]	295	64
Total	919	433
Mean	0.67	0.85
Median	1	1
Mode	1	1

(6.30)

a. *Swa swa on wænes eaxe hwearfiað þa hweol*

So so around carriage.GEN axis turns the wheels

‘Just as the wheels turn around the axis of a carriage’

Bo (Sedgefield) B9.3.2 [1670 (39.129.19)]

b. *þonne þu gehwyrdest and hulpe min*

Then you turned and helped me

‘Then you turned and helped me’

PPs (Krapp) A5 [0279 (70.20)]

Examples in (6.30) serve to illustrate the difference in parameter Telicity between unprefixd and *ge-* verbs. In this case, (6.30a) is an example of *hwyrfan* displaying atelicity while the contrary is the case of the verb *gehwyrfan* in (6.30b). Contrary to the case of the parameter Participants, telicity is indeed recognised in the literature as the main parameter on which the prefix *ge-* may have an effect. Taking into account the analyses offered in the above paragraphs, there is little doubt that that is the case, since it is clearly the parameter more often displaying statistical differences between verbs in favour of the *ge-* forms. Actually, five of the *ge-* verbs under analysis, *gebūgan*, *gebārnan*, *gedeorfan*, *gehwyrfan* and *gewendan*, presented a significantly higher score in this parameter with respect to their counterparts. Moreover, six more of them

displayed a very high mean score in this parameter, even if it was not significantly higher to that of their counterparts in statistical terms. These verbs are *gebīgan*, *gebyrnan*, *gecēlan*, *gehweorfan*, *gemeltan* and *gemyltan*. The effect on Telicity is clearly reflected in the numbers compiled in Table 6.219. Both groups show a tendency towards telic contexts. However, the difference displayed by both groups in terms of mean score is much higher than the already very statistically significant one shown in the parameter Participants. In this case the disparity in results amounts to 0.18 points. As could be expected, this difference turns out to be extremely statistically significant, less than 0.0001. These results, together with the ones obtained from the comparison of prefixed forms between themselves, support the view put forth by scholars who think that the major effect this prefix has is on Telicity, a hypothesis that has been demonstrated here statistically with respect to Old English labile verbs.

Table 6.220: Total results unprefixed vs. *ge-* in the parameter Affectedness-individuation of U.

Affectedness-indiv	Unprefixed	<i>Ge-</i>
No U	524	218
No U (Irre)	99	71
Partial	57	13
Affected	230	120
Highly affected	9	11
Total	919	433
Mean	0.29	0.33
Median	0	0
Mode	0	0

The third set of results that will be discussed is the one related to Affectedness-individuation of U. As is the case with Participants, this parameter is not considered to be affected by the prefix *ge-* in previous works. In this case, the results compiled in this study agree with this view, as is expected considering what has been commented on with respect to this parameter in the individual analyses of verbs. In this case, only three

of them showed a significantly higher score in this parameter with respect to their counterparts, i.e. *gebyrnan*, *gebærnan* and *gehweorfan*. The data in Table 6.220 above show that the tendency of both groups is towards unaffected undergoers. This is represented by the median and mode scores of 0 points. Their mean scores are not particularly high either and more interestingly, they are very similar, since they only differ in 0.04 points. A very small disparity in the data may turn out to represent a significant one in terms of statistics as shown in the case of Participants. Nevertheless, the difference in scores in this case is simply too small to represent any statistical difference. The two-tailed P value equals 0.2006, which means that the disparity between verbs is not statistically significant. The comparison of prefixed forms likewise reveals that there seems to be an effect on this parameter only in the case of the ‘burn’ verbs, but clearly not in others. Thus, all in all, results support what is reflected in the literature, that is, that the prefix *ge-* does not play a role with respect to the parameter Affectedness-individuation of U as has been proven in this study regarding the verbs under analysis.

Table 6.221: Total results unprefixed vs. *ge-* in Total Transitivity.

Total Transitivity	Unprefixed	<i>Ge-</i>
0.5 Points	0	1
1 Point	34	16
2 Points	82	28
2.5 Points	2	0
3 Points	101	55
3.5 Points	9	1
4 Points	212	82
4.5 Points	15	0
5 Points	270	131
5.5 Points	31	7
6 Points	25	8
6.5 Points	42	5
7 Points	76	58
7.5 Points	20	41

Total	919	433
Mean	4.43	4.74
Median	5	5
Mode	5	5

Last but not least, the data concerning Total Transitivity will be examined. Throughout this section, it has been shown that the prefix *ge-* did not seem to have an especially high degree of incidence on Total Transitivity. In other words, verbs with *ge-* did not normally display a significantly higher score in Total Transitivity from a statistical point of view with respect to their unprefixated counterparts. Actually, only three verbs can be said to fit this pattern, namely *gebyrnan*, *gebāernan* and *gehweorfan*. Thus, it would be expected to find out that differences between *ge-* verbs and unprefixated ones are not relevant as far as Total Transitivity is concerned. However, the data arranged in Table 6.221 above tell otherwise. Clearly, the tendencies shown by both groups are very similar as seen in their identical median and mode scores. The difference, nevertheless, lies in their mean scores. In this case, it amounts to 0.31 points. This may not seem a great disparity when dealing with an 8-point scale but as already mentioned above, it is more than enough to represent a statistically significant difference when the number of examples taken into account is so remarkable. In fact, the t-test for significance determines that the difference in score between these two groups is extremely statistically significant, with a two-tailed P value of 0.0010. In conclusion, these data show that not only is the effect of *ge-* relevant with respect to the parameters Telicity and Participants, to a certain extent, but also, that an influence of this prefix on transitivity as a whole must also be taken into consideration at least in the group of verbs analysed in this study.

### 6.3.6 *On-*

The next prefix dealt with is *on-*. This prefix is often described as a marker of continuation, hence atelicity. Quirk and Wrenn (1957: 111-2) also mention inception of the action as one of the functions of *on-*. Sasse (1991) relates this ingressive meaning to telicity, rather than atelicity. According to him, the prefix marks the initial border of the



event in question, rather than its end. Considering these points, it is to be expected that *on-* is connected with Telicity.

#### 6.3.6.1 *Būgan* – *Onbūgan*

The prefix *on-* is attached to seven of the verbs included in my corpus. As has been the most usual procedure so far, these will be analysed in alphabetical order. Therefore, the first verb pair whose data will be presented correspond to *būgan* ‘bow, bend; submit (intr.; caus.)’ and *onbūgan* ‘bend (in reverence), bow; submit, deviate (intr.)’. As can be seen from the definitions of these verbs, they differ little in terms of their semantics. There is no trace of a continuative meaning or of one related to inception in *onbūgan*. This similarity, thus, may suggest that both verbs will show a similar behaviour with respect to the parameters analysed below, as is the case.

Table 6.222: Results of *būgan* and *onbūgan* in the parameter Participants.

Participants	<i>Būgan</i>	<i>Onbūgan</i>
1 Part	119	10
2 Part	2	0
Total	121	10
Mean	0.01	0
Median	0	0
Mode	0	0

The first parameter under study is Participants. The practically identical behaviour of these verbs with respect to this parameter is clear if Table 6.222 is examined. As shown there, both verbs appear mostly in intransitive clauses. In fact, only two out of the 119 attestations of *būgan* in my corpus are in two-participant clauses. That valence is never attested in the case of its counterpart. As expected, the mean score difference of just 0.01 points is not statistically significant, 0.6848, something which reinforces the similarity in behaviour of these two verbs in parameter Participants.

Table 6.223: Results of *būgan* and *onbūgan* in the parameter Telicity.

Telicity	<i>Būgan</i>	<i>Onbūgan</i>
[+Telic]	96	9
[-Telic]	25	1
Total	121	10
Mean	0.79	0.9
Median	1	1
Mode	1	1

The data concerning Telicity present more differences, although these are not remarkable by any means. As can be observed in Table 6.223, both verbs display the same clear tendency towards telicity. This is reflected in their median and mode scores of 1. Their high mean scores of 0.79 and 0.9, respectively, emphasise the telic-favouring tendency of these verbs. Although in this case, the score of both verbs differs in 0.11 points, the statistical analysis applied in this study reveals that this disparity is not statistically significant. The two-tailed P value equals 0.4205. Therefore, no special effect on Telicity is detected in the prefixed form. However, it must be born in mind that this result is quite high. Further examination of different verbs will determine whether or not this should be regarded as an effect attributable to the prefix.

Table 6.224: Results of *būgan* and *onbūgan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Būgan</i>	<i>Onbūgan</i>
No U	119	10
Affected	2	0
Total	121	10
Mean	0.01	0
Median	0	0
Mode	0	0

Results regarding Affectedness-individuation of U do not need a lengthy comment due to the fact that they reflect perfectly what is expected given results in the parameter Participants. As can be seen in Table 6.224, the results are exactly the same as the ones compiled in Table 6.222. Both verbs show a clear tendency to 0, since they have no undergoers to be assessed, with the exception of two of them in the case of the unprefixing verb. Since the data under analysis are exactly the same as in the first parameter, so is the result of the t-test for significance, 0.6848, namely not statistically significant. No effect on Affectedness-individuation of U is therefore detected.

Table 6.225: Results of *būgan* and *onbūgan* in Total Transitivity.

Total Transitivity	<i>Būgan</i>	<i>Onbūgan</i>
1 Point	2	0
2 Points	15	3
3 Points	14	1
4 Points	35	1
5 Points	53	5
7 Points	1	0
7.5 Points	1	0
Total	121	10
Mean	4.07	3.8
Median	4	4.5
Mode	5	5

Considering how similarly both verbs behave in terms of the parameters above, it is not surprising to find out that this balance is maintained in Total Transitivity as well. Table 6.225 above shows that the degree of Total Transitivity of these two verbs is very similar, as reflected in their median and mode scores. Additionally, both mean scores differ little, in just 0.27 points to be precise. Interestingly, the verb having a lower mean score is the prefixed one, contrary to what would be expected had this verb undergone the effects of a transitivity prefix in the cardinal sense. The t-test results emphasise the idea that the behaviour of these verbs concerning Total Transitivity is the same,

since they prove that the difference between them is not statistically significant, 0.9928. Consequently, taking into account these results, as well as the ones of the individual parameters, it can be concluded that the *on-* prefix does not seem to influence the behaviour of the verb *būgan* in any way in relation to the parameters under study in this chapter as predicted by the literature.

### 6.3.6.2 *Bīgan* – *Onbīgan*

The next verb pair under study is the one made up of the causative counterparts of the above analysed one, namely *bīgan* ‘bend (caus.; intr.); submit (caus.)’ and *onbīgan* ‘cause to bend; subdue, subjugate (caus.)’. As is the case with the strong verbs *būgan* and *onbūgan*, these verbs present little differences in their semantics. This similarity, once more, is mirrored in their analogous behaviour in the parameters under study. However, unfortunately, *onbīgan*, is only attested once, and therefore, the conclusions that the data allow can only be taken as tentative.

Table 6.226: Results of *bīgan* and *onbīgan* in the parameter Participants.

Participants	<i>Bīgan</i>	<i>Onbīgan</i>
1 Part	3	0
2 Part	19	1
Total	22	1
Mean	0.86	1
Median	1	N/A
Mode	1	N/A

Table 6.227: Results of *bīgan* and *onbīgan* in the parameter Telicity.

Telicity	<i>Bīgan</i>	<i>Onbīgan</i>
[+Telic]	20	1
[-Telic]	2	0
Total	22	1
Mean	0.90	1

Median	1	N/A
Mode	1	N/A

Table 6.228: Results of *bīgan* and *onbīgan* in the parameter Affectedness-individuation of U.

Affectdness-indiv	<i>Bīgan</i>	<i>Onbīgan</i>
No U	3	0
No U (Irre)	4	0
Partial	1	0
Affected	14	1
Total	22	1
Mean	0.65	1
Median	1	N/A
Mode	1	N/A

Table 6.229: Results of *bīgan* and *onbīgan* in Total Transitivity.

Total Transitivity	<i>Bīgan</i>	<i>Onbīgan</i>
2 Points	1	0
4 Points	5	0
5 Points	1	0
6.5 Points	1	0
7 Points	12	1
7.5 Points	2	0
Total	22	1
Mean	6.02	7
Median	7	N/A
Mode	7	N/A

As for the parameter Participants, both verbs display a tendency towards their historical transitive valence. The only attestation of *onbīgan* is transitive as most attestations of its

counterpart are (Table 6.226). Therefore, these results do not point to a transitivising effect attributable to the prefix. Results are even more similar in parameter Telicity as shown in Table (6.227). It seems to be the case that the prefix is compatible with telicity though not the cause of it as mentioned in previous analyses. With regards to Affectedness-individuation of U disparities are higher (Table 6.228). However, the irrealis effect on *bīgan* must be taken into account. Again, the prefix does not seem to be exercising a remarkable influence on this parameter either. Given these results, it is not surprising to find out that there are little differences in the mean scores of both verbs (see Table 6.229). They differ in less than one point and the median and mode scores of the unprefix verb equal that of the mean score of *onbīgan*. Considering the irrealis effect, no influence of the prefix on Total Transitivity can be detected in this case.

### 6.3.6.3 *Onbūgan* – *Onbīgan*

Unfortunately, the comparison of Participants results between both *onbūgan* ‘bend (in reverence), bow; submit, deviate (intr.)’ and *onbīgan* ‘cause to bend; subdue, subjugate (caus.)’ is not easy and cannot be subject to statistical analysis due to the fact that the causative verb is only attested once.

Table 6.230: Results of *onbūgan* and *onbīgan* in the parameter Participants.

Participants	<i>Onbūgan</i>	<i>Onbīgan</i>
1 Part	10	0
2 Part	0	1
Total	10	1
Mean	0	1
Median	0	N/A
Mode	0	N/A

As shown in Table 6.230 both verbs maintain their traditional valence. While *onbūgan* is attested in one-participant clauses only, the only example of its counterpart is transitive. It seems then, that the difference in score could be attributed to the action of the causative suffix rather than to that of the prefix.

#### 6.3.6.4 *Bǣrnan* – *Onbǣrnan*

The following pair dealt with in this section is the one made up of the verbs *bǣrnan* and *onbǣrnan*. Contrary to the cases of the verbs analysed above, these ones do show certain differences in their semantics. More precisely, as seen in (6.31) below, *onbǣrnan* displays the meanings associated to this prefix by Quirk and Wrenn (1957: 11-112), namely inception of the action.

(6.31)

*Bǣrnan*: ‘burn (caus.; intr.)’

*Onbǣrnan*: ‘set fire to, light, kindle; burn’ (intr.; caus.)’

However, in spite of these semantic differences, the analysis of the data show that, in terms of the components of transitivity analysed in this study, their behaviour is very similar.

Table 6.231: Results of *bǣrnan* and *onbǣrnan* in the parameter Participants.

Participants	<i>Bǣrnan</i>	<i>Onbǣrnan</i>
1 Part	2	2
2 Part	72	9
Total	74	11
Mean	0.97	0.81
Median	1	1
Mode	1	1

Actually, the only parameter in which there exist relevant disparities between both verbs is Participants. As can be seen in Table 6.231 above, both verbs display a high tendency towards transitive valence, as historically expected. Most attestations of *bǣrnan* have this valence (97%), as mentioned elsewhere, while its counterpart has it in 81% of them. Despite the similar behaviour, the t-test for significance reveals that the disparity in

results is statistically significant in this case, 0.0236. With this result in mind, it is obvious that in the case of *onbāernan* the prefix *on-* does not display any kind of transitivising effect.

Table 6.232: Results of *bāernan* and *onbāernan* in the parameter Telicity.

Telicity	<i>Bāernan</i>	<i>Onbāernan</i>
[+Telic]	47	10
[-Telic]	27	1
Total	74	11
Mean	0.63	0.90
Median	1	1
Mode	1	1

Concerning the parameter Telicity, Table 6.232 shows that the tendency of both verbs is similar once more. The median and mode results of both verbs show that *bāernan* and *onbāernan* display a telic-favouring tendency. However, in terms of their mean scores, they present certain differences that might be relevant. While *onbāernan* is telic in practically all of its attestations, with the exception of one, and a mean score of 0.90 points; the number of examples of *bāernan* in telic contexts is indeed lower, reflected in its 0.27-point lower mean score of 0.63. This difference could be indicative of a certain effect on telicity of the prefix, not detected in the previous pairs. However, the t-test for significance discards this possibility, since in spite of the *a priori* noteworthy disparity in results, it is determined that the difference of 0.27 points is not quite statistically significant with a two-tailed P value of 0.0727. Therefore, as is the case with *onbūgan* and *onbīgan*, no effect on Telicity could be proven on statistical grounds.

Table 6.233: Results of *bāernan* and *onbāernan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Bāernan</i>	<i>Onbāernan</i>
No U (Irre)	9	1
Partial	23	1



Affected	33	9
Highly affected	9	0
Total	74	11
Mean	0.78	0.86
Median	1	1
Mode	1	1

In relation to the parameter Affectedness-individuation of U, the data compiled in Table 6.233 show that this is the parameter in which results of both verbs are closest. The similar tendencies of these two verbs for affected undergoers are reflected in their median and mode scores of 1. Additionally, their mean scores differ little, more precisely, in just 0.08 points. It is to be expected, thus, for the t-test for significance to reveal that there exists no major difference in statistical terms between these two verbs. This is exactly the case. The two-tailed P value of the test equals 0.5571, that is, not statistically significant. Consequently, no effect on the parameter Affectedness-individuation of U of the prefix *on-* can be detected in the case of *onbǣrnan* either, which is something not surprising considering the fact that no such effect is mentioned in the literature.

Table 6.234: Results of *bǣrnan* and *onbǣrnan* in Total Transitivity.

Total Transitivity	<i>Bǣrnan</i>	<i>Onbǣrnan</i>
2 Points	1	0
3 Points	4	0
4 Points	4	1
4.5 Points	1	0
5 Points	0	2
5.5 Points	18	1
6 Points	7	1
6.5 Points	5	1
7 Points	24	5

7.5 Points	10	0
Total	74	11
Mean	6.09	6.09
Median	6.5	6.5
Mode	7	7

Finally, focus will be laid on Total Transitivity. Bearing in mind the similarity in results in two of the three parameters above, similar results are to be expected in the Total Transitivity scores of *bærnan* and *onbærnan*. Coincidentally, as shown in Table 6.234 above, results are not only similar, but identical. The statistical scores included in the table, i.e. mean (6.09), median (6.5) and mode (7) are exactly the same in both cases. Of course, the t-test for significance serves only to certify that there is no statistical significant difference between the data obtained in the analysis of these two verbs. In fact, the two-tailed P value equals 0.9928, very close to the perfect result of 1.000. All in all, thus, once more, the tests applied in this section show that *on-* has no effect on Total Transitivity or on any of the parameters analysed above, at least, in connection with the verbs analysed so far.

#### 6.3.6.5 *Hweorfan* - *Onhweorfan*

The verbs *hweorfan* ‘turn, change (intr.; caus.); go’ and *onhweorfan* ‘change; return; reverse’ are the ones that will be discussed next. As is usually the case, not many semantic differences between them can be detected. In the following paragraphs, it will be shown that such closeness is kept in terms of their behaviour with respect to the parameters analysed below as well.

Table 6.235: Results of *hweorfan* and *onhweorfan* in the parameter Participants.

Participants	<i>Hweorfan</i>	<i>Onhweorfan</i>
1 Part	143	2
2 Part	0	0
Total	143	2

Mean	0	0
Median	0	0
Mode	0	0

Concerning the parameter Participants, results are perfect, i.e. both verbs present exactly the same results. In this case all of the attestations of *hweorfan* and *onhweorfan* display their intransitive historical valence as shown in Table 6.235. In light of these data, no effect of the prefix on transitivity in the traditional sense is observed.

Table 6.236: Results of *hweorfan* and *onhweorfan* in the parameter Telicity.

Telicity	<i>Hweorfan</i>	<i>Onhweorfan</i>
[+Telic]	103	1
[-Telic]	40	1
Total	143	2
Mean	0.72	0.5
Median	1	0.5
Mode	1	0.5

In terms of Telicity, however, the first discrepancies between these verbs arise. The unprefixed form presents a tendency towards appearing in telic contexts as reflected in its median and mode scores of 1 point (see Table 6.236 above). Its mean score, moreover, highlights the fact that this telic preference is rather high. On the other hand, *onhweorfan* is telic in exactly the same number of attestations as atelic, one each, as seen in the statistical scores of 0.5 points. Even though the tendencies of these verbs with respect to Telicity seem to differ, the statistical analysis applied in this study tells otherwise. The t-test for significance shows that this disparity in results is not statistically significant, 0.4955. This, in addition to the fact that *onhweorfan* is the verb displaying a lower number of telic examples, discards any effect of the prefix in raising the score in this parameter, as has been the case with the verbs analysed above.

Table 6.237: Results of *hweorfan* and *onhweorfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hweorfan</i>	<i>Onhweorfan</i>
No U	143	2
Total	143	2
Mean	0	0
Median	0	0
Mode	0	0

The parameter Affectedness-individuation of U does not require a lengthy discussion. As was the case with the verbs *būgan* and *onbūgan*, results in this parameter reflect the ones obtained in Participants in exactly the same way (see Table 6.237). Therefore, this means both verbs display the same behaviour, that is, there are no undergoers in their attestations to be evaluated and consequently their score is 0 in all categories, i.e. mean, median and mode. Obviously, no effect on the prefix on this parameter is detected either.

Table 6.238: Results of *hweorfan* and *onhweorfan* in Total Transitivity.

Total Transitivity	<i>Hweorfan</i>	<i>Onhweorfan</i>
2 Points	13	0
3 Points	24	1
4 Points	32	1
5 Points	74	0
Total	143	2
Mean	4.16	3.5
Median	5	3.5
Mode	5	3 / 4

Given the analogous results that these verbs have shown in their behaviour with respect to the parameters analysed above, it is expected to find out that these are maintained in

Total Transitivity. However, the data in Table 6.238 seem to point in a different direction. The mean scores of both verbs do not seem to differ much although a difference of 0.66 points has turned out to be significant in other cases. More relevant, however, are the disparities in median and mode results, since these point to quite different tendencies. For instance, the median score of *hweorfan* is 1.5 points higher than that of its counterpart. In spite of these differences, the t-test for significance reveals that both verbs show a similar behaviour with respect to their Total Transitivity, since these disparities happen to be not statistically significant, 0.3556. As was the case with Telicity, this result, together with the fact that the average score in Total Transitivity of *hweorfan* is higher than that of its counterpart, discards any kind of effect of the prefix either on Total Transitivity or on any of the parameters analysed above.

#### 6.3.6.6 *Hwyrfan* - *Onhwyrfan*

The next pair under study is the one made up of the causative counterparts of the above analysed one, namely *hwyrfan* ‘turn, change (caus.; intr.); exchange; go, return’ and *onhwyrfan* ‘turn, turn around; change (intr.; caus.)’. As can be seen from the preceding definitions, there is little difference between them in terms of semantics. It is therefore to be expected that, as is the case with their counterparts, they differ little in their behaviour corresponding to the parameters of transitivity analysed below. However, it must be pointed out that, in this case, the task is more difficult due to the dearth of attestations of *onhwyrfan*, which only appears once in my corpus. Therefore, any kind of conclusion that is put forth in the paragraphs below should be taken as tentative.

Table 6.239: Results of *hwyrfan* and *onhwyrfan* in the parameter Participants.

Participants	<i>Hwyrfan</i>	<i>Onhwyrfan</i>
1 Part	14	1
2 Part	9	0
Total	23	1
Mean	0.39	0
Median	0	N/A

Mode	0	N/A
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Table 6.240: Results of *hwyrfan* and *onhwyrfan* in the parameter Telicity.

Telicity	<i>Hwyrfan</i>	<i>Onhwyrfan</i>
[+Telic]	13	0
[-Telic]	10	1
Total	23	1
Mean	0.56	0
Median	1	N/A
Mode	1	N/A

Table 6.241: Results of *hwyrfan* and *onhwyrfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hwyrfan</i>	<i>Onhwyrfan</i>
No U	14	1
No U (Irre)	2	0
Partial	1	0
Affected	6	0
Total	23	1
Mean	0.28	0
Median	0	N/A
Mode	0	N/A

Table Table 6.242: Results of *hwyrfan* and *onhwyrfan* in Total Transitivity.

Total Transitivity	<i>Hwyrfan</i>	<i>Onhwyrfan</i>
2 Points	2	0
3 Points	9	1
4 Points	1	0
5 Points	4	0

6 Points	1	0
6.5 Points	1	0
7 Points	5	0
Total	23	1
Mean	4.45	3
Median	4	N/A
Mode	3	N/A

As far as the parameter Participants is concerned, both verbs seem to behave in an analogous fashion. Contrary to what is historically expected, these verbs favour intransitive valence (see Table 6.239). In this case, it seems clear, as mentioned elsewhere, that *on-* plays no role on this parameter. Regarding Telicity (Table 6.240), *hwyrfan* barely favours telicity, while the only attestation of *onhwyrfan* does not. These results point to the lack of effect of the prefix on this parameter too. As for Affectedness-individuation of U, both verbs display a rather low score (Table 6.241). The fact that the score of the sole example of *onhwyrfan* is even lower than that of its counterpart emphasises the scarce influence of *on-* on Affectedness-individuation of U. Finally, the data related to Total Transitivity display a similar tendency as individual parameters (see Table 6.242 above), i.e. results are rather similar although higher in the case of the unprefixated counterpart which highlights the null effect of this prefix in particular on transitivity.

#### 6.3.6.7 *Onhweorfan* – *Onhwyrfan*

Table 6.243: Results of *onhweorfan* and *onhwyrfan* in the Parameter Participants.

Participants	<i>Onhweorfan</i>	<i>Onhwyrfan</i>
1 Part	2	1
2 Part	0	0
Total	2	1
Mean	0	0
Median	0	N/A

Mode	0	N/A
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The comparison of the verbs *onhweorfan* ‘turn, change (intr.; caus.); go’ and *onhwyrfan* ‘turn, turn around; change (intr.; caus.)’ with respect to Participants reveals that they behave in an identical way, i.e. they appear in one-participant clauses only (see Table 6.243). Consequently, any effect of *on-* on this parameter is generally discarded, even though the one example of *onhwyrfan* might not be representative.

#### 6.3.6.8 *Wācnan* – *Onwācnan*

The next verb pair I will deal with is the one made up of the verbs *wācnan* ‘come into being, be born, spring’ and *onwācnan* ‘awake, arise; be born (intr.)’. As is common with the *on-* verbs, little differences can be detected in the semantics of these two verbs. This usually points to similar scores in the analysis as shown elsewhere. In this case, this prediction is corroborated by the statistical analyses that reveal that differences between them are minimal. On the other hand, the number of attestations of each verbs might be revealing of a nuance of the prefix that will be commented on below.

Table 6.244: Results of *wācnan* and *onwācnan* in the parameter Participants.

Participants	<i>Wācnan</i>	<i>Onwācnan</i>
1 Part	11	20
2 Part	0	0
Total	11	20
Mean	0	0
Median	0	0
Mode	0	0

The results in the parameter Participants show how slight these differences are. In fact, they are so small as to be non-existent. As can be observed in Table 6.244 below, the results of these two verbs are perfect. Both *wācnan* and *onwācnan* are intransitive in all their attestations, which implies that no transitivity effect in the traditional sense whatsoever is detected either in this *on-*prefixed verb.



Table 6.245: Results of *wācnan* and *onwācnan* in the parameter Telicity.

Telicity	<i>Wācnan</i>	<i>Onwācnan</i>
[+Telic]	11	20
[-Telic]	0	0
Total	11	20
Mean	1	1
Median	1	1
Mode	1	1

Surprisingly, the data concerning Telicity are also perfect. As can be seen in Table 6.245, all of the examples of these two verbs display the feature +telic. Their tendency towards telic contexts is clear. In spite of the preference of *onwācnan* for telicity, it must be pointed out that this should not be attributed to any effect of the prefix but rather as a property maintained from its counterpart, as has been mentioned in previous cases. To these comments it could be added that the parameter ‘inception’ (related to *Aktionsart*) mentioned in the literature as a possible effect of the prefix *on-* is a function of telicity in inchoative verbs, as is the case with *wācnan* (see Sasse (1991) on the telicity of inchoative verbs). In the case of the pair *wācnan-onwācnan*, the meaning of the simplex is already inceptive. The prefix does not add this meaning. However, the fact that the prefixed verb is attested almost twice as much as the simplex shows that it is preferred, or more widespread, probably because of its meaning of inception.

Table 6.246: Results of *wācnan* and *onwācnan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wācnan</i>	<i>Onwācnan</i>
No U (Irre)	2	4
Partial	4	3
Affected	5	13
Total	11	20

Mean	0.63	0.72
Median	0.5	1
Mode	1	1

The data regarding Affectedness-individuation of U are not perfect though. As shown in Table 6.246 above, the mean score of both verbs contrasts little. The score of *onwācnan* is just 0.09 points higher, which is not a relevant discrepancy at all. Mode results, additionally, support the similarity between verbs, while on the other hand, the median result of *wācnan* does show a lower tendency. Nevertheless, as expected considering the particularly close mean scores, the difference between both verbs is not statistically significant, 0.5654, which means, that once more, no effect of this prefix on this parameter could be observed.

Table 6.247: Results of *wācnan* and *onwācnan* in Total Transitivity.

Total Transitivity	<i>Wācnan</i>	<i>Onwācnan</i>
1 Point	1	1
2 Points	1	3
3 Points	0	1
3.5 Points	4	3
4 Points	5	12
Total	11	20
Mean	3.36	3.42
Median	3.5	4
Mode	4	4

In relation to Total Transitivity, the similarity in results of these two verbs is maintained. As shown in Table 6.247, the mean scores of both verbs are very close. They only differ in 0.06 points, a real minimal difference when dealing with an 8-point scale. The median and mode scores support the fact that both verbs behave similarly, although the former is lower in the case of *wācnan*, as in parameter Affectedness-individuation of U. However, as in that case, the t-test for significance determines that

the small disparity in results between these verbs is not statistically significant, 0.8633. Therefore, once more, no particular transitivity effect could be observed in the case of this *on-* verb either.

#### 6.3.6.9 *Weccean - Onweccean*

The next analysis corresponds to the also similar in semantic terms causative counterparts of the previous pair, namely *weccean* ‘waken, arise, spring (intr.; caus.)’ and *onweccean* ‘awake, rise; be roused, raised’. Unfortunately, as in previous cases, the latter is only attested once.

Table 6.248: Results of *weccean* and *onweccean* in the parameter Participants.

Participants	<i>Weccean</i>	<i>Onweccean</i>
1 Part	3	0
2 Part	18	1
Total	21	1
Mean	0.85	1
Median	1	N/A
Mode	1	N/A

Table 6.249: Results of *weccean* and *onweccean* in the parameter Telicity.

Telicity	<i>Weccean</i>	<i>Onweccean</i>
[+Telic]	19	1
[-Telic]	2	0
Total	21	1
Mean	0.90	1
Median	1	N/A
Mode	1	N/A

Table 6.250: Results of *weccean* and *onweccean* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Weccean</i>	<i>Onweccean</i>
No U	1	0
No U (Irre)	5	0
Partial	2	0
Affected	13	1
Total	21	1
Mean	0.66	1
Median	1	N/A
Mode	1	N/A

Table 6.251: Results of *weccean* and *onweccean* in Total Transitivity.

Total Transitivity	<i>Weccean</i>	<i>Onweccean</i>
3 Points	2	0
4 Points	5	0
4.5 Points	1	0
5 Points	1	0
6 Points	2	0
6.5 Points	1	0
7 Points	6	1
7.5 Points	3	0
Total	21	1
Mean	5.64	7
Median	6	N/A
Mode	7	N/A

As for the parameter Participants, the historical tendency of *weccean* is clear. In most of its attestations it displays transitive valence, as reflected in its very high 0.85 mean score (see Table 6.248). Additionally, the only example of *onweccean* also has this

same valence. Regarding the second parameter, Telicity, results point to the same conclusions since both verbs display a clear tendency for +telic as shown in Table 6.249. Results in the parameter Affectedness-individuation of U reflect the trend observed in Participants. In this case, however, mean scores differ to a higher extent due to the irrealis effect undergone by several examples of *weccean* (see Table 6.250). This is the case with Total Transitivity data (Table 6.251). The tendencies of both verbs are rather similar but higher in the case of the prefixed verb. Given the parity in results, especially if the irrealis effect is left aside, it makes sense to hypothesise that more examples would not change the results noticeably. Nevertheless, conclusive results must await the analysis of further examples.

#### 6.3.6.10 *Onwācnan* – *Onweccean*

Table 6.252: Results of *onwācnan* and *onweccean* in the parameter Participants.

Participants	<i>Onwācnan</i>	<i>Onweccean</i>
1 Part	20	0
2 Part	0	1
Total	20	1
Mean	0	1
Median	0	N/A
Mode	0	N/A

The comparison of the verbs *onwācnan* ‘awake, arise; be born (intr.)’ and *onweccean* ‘awake, rise; be roused, raised’ with regards to Participants shows results to be perfect (see Table 6.252). While *onwācnan* is an intransitive-only verb, the only attestation of its counterpart is in a two-participant clause. As has been the case with previous verbs, these results show the lack of transitivity effect in the traditional sense that *on-* has. In this case, it makes sense to hypothesise that this difference is due to the effects of the causative formation, especially well preserved in the verbs *wācnan* and *weccean* as mentioned elsewhere, even though dearth of attestation should be considered in this particular case.

### 6.3.6.11 Total Results: Unprefixed vs. *On-*

In what follows focus will be laid on the comparison of results of *on-* verbs and their unprefixed counterparts in order to determine the effects of this particular prefix regardless of the verb it is attached to.

Table 6.253: Total results unprefixed vs. *on-* in the parameter Participants.

Participants	Unprefixed	<i>On-</i>
1 Part	293	33
2 Part	48	2
Total	341	35
Mean	0.14	0.05
Median	0	0
Mode	0	0

The first parameter I will discuss is Participants. As can be seen in Table 6.253 above, results between the group of prefixed verbs and that of unprefixed ones are almost identical. The t-test for significance determines the disparity between them to be not statistically significant (0.1662). Taking this into account in addition to the fact that the prefixed forms are the ones displaying a lower score, it is clear that the effect of *on-* on this parameter is non-existent.

Table 6.254: Total results unprefixed vs. *on-* in the parameter Telicity.

Telicity	Unprefixed	<i>On-</i>
[+Telic]	262	32
[-Telic]	79	3
Total	341	35
Mean	0.76	0.91
Median	1	1
Mode	1	1

In relation to the parameter Telicity, results are much more similar between both groups as seen in Table 6.254. As could be expected considering the results of the individual verbs, both unprefixes and *on-* verbs show a telic-favouring tendency. Median and mode results are 1 in both cases. Mean scores are also quite high, 0.76 and 0.91 respectively, which emphasises the telic component of both groups. A difference of just 0.15 points could be seen as small. However, the t-test for significance determines that it is statistically significant, 0.0466. These results point to the fact that *on-* verbs are more prone to telicity, inceptive in this case, than their counterparts, even if this tendency of the two groups is clear. Clause (6.32a) illustrates an unprefixes atelic verb, *bærnan*. (6.32b) shows an example of the inceptive *onbærnan*.

(6.32)

a. &        *a        bærndon    swa hi geferdon*  
       & continuously   burnt        as they travelled  
 ‘& they burnt (cities) continuously as they travelled’.

ChronD (Cubbin) B17.8 [0622 (1010.8)]

b. *þu onbærndest, þæt beorneð be ðe*  
       you   kindled, that burns   in you  
 ‘You kindled what burns inside you’.

Bede 3 (Miller) B9.6.5 [0433 (14.216.7)]

Table 6.255: Total results unprefixes vs. *on-* in the parameter Affectedness-individuation of U.

Affectedness-indiv	Unprefixes	<i>On-</i>
No U	280	13
No U (Irre)	13	4
Partial	8	3
Affected	40	15
Total	341	35
Mean	0.12	0.48

Median	0	0.5
Mode	0	0

With regards to Affectedness-individuation, as can be seen in Table 6.255 above, there exists a remarkable difference in mean score between both groups. The t-test for significance determines it to be extremely statistically significant, less than 0.0001. However, the absolute scores, especially mean and median ones, displayed by the *on-* verbs are rather low. These data reveal thus, that even if there exists a remarkable difference between the data of unprefixes and prefixed verbs in this parameter, a hypothetical effect on Affectedness-individuation of U should be taken with caution, since in absolute terms, the statistical scores displayed by *on-* verbs are far from those of verbs that present a high degree of affectedness-individuation such as *forbærnan*.

Table 6.256: Total results unprefixes vs. *on-* in Total Transitivity.

Total Transitivity	Unprefixes	<i>On-</i>
1 Point	3	1
2 Points	32	6
3 Points	49	4
3.5 Points	4	3
4 Points	83	14
4.5 Points	1	0
5 Points	133	5
6 Points	3	0
6.5 Points	3	0
7 Points	24	2
7.5 Points	6	0
Total	341	35
Mean	4.34	3.72
Median	4	4
Mode	5	4



The fact that differences between both groups, unprefixes versus *on-* verbs, might not be so great is reflected in their Total Transitivity scores. The data compiled in Table 6.256 show that results concerning Total Transitivity are rather similar in both groups. Mean scores differ very little, in just 0.62 points to be precise. Disparities are greater in mode scores, 1 point. Interestingly, it is the *on-* group the one that displays a lower score, which emphasises the idea that effects of this prefix on Total Transitivity are scarce if there could be said to exist at all. In fact, the results of the unprefixes verbs is statistically higher than that of their counterparts (0.0108). Such a result emphasises the idea put forth several times above, namely that no effect of *on-* on Total Transitivity can be detected.

### 6.3.7 *Op-*

The next prefix I am going to discuss is *op-*. As was the case with the above analysed *æt-*, this prefix is also said to have a clear prepositional meaning, more specifically ‘from’ or ‘away’ (Bosworth and Toller (1898), Quirk and Wrenn (1957: 117)) to which departure and separation could be added, (Clark-Hall (1960)). The prepositional meaning is clear in the two verbs having *op-* in my corpus, i.e. *opwindan* ‘get away, escape’ (intr.)’ and *opwendan* ‘turn away, divert (caus.)’. Their respective unprefixes forms have the following meanings: *windan* ‘spring (intr.); roll (intr.; caus.); weave (sth)’; *wendan* ‘turn (round), change (intr.; caus.); go (intr.)’. In addition to the pure semantic meanings, *op-* shows more similarities with respect to *æt-* since, as will be seen in the analysis, the results obtained from it are very similar. Moreover, not in all cases is the statistical analysis possible because as *æthweorfan*, *opwendan* is only attested once in my corpus.

#### 6.3.7.1 *Windan – Opwindan*

Table 6.257: Results of *windan* and *opwindan* in the parameter Participants.

Participants	<i>Windan</i>	<i>Opwindan</i>
1 Part	17	3
2 Part	1	0
Total	18	3

Mean	0.05	0
Median	0	0
Mode	0	0

First, attention will be focused on the strong verbs *windan* and *opwindan*. As far as the parameter Participants is concerned, as can be observed in Table 6.257 above, both verbs behave in practically the same way. The two of them keep their HEV (intransitive) in practically all cases, with the exception of one case only in the unprefixed form. Statistics reflect these similarities. The two-tailed P value equals 0.6939, i.e. not statistically significant. So far then, *op-* does not seem to have an effect on this parameter.

Table 6.258: Results of *windan* and *opwindan* in the parameter Telicity.

Telicity	<i>Windan</i>	<i>Opwindan</i>
[+Telic]	12	0
[-Telic]	6	3
Total	18	3
Mean	0.66	0
Median	1	0
Mode	1	0

The results related to Telicity, on the other hand, are not so similar. As shown in Table 6.258 above, the clauses with the unprefixed verb analysed in this study present a preference for telic contexts (66% of cases) while the three clauses including *opwindan* are atelic. In the case of this verb pair, thus, it is the unprefixed form the one showing a higher score in Telicity, contrary to what could be expected. Statistics support the view that there is an actual difference between the behaviour of both verbs in terms of this parameter. The two-tailed P value equals 0.0310, i.e. statistically significant. It must be borne in mind, though, that as with *æt-*, none of the works consulted makes specific reference to this prefix having effects on Telicity.

Table 6.259: Results of *windan* and *opwindan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Windan</i>	<i>Opwindan</i>
No U	17	3
No U (Irre)	1	0
Total	18	3
Mean	0	0
Median	0	0
Mode	0	0

The third parameter that will be discussed is Affectedness-individuation of U. Due to the similarities in the behaviour of these verbs in terms of Participants, it is not surprising that those similarities are maintained in the parameter under discussion. In fact, results are the same, 0 points in each of the verbs. This is due to the fact that the only undergoer in *windan* appears in a sentence with irrealis mood and therefore gets 0 points. Results show then that the effect of *op-* on this parameter is non-existent in the case of this verb.

Table 6.260: Results of *windan* and *opwindan* in Total Transitivity.

Total Transitivity	<i>Windan</i>	<i>Opwindan</i>
3 Points	4	0
4 Points	10	3
5 Points	4	0
Total	18	3
Mean	4	4
Median	4	4
Mode	4	4

To sum up, as far as *opwindan* is concerned, it is clear that the prefix *op-* plays no role in the different parameters analysed above. Because of this, it is not surprising to find

out that the Total Transitivity between simplex and prefixed verb does not differ much either. Actually, from a statistical point of view results are exactly the same (1.0000) and are, accordingly, not statistically significant. Table 6.260 shows the results obtained from the analysis of each of the clauses including these two verbs.

### 6.3.7.2 *Wendan* - *Opwendan*

In the case of the weak verbs *wendan* ‘turn (round), change (intr.; caus.); go (intr.)’ and *opwendan* ‘turn away, divert (caus.)’, there are interesting discrepancies to be commented on with respect to their strong counterparts. Unfortunately, *opwendan* is attested in even fewer cases than *opwindan*, just one, thus rendering the evaluation of results difficult and making a statistical analysis impossible.

Table 6.261: Results of *wendan* and *opwendan* in the parameter Participants.

Participants	<i>Wendan</i>	<i>Opwendan</i>
1 Part	216	0
2 Part	45	1
Total	261	1
Mean	0.17	1
Median	0	N/A
Mode	0	N/A

The first difference between *opwindan* and *opwendan* lies in their behaviour concerning Participants (Table 6.261). While the former appears in one-participant clauses only, the latter does so in a two-participant one. This is not surprising given the clearly causative meaning of this latter verb ‘turn away, divert (caus.)’ exemplified in (6.33). *Opwendan*, thus, preserves its original HEV contrary to its unprefixated counterpart.

(6.33)

*Uton oðwendan hit nu monna bearnum*

Let’s turn away it now men.GEN sons.DAT

‘Let’s turn it away from the sons of men now’

Table 6.262: Results of *wendan* and *opwendan* in the parameter Telicity.

Telicity	<i>Wendan</i>	<i>Opwendan</i>
[+Telic]	215	1
[-Telic]	46	0
Total	261	1
Mean	0.82	1
Median	1	N/A
Mode	1	N/A

Table 6.263: Results of *wendan* and *opwendan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wendan</i>	<i>Opwendan</i>
No U	216	0
No U (Irre)	11	1
Partial	1	0
Affected	33	0
Total	261	1
Mean	0.12	0
Median	0	N/A
Mode	0	N/A

Table 6.264: Results of *wendan* and *opwendan* in Total Transitivity.

Total Transitivity	<i>Wendan</i>	<i>Opwendan</i>
1 Point	4	0
2 Points	16	0
3 Points	22	0
4 Points	69	1

5 Points	116	0
6 Points	5	0
6.5 Points	1	0
7 Points	25	0
7.5 Points	3	0
Total	261	1
Mean	4.56	4
Median	5	N/A
Mode	5	N/A

Differences in the two other parameters are not remarkable. As for Telicity, *wendan* presents a high mean score of 0.82, see Table 6.262, and so does its counterpart since the only example attested is also telic. Results point to the fact that *op-*, is compatible with Telicity although it does not seem to be its trigger. As far as Affectedness-individuation of U is concerned (Table 6.263), both verbs present very similar results. However, they provide very little information with regards to the effects of the prefix since the only example of *opwendan* is in irrealis mood. Lastly, with regards to Total Transitivity, both verbs display a similar behaviour (see Table 6.265). Their mean scores vary little. Small as this difference is, however, it is important to highlight the fact that the verb presenting a higher degree of Total Transitivity is the unprefixed one, thus emphasising the idea that *op-* seems to play little or no role regarding the specific parameters analysed and Total Transitivity as a whole, even if in this case it is of special importance to consider the irrealis effect.

### 6.3.7.3 *Opwindan* - *Opwendan*

The comparison of the verbs *opwindan* ‘get away, escape’ (intr.)’ and *opwendan* ‘turn away, divert (caus.)’ concerning Participants reveals interesting insights. Once again, unfortunately, results cannot be taken as conclusive due to the fact that the causative *opwendan* is only attested once.

Table 6.265: Results of *opwindan* and *opwendan* in the parameter Participants.

Participants	<i>Opwindan</i>	<i>Opwendan</i>
1 Part	3	0
2 Part	0	1
Total	3	1
Mean	0	1
Median	0	N/A
Mode	0	N/A

As can be seen in Table 6.265 above, this verb pair is perfectly preserved since while *opwindan* is always intransitive in the traditional sense, the only example of *opwendan* is transitive. This is not surprising considering that this preservation of causativity is also reflected in the semantics of these verbs as shown above. However, in view of these results, no effect of the prefix on this parameter is detected. Differences should rather be attributed to the preservation of the causative functions of the *-jan* suffix.

#### 6.3.7.4 Total Results: Unprefixed vs. *Op-*

Table 6.266: Total results unprefixed vs. *op-* in the parameter Participants.

Participants	Unprefixed	<i>Op-</i>
1 Part	233	3
2 Part	46	1
Total	279	4
Mean	0.16	0.25
Median	0	0
Mode	0	0

The final impression in relation to the role of *op-* just pointed out is supported by results as a whole. As for the parameter Participants, statistics reveal that the difference between unprefixed and prefixed forms is not statistically significant (0.6510), as could be expected, in spite of the remarkable difference in this parameter between *wendan* and

*opwendan*, since the latter was only attested once. Thus, it is confirmed that *op-* seems to have no influence on this parameter.

Table 6.267: Total results unprefixd vs. *op-* in the parameter Telicity.

Telicity	Unprefixd	<i>Op-</i>
[+Telic]	227	1
[-Telic]	52	3
Total	279	4
Mean	0.81	0.25
Median	1	0
Mode	1	0

Unlike in the case of Participants, statistics do show a relevant difference in the behaviour of *windan* and *opwindan* regarding Telicity. However, contrary to what could be assumed given the supposed telic effect of certain prefixes, the verb showing a higher number of telic examples is the unprefixd one rather than its prefixd counterpart. This clear difference can be seen in Table 6.267 above. The t-test for significance shows this difference to be very statistically significant (0.0046). These results, in conclusion leave no doubt as for the non-existent role of this specific prefix on Telicity.

Table 6.268: Total results unprefixd vs. *op-* in the parameter Affectedness-individuation of U.

Affectedness-indiv	Unprefixd	<i>Op-</i>
No U	233	3
No U (Irre)	12	1
Partial	1	0
Affected	33	0
Total	279	4
Mean	0.12	0



Median	0	0
Mode	0	0

The following parameter, Affectedness-individuation of U is the one in which the smallest difference could be detected in both verb pairs. The pair *windan-opwindan* presents exactly the same results (0 points in all cases), while *wendan-opwendan* showed a minimal difference. More specifically, the unprefixated verb has a mean score of 0.12 while *opwendan* has 0. This is, coincidentally, exactly the same result that is obtained when analysing results as a whole, see Table 6.268. As could not be otherwise due to the similarity of the scores, the difference between both unprefixated and prefixated verbs with respect to Affectedness-individuation of U is not statistically significant (0.4603).

Table 6.269: Total results unprefixated vs. *op-* in Total Transitivity.

Total Transitivity	Unprefixated	<i>Op-</i>
1 Point	4	0
2 Points	16	0
3 Points	26	0
4 Points	79	4
5 Points	120	0
6 Points	5	0
6.5 Points	1	0
7 Points	25	0
7.5 Points	3	0
Total	279	4
Mean	4.65	4
Median	5	4
Mode	5	4

Lastly, I will comment briefly on the Total Transitivity results of unprefixated and prefixated forms and what they reveal in relation to the prefix *op-* and its role on

transitivity. Since the effects this prefix has on the parameters analysed above is null, it is not surprising to find out that the difference in Total Transitivity between unprefix and prefixed forms (included in Table 6.269) is not statistically significant. The two-tailed P value equals 0.4087. The bibliographical sources analysed in this study make no specific mention of this prefix as having any relationship with any of the parameters associated with transitivity. This view is corroborated by the results presented in the above pages. These leave little doubt as to the scarce influence of this specific prefix on transitivity as a whole at least in relation to the verbs analysed in this study.

### 6.3.8 *Tō-*

The prefix *tō-* is usually described in the literature as conveying perfective aspect (Quirk and Wrenn 1957: 114) and therefore, as having an effect on Telicity. In addition to this telic function, other authors emphasise the idea of separation (*tōhweorfan* ‘part, separate, disperse’) and intensification (*tōstencan* ‘destroy, dissipate, etc.’), see Bosworth and Toller (1898) and Bechler (1909: 12). The latter is related to the parameter Affectedness-individuation of U. Consequently, it is to be expected that this prefix shows certain effects on that parameter. Moreover, other meanings such as dispersion have also been related to this prefix (see Fraser 1980: 187-8). All in all, it seems that the prefix *tō-* has certain effects on some of the parameters of transitivity under study in this work. The analysis below will try to shed light on this issue.

#### 6.3.8.1 *Hweorfan – Tōhweorfan*

The first verb pair I will focus on is *hweorfan* ‘turn, change (intr.; caus.); go’ and *tōhweorfan* ‘part, separate, disperse’. As can be seen, there are important semantic nuances that separate one verb from the other. In this case, the meaning of separation attributed to the prefix is clearly seen. However, the fact that there is important semantic variation between these verbs does not necessarily entail that they behave in a different way as far as the parameters under analysis are concerned.

Table 6.270: Results of *hweorfan* and *tōhweorfan* in the parameter Participants.

Participants	<i>Hweorfan</i>	<i>Tōhweorfan</i>
1 Part	143	5

2 Part	0	0
Total	143	5
Mean	0	0
Median	0	0
Mode	0	0

Actually, results related to the parameter Participants show no difference between these two verbs at all. Both of them preserve their HEV in all cases (see Table 6.270 above), contrary to what could be expected bearing in mind the meaning of the prefixed counterpart. Thus, these results coincide with what is described in the literature.

Table 6.271: Results of *hweorfan* and *tōhweorfan* in the parameter Telicity.

Telicity	<i>Hweorfan</i>	<i>Tōhweorfan</i>
[+Telic]	103	3
[-Telic]	40	2
Total	143	5
Mean	0.72	0.6
Median	1	1
Mode	1	1

Effects of *tō-* on Telicity are explicitly referred to in the literature, though. *Hweorfan* and *tōhweorfan* confirm this theory. Even though the prefixed counterpart does not display a higher number or percentage of telic examples than the unprefixed form, both show a clear preference for telic contexts. The mean score of *hweorfan* is 0.72 while that of *tōhweorfan* is a bit lower, i.e. 0.6 (see Table 6.271). However, this difference is not statistically significant as shown by the t-test applied in this study. The two-tailed P value equals 0.5607, which means that from a statistical point of view, both verbs behave in the same way as far as Telicity is concerned, that is, showing a clear preference for telic contexts.

Table 6.272: Results of *hweorfan* and *tōhweorfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hweorfan</i>	<i>Tōhweorfan</i>
No U	143	5
Total	143	5
Mean	0	0
Median	0	0
Mode	0	0

With regards to Affectedness-individuation of U, results are clear, considering that there are no undergoers in any of the clauses in which these verbs appear in my corpus (Table 6.272). The mean score is 0 in all cases in both the unprefixd and the prefixed verb. In this case, then, the theory claiming the supposed effects on affectedness of *tō-* verbs is refuted. This result, however, is not common in the case of other *tō-*verbs that will be discussed below.

Table 6.273: Results of *hweorfan* and *tōhweorfan* in Total Transitivity.

Total Transitivity	<i>Hweorfan</i>	<i>Tōhweorfan</i>
2 Points	13	0
3 Points	24	0
4 Points	32	2
5 Points	74	3
Total	143	5
Mean	4.16	4.6
Median	5	5
Mode	5	5

The results above show that these two verbs differ little in their behaviour regarding the parameters analysed in this study. They display a clear preference for HEV. In fact, no two-participant clauses are recorded. Likewise, there are no cases of undergoers being

affected either. In Telicity, results differ a bit, but as statistics showed, not enough as to consider the difference statistically significant, which points to the high preference of both verbs for telic contexts. By way of summary, at least in relation to these two verbs, the prefix *tō-* appears to have an effect on the parameter Telicity exclusively. Of course, as expected, the difference in Total Transitivity between unprefix and prefixed counterpart is not remarkable, as can be seen in Table 6.273. Statistics, likewise, reveal that the difference in score between both verbs is not statistically significant (0.3457).

### 6.3.8.2 *Stencan* – *Tōstencan*

Contrary to what was the case with the verb pair analysed above, *stencan* ‘scatter; emit breath with effort; stink’ and *tōstencan* ‘scatter, disperse; destroy, dissipate, overthrow (caus.); perish (intr.)’ show important differences in the way they behave in relation to the parameters discussed in this study. From a semantic point of view, it could be said that their meanings do not differ much. Both examples of *stencan* in my corpus have the meaning ‘scatter’ corresponding to those of its prefixed counterpart with usually the same meaning.

Table 6.274: Results of *stencan* and *tōstencan* in the parameter Participants.

Participants	<i>Stencan</i>	<i>Tōstencan</i>
1 Part	2	0
2 Part	0	8
Total	2	8
Mean	0	1
Median	0	1
Mode	0	1

However, as mentioned in chapter 4, section 4.2.9, when discussing the valence of these verbs, they represent a good example of pairs whose valence has been clearly affected by the prefix. From the data obtained in this corpus, it can be assumed that both verbs share the same basic meaning but their valence function has changed, see Table 6.274. While *stencan* is used in intransitive contexts only, the prefixed *tōstencan* is used in

transitive ones exclusively. Thus, *tōstencan* retains the original causative function while the unprefixated counterpart has taken over the intransitive one which is expected of its non-causative counterpart *stencan*.

Table 6.275: Results of *stencan* and *tōstencan* in the parameter Telicity.

Telicity	<i>Stencan</i>	<i>Tōstencan</i>
[+Telic]	0	8
[-Telic]	2	0
Total	2	8
Mean	0	1
Median	0	1
Mode	0	1

Results show that these two verbs do not only differ in their behaviour concerning valence, but also do so with respect to Telicity. While the unprefixated form appears in atelic contexts only, the prefixed form displays exactly the opposite behaviour. It appears in telic contexts in all its attestations as shown in Table 6.275. These results are to be expected since as mentioned in the introduction to this prefix, scholars seem to agree on the telic effects of this prefix.

Table 6.276: Results of *stencan* and *tōstencan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Stencan</i>	<i>Tōstencan</i>
No U	2	0
No U (Irre)	0	2
Partial	0	1
Affectedness	0	5
Total	2	8
Mean	0	0.68
Median	0	1

Mode	0	1
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Due to the existing connection between Participants and Affectedness-individuation of U, it would be strange for these two verbs not to show noteworthy differences with respect to this parameter. There are indeed important differences though not as great as in the case of Participants, since two out of the eight attested examples of *tōstencan* appear in irrealis contexts, thus lowering the mean score in this parameter to 0.68, as can be seen in Table 6.276 above. In spite of these lower results, the difference between both verbs is statistically significant (0.0325). In this case, the theory of scholars related to the effects on Affectedness-individuation of U of the prefix *tō-* is confirmed, unlike in the case of the aforementioned *tōhweorfan*.

Table 6.277: Results of *stencan* and *tōstencan* in Total Transitivity.

Total Transitivity	<i>Stencan</i>	<i>Tōstencan</i>
1 Point	1	0
3 Points	0	1
4 Points	1	1
6 Points	0	2
7 Points	0	2
7.5 Points	0	2
Total	2	8
Mean	2.5	6
Median	2.5	6.5
Mode	1 / 4	6 / 7 / 7.5

As has been pointed out above, both *stencan* and *tōstencan* differ significantly in their behaviour in all three parameters analysed in this section. Therefore, it is not surprising that when analysed as a whole, there is a difference in their Total Transitivity results. Their mean, median and mode scores show great differences as can be observed in Table 6.277. Despite this important gap, statistics reveals the difference to be not as noteworthy (0.0339, i.e. statistically significant). This is due to the small number of

attestations of these verbs that, even though enough to prove that the differences between both verbs is significant from a statistical point of view, cannot be used as evidence to determine greater differences. What is important is that, in this case, it could be shown that, in addition to effects related to Telicity and Affectedness-individuation of U included in the literature, effects on the parameter Participants should be taken into account as the analysis of the two remaining verb pairs below will show.

### 6.3.8.3 *Weccean* – *Tōweccean*

The next verb pair that will be introduced is the one made up of *weccean* ‘waken, arise, spring’ (intr.; caus.) and *tōweccean* ‘wake up, arouse (caus.)’. As can be seen, their semantics do not differ much. In spite of this, the results obtained from the analysis of this pair seem to support the idea that the prefix *tō-* may have certain effects on Participants, Telicity and Affectedness-individuation of U even if differences are not remarkable as in the case of *stencan* and *tōstencan*. Unfortunately, the common problem of dearth of examples is present in *tōweccean*. Only one example of this verb is included in my corpus and therefore, conclusions concerning the behaviour of this verb can only be taken as tentative.

Table 6.278: Results of *weccean* and *tōweccean* in parameter Participants.

Participants	<i>Weccean</i>	<i>Tōweccean</i>
1 Part	3	0
2 Part	18	1
Total	21	1
Mean	0.85	1
Median	1	N/A
Mode	1	N/A

Table 6.279: Results of *weccean* and *tōweccean* in parameter Telicity.

Telicity	<i>Weccean</i>	<i>Tōweccean</i>
[+Telic]	19	1
[-Telic]	2	0



Total	21	1
Mean	0.90	1
Media	1	N/A
Mode	1	N/A

Table 6.280: Results of *weccean* and *tōweccean* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Weccean</i>	<i>Tōweccean</i>
No U	1	0
No U (Irre)	5	0
Partial	2	0
Affected	13	1
Total	21	1
Mean	0.66	1
Median	1	N/A
Mode	1	N/A

Table 6.281: Results of *weccean* and *tōweccean* in Total Transitivity.

Total Transitivity	<i>Weccean</i>	<i>Tōweccean</i>
3 Points	2	0
4 Points	5	0
4.5 Points	1	0
5 Points	1	0
6 Points	2	1
6.5 Points	1	0
7 Points	6	0
7.5 Points	3	0
Total	21	1

Mean	5.64	6
Median	6	N/A
Mode	7	N/A

The scores in relation to the parameter Participants, see Table 6.278, show a clear preference for two-participant clauses in both cases. The unprefixd verb displays HEV (transitive) in 85% of cases, which shows that examples of NHEV are still marginal in comparison with other verbs. The counterpart *tōweccean* presents causative valence in its only example, which seems to reinforce the preference for transitive valence of both verbs. Results related to Telicity are practically identical to the aforementioned ones (Table 6.279). These data seem to corroborate the idea that the prefix *tō-* has effects on Telicity even if in this case the unprefixd form also clearly presents a tendency towards this *Aktionsart* value. The scores with regards to Affectedness-individuation of U differ to a greater extent due to the irrealis effect (Table 6.280), even though differences are not great. They seem to support an effect of the prefix on this parameter. Given the similarities in scores in all three parameters, it is not surprising to find out that these are kept in Total Transitivity (Table 6.281). The mean scores of both verbs differ only in 0.34 points. Additionally, the median and mode scores of *weccean* are even closer to the mean score of *tōweccean*. To sum up, the verb *tōweccean* seems to back the idea that the prefix *tō-* may have certain effects on transitivity, contrary to what happens in the case of *tōhweorfan*, for instance, independently of the fact that *weccean* also shows a high average score in all three parameters and in Total Transitivity.

#### 6.3.8.4 *Wendan* – *Tōwendan*

The last verb to which the prefix *tō-* is attached in my corpus is *wendan* ‘turn (round), change (intr.; caus.); go (intr.)’. This verb displays important semantic differences with its prefixed counterpart *tōwendan* ‘overthrow, upset, subvert, overturn; destroy (caus.)’. As will be analysed in detail in what follows, these semantic differences will reveal a disparity in the results obtained in some of the parameters taken into account.

Table 6.282: Results of *wendan* and *tōwendan* in parameter Participants.

Participants	<i>Wendan</i>	<i>Tōwendan</i>
1 Part	216	0
2 Part	45	5
Total	261	5
Mean	0.17	1
Median	0	1
Mode	0	1

The first parameter I will discuss is Participants as usual. The meanings of the verb *tōwendan* may incline us to believe that it will normally appear in two-participant clauses. That is exactly the case since all examples of *tōwendan* are of clauses with two participants (details are available in Table 6.282). These numbers contrast starkly with those of its unprefix counterpart. *Wendan* appears in one-participant clauses in 83% of its attestations. These data make *wendan* one of the best examples to show the movement towards lability of morphological causatives in Old English. This great difference in the results concerning Participants is reflected in statistics. The two-tailed P value of the t-test applied in this study is less than 0.0001, extremely statistically significant. Together with *tōstencan* and *tōweccean*, *tōwendan* supports that this prefix could be considered to be transitivity in the more traditional view of the term.

Table 6.283: Results of *wendan* and *tōwendan* in parameter Telicity.

Telicity	<i>Wendan</i>	<i>Tōwendan</i>
[+Telic]	215	5
[-Telic]	46	0
Total	261	5
Mean	0.82	1
Median	1	1
Mode	1	1

As was the case with the parameter Participants, Telicity is also favoured in clauses including the verb *tōwendan*. All five of them display the +telic value. Regarding this parameter, though, differences are scarce. The verb *wendan* also clearly favours telic contexts as shown in Table 6.283 above, with 82% of clauses exhibiting this feature. Statistics reveal that even though there is a difference between both verbs, this is not statistically significant (0.3038). What is important is that these results clearly show that Telicity is influenced by *tō-* since in the case of the four verb pairs analysed in this study, results have demonstrated that the preference for *tō-* verbs to appear in telic contexts is almost absolute, with the exception of *tōhweorfan*, whose numbers were not perfect but supportive of the telic hypothesis nonetheless.

Table 6.284: Results of *wendan* and *tōwendan* in parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Wendan</i>	<i>Tōwendan</i>
No U	216	0
No U (Irre)	11	1
Partial	1	0
Affected	33	4
Total	261	5
Mean	0.12	0.8
Median	0	1
Mode	0	1

Due to the considerable difference in results concerning parameter Participants between *wendan* and *tōwendan*, it is expected that this difference is maintained in the case of Affectedness-individuation of U. Once more, previous expectations are fulfilled as can be seen in Table 6.284. The median score of the unprefix form in Affectedness-individuation of U is very low, 0.12 only, in contrast to the very high 0.80 of its prefixed counterpart. Indeed, this number does not reach 1 due to the irrealis effect. The contrast in terms of results is extremely statistically significant, as was the case with the parameter Participants. The two-tailed P value is also less than 0.0001. As a

consequence, the hypothesis put forth in the literature that the prefix *tō-* has effects on Affectedness-individuation of U by adding meanings such as intensification is also confirmed in the case of *tōwendan*.

Table 6.285: Results of *wendan* and *tōwendan* in Total Transitivity.

Total Transitivity	<i>Wendan</i>	<i>Tōwendan</i>
1 Point	4	0
2 Points	16	0
3 Points	22	1
4 Points	69	0
5 Points	116	0
6 Points	5	0
6.5 Points	1	0
7 Points	25	4
7.5 Points	3	0
Total	261	5
Mean	4.56	6.2
Median	5	7
Mode	5	7

The Total Transitivity score reflects the noteworthy disparity in results between these two verbs, as shown in Table 6.285 above. The average score in Total Transitivity of *wendan* and *tōwendan* differs in almost 2 points (4.56 vs. 6.2), which represents a relevant contrast. Their mean and median scores also present remarkable differences: 5 points in the unprefix verb as opposed to 7 in the case of *tōwendan*. The high score in transitivity of *tōwendan* mirrors the effects on the parameters analysed above, clearly seen in the case of this verb. However, great as this difference is in parameters Participants and Affectedness-individuation of U, the variation in terms of Telicity is scarce. This similarity seems to be behind the smaller difference in statistical terms between these verbs in Total Transitivity. Statistics reveal that the difference in Total Transitivity scores of these two verbs is very statistically significant (0.0063), in

contrast to the extremely statistical differences displayed Participants and Affectedness-individuation of U. All in all, though, differences are clear and a good support for the theory of the effects of *tō-*.

#### 6.3.8.5 Total Results: Unprefixed vs. *Tō-*

In the following paragraphs the results of the analysis of all *tō-* examples and of their unprefixed counterparts as a whole will be examined. The objective is to see more clearly what the effects of this prefix are on a more global perspective, independently of the verb the prefix is attached to.

Table 6.286.: Total results unprefixed vs. *tō-* in parameter Participants.

Participants	Unprefixed	<i>Tō-</i>
1 Part	364	5
2 Part	63	14
Total	427	19
Mean	0.14	0.73
Median	0	1
Mode	0	1

The first parameter that will be commented on is Participants. Although the prefix *tō-* is not seen as transitivity in the traditional sense in the literature, the results obtained in this study have shown differences between the *tō-* forms and their unprefixed counterparts to be of crucial importance. With the exception of *tōhweorfan*, all prefixed verbs show a clear preference for transitive valence. In fact, this preference is much higher than the one displayed by two of the unprefixed verbs, namely *stencan* and *wendan* whose preference for NHEV is quite outstanding. The data presented in Table 6.286 above show that the difference between unprefixed and prefixed verbs is great. Their mean score shows a difference of 0.59 points. Clearly, this difference is of statistical importance. The t-test for significance confirms it to be extremely statistically significant. The two-tailed P value equals less than 0.0001. To sum up, then, as far as the parameter Participants is concerned, it is clear that *tō-* forms present an

overwhelming preference for two-participant clauses on their own and with respect to their counterparts. This is more surprising if it is born in mind that *tō-* is mostly attached to causative verbs rather than to strong non-causative ones in my corpus. These results support the hypothesis that *tō-* could also be considered to be transitivity in a traditional way, and therefore that it overrides the causative formation as a transitivity mechanism, additionally including the nuance of ‘deterioration’. Clause (6.34a) below is an example of intransitive *weccean*. *Tōweccean* in (6.34b) has two participants.

(6.34)

a. *Weccað of deaðe dryhtgumena bear*

Rise from death warriors.GEN sons.NOM

‘The sons of the warriors rise from death’

Christ ABC (Krapp & Dobbie) A3.1 [0253 (886)]

b. [...] *hu ða folc mid him fæhðe towehton*

How the.NOM peoples with them strife arouse

‘[...] How the peoples aroused the strife against each other’

Beo (Dobbie) A4.1 [0797 (2946)]

Table 6.287: Total results unprefixd vs. *tō-* in parameter Telicity.

Telicity	Unprefixd	<i>Tō-</i>
[+Telic]	337	17
[-Telic]	90	2
Total	427	19
Mean	0.78	0.89
Median	1	1
Mode	1	1

Telicity, contrary to the parameter Participants, is mentioned in the literature as one of the effects associated with the functions and meanings of the prefix *tō-*. As has been mentioned throughout the analysis of the *tō-* verbs, the results obtained in this study

definitely back this view. The verbs to which this prefix is attached almost exclusively appear in telic contexts as can be seen in Table 6.287. Nevertheless, in this case, differences between the prefixed forms and their unprefixed counterparts are small, which points to the fact that the bare forms of these verbs already favour telicity and thus, perhaps, make the adoption of this value easier for their counterparts. This contrast in results does not have any statistical significance, as could be expected. The two-tailed P value equals 0.2671. This similarity in behaviour, however, does not by any means alter the results of this prefix with respect to Telicity. As mentioned before, the hypothesis put forth by scholars regarding the telic functions of *tō-* have been conveniently bolstered by the results in this study.

Table 6.288: Total results unprefixed vs. *tō-* in parameter Affectedness-individuation of U.

Affectedness-indiv	Unprefixed	<i>Tō-</i>
No U	362	5
No U (Irre)	16	3
Partial	3	1
Affected	46	10
Total	427	19
Mean	0.11	0.55
Median	0	1
Mode	0	1

The differences observed in the following parameter, Affectedness-individuation of U, reflect closely the ones discussed in connection with the parameter Participants although these may not seem as great, considering mean results (see Table 6.288). In spite of this smaller difference, the t-test used in this work reveals that the variation in the results is of extreme significance from a statistical point of view. The two-tailed P value equals less than 0.0001. Again, as was the case with Telicity, the results in this study support the view of scholars such as Bosworth and Toller (1898) and Bechler (1909: 12) who relate the prefix *tō-* to meanings intimately related to Affectedness-individuation of U



such as intensification, best appreciated in the verb *tōstencan* among the ones analysed in this piece of research.

Table 6.289: Total results unprefixd vs. *tō-* in Total Transitivity.

Total Transitivity	Unprefixd	<i>Tō-</i>
1 Point	5	0
2 Points	29	0
3 Points	48	2
4 Points	107	3
4.5 Points	1	0
5 Points	191	3
6 Points	7	3
6.5 Points	2	0
7 Points	31	6
7.5 Points	6	2
Total	427	19
Mean	4.47	5.68
Median	5	6
Mode	5	7

Finally, focus will be laid on the results of transitivity as a whole. Considering the remarkable differences in certain parameters, and the still higher preference of *tō-* verbs for telicity, it is not surprising that the Total Transitivity score of the prefixed forms is considerably higher than that of their counterparts. Table 6.289 shows this to be the case. The mean scores display a difference of more than one point (4.47 vs. 5.68). The other statistical values, median and mode, also reflect noteworthy differences. When analysed from a statistical point of view, the t-test for significance confirms the contrast in the data to be of extremely statistical relevance (less than 0.0001). Thus, all in all, the analysis of the result obtained in this study clearly show that the prefix *tō-* makes an important difference regarding certain parameters associated with transitivity such as Participants and Affectedness-individuation of U. Results also reflect the high

preference for telic contexts associated with this prefix. These differences are mirrored on the Total Transitivity of both *tō-* and unprefix forms, much higher in the case of the former, thus confirming that this prefix should be regarded as transitivising in the context of the verbs analysed in this study.

### 6.3.9 *Ymb-*

The last verbal prefix that will be analysed in this section is *ymb-*. Just as the prefixes *āet-* and *op-* were said to have certain similarities concerning their prepositional meaning, so do *ymb-* and *be-*. Both display a clear adverbial meaning ‘around’ as seen when comparing *hweorfan* ‘turn, change (intr.; caus.); go’ and *ymbhweorfan* ‘go around, revolve around; go about, over, through; turn around (intr.; caus.)’, as exemplified in 6.35 (a) and (b) below. On the other hand, scholars’ views differ on the role *ymb-* may have in certain aspects. More precisely, while some authors think that this prefix lacks any function related to *Aktionsart* (see Quirk and Wrenn 1957: 119), others, such as Brinton (1988: 210) believe that this prefix, just as *be-* does, acquire *Aktionsart* meaning related to Telicity and thus is a good example of prefix that combines a clear specific adverbial meaning and the *Aktionsart* function. The following analysis tries to shed light on this issue as well as on the role of *ymb-* in relation to other parameters and to transitivity as a whole. Notice that this prefix has the peculiarity of appearing in my corpus only attached to one verb. Consequently, there is no section devoted to results as a whole since those of the comparison between *hweorfan* and *ymbhweorfan* have been the only ones at my disposal.

#### 6.3.9.1 *Hweorfan – Ymbhweorfan*

Table 6.290: Results of *hweorfan* and *ymbhweorfan* in the parameter Participants.

Participants	<i>Hweorfan</i>	<i>Ymbhweorfan</i>
1 Part	143	1
2 Part	0	6
Total	143	7
Mean	0	0.85
Median	0	1

Mode	0	1
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The first parameter I will comment on is Participants. As can be observed in Table 6.290 above, the difference between both verbs is quite remarkable. While in the case of the unprefixated form all examples are of one-participant clauses, almost the complete opposite results are seen in the case of *ymbhweorfan*. This is to be expected due to the semantic difference between both verbs. The act of surrounding normally involves two participants, one that surrounds and another that is surrounded, while that is not the case of an action like turning expressed by *hweorfan*. In this parameter, clearly, the prefix has certain effects and could be said to be transitivity-increasing in the traditional sense. Statistics reflect this view. The two-tailed P value of the t-test equals 0.0001, i.e. extremely statistically significant. Examples 6.35 (a) and (b) below exemplify this different behaviour. In (a) *hweorfan* has one participant. In (b), on the other hand, *ymbhweorfan* has two.

(6.35)

a. *Meoduscencum hwearf geond þæt healreced Hæreðes dohtor*  
 Mead-cups turned through the palace Hæreð.GEN daughter.NOM  
 ‘The daughter of Hæreð wandered through the palace with the mead-cups’.  
 Beo (Dobbie) A4.1 [0554 (1980)]

b. *Hordweard [...] hat ond hreohmod oft ymbehwearf ealne*  
 Guardian of treasure.NOM hot and savage often surrounded all.ACC  
 <*utanweardne*>  
 outer.ACC  
 ‘The king surrounded often the whole outer (wall)’.  
 Beo (Dobbie) A4.1 [0633 (2293)]

Table 6.291: Results of *hweorfan* and *ymbhweorfan* in the parameter Telicity.

Telicity	<i>Hweorfan</i>	<i>Ymbhweorfan</i>
[+Telic]	103	5
[-Telic]	40	2

Total	143	7
Mean	0.72	0.71
Median	1	1
Mode	1	1

The second parameter I will refer to is Telicity. As mentioned in the introduction, scholars do not agree on the effects that this prefix may have on this parameter. As can be seen in Table 6.291 above, the results of both verbs are practically the same in terms of mean, median and mode. Not surprisingly, statistics reveals the minimal difference between both sets of data to be not statistically significant (0.9727). This shows that the *ymb-* verb favours telicity in the same way as its counterpart does, which leads to the conclusion that *ymb-* is certainly compatible with telicity though not the cause of it.

Table 6.292: Results of *hweorfan* and *ymbhweorfan* in the parameter Affectedness-individuation of U.

Affectedness-indiv	<i>Hweorfan</i>	<i>Ymbhweorfan</i>
No U	143	1
Affected	0	6
Total	143	7
Mean	0	0.85
Median	0	1
Mode	0	1

The last parameter introduced in the comparison between *hweorfan* and *ymbhweorfan* is Affectedness-individuation of U. As mentioned several times elsewhere, this parameter is in close connection with Participants. Since results in this parameter differed extremely from a statistical point of view between unprefix and prefixed counterpart, it is expected that at least a similar difference is reflected in this parameter. Results confirm this, as can be seen in Table 6.292 above. The difference in mean score between *hweorfan*, 0 points, and *ymbhweorfan*, 0.85, is great. This is reflected in

statistics as well. As was the case with Participants, the difference between the two verbs is extremely statistically significant (0.0001). This proves that, in addition to Participants, this verb presents a clear effect on the parameter Affectedness-individuation of U as well.

Table 6.293: Results of *hweorfan* and *ymbhweorfan* in Total Transitivity.

Total Transitivity	<i>Hweorfan</i>	<i>Ymbhweorfan</i>
2 Points	13	0
3 Points	24	0
4 Points	32	1
5 Points	74	0
6 Points	0	1
7 Points	0	4
7.5 Points	0	1
Total	143	10
Mean	4.16	6.5
Median	5	6.5
Mode	5	6.5

All in all, considering the great statistical differences between these verbs in the results concerning two of the above analysed parameters and the practically same results in the other, it is not surprising that results reveal *ymbhweorfan* to be much higher in Total Transitivity than its unprefix counterpart. Their mean, median and mode scores, displayed in Table 6.293 above, show noteworthy differences, and so do the statistical results that prove this difference to be extremely statistically significant (less than 0.0001).

To sum up, the results of the above analysis show that *ymb-* has a relevant role in all three parameters analysed: it favours Telicity (though not more than its counterpart), and clearly exceeds its counterpart in terms of both Participants and Affectedness-individuation of U. This translates, consequently, in a much higher degree of Total

Transitivity and makes *ymb-* a paradigmatic example of Old English verbal prefix showing remarkable effects on the parameters under study as well as on Total Transitivity at least in this particular example.

#### **6.4. Concluding remarks**

As mentioned in the introduction to this work (chapter 1), the present chapter has two main objectives. First, to assess the role of prefixes regarding the parameters of cardinal transitivity often associated with them (Participants, Telicity and Affectedness-individuation of U), as well as on cardinal transitivity as a whole using statistical analysis. This objective has been carried out through the analysis of the data of prefixed and unprefixed variants of labile verbs originally standing in a causative / non-causative alternation, which have been the focus of this whole study. As commented on in the introduction to this study, this group of verbs is deemed valid for such an objective given their number of attestations and variation and because they help to shed light on the second objective of this chapter, namely to assess whether the functions and effects of the prefixes under study concur with those of the causative formation or not. This final section intends to serve as a general overview of the conclusions from the analysis of the data provided in this study and commented on in detail throughout this whole chapter.

##### *6.4.1 The role of prefixes on transitivity*

First, focus will be laid on the results concerning the first objective mentioned above. Broadly speaking, the analysis of the data above has shown that the effects of the prefixes under study correspond roughly to the ones mentioned in the literature. Most of the effects on Participants, Telicity or Affectedness-individuation of U attributed to each prefix tend to be reflected in the results considered in this section. However, as expected, a few noteworthy divergences with previous works are also found. In what follows, it will be explained in detail how my data reinforce some of the views of previous research while at the same time, they serve to refute and shed new light on others.

To begin with, I will concentrate on one of the prefixes to which effects on all three parameters under study, namely, Participants, Telicity and Affectedness-individuation of U are attributed, i.e. *for-*. This prefix presents a special particularity. This has to do with the fact that two different subgroups could be distinguished depending on the functions, grammatical, and especially semantic, that the verbs with this prefix displayed.

The first subgroup dealt with consists of verbs with the meanings ‘burn’ or ‘melt’. The semantic differences between the prefixed and unprefixed verbs are clear. The verbs to which the prefix is attached have the same meaning as their counterparts with the addition of higher intensity or completeness. They present affectedness to the utmost degree. In fact, what they convey is destruction of the undergoer by means of the ‘burning’ or ‘melting’. As could be expected bearing this in mind, the parameter Affectedness-individuation of U is clearly higher in the case of the prefixed verb. Likewise, Telicity, associated with completeness, is also demonstrated to be statistically significantly higher in the prefixed verbs. So far, results correspond to what is stated in the literature, however, not completely. This is due to the fact that, with the exception of *forbāerman*, none of the *for-* verbs in this subgroup display transitive valence in any case, thus, discarding the effect of this prefix on parameter Participants, at least in the ‘burn’, ‘melt’ verbs. This result, thus, presents a noteworthy divergence with previous studies which tend to focus mainly on the transitivity, in the traditional sense, effect of this prefix.

On the other hand, within the other subgroup of verbs, *for-* verbs clearly favour a higher degree of transitivity in parameter Participants. The prefixed verbs belonging to this subgroup have undergone remarkable semantic change. Such changes are reflected, among other things, in noteworthy differences with respect to their unprefixed counterparts as far as Participants is concerned, manifested in an especially clear way in the case of *forbūgan*, which presents virtually no examples of clauses with its HEV. The parameter Affectedness-individuation of U is also shown to be highly influenced in the case of this subgroup. On the contrary, the verbs with *for-* in this subgroup did not display a higher tendency for Telicity than their counterparts.

As far as total results of *for-* forms are concerned, results correspond to the ones of the second subgroup. This might be due to the fact that even though there exist disparities between verb in the first subgroup, these are greater in the case of the second subgroup. Therefore, when the data are taken together, the results displayed by the second subgroup are predominant. Effects on both the parameters Participants and Affectedness-individuation of U are extremely higher than that of their counterparts from a statistical point of view, as anticipated by some scholars. However, the effects on Telicity are discarded since both unprefixes and prefixed verbs present the same degree of Telicity from a statistical point of view. Last but not least, results also proved that the tendency towards a higher Total Transitivity of verbs with *for-* is extremely significantly higher than that of their counterparts, which serves to demonstrate that beyond the effect on individual parameters, *for-* forms taken together are also higher in transitivity as a whole.

Another prefix to which the studies consulted attribute effects on the three parameters analysed in this section is  $\bar{a}$ -. In a general sense, results are similar to the case of *for-* in that they correspond to the ones put forth in the literature, though not exactly. On the other hand, this prefix differs in important aspects from *for-*. For instance, no signs of noteworthy semantic changes are found among  $\bar{a}$ -prefixed forms.

The parameter on which the clearest difference between prefixed and unprefixes forms is seen is Participants. The  $\bar{a}$ - verbs present a much higher score in this parameter than their counterparts, reflecting, thus, quite different tendencies as far as valence is concerned. Such a result points thus, to a transitivity effect of this prefix, in terms of traditional transitivity.

These verbs also present a high tendency for telicity. The telic preference of these verbs is almost absolute, 0.96 mean score, and as is the case with Participants, it is extremely higher than that of their counterparts from a statistical point of view.



A peculiar situation is detected when dealing with the parameter Affectedness-individuation of U. The t-test for significance shows that the difference between unprefixes and prefixed verbs is again extremely statistically significant. However, when results are analysed independently, that is, without focusing on the comparison of both groups of verbs, effects of  $\bar{a}$ - on this parameter are discarded. This is due to the fact that, although the results for the  $\bar{a}$ -verbs are higher, they do not represent a high score at all. The mean score does not even get to 0.5 points, associated with partially affected undergoers, that is, far from the ones linked to affected (1 point) or highly affected ones (1.5 points), as would be expected of a prefix to which an intensifying function could be attributed, as is the case with *for*-. Consequently, in this respect the results of obtained in this study do not match those proposed in other works.

In a similar fashion to *for*-, however, an important effect on transitivity as a whole is detected. Prefixed forms do show a much higher degree of Total Transitivity than their counterparts. Therefore, in this case, effects on transitivity both in the traditional and in the cardinal sense are clear.

The prefix *ge*- coincides with  $\bar{a}$ - in modifying little or nothing the semantics of the verb it attaches to. However, with respect to their effects on the parameters analysed in this section, differences are patent. In fact, the case of the prefix *ge*- is special in being one of the few in which results in this study correspond one-to-one with the effects attributed to it in the literature. Additionally, the results in this study point to a remarkable influence of *ge*- on Total Transitivity, not taken into account in previous work. With regards to individual parameters, the only function *ge*- is clearly related to in previous work is Telicity. The results commented on above support this view. Prefixed verbs show a much higher tendency towards telicity than their counterparts do, although it is true that the group of unprefixes forms also favour the +telic value over its negative equivalent.

As far as the parameter Participants is concerned, as reflected in the mean, median and mode score of *ge*- verbs, no transitivity role can be attributed to this prefix. The mean score of 0.39, together with median and mode score of 0 in this parameter evidence that

*ge*-verbs clearly favour one-participant clauses. As a consequence, any transitivity effect in the traditional sense must be discarded.

Lastly, regarding the parameter Affectedness-individuation of U, no effect is detected either. Both groups of verbs present very low scores in this parameter, 0.29 points in the case of unprefixated verbs and 0.33 in *ge*- ones. Additionally, statistics revealed that the behaviour of both verbs is the same as far as Affectedness-individuation of U is concerned.

Finally, it must be mentioned that in addition to an effect on Telicity pointed out in the literature, it could be demonstrated that verbs with this prefix also display a higher Total Transitivity score than their counterparts. Actually, it is determined in statistical terms that the group of prefixed forms has an extremely significantly higher score in this respect than their unprefixated counterparts.

Next, the results obtained in the prefixes *be*- and *ymb*- will be dealt with together. This is due to the fact that both prefixes are very similar in terms of their semantics as well as in the effects related to cardinal transitivity they have on the verbs they are attached to. According to the literature, the semantics of these prefixes has to do with the adverbial notion of 'rounding'. This entails connections with Telicity and Affectedness-individuation of U. Additionally some scholars also point out the transitivity, in the traditional sense, function of *be*-.

My data support most of the views put forth in previous works, though not all of them. It is clear by the results obtained in this study that the prefixes in question play an important role in both Participants and Affectedness-individuation of U. The difference in results between the *be*- and *ymb*- prefixed verbs is extremely statistically significant in comparison with that of their counterparts.

The effect on Telicity, on the other hand, is not so clearly detected. Neither verbs with *be*- nor *ymb*- show a higher statistical preference for telicity than their unprefixated counterparts. In fact, in both cases, it is lower in terms of mean score, even if it is true

that the majority of examples in both cases are telic. However, as mentioned in the analysis, it is considered that an effect on Telicity should not be directly attributed to these prefixes, since if this effect was patent, prefixed verbs would at least show a higher preference for telicity than their counterparts, even if it would not be very different in statistical terms.

In addition to effects on Participants and Affectedness-individuation of U, *be-* and *ymb-* also display a much higher degree of Total Transitivity than their counterparts. In both cases, the disparity in results between prefixed and unprefixed verbs is extremely statistically significant, which seems to bolster the idea that these two prefixes may have score-raising effects on Total Transitivity.

The last prefix studied in this work to which scholars attribute functions related to the parameters under research in this section is *tō-*. This prefix is specifically associated with telicity and the notion of intensification, that is, Affectedness-individuation of U. The data obtained in this study reinforce this idea but also add another effect not present in the works mentioned above.

With regards to the effects mentioned in the literature, the one on telicity is the more clearly seen in my data. *Tō-* verbs do not show a statistically significantly higher preference for telicity than their counterparts. However, it is indeed higher, 0.11 point so, and most importantly, very high in absolute terms. In fact, *tō-* verbs appear in telic contexts in 89% of their attestations, which leaves no doubt as to the preference for this *Aktionsart* feature of verbs with this prefix.

The effects on Affectedness-individuation of U are somehow more difficult to assess. The statistical difference between unprefixed and prefixed verbs is extremely statistically significant in this case. Nevertheless, the mean score of *tō-* verbs in this parameter is not especially high, just 0.55. In this case, contrary to others mentioned above, I argue in favour of an influence of the prefix on this parameter. I do this based, not only on the statistical analysis, nor on the mean score alone, which is not very high, but based mainly on the median and mode scores (both 1 point) *tō-* forms show. These

numbers support the idea that the normal tendency of this prefix is towards affected undergoers, which presents an important difference with the 0 points displayed by their counterparts in this category.

The third parameter I have not yet discussed is Participants. None of the scholars I relied on in this study mentions any effect of this prefix on this specific parameter. My results, on the other hand, reflect an extreme difference, statistically speaking, between prefixed and unprefixed form in relation to Participants. The *tō-* verbs, in fact, appear in two-participant clauses in 73% of their attestations, while their unprefixed equivalent only do so in 14% of them. The difference is clear and highlights the effect this prefix has on this parameter. In addition to this transitivity function in the traditional sense, this prefix also favours high Total Transitivity. In this case, the difference between prefixed and unprefixed verbs is extremely statistically significant, thus supporting how interconnected the notion of Total Transitivity is to prefixes.

However, as detailed throughout the analysis, not all prefixes can be linked to a higher degree of Total Transitivity. In what follows, I will comment briefly on the results of the three remaining prefixes, namely *ā-*, *op-* and *on-*, none of which has been associated in the literature with higher Total Transitivity nor with an effect on any of the parameters analysed in this chapter.

The overview will focus, first, on the prefix *on-*. Even though its functions are not directly associated with Participants, Telicity or Affectedness-individuation of U, scholars have linked this prefix to other functions and meanings, more specifically, inception of the action and continuation of it.

In spite of the *a priori* lack of connection of this prefix with the effects analysed in this study, results show that *on-* verbs present certain differences with respect to their counterparts in some parameters, although only in one of them is the effect considered relevant. That is the case with the parameter Telicity, related to the meaning of inception, in this case, as explained above. Concerning this parameter, *on-* verbs display a statistical higher preference for telic contexts than their counterparts. What is more

relevant though is how high that preference is in terms of absolute score, since verbs to which *on-* is attached have a score of 0.91 points, one of the highest ones in the whole corpus.

In the case of Participants, disparities between both groups of verbs seem remarkable at first sight, although they are not statistically significant. Such a result, thus, discards any kind of effect of *on-* on transitivity in the traditional sense.

Concerning Affectedness-individuation of U, the differences between unprefixated and prefixated counterparts are indeed statistically significant in favour of the latter. However, the score *on-* verbs display in this parameter is not high at all in absolute terms, i.e. 0.48 mean, 0.5 median and 0 mode scores respectively, and therefore a noteworthy influence on this parameter is discarded, as commented on with respect to other prefixes.

Finally, in the case of Total Transitivity, there exist no disparities between both groups of data. Nevertheless, the fact that the mean score of the prefixated group is 0.62 lower than that of its counterpart leads to the conclusion that there are no noticeable effects of the prefix on this category.

To conclude, I will concentrate on results concerning the prefixes *āt-* and *op-*. These two are clearly the prefixes that are least connected with the notion of Total Transitivity or with any parameter in particular both from the point of view of what is claimed in the literature and from what my results show.

Both of these prefixes are associated with certain prepositional meanings but with none of the parameters under study in this section according to previous scholars. This view is supported by the data commented on above. Neither *āt-* nor *op-* verbs have higher scores in any of the parameters in statistical terms. When a difference in statistical terms exists, it shows that unprefixated verbs are the ones that present a higher score, as is the case with Telicity for both verbs. As far as Total Transitivity is concerned, both of them also present lower scores than their equivalents, which means, that no association with

transitivity, either in terms of individual parameters or in total, can be attributed to these prefixes in question.

Once results obtained from all prefixes have been briefly summarized,, I will conclude this section with a final statement. Figure 6.9 below serves as a concentrated synopsis of what has been claimed throughout this section. The column *literature* makes reference to the prefixes that are associated with certain parameters according to scholars. On the other hand, the column on the right, *my results*, shows the prefixes that are demonstrated to be connected to a parameter in question in the present analysis. In both cases, the number of prefixes as well as the specific prefixes themselves have been provided.

Figure 6.9: Summary of total results of chapter 6.

	<b>Literature</b>	<b>My results</b>
Participants	3: $\bar{A}$ -, <i>Be</i> -, <i>For</i> -	4: $\bar{A}$ -, <i>Be</i> -, <i>For</i> -, $T\bar{o}$ -
Telicity	6: $\bar{A}$ -, <i>Be</i> -, <i>For</i> -, <i>Ge</i> -, $T\bar{o}$ -, <i>Ymb</i> -	4: $\bar{A}$ -, <i>Ge</i> -, <i>On</i> -, $T\bar{o}$ -
Affectedness-indiv	5: $\bar{A}$ -, <i>Be</i> -, <i>For</i> -, $T\bar{o}$ -, <i>Ymb</i> -	4: <i>Be</i> -, <i>For</i> -, $T\bar{o}$ -, <i>Ymb</i> -
Total Transitivity		6: $\bar{A}$ -, <i>Be</i> -, <i>For</i> -, <i>Ge</i> -, $T\bar{o}$ -, <i>Ymb</i> -

What Figure 6.9 shows, in conclusion, is what was stated at the beginning of this overview, namely that the results obtained in this section reflect rather closely what is put forth in the literature, even though a certain degree of refinement was needed. In fact, as can be seen, none of the categories exhibits exactly the same information in both columns. It is also important to bear in mind that this study also offers relevant information in relation to the effect of prefixes on transitivity as a whole, no present in previous work on the effects of Old English prefixes.

The results presented in this study show how closely connected the prefixes under analysis are, with the exception of the *on*-, *op*- and  $\bar{a}t$ - trio, with some of the parameters of cardinal transitivity. Most importantly, perhaps, results reveal how interconnected

most prefixes are to the notion of Total Transitivity, which serves to emphasise, at the same time, the close relationship between specific parameters and the notion of Total or cardinal Transitivity, as convincingly explained by Hopper and Thompson (1980) almost 30 years ago by means of a number of examples, to which, as shown in this study, Old English verbal prefixes could be added. Additionally, this work has also highlighted the importance of statistical analysis in studies that rely on quantitative data, since as has been mentioned above several times, statistics have proven that certain impressionistic views, on which previous work is founded, may lead to confusion and to conclusions that do not exactly match those of the purely objective mathematical analysis.

#### 6.4.2 *Interaction of prefixes and causativity*

As for the second objective of this chapter, i.e. to assess the relationship (or lack of it) between prefixes and the causative formation, a summary will be provided in the following paragraphs.

As explained in the introduction to this chapter, the analysis of the relationship between prefixes and the causative suffix focuses exclusively on the parameter Participants since this is the only parameter on which differences between strong and causative prefixed forms could be detected, with very few exceptions. Of course, this is not surprising given the fact that as explained in Chapter 3, section 3.3 with regards to the causative formation, Participants are clearly influenced by this valence-increasing operation.

In general terms, the comparisons of prefixed strong and causative verbs show that the number of pairs in which the causative suffix still retains its transitivity functions and those in which these have been overridden by prefixes is very similar although slightly higher in the case of the former. This result points then to the fact that the causative formation has not been taken over by prefixes as a transitivity force even though it can be concluded that prefixes must be regarded as a transitivity mechanism as relevant in the Old English period as the causative *-jan* suffix.

Twenty-one different prefixed causative pairs are analysed in this study. Four of them yield no fruitful results concerning the second objective of this chapter. This is due to the fact that in three of them, not a single transitive attestation is recorded in neither verb of the pair. These pairs are the following: *Ābūgan – ābīgan*, *formeltan – formyltan* and *onhweorfan – onhwyrfan*. Additionally, the pair made up of *gewindan* and *gewendan* presents a rather low mean score in both members and the difference between them is not statistically significant. In spite of this, it must be pointed out that the strong verb displays a higher, though not significantly, score in Participants than its counterpart which could point to a transitivity effect of the prefix and could be taken as proof in support of the obsolescence of the causative suffix in favour of the prefix as a transitivity force.

As for the 16 remaining pairs, in nine of them, the statistical analysis determines that the scores regarding transitive valence is significantly higher in the case of the causative counterpart, which means that in those nine pairs, the original causative / non causative relationship is preserved. This result, however, does not entail that no signs of lability are found, but it points to the fact that the transitivity effect is more likely attributable to the preservation of the effects of the causative suffix rather than to the effects of prefixes. The nine pairs that present these features are compiled in Figure 6.10 below.

Figure 6.10: Prefixed verb pairs in which the causative verb is more transitive from a statistically point of view than its counterpart.

<b>Prefix</b>	<b>Verb pair</b>
<i>Ā-</i>	<i>Āwācnan – Āweccean</i>
<i>For-</i>	<i>Forbyrnan – Forbāernan</i>
<i>Ge-</i>	<i>Gebūgan – Gebīgan</i>
	<i>Gebyrnan – Gebāernan</i>
	<i>Gehweorfan – Gehwyrfan</i>
	<i>Gemeltan – Gemyltan</i>
<i>On-</i>	<i>Onbūgan – Onbīgan</i>
	<i>Onwācnan – Onweccean</i>
<i>Op-</i>	<i>Opwindan – Opwendan</i>



As can be deduced from the data in Figure 6.10 above, not all prefixes seem to take over transitivity functions in the same degree. This is especially clear in the case of *ge-* since most of the pairs to which this prefix is attached (five out of six) show that the prefix has not taken over the transitivity functions of the *-jan* suffix. Therefore, it can be considered the least causative of all prefixes analysed in this study.

As mentioned above, the analysis in this chapter has shown that there is a relevant number of verb pairs in which both members display no statistical difference concerning their Participants score. This result leads to the hypothesis that the element exercising the transitivity effect is the prefix, the factor both verbs have in common, rather than the causative suffix, only attached to causatives. These pairs amount to a total number of seven different verb pairs. This figure is, of course, lower than in the case of pairs in which transitivity is triggered by the causative prefix, however, they are close enough as to consider prefixes a well-established mechanism of transitivity in the traditional sense in the Old English period, to a similar degree to the causative formation. Figure 6.11 compiles the prefixed verb pairs in which the transitivity effect has been taken over by prefixes.

Figure 6.11: Prefixed verb pairs in which the causative verb is not more transitive from a statistically point of view than its counterpart.

<b>Prefix</b>	<b>Verb pair</b>
<i>Ā-</i>	<i>Ācalan – Ācēlan</i>
	<i>Āhweorfan – Āhwyrfan</i>
	<i>Āwegan – Āwecgan</i>
	<i>Āwindan – Āwendan</i>
<i>Be-</i>	<i>Behweorfan – Bewhyrfan</i>
	<i>Bewindan – Bewendan</i>
<i>For-</i>	<i>Forbūgan – Forbīgan</i>

As is the case with the prefixed pairs whose original relationship is relatively preserved, in the case of those in which the prefix overrides the causative formation, there is a

prefix that stands out. The prefix *ā-* clearly presents transitivity functions with regards to the parameter Participants. The great majority of pairs to which it attaches (four out of five) display no differences in transitivity between both members of the pair, and therefore they should be linked to the functions of the prefix and not to the causative formation. Even if *ā-* must be highlighted as far as the competition of the causative formation and prefixes as transitivity mechanisms is concerned, other prefixes i.e. *be-* and *for-* also bolster the idea that this appropriation of functions of the prefixes over the causative formation does take place in Old English.

All in all, the results concerning this second objective have shown that prefixes are a transitivity mechanism that is just as widespread and efficient as the causative *-jan* suffix. This points to an appropriation of prefixes of the functions of the causative formation which as these verbs show, is already rather blurred in terms of valence. Such a result opens new research paths that can be explored in future work. However, it must be pointed out that the causative formation as a transitivity mechanism has not been completely obliterated since in some cases, differences in valence between causative and their strong counterparts not attributable to the effects of prefixes are still detected, even if these are affected by labilization and therefore, not preserved as could be expected from a historical point of view.



## **CHAPTER 7. CONCLUSION**

The final chapter of this work intends to serve as an overview of the results and conclusions that the analysis of the corpus of verbs under study has provided with respect to the objectives presented in the introductory section. The contents of this chapter have been divided into three sections. The first one of them focuses on the main results of this study. The second section concentrates on the various problems that arose during the completion of this work as well as on the solutions offered to try to overcome them. Finally, the third part of the present chapter discusses further research lines.

### **7.1 Main results**

This subsection summarises the results obtained in this study with respect to the major objectives described in the introduction. The first of them, developed in detail in chapter 4, focuses on the analysis of the process of labilization of verbs originally standing in a causative / non-causative alternation. The second one (chapter 5) tried to shed light on the role of date of composition and text type on labilization, emphasising the idea that although Old English is frequently considered as a block, disregarding the fact that it comprises around 400 years of language, preserved in different kinds of composition, differences among texts, both in type and date of composition, are indeed not negligible and should be taken into consideration for a more insightful understanding of the language. With the third main objective, chapter 6, the idea was to assess the role of verbal prefixes in connection with certain parameters of cardinal transitivity and with Total Transitivity in the selected corpus of blurred causative oppositions. Additionally, the interaction of prefixation as a transitivising force in the traditional sense (parameter Participants) with the causative formation was explored. This study aimed at determining to what extent, if at all, prefixation has completely overridden the already eroding causative alternation.

Concerning the results of each specific objective, focus will be laid first on the results regarding the first major objective of this study, i.e. the analysis of valence variations within the group of labile verbs originating from the causative alternation, developed in

detail in chapter 4. In general terms, the analysis provided in this study agrees with previous research on the topic (van Gelderen 2011, García García 2012 and Ottósson 2013) in showing that the verbs under analysis, with the exception of *deorfan* – *dyrfan*, for methodological reasons as explained in chapter 4, display signs of lability. Five of these pairs represent cases of completely blurred alternations, i.e. both of the members of the pair are labile. Seven of them, on the other hand, are partially blurred, which means that only one of its members shows signs of lability.

This work also provides further information concerning these verbs that falls out of the scope of previous research, since prefixed counterparts of labile former causative pairs are also taken into account. When analysed individually, results may lead to the conclusion that the causative opposition is better preserved in the case of prefixed forms. Out of the 60 verbs with prefix under study, only slightly more than half of them are labile, 35 to be precise, while 20 of them keep their original valence intact. This might be related to one of the major problems this study presented, disparity of attestation. This will be discussed in detail in section 7.2 below. In fact, when these verbs are analysed as pairs, rather than individually, the data are very similar to the ones of unprefix pairs in showing that lability is widespread among these verbs. Eight of the prefixed verb pairs taken into account in this work are partially blurred (one labile member). Eight of them, on the other hand, are completely blurred. However, it must be pointed out that contrary to what is the case with unprefix pairs, three perfectly preserved causative / non-causative pairs could be found in my corpus, namely the ones made up of the verbs *onbūgan* – *onbīgan*, *onwāecnan* – *onweccean* and *opwindan* – *opwendan*.

In addition to the analysis of data, this work aims at shedding light on factors that may have affected the labilization process. The first cause addressed in chapter 4 as possibly related to labilization is prefixes, due to the fact that they are usually associated with transitivity in the literature. However, through the statistical method used in this work, the role of prefixes as one of the possible engines of labilization is discarded.

As summed up in the concluding remarks section of chapter 4, the comparison of the number of labile verbs with no prefix and those with prefix, both individually and as pairs, offers rather similar results. Seventeen (65.3%) out of 26 unprefixated verbs are labile while that percentage is slightly lower in the case of prefixed verbs, 35 out of 60, i.e. (58.3%). When verb pairs, rather than individual verbs are compared, the number of preserved prefixed verb pairs rises to three out of 19 (15.7%) while no intact causative / non-causative verb pair is preserved in the unprefixated group, with the exception of *deorfan – dyrfan* as commented on above. In spite of the differences in percentage and raw numbers, it is determined by the t-test for significance that both groups, unprefixated and prefixed, both individually speaking and in pairs, present no statistical differences as far as their valence behaviour is concerned. Such a result, thus, discards prefixes as an influencing factor in the widespread labilization undergone by the verbs under study.

In addition to being preceded by prefixes, several of the verbs examined in this group share other widespread features that may have played a role in the labilization process. An especially relevant one in this study is remarkable semantic change. The semantic changes undergone by verbs such as *forbūgan* ‘decline, avoid; flee from, escape; bend from, pass by’ or *behweorfan* ‘attend to; prepare (food, body for burial); embalm; treat, deal with’ with respect to their counterparts, *būgan* ‘bow, bend; submit (intr.; caus.)’ and *hweorfan* ‘turn, change (intr.); go’, respectively, most likely influenced by the addition of prefixes, may be a factor to bear in mind in the development of a non-historical valence, transitive in this case.

Although likely influenced by prefixes, remarkable semantic change also takes place in unprefixated verbs and as is the case with prefixed ones, it seems to have played a role in the development of new valence in some cases. This is most clearly seen in the case of *wendan* ‘turn (round), change (intr.; caus.); go (intr.)’ much more commonly attested with the intransitive sense ‘go’ than with any of its original causative meanings. As explained in chapter 4, such a change is regarded as a sign of lexicalization by authors such as Ramat (1992: 550-1). According to his views, these changes may cause these verbs to be perceived as a new lexical item rather than as a linguistic sign derived by grammatical rules as these verbs are from a historical point of view.

In addition to semantic change, this work addresses another factor to bear in mind in the obsolescence of the causative alternation, i.e. phonological similarities between both members of the alternation. This aspect is already mentioned in previous literature on the topic such as Hermodsson (1952), Visser (1963), van Gelderen (2011) and Ottósson (2013), who underline the lack of transparency and asystematicity of Old English in distinguishing between strong and causative counterpart in comparison with other Germanic languages. The corpus analysis in this study served to support their views and additionally, goes further than previous research in giving attested examples where it is actually impossible to distinguish between the strong verb and its derived causative due to the fact that these are identical on formal grounds. The fact that some of these verbs present a high degree of labilization, on the other hand, makes the differentiation through syntactic means equally difficult. Thus, it is plausible to imagine that such blurring, both syntactic and formal, contributes to the deterioration of the causative alternation. This very same phenomenon, as referred to in the corresponding chapter, is currently taking place in Present-day English with respect to some of the few surviving remnants of the *jan-* alternation. Therefore, it is acceptable to think that such a scenario might not be new in the history of the English language.

Finally, this work provides insights on the direction of the development of labile verbs. Some scholars, for instance Visser (1963: 99) and van Gelderen (2011), based on the former, argue that strong verbs undergo a transitivity process, while others such as Hermodsson (1952: 104, 195, 208f, 308f) and Ottósson (2013: 377) think labilization is due to a detransitivising process whereby causatives acquire intransitive valence. In general terms, the analysis carried out in this study determined that the number of strong and causative verbs becoming labile are rather similar, as most of the examinations of individual verbs as well as verb pairs showed. Nevertheless, the results of some of the comparisons and statistical analyses argued in favour of the detransitivising hypothesis. For instance, the comparison of strong verbs that keep their valence intact and those that are labile on the one hand, and that of intact causatives versus labile ones, on the other, revealed that causatives are more prone to become labile than their strong counterparts from a statistical point of view. Likewise, the study of verb pairs that present a

significant statistical valence difference between strong and causative verb, reveals that the tendency for causatives to take on the valence value of their counterparts is higher than the one displayed by strong verbs.

The following sets of results are connected with the role of text type and date of composition on valence. Concerning individual categories, the data showed that in all of them, HEV is dominant to an extremely statistically significant degree, with the exception of late gloss, “only” very statistically significant. The more relevant results, however, arise when different categories and macrocategories are compared.

Regarding date of composition, the careful examination of the data in chapter 5 demonstrated that there exists an extreme difference between earlier and later texts in the degree of examples with NHEV they present. This serves to prove that there is a noteworthy evolution of labilization throughout the Old English period, which was to be expected, although as pointed out above, not all scholars emphasise the role of lability in Old English. McMillion (2006: 193-5), for instance, argues that the number of labile verbs in Old English is comparable to that of Present-day German and Swedish, languages on which the role of lability is not as commonly highlighted as it is in Old English.

Additionally, however, the data showed that not all kinds of text evolve in exactly the same way chronologically speaking. While the difference in the data between early and late prose is very statistically significant, that of early and late verse is less so. Such a result, thus, supports the idea that the evolution of labilization in verse texts is more gradual than in prose texts.

This should not come as a surprise considering what the analysis of text types exhibits. The comparison of different text types reveals that there is variation in the degree of labilization they display. Verse texts are by far the most conservative ones in that they present a greater number of verbs displaying HEV statistically speaking both in comparison to prose and glosses. The difference is, however, greater in the case of the former, which considering the data, is by far the more innovative text type of the three



as far as the number of verbs displaying NHEV is concerned. As for glosses, they seem to represent a middle ground between the innovative prose and the conservative verse. This is not surprising, given the fact that the glossed texts taken into account in this study are indeed written in prose. However, as explained in detail in chapter 5, the difference in terms of NHEV examples gloss presents with regards to prose might be attributed to dialectal variation. The glossed texts under analysis present clear Northern and Mercian dialectal features that might be behind the higher preservation of the causative opposition compared with prose. In fact, these results agree with the conclusions put forth by García García (2016) who argues that the degree of blurring of causative formation is not higher in the *Lindisfarne Gospels* than in other Old English texts even though the opposite is the case with inflectional morphology.

Results regarding variation in text type and date of composition put to the forefront the inaccuracy of generalizations, convenient as they may be, such as assuming that Old English is a single static block of language that presents no internal variation, in spite of the fact that it comprises around 400 years of language. As argued in this work, this is of special importance when a phenomenon having to do with variation is under analysis, since as demonstrated in this study, textual and chronological differences do exist and should be taken into account.

Finally, the last and perhaps most relevant set of results obtained in this study have to do with the role of prefixes. These results are related to two main issues: first, the effects (or lack of them) of prefixes on cardinal transitivity, as well as on some of the parameters they have traditionally been associated with, i.e. Participants, Telicity and Affectedness-individuation of U. Second, the analysis carried out in chapter 6 served to shed light on the way causativity interacts with prefixes and to determine whether the causative formation has been overridden by prefixation as a transitivity force.

Concerning the effects of prefixes on the transitivity of the verbs under analysis, it is determined in chapter 6 that some prefixes do show a widespread and manifest effect on Total Transitivity. More precisely, in six out of the nine prefixes analysed in this work, namely *ā-*, *be-*, *for-*, *ge-*, *tō-* and *ymb-*, prefixed verbs displayed a higher score in Total

Transitivity than their unprefixed counterparts from a statistical point of view, which serves to reinforce the role they play in connection with transitivity.

Regarding the effects on specific parameters, results show that in the majority of cases, the conclusions to which this study leads are similar to those offered in the literature, even though with a certain degree of refinement in some cases.

The only prefix displaying effects on all three parameters analysed in this work is *tō-*. Likewise, *for-* was claimed to act on Participants, Telicity and Affectedness-individuation of U, at least when results are taken as a whole. However, it must be pointed out that the higher score in Participants displayed by a group of *for-* verbs seems to be related to a high degree of semantic specialization rather than to a transitivity effect of the prefix itself, as could be demonstrated in the analysis of the group of *for-* verbs not showing such signs, since in none of these verbs a transitivity effect in the traditional sense is detected. This is, in fact, a major outcome of this study, since it refutes one of the most widespread hypotheses concerning *for-*, namely the fact that it is mostly a transitivity prefix. Results also determine that the most prominent effect of this prefix is on the parameter Affectedness-individuation of U, clearly demonstrated in both groups of verbs, i.e. the ones that undergo remarkable semantic change and those that do not.

Other prefixes show functions related to only two of the parameters under study. That is the case with *ā-*, on the one hand, and the very similar, in functions and meaning, *be-* and *ymb-*. In the case of the former, the statistical analysis determine that *ā-* verbs present a higher score, statistically speaking, in both Participants and Telicity with respect to their unprefixed counterparts. Notice that of these, only the latter is taken into account in previous works. The intensifying effect of this prefix, however, is claimed by some authors such as de la Cruz (1975: 73). In spite of this, the results obtained in this study do not support this view. As for *be-* and *ymb-*, previous studies, for instance Brinton (1988: 209-10), have emphasised the telic function of these prefixes, a function that is not detected in the analysis carried out in chapter 6. However, the examination of the data leaves no doubt as to the patent effect that verbs with these prefixes present on

Participants and Affectedness-individuation of U, whose scores are much higher in statistical terms than those of their counterparts.

Among the group of prefixes showing influence on Total Transitivity, the one displaying a lesser impact in terms of parameters is *ge-*. In spite of some claims in previous works relating this prefix to transitivity or functions regarding affectedness, according to the analysis in chapter 6, the only parameter clearly affected by *ge-* is Telicity. It is argued that such a result may be related to the lack of semantic change *ge-* verbs show with respect to their counterparts, thus leading to more similarities between unprefixated and prefixed verbs concerning transitivity. In addition to Telicity, the influence of *ge-* on Total Transitivity is also remarkable. It is therefore patent that this verb has effects on transitivity but only when studied as a whole rather than in connection with Participants only.

Finally, a brief comment on those prefixes showing no effect on Total Transitivity will be made. This group is made out of the prefixes *āet-*, *on-* and *op-*. None of these prefixes is explicitly claimed in the literature to be related to any of the parameters under study in this work. This is confirmed in the case of *āet-* and *op-*, but not exactly of *on-*. The prefix *on-* is related to ingressive aspect in some of the works quoted above such as Quirk and Wrenn (1957: 111-2). Even though they do not mention Telicity with respect to this aspect, this parameter is intimately related to it, since ingressive aspect marks the initial border of an event, i.e. it is telic, but rather than signaling the endpoint of the event, it rather marks its beginning (see Sasse (1991)). Therefore, it is not surprising to find out that *on-* has indeed effects on parameter Telicity as demonstrated in the analysis provided in chapter 6.

Before finishing with this section, the last set of results of this work, those related to the interaction of causativity and prefixes concerning parameter Participants, will be commented on. In general terms, the conclusions in chapter 6 show that there is no noteworthy disparity in the number of verb pairs in which the causative suffix still retains its transitivity functions and those in which these have been overridden by prefixes. In nine cases, the causative prefixed verb displays a significantly higher score

in Participants than their counterparts, which means that the difference can be attributable to the preservation of the causative opposition rather than to the effects of the prefix. The opposite is true of seven different pairs in which both members show a similar score in Participants. In these cases, thus, the results point to the fact that the prefix has taken over the transitivity functions of the causative suffix. Additionally, the analysis of the data also provides insightful information concerning the prefixes that are more prone to appropriate the transitivity features of the causative formation. While *ā-* takes over those functions in almost all pairs it is attached to, *be-* and *for-* do it to a lesser extent. *Ge-* is the least influencing prefix, not surprising given the scarce effect of this prefix on Participants.

To sum up, the results concerning this second objective point to the fact that prefixes are a transitivity mechanism that is just as relevant as the causative *-jan* suffix in the Old English period. This points to an appropriation of prefixes of the functions of the eroding causative formation that is not completely obliterated as a transitivity force at this stage of the language.

## **7.2 Main problems and solutions**

The following paragraphs are a concise overview of some of the major problems, commented on throughout previous chapters, which arose during the completion of this work. Information concerning the solutions that were found in order to solve or at least mitigate the impact on this piece of research of some of the main difficulties encountered will also be provided.

The first major obstacle I faced in the completion of this study was related to the compilation of examples. As explained in chapter 2, the fact that the DOEC is not lemmatized presents a relevant problem as far as the compilation of examples is concerned. This entails that a list of all different roots of the verbs under analysis had to be compiled before the actual searches in the DOEC were carried out. This task, simple as it is in a language such as Present-day English, may present a big challenge in the case of Old English, a language that is not standardized and that as such displays

considerable variation, chronological, dialectal, etc. in verbal paradigms. Fortunately, the necessary information is carefully presented in DOE. This dictionary lists every single attested form of each of the verbs it includes. However, due to the fact that it was only completed up to letter G by the time the compilation of my corpus was carried out, meant that most of roots required for the collection of the corpus had to be looked for elsewhere, mainly in other dictionaries such as Sweet (1868), Bosworth and Toller (1898), Clark-Hall (1960) and Old English grammars such as Campbell's (1965). By these means, the complete selection of roots that allowed a thorough search for examples in the corpus, available in Figure 2.2, was collected and the completion of the corpus of examples on which this whole work is based could be carried out.

Once examples had been selected, another difficulty referred to in chapter 2 had to be faced, namely the fact that some of the forms of the verbal paradigms are shared by both the strong verb and its derived causative. This entails that in some cases, the distinction on formal grounds only between both members of a causative / non-causative pair is impossible. The fact that the verbs standing in such a pair often display noteworthy semantic differences between them was decisive in shedding light on this issue. Again, as during the root compilation process, the aforementioned dictionaries were crucial in providing a solution to this problem. Through the information they provide, it could often be determined whether the verb in a certain clause was an example of the causative verb or its strong counterpart. By way of example, the verbs *deorfan* and *dyrfan* share the 3rd person singular form *dyrffþ*. However, according to dictionaries, only the strong verb can convey the meaning 'labour, work' and therefore, when an example with such a meaning was found, it was tagged as an example of *deorfan*. However, several verbs under analysis do not only share some forms of their paradigms, but also their semantics. Therefore, the aforementioned method used in distinguishing verbs was not useful in these cases. The fact that syntactic criteria could not be used either given that the verbs analysed are labile, and consequently, one cannot rely on their syntactic behaviour as a method to set verbs apart, made the distinction between strong and causative verb impossible in some instances. When that was the case, I opted for compiling that precise clause as an example of both the strong verb and the causative counterpart.

Relevant as these difficulties are, the major problem that arose in this study is related to disparity of attestation. This obstacle is, of course, inherent to all works in historical linguistics since the data researchers must rely on are finite. The fact that several verbs taken into account in this study are barely attested or not attested at all, or that the data are unbalanced in some respects presented what is perhaps the biggest challenge in the completion of this work.

First, I will concentrate on the consequences and difficulties that the unbalance of the corpus presented and how these were solved. One of the aspects most clearly affected by this unbalance is seen in the classification of text types. Some of the verbs included in my corpus appear only in very specific kinds of texts or in early or late ones only, e.g. *gebærnian* is almost exclusively attested in medical texts, while *būgan* is much more frequent in late texts than in earlier ones. This had a major impact on the design of the corpus, as explained in chapter 2. The preliminary design contemplated much more fine-grained distinctions concerning text type and date of composition. This first design was based on the genre division used by Fulk and Cain (2013) and also divided texts into four chronological groups, from OE1 to OE4 as in *The Helsinki Corpus*. However, the restrictions of the corpus made such distinctions unfeasible. Consequently, texts were divided into larger groups so that each of the categories consisted of enough examples that could be compared with each other and therefore, some results with regards textual and chronological variation, although more general perhaps than desirable, could be provided.

In other cases, major problems arose from the interaction of the methodology employed with the randomness of attestation in the corpus. With this I refer specifically to the case of the verbs *deorfan* and *dyrfan*. As explained in detail in chapter 2, some of the examples retrieved from DOEC had to be discarded due to the fact that they could not be subjected to the analysis of the aspects that conform the core of this study, such as valence or the parameters of Total Transitivity. Therefore, examples of verbs in passive or participial clauses were left out of the corpus. This decision, however, presented a remarkable difficulty in connection with the aforementioned verb pair, since as commented elsewhere, with few exceptions, these verbs are mostly attested in the kind

of clauses that had to be discarded in this study. Due to this bias in the kind of clause in which these verbs have survived, it was impossible to demonstrate that these verbs stand in an eroding causative / non-causative pair relying on the examples in my corpus only. This problem had to be solved by relying on previous work by García García (2012) where these verbs are included as labile or by taking into account the examples listed in DOE, since they do clearly demonstrate the labile nature of *dyrfan* though only in clauses that did not display the characteristics required of those included in my corpus.

Another major consequence of the unbalance of the corpus has to do with the fact that, in several cases, the comparisons of data carried out in my study involve a very different number of attestations. For instance, while *hweorfan* is attested 143 times, its counterpart *hwyrfan* only appears in 23 different clauses. This problem was satisfactorily solved by means of one of the major contributions to this study, namely statistical analysis. This methodological tool represents a decisive differing factor with respect to previous studies. None of the works that have served as the basis for the present one, such as Hiltunen (1980), Brinton (1988) or García García (2012), to name a few, are based on the statistical data. This represents a major difference with respect to them. Among, other things, the use of statistics allowed for a comparison of sets of data that contained a very different number of examples, as illustrated above. Likewise, it made possible to obtain insightful results from data that seem very similar *a priori* if only percentages are taken into account, as is the case with the textual data dealt with in chapter 5. Additionally, statistical analysis serves to shed an objective light that is beyond the impressionistic data that can be gathered through percentages only. As has been seen throughout this whole work, impressionistic data may sometimes lead to wrong conclusions. In several cases, differences between verbs both in terms of number and percentages lead to a certain conclusion that seems perfectly logical and obvious. However, when looked at under the objective lense of statistical analysis, such a difference turns out to be non-existent and devoid of any support from the point of view of the data, which, after all, are the foundations of any quantitative study. What statistics does, in conclusion, is to filter the data through an objectivity sieve that is lacking in previous work dealing with topics related to the ones discussed in this work.

This does not mean that the data of other studies that do not count on statistical analysis should be discarded. Their value is, of course, undeniable. Nevertheless, as has been shown in this work repeatedly, statistical analysis helps to determine more firmly whether any the conclusions of a quantitative study are completely solid, as well as to gain some unexpected insights.

Useful as it is, the statistical method employed in this study could not be used to overcome all difficulties concerning attestation. Some verbs were only attested once in my corpus and therefore could not be subjected to any kind of statistical analysis. Therefore, as pointed out in the analysis above, results concerning these verbs and those that are attested only twice too should be taken with caution and should always be contrasted against a qualitative evaluation or against results of similar verbs whose attestations are more frequent.

Lastly, in order to conclude with this section regarding problems and solutions, focus will be laid on another relevant difficulty encountered in the completion of this work, namely the application of the cardinal transitivity theory in my analysis. With this, rather than to the analysis of the parameters themselves in the Old English clauses analysed in this study, I refer to the changes that had to be applied to Hopper and Thompson's (1980) approach in order to be used in a study than relies mostly on quantitative data. Prior to this study, such an adaptation had already been carried out by Hollmann (2003) on which most of my changes, though not all, rely. As this author points out (*ibid*: 185) the main flaw the cardinal transitivity approach presents in its application to a quantitative study is the lack of a specific numerical system that allows for the clauses under analysis to be ranked as more or less transitive, in total and parameter per parameter. As explained in chapter 6, (section 6.2), such a scoring system is provided in this study since without it, the statistical comparison of the data concerning individual parameters as well as Total Transitivity of each of the examples taken into account in this work would have been impossible.

Additionally, as Hollmann (*ibid*) does, changes were applied to some of the parameters specified in Hopper and Thompson's work. Some of these changes do not really



represent the solution of a specific problem in the parameters of cardinal transitivity but rather serve to simplify the analysis avoiding redundancy in some cases. For instance, parameter Agency is closely related to Volitionality. In fact, as pointed out by van Valin (2005: 56) or Næss (2007: 29) agents are necessarily volitional. Consequently, these two parameters were fused into just one. Similarly, Affectedness and Individuation of U were analysed under just one parameter due to the close connection between them. The fact that I analyse affectedness of undergoers independently of the syntactic function they have in the clause, subject or object, also presents a necessary novelty, in my opinion, with respect to Hopper and Thompson's original approach.

However, not all changes involve simplification of the parameters in Hopper and Thompson (ibid). In some cases, their approach does not capture relevant nuances such as the difference in agency, or volition, of undergoers, and not just of actors, reflected in morphosyntactic changes in some languages. The importance of the volitional factor of undergoers is taken into account by Hollmann (2003) based on the research by Talmy (1976, 1985, 1988). In this particular case, thus, the analysis of a parameter becomes more complex than in the original cardinal transitivity approach by Hopper and Thompson (1980).

### **7.3 Further research**

This last subsection deals briefly with some of the research lines that that could be followed in later work. As explained in the paragraphs above, the major problem this study faces has to do with dearth of attestation. A good starting point for further research would be thus to try to fill some of the gaps my corpus left. With this I refer specifically to verbs that presented a very scarce number of attestations and consequently could not provide solid conclusions regarding the objectives of this study. More examples need to be retrieved of verbs such as *onbīgan*, *onhwyrfan*, *tōwendan*, just to name a few in order to corroborate or discard the hypotheses established in this work.

Other possible lines of further research have to do with specific objectives. For instance, as mentioned in chapter 2, texts that display features associated with Middle English were discarded, for instance *The Peterborough Chronicle* (DOE: ChronE). It would be interesting to analyse these texts in detail using the statistical methods employed in this study in order to shed light on the evolution of the verbs taken into account in this work in texts that are already on the borderline between the Old and Middle English periods. It could be demonstrated that there exists a statistical difference in terms of lability between earlier and later Old English. By means of the methodology used in this study, it could be assessed whether there exists a remarkable disparity between later Old English texts and those that already display clear Middle English traits or even later ones. This would serve to clarify whether the collapse of the causative formation in Middle English is as abrupt as is often portrayed. It is expected too that such a study could also provide more clues as to factors that may have influenced the labilization process beyond the ones explored in this work.

In addition to offering relevant insights concerning date of composition, the analysis of textual factors in chapter 5 also pointed to the influence of another factor that could not be as thoroughly studied as desired, namely dialectal variation. Results showed that diatopical variation might indeed be relevant to the study of labile verbs in Old English. Although very innovative as far as inflectional morphology is concerned, some of the northern texts under analysis were in fact more conservative than West-Saxon ones with regards to lability. An analysis focused on the possible effects of dialectal variation on lability that could be expanded to all verbs standing in a causative / non-causative pair could offer interesting insights with regards to whether northern texts in general are more conservative in this respect as well as to provide clues as to why this may be the case.

The last line of future research I will refer to is related to the interaction of prefixes and the causative suffix. As commented on elsewhere, this is a topic that has been little explored in the literature so far (see Visser (1963: 97-100) and Lindemann (1970: 30)). The results in this study point to the fact that prefixes are a transitive mechanism that is just as relevant as the causative *-jan* suffix in the Old English period. It was

shown that although not completely obliterated as a transitive force, the causative suffix shares this transitive function with certain verbal prefixes among which *ā-*, *be-*, and *for-* are the ones that stand out. Further research in this field could provide information as to what extent the functions of the *-jan* suffix have been taken over by prefixes by analysing a larger group of them. Additionally, it could offer interesting insights on their later evolution. For instance, it could be assessed whether phrasal verbs, the mechanism that substitutes prefixes in the Middle English period as a *Aktionsart* marker, can also function as a transitive mechanism in the traditional sense or in case they do not, what mechanisms take that role in later periods.

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## APPENDIX A: Number of attestations per verb by text

The present appendix offers information concerning the number of attestations each verb presents in each of the texts in the corpus on which this study is based. Additionally, it provides information on the type of valence, HEV (historically expected) or NHEV (non-historically expected) that each attestation displays. The texts are presented following the supracategories and categories referred to in chapter 5. Within these, texts are listed in alphabetical order by short title.

### EARLY TEXTS (Beginning- ca.950)

Early Prose:

**Bede:** Bede's *Historia Ecclesiastica Gentis Anglorum*

Historically expected	Non-historically expected
<i>Būgan</i> : 1, <i>Gebūgan</i> : 1	
<i>Bīgan</i> : 8, <i>Gebīgan</i> : 1	
<i>Byrnan</i> : 11, <i>Forbyrnan</i> : 3	
<i>Bāernan</i> : 7, <i>Forbāernan</i> : 10, <i>Onbāernan</i> : 4	<i>Onbāernan</i> : 1
<i>Calan</i> : 1	
<i>Hweorfan</i> : 69	<i>Hwyrfan</i> : 3
<i>Hwyrfan</i> : 2, <i>Gehwyrfan</i> : 7	<i>Āhwyrfan</i> : 1, <i>Gehwyrfan</i> : 2
	<i>Gestincan</i> : 1
	<i>Swingan</i> : 1
<i>Onwāecnan</i> : 1	
<i>Weccean</i> : 2, <i>Āweccean</i> : 3	
<i>Gewegan</i> : 1	<i>Wegan</i> : 2
<i>Windan</i> : 1	
<i>Gewendan</i> : 1	<i>Wendan</i> : 3
Total: 134 (90.5%)	Total: 14 (9.4%)
Total: 148	

**Bo:** Boethius' *De Consolatione Philosophiae*

Historically expected	Non-historically expected
	<i>Forbūgan</i> : 1
<i>Byrnan</i> : 3 <i>Bǣrnan</i> : 2, <i>Forbǣrnan</i> : 5	
<i>Calan</i> : 1	
<i>Hweorfan</i> : 8, <i>Onhweorfan</i> : 1 <i>Behwyrfan</i> : 1	<i>Ymbhweorfan</i> : 2 <i>Hwyrfan</i> : 5, <i>Onhwyrfan</i> : 1
<i>Gestincan</i> : 1	
<i>Onwǣcnan</i> : 1 <i>Āweccean</i> : 1	
<i>Gewindan</i> : 1 <i>Wendan</i> : 5, <i>Āwendan</i> : 1, <i>Gewendan</i> : 1	<i>Āwindan</i> : 1 <i>Wendan</i> : 10
Total: 32 (61.5%)	Total: 20 (38.4%)
Total: 52	

**ChronA:** *The Anglo-Saxon Chronicle MS A*

Historically expected	Non-historically expected
<i>Būgan</i> : 3, <i>Gebūgan</i> : 1	
<i>Byrnan</i> : 1, <i>Forbyrnan</i> : 3 <i>Bǣrnan</i> : 1, <i>Forbǣrnan</i> : 7	
<i>Hweorfan</i> : 4, <i>Tōhweorfan</i> : 1 <i>Gehwyrfan</i> : 1	<i>Gehwyrfan</i> : 1
<i>Lǣfan</i> : 1	
	<i>Swingan</i> : 1
<i>Onwǣcnan</i> : 1	
<i>Opwindan</i> : 1	<i>Wendan</i> : 7
Total: 25 (73.5%)	Total: 9 (26.4%)
Total: 34	

**CP: Cura Pastoralis**

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Gebūgan</i> : 1, <i>Onbūgan</i> : 2	<i>Forbūgan</i> : 10, <i>Gebūgan</i> : 1
<i>Forbīgan</i> : 1, <i>Gebīgan</i> : 5	<i>Gebīgan</i> : 2
<i>Byrnan</i> : 4	
<i>Forbāernan</i> : 2	<i>Forbāernan</i> : 1
<i>Gecēlan</i> : 1	
<i>Gehweorfan</i> : 2	<i>Gehweorfan</i> : 1
<i>Hwyrfan</i> : 1, <i>Āhwyrfan</i> : 3, <i>Forhwyrfan</i> : 1,	<i>Ymbhweorfan</i> : 1
<i>Gehwyrfan</i> : 14	
<i>Læfan</i> : 2	
<i>Gemyltan</i> : 2	
	<i>Gestincan</i> : 1
	<i>Swingan</i> : 7
<i>Onwāecnan</i> : 5	
<i>Āweccean</i> : 6	<i>Āweccean</i> : 2
<i>Āwecgan</i> : 7	<i>Wegan</i> : 1
<i>Windan</i> : 2, <i>Āwindan</i> : 1, <i>Gewindan</i> : 1	
<i>Wendan</i> : 3, <i>Āwendan</i> : 3	<i>Wendan</i> : 17, <i>Āwendan</i> : 3, <i>Gewendan</i> : 3
Total: 69 (57.9%)	Total: 50 (42%)
Total: 119	

**CPLetWærf: Cura Pastoralis, Letter to Wærferth**

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Læfan</i> : 2	
<i>Wendan</i> : 6, <i>Āwendan</i> : 1	
Total: 9 (100%)	Total: 0 (0%)
Total: 9	



**GD:** Gregory the Great's *Dialogues*

Historically expected	Non-historically expected
<i>Gecēlan</i> : 3	
Total: 3 (100%)	Total: 0 (0%)
Total: 3	

**HomU 9:** *The Vercelli Homilies*

Historically expected	Non-historically expected
<i>Calan</i> : 1	
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

**LawAbt:** *Laws of Æthelberht*

Historically expected	Non-historically expected
<i>Būgan</i> : 1, <i>Gebīgan</i> : 1	<i>Gebūgan</i> : 1
Total: 2 (66.6%)	TOTAL: 1 (33.3%)
Total: 3	

**LawAf / Ine:** *Laws of Alfred-Ine*

Historically expected	Non-historically expected
<i>Gebīgan</i> : 1	<i>Gebūgan</i> : 1
<i>Bærnan</i> : 1, <i>Forbærnan</i> : 1	
<i>Forhwyrfan</i> : 1	
<i>Læfan</i> : 2	
	<i>Beswingan</i> : 1
<i>Āwendan</i> : 1	<i>Wendan</i> : 1
Total: 7 (70%)	Total: 3 (30%)
Total: 10	

**LawWi:** *Laws of Wihtræd*

Historically expected	Non-historically expected
<i>Læfan</i> : 1	
	<i>Swingan</i> : 2
Total: 1 (33.3%)	Total: 2 (66.6%)
Total: 3	

**LchII:** *Bald's Leechbook*

Historically expected	Non-historically expected
<i>Bærnan</i> : 6, <i>Gebærnan</i> : 19	
	<i>Ācalan</i> : 2
<i>Cēlan</i> : 3, <i>Ācēlan</i> : 1	
	<i>Gehwyrfan</i> : 1
<i>Meltan</i> : 6	<i>Meltan</i> : 3, <i>Gemeltan</i> : 3
<i>Myltan</i> : 4, <i>Gemyltan</i> : 4	<i>Myltan</i> : 4
<i>Smīcan</i> : 2	
<i>Stincan</i> : 4	
	<i>Swingan</i> : 1
<i>Onwācnan</i> : 1	
<i>Weccean</i> : 1	
<i>Gewegan</i> : 20	<i>Wegan</i> : 1
<i>Wendan</i> : 1	
Total: 72 (82.7%)	Total: 15 (17.2%)
Total: 87	

**Med 2:** *Medical Recipes from British Library MS*

Historically expected	Non-historically expected
	<i>Cēlan</i> : 1
Total: 0 (0%)	Total: 1 (100%)
Total: 1	

**Or:** Orosius' *Historiae Adversus Paganos*

Historically expected	Non-historically expected
<i>Būgan</i> : 3, <i>Ābūgan</i> : 1, <i>Gebūgan</i> : 1, <i>Onbūgan</i> : 1 <i>Gebīgan</i> : 3	
<i>Byrnan</i> : 8, <i>Forbyrnan</i> : 4 <i>Bāernan</i> : 4, <i>Forbāernan</i> : 12, <i>Onbāernan</i> : 4	<i>Forbāernan</i> : 3
<i>Gedorfan</i> : 3	
<i>Hweorfan</i> : 3, <i>Gehweorfan</i> : 3	<i>Hwyrfan</i> : 1
<i>Formeltan</i> : 1, <i>Gemeltan</i> : 1	
<i>Stincan</i> : 1	
	<i>Swingan</i> : 2, <i>Geswingan</i> : 1
<i>Onwāecnan</i> : 2	
<i>Windan</i> : 1 <i>Wendan</i> : 1, <i>Āwendan</i> : 1	<i>Wendan</i> : 16, <i>Āwendan</i> : 2, <i>Gewendan</i> : 1
Total: 58 (69%)	Total: 26 (30.9%)
Total: 84	

**PPs (Prose):** *Paris Psalter Prose*

Historically expected	Non-historically expected
<i>Gebīgan</i> : 3	<i>Gebūgan</i> : 1 <i>Gebīgan</i> : 1
<i>Byrnan</i> : 2 <i>Bāernan</i> : 1, <i>Forbāernan</i> : 1	
<i>Hweorfan</i> : 2, <i>Gehweorfan</i> : 1 <i>Hwyrfan</i> : 2, <i>Āhwyrfan</i> : 2, <i>Gehwyrfan</i> : 6	<i>Ymbhweorfan</i> : 1 <i>Gehwyrfan</i> : 2
<i>Lāefan</i> : 4	
<i>Āweccean</i> : 1	
<i>Wecgan</i> : 2	
<i>Wendan</i> : 1, <i>Āwendan</i> : 4	<i>Wendan</i> : 3
Total: 32 (80%)	Total: 8 (20%)

Total: 40

**Solil:** Augustine's *Soliloquies*

Historically expected	Non-historically expected
	<i>Bǣrnan</i> : 1
<i>Gecelan</i> : 1	
<i>Hweorfan</i> : 1	
<i>Lǣfan</i> : 1	
<i>Āweccean</i> : 2	
	<i>Windan</i> : 1
<i>Wendan</i> : 1	<i>Wendan</i> : 1
Total: 6 (66.6%)	Total: 3 (33.3%)
Total: 9	

**EARLY PROSE TOTALS:**

Historically expected	Non-historically expected
Total: 451 (74.7%)	Total: 152 (25.2%)
Total: 603	

Early Verse:

**Beo:** *Beowulf*

Historically expected	Non-historically expected
<i>Būgan</i> : 8, <i>Ābūgan</i> : 1, <i>Bebūgan</i> : 2, <i>Gebūgan</i> : 5	
<i>Byrnan</i> : 1, <i>Forbyrnan</i> : 2, <i>Gebyrnan</i> : 1 <i>Bǣrnan</i> : 2, <i>Forbǣrnan</i> : 1	
<i>Hweorfan</i> : 12, <i>Ēthweorfan</i> : 1, <i>Ymbhweorfan</i> : 1 <i>Gehweorfan</i> : 4	<i>Hwyrfan</i> : 1
<i>Lǣfan</i> : 2	
<i>Meltan</i> : 3, <i>Gemeltan</i> : 4	

<i>Swingan</i> : 1	
<i>Wāecnan</i> : 3, <i>Onwāecnan</i> : 3	
<i>Weccean</i> : 4, <i>Tōweccean</i> : 1	
<i>Gewegan</i> : 1	<i>Wegan</i> : 5
<i>Windan</i> : 2, <i>Ātwindan</i> : 1, <i>Gewindan</i> : 2	<i>Bewindan</i> : 1
<i>Gewendan</i> : 1	<i>Wendan</i> : 1, <i>Gewendan</i> : 1
Total: 68 (87.1%)	Total: 10 (12.8%)
Total: 78	

Early Gloss:

**BoGI**: Boethius' *De Consolatione Philosophiae Gloss*

Historically expected	Non-historically expected
<i>Deorfan</i> : 1	
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

#### EARLY TEXTS TOTALS:

Historically expected	Non-historically expected
Total: 520 (76.2%)	Total: 162 (23.7%)
Total: 682	

#### LATE TEXTS: C. 950 – 1150

Late Prose:

**Ad**: *Adrian and Ritheus*

Historically expected	Non-historically expected
	<i>Gehwyrfan</i> : 1
Total: 0 (0%)	Total: 1 (100%)
Total: 1	

**Alex:** *Alexander's Letters to Aristotle*

Historically expected	Non-historically expected
<i>Cēlan</i> : 2	
Total: 2 (100%)	Total: 0 (0%)
Total: 2	

**ÆCHom:** *Ælfric's Homilies*

Historically expected	Non-historically expected
<i>Būgan</i> : 27, <i>Ābugan</i> : 4, <i>Gebūgan</i> : 13, <i>Forbūgan</i> : 19 <i>Onbūgan</i> : 1	
<i>Bīgan</i> : 1, <i>Forbīgan</i> : 1, <i>Gebīgan</i> : 20	<i>Bīgan</i> : 1, <i>Gebīgan</i> : 8
<i>Byrnan</i> : 12, <i>Forbyrnan</i> : 2 <i>Bærnan</i> : 1, <i>Forbærnan</i> : 8	
<i>Gecēlan</i> : 1	
<i>Behwyrfan</i> : 5	<i>Behweorfan</i> : 1 <i>Gehwyrfan</i> : 1
<i>Belīfan</i> : 7 <i>Læfan</i> : 1	
<i>Stincan</i> : 2 <i>Tōstencan</i> : 6	
	<i>Swingan</i> : 4, <i>Beswingan</i> : 5
<i>Wæcnan</i> : 1	
	<i>Āwegan</i> : 1
<i>Windan</i> : 3, <i>Ētwindan</i> : 5 <i>Wendan</i> : 5, <i>Āwenden</i> : 32, <i>Gewendan</i> : 1	<i>Bewindan</i> : 5, <i>Gewindan</i> : 1 <i>Wendan</i> : 8, <i>Āwenden</i> : 19, <i>Bewendan</i> : 3, <i>Gewendan</i> : 20
Total: 159 (62.3%)	Total: 96 (37.6%)
Total: 255	

**ÆGenPref:** *Ælfric's Preface to Genesis*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Gebīgan</i> : 1	
<i>Āwendan</i> : 6	<i>Āwendan</i> : 1
Total: 7 (87.5%)	Total: 1 (12.5%)
Total: 8	

**ÆHex:** *Hexameron*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Calan</i> : 1	
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

**ÆJudgEp:** *Heptateuch Epilogue*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Būgan</i> : 3, <i>Ābūgan</i> : 1	
<i>Gebīgan</i> : 1	
<i>Forbærnan</i> : 1	
<i>Belīfan</i> : 1	
	<i>Wendan</i> : 1, <i>Gewendan</i> : 1
Total: 7 (77.7%)	Total: 2 (22.2%)
Total: 9	

**ÆLet 1:** *Letter to Wulfsige*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Būgan</i> : 2, <i>Gebūgan</i> : 3	
<i>Gebīgan</i> : 1	
<i>Āwendan</i> : 1	
Total: 7 (100%)	Total: 0 (0%)
Total: 7	

**ÆLet 4: Letter to Sigeward**

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Būgan</i> : 1	<i>Forbūgan</i> : 1 <i>Gebūgan</i> : 1
<i>Belīfan</i> : 4	
<i>Āwendan</i> : 12, <i>Tōwendan</i> : 1	<i>Āwendan</i> : 2, <i>Gewendan</i> : 1
Total: 18 (78.2%)	Total: 5 (21.7%)
Total: 23	

**ÆLS: Ælfric's Lives of Saints**

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Būgan</i> : 12, <i>Ābūgan</i> : 2, <i>Gebūgan</i> : 2 <i>Bīgan</i> : 2, <i>Gebīgan</i> : 20	<i>Būgan</i> : 1, <i>Forbūgan</i> : 3 <i>Bīgan</i> : 1, <i>Gebīgan</i> : 1
<i>Byrnan</i> : 3, <i>Forbyrnan</i> : 4 <i>Forbærnan</i> : 4	
<i>Calan</i> : 1 <i>Cēlan</i> : 1	
	<i>Behweorfan</i> : 2
<i>Belīfan</i> : 16 <i>Læfan</i> : 3, <i>Belæfan</i> : 2	<i>Belæfan</i> : 1
<i>Formeltan</i> : 1	<i>Formyltan</i> : 2
<i>Stincan</i> : 4	<i>Gestincan</i> : 1
	<i>Swingan</i> : 8, <i>Beswingan</i> : 4
<i>Āwæcnan</i> : 8	
<i>Āwecgan</i> : 2	
<i>Windan</i> : 3, <i>Ētwindan</i> : 4 <i>Āwendan</i> : 5	<i>Bewindan</i> : 1 <i>Āwendan</i> : 1, <i>Bewendan</i> : 4, <i>Gewendan</i> : 1
Total: 99 (76.1%) 99	Total: 31 (23.8%)
Total: 130	



**ChrodR:** Chrodegang of Metz; *Regula Canoniorum*

Historically expected	Non-historically expected
<i>Deorfan:</i> 2	
Total: 2 (100%)	Total: 0 (0%)
Total: 2	

**ChronC:** *The Anglo-Saxon Chronicle MS C*

Historically expected	Non-historically expected
<i>Būgan:</i> 16, <i>Gebūgan:</i> 1	
<i>Forbyrnan:</i> 3	
<i>Bāernan:</i> 10, <i>Forbāernan:</i> 13	
<i>Hweorfan:</i> 3, <i>Tōhweorfan:</i> 2	
<i>Gehwyrfan:</i> 1	<i>Gehwyrfan:</i> 1
<i>Lāefan:</i> 1	<i>Belīfan:</i> 2
<i>Onwāecnan:</i> 1	
<i>Opwindan:</i> 1	
<i>Wendan:</i> 2	<i>Wendan:</i> 49, <i>Gewendan:</i> 23
Total: 54 (41.8%)	Total: 75 (58.1%)
Total: 129	

**ChronD:** *The Anglo-Saxon Chronicle MS D*

Historically expected	Non-historically expected
<i>Būgan:</i> 23, <i>Gebūgan:</i> 2, <i>Onbūgan:</i> 1	
<i>Gebīgan:</i> 1	
<i>Forbyrnan:</i> 5	
<i>Baernan:</i> 11, <i>Forbāernan:</i> 19	
<i>Hweorfan:</i> 1, <i>Tōhweorfan:</i> 2	
	<i>Gehwyrfan:</i> 1
<i>Belīfan:</i> 4	
<i>Lāefan:</i> 1	
<i>Swengan:</i> 1	

<i>Opwindan</i> : 1	
<i>Wendan</i> : 2	<i>Wendan</i> : 57, <i>Āwendan</i> : 1, <i>Gewendan</i> : 17
Total: 74 (49.3%)	Total: 76 (50.6%)
Total: 150	

**Hept:** *Old English Heptateuch*

Historically expected	Non-historically expected
<i>Būgan</i> : 12, <i>Ābūgan</i> : 4, <i>Forbūgan</i> : 1, <i>Forbūgan</i> : 4 <i>Gebūgan</i> : 3, <i>Onbūgan</i> : 2 <i>Bīgan</i> : 3, <i>Gebīgan</i> : 1	<i>Bīgan</i> : 1
<i>Byrnan</i> : 3 <i>Bĕrnan</i> : 11, <i>Forbĕrnan</i> : 24	
<i>Forhwyrfan</i> : 2	<i>Behweorfan</i> : 3
<i>Belīfan</i> : 8 <i>Lĕfan</i> : 5, <i>Belĕfan</i> : 3	
<i>Smēocan</i> : 2	
	<i>Swingan</i> : 1, <i>Beswingan</i> : 1
<i>Āwaecnan</i> : 4 <i>Āweccean</i> : 1	
	<i>Āwegan</i> : 1
<i>Windan</i> : 1 <i>Wendan</i> : 2, <i>Āwendan</i> : 7, <i>Gewendan</i> : 4, <i>Wendan</i> : 10, <i>Āwendan</i> : 3, <i>Gewendan</i> : 16 <i>Tōwendan</i> : 4	
Total: 107 (72.7%)	Total: 40 (27.2%)
Total: 147	

**HomS 12:** *Second Sunday in Lent*

Historically expected	Non-historically expected
<i>Formeltan</i> : 1	
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

**HomS 37:** *Tuesday in Rogationtide*

Historically expected	Non-historically expected
	<i>Formyltan</i> : 1
Total: 0 (0%)	Total: 1 (100%)
Total: 1	

**LawCn:** *Laws of Cnut*

Historically expected	Non-historically expected
<i>Gebūgan</i> : 7	<i>Forbūgan</i> : 3
Total: 7 (70%)	Total: 3 (30%)
Total: 10	

**LawGer:** *Gerefa*

Historically expected	Non-historically expected
	<i>Behweorfan</i> : 1
Total: 0	Total: 1 (100%)
Total: 1	

**LawRect:** *Rectitudines*

Historically expected	Non-historically expected
	<i>Behweorfan</i> : 2
<i>Læfan</i> : 2	
Total: 2 (50%)	Total: 2 (50%)
Total: 4	

**LchI:** Pseudo Apuleius: *Herbarium*

Historically expected	Non-historically expected
<i>Onbūgan</i> : 1	<i>Forbūgan</i> : 1
<i>Bērnan</i> : 4	
<i>Gecēlan</i> : 2	
	<i>Gehwyrfan</i> : 1

<i>Belīfan</i> : 1	
<i>Gemyltan</i> : 3	<i>Gemyltan</i> : 1
	<i>Smēocan</i> : 2
<i>Smīcan</i> : 2	
<i>Stincan</i> : 1	<i>Gestincan</i> : 1
	<i>Bewindan</i> : 1
<i>Āwendan</i> : 2	<i>Wendan</i> : 1
Total: 16 (66.6%)	Total: 8 (33.3%)
Total: 24	

**Leof:** *Vision of Leofric*

Historically expected	Non-historically expected
	<i>Wendan</i> : 1
Total: 0 (0%)	Total: 1 (100%)
Total: 1	

**Lit 4.6 (Muir):** *Prayer for Victory*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Formeltan</i> : 1	
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

**LS Chad:** *Life of Saint Chad*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Tōstencan</i> : 2	
<i>Āweccean</i> : 2	
	<i>Wendan</i> : 1
Total: 4 (80%)	Total: 1 (20%)
Total: 5	

**LS Machutus: *Life of Saint Machutus***

Historically expected	Non-historically expected
<i>Deorfan</i> : 2	
Total: 2 (100%)	Total: 0 (0%)
Total: 2	

**LS Marg: *Life of Saint Margaret***

Historically expected	Non-historically expected
<i>Gebūgan</i> : 4	
<i>Gebīgan</i> : 2	
	<i>Byrnan</i> : 1
<i>Forbāernan</i> : 1	
<i>Gehweorfan</i> : 2	
<i>Āhwyrfan</i> : 1	<i>Gehwyrfan</i> : 2
	<i>Gelāefan</i> : 1
	<i>Swingan</i> : 3
	<i>Āweccean</i> : 1
Total: 10 (55.5%)	Total: 8 (44.4%)
Total: 18	

**LS Mary of Egypt: *Life of Mary of Egypt***

Historically expected	Non-historically expected
<i>Bewendan</i> : 2	
Total: 2 (100%)	TOTAL: 0 (0%)
Total: 2	

**LS Nicholas: *Life of Saint Nicholas***

Historically expected	Non-historically expected
	<i>Bewendan</i> : 1
Total: 0 (0%)	Total: 1 (100%)
Total: 1	

**Mart 5: Martyrologium**

Historically expected	Non-historically expected
<i>Cēlan</i> : 1	
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

**Med 3: Lacnunga**

Historically expected	Non-historically expected
<i>Byrnan</i> : 1	
<i>Bǣrnan</i> : 5, <i>Gebǣrnan</i> : 1	
<i>Myltan</i> : 3	
<i>Swengan</i> : 2	<i>Swingan</i> : 3
<i>Wendan</i> : 1	<i>Wendan</i> : 1
Total: 13 (76.4%)	Total: 4 (23.5%)
Total: 17	

**Prog: Prognostics**

Historically expected	Non-historically expected
<i>Byrnan</i> : 4	
<i>Deorfan</i> : 2	
<i>Gehweorfan</i> : 1	
	<i>Gehwyrfan</i> : 1
	<i>Wegan</i> : 3
<i>Ātwindan</i> : 3	
<i>Wendan</i> : 5, <i>Āwendan</i> : 1	<i>Wendan</i> : 1
Total: 16 (76.1%)	Total: 5 (23.8%)
Total: 21	

**Prov:** *Distichs of Cato*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Wendan</i> : 1	
Total: 1 (100%)	Total: 0 (0%)
Total: 1	

**Sol I:** *Solomon and Saturn I*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Āwācnan</i> : 2	
Total: 2 (100%)	Total: 0 (0%)
Total: 2	

**Sol II:** *Solomon and Saturn II*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Byrnan</i> : 1	
	<i>Bāernan</i> : 1
Total: 1 (50%)	Total: 1 (50%)
Total: 2	

**ThCap2:** *Theodulf of Orleans' Capitula*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Deorfan</i> : 2	
Total: 2 (100%)	Total: 0
Total: 2	

**WHom:** *Wulfstan's Homilies*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Būgan</i> : 4, <i>Ābūgan</i> : 1, <i>Gebūgan</i> : 15	<i>Forbūgan</i> : 10
<i>Gebīgan</i> : 2	<i>Gebīgan</i> : 1
<i>Byrnan</i> : 1	
<i>Bāernan</i> : 1, <i>Forbāernan</i> : 5	<i>Forbāernan</i> : 1

<i>Dyrfan</i> : 1	
	<i>Behweorfan</i> : 1
<i>Hwyrfan</i> : 4	<i>Gehwyrfan</i> : 1
<i>Læfan</i> : 1	<i>Læfan</i> : 1
	<i>Swingan</i> : 3
<i>Āwæcnan</i> : 3	
<i>Āwendan</i> : 2	<i>Wendan</i> : 2, <i>Gewendan</i> : 4
Total: 40 (62.5%)	Total: 24 (37.5%)
Total: 64	

**WPol:** *Institutes of Polity*

Historically expected	Non-historically expected
<i>Būgan</i> : 1, <i>Gebūgan</i> : 3	<i>Forbūgan</i> : 3
	<i>Wegan</i> : 2
<i>Wendan</i> : 2	
Total: 6 (54.5%)	Total: 5 (45.4%)
Total: 11	

**LATE PROSE TOTALS:**

Historically expected	Non-historically expected
Total: 664 (62.8%)	Total: 392 (37.1%)
Total: 1056	

Late Verse:

**And:** *Andreas*

Historically expected	Non-historically expected
<i>Bebūgan</i> : 1	
<i>Forbīgan</i> : 1	
<i>Hweorfan</i> : 5, <i>Gehweorfan</i> : 2	<i>Āhweorfan</i> : 1, <i>Gehweorfan</i> : 1
<i>Formeltan</i> : 1	
<i>Gemyltan</i> : 1	



<i>Swingan: 1</i>	
<i>Onwācnan: 2</i>	
<i>Weccean: 1, Āweccean: 1</i>	
<i>Āwecgan: 1</i>	
<i>Windan: 1</i>	
<i>Wendan: 1</i>	
Total: 17 (80.9%)	Total: 4 (19%)
Total: 21	

**ChristABC:** *Christ*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Ābūgan: 1, Gebūgan: 1</i>	
<i>Gebīgan: 2</i>	
<i>Byrnan: 2</i>	
<i>Bāernan: 2, Forbāernan: 2</i>	
<i>Hweorfan: 5, Onhweorfan: 1</i>	
<i>Lāefan: 1</i>	
<i>Gemeltan: 1</i>	
<i>Āwācnan: 1</i>	
<i>Weccean: 2</i>	<i>Weccean: 1</i>
	<i>Wegan: 1</i>
<i>Bewindan: 1</i>	<i>Bewindan: 1</i>
	<i>Wendan: 2</i>
Total: 22 (81.4%)	Total: 5 (18.5%)
Total: 27	

**El:** *Elene*

<b>Historically expected</b>	<b>Non-historically expected</b>
	<i>Bebūgan: 1</i>
<i>Gehweorfan: 1</i>	
<i>Āweccean: 2</i>	<i>Āweccean: 2</i>

	<i>Wegan</i> : 2
<i>Wendan</i> : 1	<i>Wendan</i> : 4, <i>Gewendan</i> : 2
Total: 4 (26.6%)	Total: 11 (73.3%)
Total: 15	

**GenAB: Genesis**

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Būgan</i> : 1, <i>Bebūgan</i> : 1 <i>Forbīgan</i> : 1	
<i>Byrnan</i> : 1 <i>Forbāernan</i> : 1	
<i>Hweorfan</i> : 14, <i>Āhweorfan</i> : 2	<i>Ymbhweorfan</i> : 1
<i>Lāefan</i> : 3	
	<i>Swingan</i> : 1
<i>Wāecnan</i> : 7, <i>Āwāecnan</i> : 3, <i>Onwāecnan</i> : 1 <i>Weccean</i> : 2, <i>Āweccean</i> : 2, <i>Onweccean</i> : 1	<i>Weccean</i> : 1, <i>Āweccean</i> : 1
<i>Windan</i> : 2, <i>Gewindan</i> : 1	<i>Bewindan</i> : 2
<i>Wendan</i> : 1, <i>Gewendan</i> : 1, <i>Opwendan</i> : 1	<i>Wendan</i> : 4, <i>Āwendan</i> : 1
Total: 46 (80.7%)	Total: 11 (19.2%)
Total: 57	

**Jul: Juliana**

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Būgan</i> : 1, <i>Gebūgan</i> : 1	
<i>Forbyrnan</i> : 1 <i>Bāernan</i> : 1, <i>Onbāernan</i> : 1	
<i>Hweorfan</i> : 4 <i>Āhwyrfan</i> : 1	<i>Āhwyrfan</i> : 1
	<i>Swingan</i> : 4
<i>Wendan</i> : 1	
Total: 11 (68.7%)	Total: 5 (31.2%)

Total: 16
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**Met:** *The Meters of Boethius*

Historically expected	Non-historically expected
<i>Bīgan</i> : 2	
<i>Byrnan</i> : 2 <i>Forbāernan</i> : 3	
<i>Hweorfan</i> : 4, <i>Ymbhweorfan</i> : 1	<i>Hwyrfan</i> : 3, <i>Forhwyrfan</i> : 1
<i>Wecgan</i> : 2	
<i>Windan</i> : 1, <i>Āwindan</i> : 1	
<i>Wendan</i> : 1	<i>Wendan</i> : 4, <i>Gewendan</i> : 1
Total: 17 (65.3%)	Total: 9 (34.6%)
Total: 26	

**Phoen:** *Phoenix*

Historically expected	Non-historically expected
<i>Bīgan</i> : 1	
<i>Byrnan</i> : 4	
<i>Hweorfan</i> : 2	
<i>Onwāecnan</i> : 1	
<i>Weccean</i> : 1, <i>Āweccean</i> : 1	
<i>Wendan</i> : 1	
Total: 11 (100%)	Total: 0 (0%)
Total: 11	

**PPs:** *Paris Psalter*

Historically expected	Non-historically expected
	<i>Būgan</i> : 1, <i>Bebūgan</i> : 1
<i>Bīgan</i> : 2, <i>Gebīgan</i> : 2, <i>Onbīgan</i> : 1	
<i>Byrnan</i> : 1	<i>Byrnan</i> : 1

<i>Forbærnan</i> : 1	<i>Onbærnan</i> : 1
<i>Hweorfan</i> : 6, <i>Gehweorfan</i> : 7	<i>Gehweorfan</i> : 1
<i>Hwyrfan</i> : 1	<i>Āhwyrfan</i> : 1, <i>Gehwyrfan</i> : 1
<i>Meltan</i> : 1	<i>Myltan</i> : 2
	<i>Gestincan</i> : 1
<i>Onwæcnan</i> : 1	
<i>Weccean</i> : 2, <i>Āweccean</i> : 4	<i>Āweccean</i> : 1
<i>Wendan</i> : 2, <i>Āwendan</i> : 3, <i>Gewendan</i> : 1,	<i>Wendan</i> : 9, <i>Āwendan</i> : 2
Total: 35 (61.4%)	Total: 22 (38.5%)
Total: 57	

**Rid:** *The Anglo-Saxon Riddles*

Historically expected	Non-historically expected
<i>Onbūgan</i> : 2	
<i>Stincan</i> : 1	
<i>Wegan</i> : 1	<i>Wegan</i> : 1
	<i>Gewendan</i> : 1
Total: 4 (66.6%)	Total: 2 (33.3%)
Total: 6	

**LATE VERSE TOTALS:**

Historically expected	Non-historically expected
Total: 167 (70.7%)	Total: 69 (29.2%)
Total: 236	

**GLOSS:**

Late Gloss:

*ÆColl*: *Ælfric's Colloquy*

Historically expected	Non-historically expected
<i>Deorfan</i> : 2, <i>Gedeorfan</i> : 1	
Total: 3 (100%)	Total: 0

Total: 3
----------

**DurRitGl:** *Durham Ritual*

Historically expected	Non-historically expected
	<i>Gebyrnan</i> : 1
Total: 0	Total: 1 (100%)
Total: 1	

**LibSc:** *Defensor, Liber Scintillarum*

Historically expected	Non-historically expected
<i>Deorfan</i> : 1	
Total: 1 (100%)	Total: 0
Total: 1	

**(Li)Gl:** *Lindisfarne Gospels*

Historically expected	Non-historically expected
	<i>Gebyrnan</i> : 1
<i>Gecēlan</i> : 1	
Total: 1 (50%)	Total: 1 (50%)
Total: 2	

**ProgGl:** *Prognostics Gloss*

Historically expected	Non-historically expected
<i>Byrnan</i> : 1	
<i>Deorfan</i> : 2	
<i>Swingan</i> : 1	
<i>Ātwindan</i> : 10	
<i>Āwendan</i> : 1	<i>Āwendan</i> : 1
Total: 15 (93.7%)	Total: 1 (6.2%)
Total: 16	

**PsGI D / K / H / F:** *Psalms Glosses*

<b>Historically expected</b>	<b>Non-historically expected</b>
	<i>Gecēlan</i> : 4
Total: 0 (0%)	Total: 4 (100%)
Total: 4	

**(Ru)GI:** *Rushworth Gospels*

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Gebīgan</i> : 4	<i>Ābigan</i> : 1, <i>Gebīgan</i> : 3
<i>Byrnan</i> : 2	<i>Byrnan</i> : 1, <i>Ābyrnan</i> : 1
<i>Bāernan</i> : 2, <i>Forbāernan</i> : 1, <i>Gebāernan</i> : 1	<i>Forbāernan</i> : 1, <i>Gebāernan</i> : 1
	<i>Gehwyrfan</i> : 1
<i>Lāefan</i> : 3	
	<i>Stencan</i> : 2
	<i>Swingan</i> : 4, <i>Geswingan</i> : 1
<i>Weccean</i> : 3, <i>Āweccean</i> : 15, <i>Geweccean</i> : 1	<i>Weccean</i> : 1
	<i>Bewindan</i> : 4, <i>Gewindan</i> : 1
	<i>Wendan</i> : 1, <i>Āwendan</i> : 1, <i>Gewendan</i> : 1
Total: 32 (56.1%)	Total: 25 (43.8%)
Total: 57	

**LATE GLOSS TOTALS:**

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 52 (61.9%)	Total: 32 (38%)
Total: 84	

**LATE TEXTS TOTALS:**

<b>Historically expected</b>	<b>Non-historically expected</b>
Total: 883 (64.1%)	Total: 493 (35.8%)
Total: 1376	

Undated Gloss:

**HyGI 1: *Hymns***

<b>Historically expected</b>	<b>Non-historically expected</b>
<i>Gebyrnan</i> : 1	
Total: 1 (100%)	Total: 0
Total: 1	

## APPENDIX B

Appendix B is a compilation of the results of every verb in each of the parameters analysed as well as in Total Transitivity. In addition to offering the raw data per parameter, i.e. the number of examples of each category available per parameter, it includes the statistical scores of mean, median and mode.

### *BŪGAN*: 121 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 111	Real: 94	[+Dynamic]: 121	[+Telic]: 96	[+Punctual]: 0
Negative: 10	Irre: 27	[-Dynamic]: 0	[-Telic]: 25	[-Punctual]: 121
Mean: 0.91	Mean: 0.77	Mean: 1	Mean: 0.79	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 119	No A (Irre): 27	No U: 119	1 points: 2	
2 part: 2	A-: 28	Affected: 2	2 points: 15	
	A+: 64		3 points: 14	
	A+/U-: 1		4 points: 35	
	A+/U+: 1		5 points: 53	
			7 points: 1	
			7.5 points: 1	
Mean: 0.01	Mean: 0.54	Mean: 0.01	Mean: 4.07	
Median: 0	Median: 1	Median: 0	Median: 4	
Mode: 0	Mode: 1	Mode: 0	Mode: 5	

### *ĀBŪGAN*: 15 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 12	Real: 8	[+Dynamic]: 15	[+Telic]: 13	[+Punctual]: 0
Negative: 3	Irre: 7	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 15



Mean: 0.8	Mean: 0.53	Mean: 1	Mean: 0.86	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>				
1 part: 15	No A (Irre): 7	No U: 15	1 point: 1	
2 part: 0	A-: 6		2 points: 2	
	A+: 2		3 points: 4	
			4 points: 6	
			5 points: 2	
Mean: 0	Mean: 0.13	Mean: 0	Mean: 3.4	
Median: 0	Median: 0	Median: 0	Median: 4	
Mode: 0	Mode: 0	Mode: 0	Mode: 4	

***BEBŪGAN***: 6 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 5	Real: 5	[+Dynamic]: 6	[+Telic]: 2	[+Punctual]: 0
Negative: 1	Irre: 1	[-Dynamic]: 0	[-Telic]: 4	[-Punctual]: 6
Mean: 0.83	Mean: 0.83	Mean: 1	Mean: 0.33	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>				
1 part: 4	No A (Irre): 1	No U: 4	3 points: 5	
2 part: 2	A-: 4	No U (Irre): 1	7.5 points: 1	
	A+/U+: 1	Affected: 1		
Mean: 0.33	Mean: 0.16	Mean: 0.16	Mean: 3.75	
Median: 0	Median: 0	Median: 0	Median: 3	
Mode: 0	Mode: 0	Mode: 0	Mode: 3	

**FORBŪGAN:** 56 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 48	Real: 22	[+Dynamic]: 56	[+Telic]: 1	[+Punctual]: 0
Negative: 8	Irre: 34	[-Dynamic]: 0	[-Telic]: 55	[-Punctual]: 56
Mean: 0.85	Mean: 0.39	Mean: 1	Mean: 0.01	Mean: 0
Median: 1	Median: 0	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 0	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A (Irre): 33	No U: 1	2 points: 9	
2 part: 55	A-/U-: 1	No U (Irre): 32	3 points: 24	
	A-/U+: 2	Partial: 6	5 points: 2	
	A+/U-: 17	Affected: 17	5.5 points: 8	
	A+/U+: 13		6 points: 10	
			6.5 points: 3	
Mean: 0.98	Mean: 0.66	Mean: 0.35	Mean: 3.99	
Median: 1	Median: 1	Median: 0	Median: 3	
Mode: 1	Mode: 1	Mode: 0	Mode: 3	

**GEBŪGAN:** 68 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 62	Real: 40	[+Dynamic]: 68	[+Telic]: 62	[+Punctual]: 0
Negative: 6	Irre: 28	[-Dynamic]: 0	[-Telic]: 6	[-Punctual]: 68
Mean: 0.91	Mean: 0.58	Mean: 1	Mean: 0.91	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 64	No A (Irre): 28	No U: 64	2 points: 6	
2 part: 4	A-: 3	No U (Irre): 2	3 points: 20	
	A+: 35	Affected: 2	4 points: 10	

	A+/U-: 1		5 points: 30
	A+/U+: 1		7 points: 1
			7.5 points: 1
Mean: 0.05	Mean: 0.54	Mean: 0.02	Mean: 4.06
Median: 0	Median: 1	Median: 0	Median: 4
Mode: 0	Mode: 1	Mode: 0	Mode: 5

**ONBŪGAN:** 10 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 7	Real: 6	[+Dynamic]: 10	[+Telic]: 9	[+Punctual]: 0
Negative: 3	Irre: 4	[-Dynamic]: 0	[-Telic]: 1	[-Punctual]: 10
Mean: 0.7	Mean: 0.6	Mean: 1	Mean: 0.9	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 10	No A (Irre): 4	No U: 10	2 points: 3	
2 part: 0	A+: 6		3 points: 1	
			4 points: 1	
			5 points: 5	
Mean: 0	Mean: 0.6	Mean: 0	Mean: 3.8	
Median: 0	Median: 1	Median: 0	Median: 4.5	
Mode: 0	Mode: 1	Mode: 0	Mode: 5	

**BĪGAN:** 22 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 22	Real: 17	[+Dynamic]: 22	[+Telic]: 20	[+Punctual]: 0
Negative: 0	Irre: 5	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 22
Mean: 1	Mean: 0.77	Mean: 1	Mean: 0.90	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0

Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 3	No A (Irre): 5	No U: 3	2 points: 1	
2 part: 19	A+: 2	No U (Irre): 4	4 points: 5	
	A+/U-: 13	Partial: 1	5 points: 1	
	A+/U+: 2	Affected: 14	6.5 points: 1	
			7 points: 12	
			7.5 points: 2	
Mean: 0.86	Mean: 0.81	Mean: 0.65	Mean: 6.02	
Median: 1	Median: 1	Median: 1	Median: 7	
Mode: 1	Mode: 1	Mode: 1	Mode: 7	

*ĀBĪGAN*: 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 1	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 1	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 1	Mean: 0	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	A+: 1	No U: 1	4 points: 1	
2 part: 0				
Mean: 0	Mean: 1	Mean: 0	Mean: 4	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

**FORBĪGAN:** 4 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 4	Real: 4	[+Dynamic]: 4	[+Telic]: 4	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 4
Mean: 1	Mean: 1	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	A+/U-: 4	Affected: 4	7 points: 4	
2 part: 4				
Mean: 1	Mean: 1	Mean: 1	Mean: 7	
Median: 1	Median: 1	Median: 1	Median: 7	
Mode: 1	Mode: 1	Mode: 1	Mode: 7	

**GEBĪGAN:** 88 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 78	Real: 58	[+Dynamic]: 88	[+Telic]: 84	[+Punctual]: 0
Negative: 10	Irre: 30	[-Dynamic]: 0	[-Telic]: 4	[-Punctual]: 88
Mean: 0.88	Mean: 0.65	Mean: 1	Mean: 0.95	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 17	No A (Irre): 30	No U: 13	2 points: 1	
2 part: 71	A-: 1	No U (Irre): 30	3 points: 12	
	A+: 12	Partial: 1	4 points: 21	
	A+/U-: 25	Affected: 44	5 points: 9	
	A+/U+: 20		6.5 points: 1	
			7 points: 24	
			7.5 points: 20	

Mean: 0.80	Mean: 0.76	Mean: 0.50	Mean: 5.58
Median: 1	Median: 1	Median: 0.75	Median: 6.75
Mode: 1	Mode: 1	Mode: 1	Mode: 7

**ONBĪGAN:** 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 1	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 1	Mean: 1	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	A+/U-: 1	Affected: 1	7 points: 1	
2 part: 1				
Mean: 1	Mean: 1	Mean: 1	Mean: 7	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

**BYRNAN:** 71 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 62	Real: 52	[+Dynamic]: 3	[+Telic]: 70	[+Punctual]: 1
Negative: 9	Irre: 19	[-Dynamic]: 68	[-Telic]: 1	[-Punctual]: 70
Mean: 0.87	Mean: 0.73	Mean: 0.04	Mean: 0.98	Mean: 0.01
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 68	No A: 68	No U (Irre): 19	1 point: 9	
2 part: 3	A+/U+: 1	Partial: 7	2 points: 10	

	A+/U-: 1	Affected: 45	3.5 points: 6
	A-/U-: 1		4 points: 42
			4.5 points: 1
			5 points: 1
			7 points: 1
			7.5 points: 1
Mean: 0.04	Mean: 0.04	Mean: 0.68	Mean: 3.40
Median: 0	Median: 0	Median: 1	Median: 4
Mode: 0	Mode: 0	Mode: 1	Mode: 4

***ĀBYRNAN***: 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 0	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 1	[-Telic]: 0	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 0	Mean: 1	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Partics.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A: 1	Affected: 1	4 points: 1	
2 part: 0				
Mean: 0	Mean: 0	Mean: 1	Mean: 4	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

***FORBYRNAN***: 27 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 26	Real: 24	[+Dynamic]: 0	[+Telic]: 27	[+Punctual]: 0
Negative: 1	Irre: 3	[-Dynamic]: 27	[-Telic]: 0	[-Punctual]: 27
Mean: 0.96	Mean: 0.88	Mean: 0	Mean: 1	Mean: 0

Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 27	No A: 27	No U (Irre): 3	1 point: 1	
2 part: 0		Affected: 2	2 points: 2	
		H. Affected: 22	4 points: 2	
			4.5 points: 22	
Mean: 0	Mean: 0	Mean: 1.29	Mean: 4.14	
Median: 0	Median: 0	Median: 1.5	Median: 4.5	
Mode: 0	Mode: 0	Mode: 1.5	Mode: 4.5	

**GEBYRNAN:** 4 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 4	Real: 4	[+Dynamic]: 2	[+Telic]: 4	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 2	[-Telic]: 0	[-Punctual]: 4
Mean: 1	Mean: 1	Mean: 0.5	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 0.5	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0 / 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 2	No A: 2	Affected: 4	4 points: 2	
2 part: 2	A+/U-: 2		7 points: 2	
Mean: 0.5	Mean: 0.5	Mean: 1	Mean: 5.5	
Median: 0.5	Median: 0.5	Median: 1	Median: 5.5	
Mode: 0 / 1	Mode: 0 / 1	Mode: 1	Mode: 4 / 7	

**BÆRNAN:** 74 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 72	Real: 66	[+Dynamic]: 74	[+Telic]: 47	[+Punctual]: 0
Negative: 2	Irre: 8	[-Dynamic]: 0	[-Telic]: 27	[-Punctual]: 74



Mean: 0.97	Mean: 0.89	Mean: 1	Mean: 0.63	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>				
1 part: 2	No A (Irre): 8	No U (Irre): 9	2 points: 1	
2 part: 72	A-: 1	Partial: 23	3 points: 4	
	A-/U-: 4	Affected: 33	4 points: 4	
	A+/U-: 59	H. Affected: 9	4.5 points: 1	
	A+/U+: 2		5.5 points: 18	
			6 points: 7	
			6.5 points: 5	
			7 points: 24	
			7.5 points: 10	
Mean: 0.97	Mean: 0.83	Mean: 0.78	Mean: 6.09	
Median: 1	Median: 1	Median: 1	Median: 6.5	
Mode: 1	Mode: 1	Mode: 1	Mode: 7	

**FORBÆRNAN:** 128 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 123	Real: 109	[+Dynamic]: 123	[+Telic]: 123	[+Punctual]: 0
Negative: 5	Irre: 19	[-Dynamic]: 5	[-Telic]: 5	[-Punctual]: 128
Mean: 0.96	Mean: 0.85	Mean: 0.96	Mean: 0.96	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>				
1 part: 6	No A: 5	No U: 1	2 points: 2	
2 part: 122	No A (Irre): 19	No U (Irre): 19	3 points: 4	
	A-: 1	Affected: 9	4 points: 9	

	A-/U-: 9	H. Affected: 99	4.5 points: 4
	A-/U+: 2		5 points: 8
	A+/U-: 70		6 points: 1
	A+/U+: 22		6.5 points: 7
			7 points: 7
			7.5 points: 64
			8 points: 22
Mean: 0.95	Mean: 0.81	Mean: 1.23	Mean: 6.76
Median: 1	Median: 1	Median: 1.5	Median: 7.5
Mode: 1	Mode: 1	Mode: 1.5	Mode: 7.5

**GEBĀERNAN:** 22 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 22	Real: 22	[+Dynamic]: 21	[+Telic]: 20	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 1	[-Telic]: 2	[-Punctual]: 22
Mean: 1	Mean: 1	Mean: 0.95	Mean: 0.90	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A: 1	Partial: 2	4 points: 1	
2 part: 21	A+/U-: 21	Affected: 9	5.5 points: 2	
		H. Affected: 11	7 points: 8	
			7.5 points: 11	
Mean: 0.95	Mean: 0.95	Mean: 1.20	Mean: 6.97	
Median: 1	Median: 1	Median: 1.25	Median: 7.25	
Mode: 1	Mode: 1	Mode: 1.5	Mode: 7.5	

**ONBĀERNAN:** 11 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 11	Real: 10	[+Dynamic]: 1	[+Telic]: 10	[+Punctual]: 10

Negative: 0	Irre: 1	[-Dynamic]: 10	[-Telic]: 1	[-Punctual]: 1
Mean: 1	Mean: 0.90	Mean: 0.09	Mean: 0.90	Mean: 0.90
Median: 1	Median: 1	Median: 0	Median: 1	Median: 1
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 1
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 2	No A: 2	No U (Irre): 1	4 points: 1	
2 part: 9	No A (Irre): 1	Partial: 1	5 points: 2	
	A-/U-: 1	Affected: 9	5.5 points: 1	
	A-/U+: 1		6 points: 1	
	A+/U-: 6		6.5 points: 1	
			7 points: 5	
Mean: 0.81	Mean: 0.59	Mean: 0.86	Mean: 6.09	
Median: 1	Median: 1	Median: 1	Median: 6.5	
Mode: 1	Mode: 1	Mode: 1	Mode: 7	

**CALAN: 5 attestations**

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 3	Real: 3	[+Dynamic]: 0	[+Telic]: 0	[+Punctual]: 0
Negative: 2	Irre: 2	[-Dynamic]: 5	[-Telic]: 5	[-Punctual]: 5
Mean: 0.6	Mean: 0.6	Mean: 0	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 5	No A: 5	No U (Irre): 2	0 points: 2	
2 part: 0		Affected: 3	3 points: 3	
Mean: 0	Mean: 0	Mean: 0.6	Mean: 1.8	
Median: 0	Median: 0	Median: 1	Median: 3	
Mode: 0	Mode: 0	Mode: 1	Mode: 3	

*ĀCALAN*: 2 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 2	Real: 0	[+Dynamic]: 2	[+Telic]: 2	[+Punctual]: 0
Negative: 0	Irre: 2	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 2
Mean: 1	Mean: 0	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 0	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 0	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	No A (Irre): 2	No U (Irre): 2	4 points: 2	
2 part: 2				
Mean: 1	Mean: 0	Mean: 0	Mean: 4	
Median: 1	Median: 0	Median: 0	Median: 4	
Mode: 1	Mode: 0	Mode: 0	Mode: 4	

*CĒLAN*: 8 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 7	Real: 5	[+Dynamic]: 0	[+Telic]: 8	[+Punctual]: 0
Negative: 1	Irre: 3	[-Dynamic]: 8	[-Telic]: 0	[-Punctual]: 8
Mean: 0.875	Mean: 0.625	Mean: 0	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A: 1	No U (Irre): 3	1 point: 1	
2 part: 7	No A (Irre): 2	Partial: 1	3 points: 2	
	A-/U-: 1	Affected: 4	5 points: 1	
	A+/U-: 4		5.5 points: 1	
			6 points: 3	
Mean: 0.87	Mean: 0.5	Mean: 0.56	Mean: 4.43	

Median: 1	Median: 0.5	Median: 0.75	Median: 5.25
Mode: 1	Mode: 1	Mode: 1	Mode: 6

*ĀCĒLAN*: 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 1	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 1	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 1	Mean: 0	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	A+/U-: 1	Partial: 1	5.5 points: 1	
2 part: 1				
Mean: 1	Mean: 1	Mean: 0.5	Mean: 5.5	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

*GECĒLAN*: 13 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 11	Real: 6	[+Dynamic]: 0	[+Telic]: 13	[+Punctual]: 0
Negative: 2	Irre: 7	[-Dynamic]: 13	[-Telic]: 0	[-Punctual]: 13
Mean: 0.84	Mean: 0.46	Mean: 0	Mean: 1	Mean: 0
Median: 1	Median: 0	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 0	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 4	No A: 4	No U (Irre): 7	2 points: 6	
2 part: 9	No A (Irre): 3	Affected: 6	3 points: 1	
	A+/U-: 6		6 points: 6	

Mean: 0.69	Mean: 0.46	Mean: 0.46	Mean: 3.92
Median: 1	Median: 0	Median: 0	Median: 3
Mode: 1	Mode: 0	Mode: 0	Mode: 2 / 6

**DEORFAN:** 14 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 12	Real: 11	[+Dynamic]: 8	[+Telic]: 0	[+Punctual]: 0
Negative: 2	Irre: 3	[-Dynamic]: 6	[-Telic]: 14	[-Punctual]: 14
Mean: 0.85	Mean: 0.78	Mean: 0.57	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 14	No A: 6	No U: 6	1 point: 3	
2 part: 0	No A (Irre): 2	No U (Irre): 3	2.5 points: 1	
	A-: 1	Partial: 1	3 points: 5	
	A+: 5	Affected: 4	4 points: 5	
Mean: 0	Mean: 0.35	Mean: 0.32	Mean: 2.89	
Median: 0	Median: 0	Median: 0	Median: 3	
Mode: 0	Mode: 0	Mode: 0	Mode: 3 / 4	

**GEDEORFAN:** 4 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 4	Real: 4	[+Dynamic]: 1	[+Telic]: 3	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 3	[-Telic]: 1	[-Punctual]: 4
Mean: 1	Mean: 1	Mean: 0.25	Mean: 0.75	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 4	No A: 3	No U: 1	4 points: 4	

2 part: 0	A+: 1	Affected: 3	
Mean: 0	Mean: 0.25	Mean: 0.75	Mean: 4
Median: 0	Median: 0	Median: 1	Median: 4
Mode: 0	Mode: 0	Mode: 1	Mode: 4

**DYRFAN:** 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 0	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 1	[-Telic]: 1	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 0	Mean: 0	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	A-/U+: 1	Affected: 1	4.5 points: 1	
2 part: 1				
Mean: 1	Mean: 0.5	Mean: 1	Mean: 4.5	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

**HWEORFAN:** 143 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 137	Real: 113	[+Dynamic]: 143	[+Telic]: 103	[+Punctual]: 0
Negative: 6	Irre: 30	[-Dynamic]: 0	[-Telic]: 40	[-Punctual]: 143
Mean: 0.95	Mean: 0.79	Mean: 1	Mean: 0.72	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	

1 part: 143	No A (Irre): 30	No U: 143	2 points: 13
2 part: 0	A-: 15		3 points: 24
	A+: 98		4 points: 32
			5 points: 74
Mean: 0	Mean: 0.68	Mean: 0	Mean: 4.16
Median: 0	Median: 1	Median: 0	Median: 5
Mode: 0	Mode: 1	Mode: 0	Mode: 5

**ĀHWEORFAN:** 3 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 2	Real: 2	[+Dynamic]: 3	[+Telic]: 3	[+Punctual]: 0
Negative: 1	Irre: 1	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 3
Mean: 0.66	Mean: 0.66	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 2	No A (Irre): 1	No U: 2	2 points: 1	
2 part: 1	A-: 1	No U (Irre): 1	4 points: 1	
	A+: 1		5 points: 1	
Mean: 0.33	Mean: 0.33	Mean: 0	Mean: 3.66	
Median: 0	Median: 0	Median: 0	Median: 4	
Mode: 0	Mode: N/A	Mode: 0	Mode: 2 / 4 / 5	

**ĒTHWEORFAN:** 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 1	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 1	Mean: 1	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A



Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	A+: 1	No U: 0	5 points: 1	
2 part: 0				
Mean: 0	Mean: 1	Mean: 0	Mean: 5	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

**BEHWEORFAN:** 10 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 10	Real: 7	[+Dynamic]: 10	[+Telic]: 7	[+Punctual]: 0
Negative: 0	Irre: 3	[-Dynamic]: 0	[-Telic]: 3	[-Punctual]: 10
Mean: 1	Mean: 0.7	Mean: 1	Mean: 0.7	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	No A (Irre): 3	No U (Irre): 3	3 points: 3	
2 part: 10	A+/U-: 5	Partial: 2	5.5 points: 2	
	A+/U+: 2	Affected: 5	7 points: 3	
			7.5 points: 2	
Mean: 1	Mean: 0.8	Mean: 0.6	Mean: 5.6	
Median: 1	Median: 1	Median: 0.75	Median: 6.25	
Mode: 1	Mode: 1	Mode: 1	Mode: 3 / 7	

**GEHWEORFAN:** 26 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 26	Real: 24	[+Dynamic]: 26	[+Telic]: 23	[+Punctual]: 0
Negative: 0	Irre: 2	[-Dynamic]: 0	[-Telic]: 3	[-Punctual]: 26

Mean: 1	Mean: 0.92	Mean: 1	Mean: 0.88	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>				
1 part: 23	No A (Irre): 2	No U: 23	3 points: 2	
2 part: 3	A-: 8	Affected: 3	4 points: 10	
	A+: 13		5 points: 11	
	A+/U-: 1		6.5 points: 1	
	A+/U+: 2		7 points: 1	
			7.5 points: 1	
Mean: 0.11	Mean: 0.65	Mean: 0.11	Mean: 4.69	
Median: 0	Median: 1	Median: 0	Median: 5	
Mode: 0	Mode: 1	Mode: 0	Mode: 5	

**ONHWEORFAN:** 2 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 2	Real: 2	[+Dynamic]: 2	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 1	[-Punctual]: 2
Mean: 1	Mean: 1	Mean: 1	Mean: 0.5	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0.5	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0 / 1	Mode: 0
<b>P6: Parts.</b>				
1 part: 2	A-: 2	No U: 2	3 points: 1	
2 part: 0			4 points: 1	
Mean: 0	Mean: 0	Mean: 0	Mean: 3.5	
Median: 0	Median: 0	Median: 0	Median: 3.5	
Mode: 0	Mode: 0	Mode: 0	Mode: 3 / 4	

**TÖHWEORFAN:** 5 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 5	Real: 5	[+Dynamic]: 5	[+Telic]: 3	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 5
Mean: 1	Mean: 1	Mean: 1	Mean: 0.6	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 5	A+: 5	No U: 5	4 points: 2	
2 part: 0			5 points: 3	
Mean: 1	Mean: 1	Mean: 0	Mean: 4.6	
Median: 1	Median: 1	Median: 0	Median: 5	
Mode: 1	Mode: 1	Mode: 0	Mode: 5	

**YMBHWEORFAN:** 10 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 7	Real: 7	[+Dynamic]: 7	[+Telic]: 5	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 10
Mean: 1	Mean: 1	Mean: 1	Mean: 0.71	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	A+: 1	No U: 1	4 points: 1	
2 part: 6	A+/U-: 5	Affected: 6	6 points: 1	
	A+/U+: 1		7 points: 4	
			7.5 points: 1	
Mean: 0.85	Mean: 1.07	Mean: 0.85	Mean: 6.5	
Median: 1	Median: 1	Median: 1	Median: 6.5	

Mode: 1	Mode: 1	Mode: 1	Mode: 6.5
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***HWYRFAN***: 23 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 21	Real: 19	[+Dynamic]: 23	[+Telic]: 13	[+Punctual]: 0
Negative: 2	Irre: 4	[-Dynamic]: 0	[-Telic]: 10	[-Punctual]: 23
Mean: 0.91	Mean: 0.82	Mean: 1	Mean: 0.56	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 14	No A (Irre): 4	No U: 14	2 points: 2	
2 part: 9	A-: 8	No U (Irre): 2	3 points: 9	
	A+: 5	Partial: 1	4 points: 1	
	A+/U-: 6	Affected: 6	5 points: 4	
			6 points: 1	
			6.5 points: 1	
			7 points: 5	
Mean: 0.39	Mean: 0.47	Mean: 0.28	Mean: 4.45	
Median: 0	Median: 0	Median: 0	Median: 4	
Mode: 0	Mode: 0	Mode: 0	Mode: 3	

***ĀHWYRFAN***: 10 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 8	Real: 5	[+Dynamic]: 10	[+Telic]: 10	[+Punctual]: 0
Negative: 2	Irre: 5	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 10
Mean: 0.80	Mean: 0.5	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 0.5	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 0 / 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	

1 part: 3	No A (Irre): 5	No U: 4	2 points: 1
2 part: 7	A+: 1	No U (Irre): 2	3 points: 2
	A+/U-: 3	Affected: 4	4 points: 2
	A+/U+: 1		5 points: 1
			7 points: 3
			7.5 points: 1
Mean: 0.70	Mean: 0.55	Mean: 0.4	Mean: 4.95
Median: 1	Median: 0.5	Median: 0	Median: 4.5
Mode: 1	Mode: 1	Mode: 0 / 1	Mode: 7

**BEHWYRFAN:** 6 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 6	Real: 3	[+Dynamic]: 6	[+Telic]: 6	[+Punctual]: 0
Negative: 0	Irre: 3	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 6
Mean: 1	Mean: 0.5	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 0.5	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 0 / 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	No A (Irre): 3	No U (Irre): 3	4 points: 3	
2 part: 6	A+/U-: 3	Partial: 1	6.5 points: 1	
		Affected: 2	7 points: 2	
Mean: 1	Mean: 0.5	Mean: 0.41	Mean: 5.41	
Median: 1	Median: 0.5	Median: 0.25	Median: 5.25	
Mode: 1	Mode: 0 / 1	Mode: 0	Mode: 4	

**FORHWYRFAN:** 5 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 5	Real: 4	[+Dynamic]: 5	[+Telic]: 5	[+Punctual]: 0
Negative: 0	Irre: 1	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 5

Mean: 1	Mean: 0.8	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A (Irre): 1	No U: 1	4 points: 2	
2 part: 4	A+: 1	No U (Irre): 1	7 points: 2	
	A+/U-: 2	Affected: 3	7.5 points: 1	
	A+/U+: 1			
Mean: 0.8	Mean: 0.9	Mean: 0.6	Mean: 5.9	
Median: 1	Median: 1	Median: 1	Median: 7	
Mode: 1	Mode: 1	Mode: 1	Mode: 4 / 7	

**GEHWYRFAN:** 46 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 40	Real: 36	[+Dynamic]: 46	[+Telic]: 40	[+Punctual]: 0
Negative: 6	Irre: 10	[-Dynamic]: 0	[-Telic]: 6	[-Punctual]: 46
Mean: 0.86	Mean: 0.78	Mean: 1	Mean: 0.86	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 18	No A (Irre): 10	No U: 17	2 points: 3	
2 part: 28	A-: 3	No U (Irre): 8	3 points: 5	
	A-/U-: 1	Partial: 2	4 points: 10	
	A+: 12	Affected: 19	5 points: 7	
	A+/U-: 12		6 points: 1	
	A+/U+: 8		6.5 points: 2	
			7 points: 10	
			7.5 points: 8	
Mean: 0.60	Mean: 0.69	Mean: 0.43	Mean: 5.32	

Median: 1	Median: 1	Median: 0	Median: 5
Mode: 1	Mode: 1	Mode: 0	Mode: 4 / 7

**ONHWYRFAN:** 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 1	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 1	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 1	Mean: 0	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	A-: 1	No U: 1	3 points: 1	
2 part: 0				
Mean: 0	Mean: 0	Mean: 0	Mean: 3	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

**BELĪFAN:** 43 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 22	Real: 22	[+Dynamic]: 0	[+Telic]: 0	[+Punctual]: 0
Negative: 21	Irre: 21	[-Dynamic]: 43	[-Telic]: 43	[-Punctual]: 43
Mean: 0.51	Mean: 0.51	Mean: 0	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 41	No A: 41	No U (Irre): 21	0 points: 21	
2 part: 2	A-/U-: 1	Partial: 1	2.5 points: 1	
	A+/U-: 1	Affected: 21	3 points: 19	
			4 points: 1	

5 points: 1			
Mean: 0.04	Mean: 0.02	Mean: 0.5	Mean: 1.59
Median: 0	Median: 0	Median: 0.5	Median: 2.5
Mode: 0	Mode: 0	Mode: 0 / 1	Mode: 0

**LĒFAN:** 37 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 32	Real: 26	[+Dynamic]: 0	[+Telic]: 0	[+Punctual]: 0
Negative: 5	Irre: 11	[-Dynamic]: 37	[-Telic]: 37	[-Punctual]: 37
Mean: 0.86	Mean: 0.70	Mean: 0	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A: 1	No U (Irre): 11	1 point: 5	
2 part: 36	No A (Irre): 11	Partial: 8	2 point: 6	
	A+/U-: 17	Affected: 18	3 points: 1	
	A+/U+: 8		4.5 points: 8	
			5 points: 9	
			5.5 points: 8	
Mean: 0.97	Mean: 0.81	Mean: 0.59	Mean: 3.91	
Median: 1	Median: 1	Median: 0.5	Median: 4.5	
Mode: 1	Mode: 1	Mode: 1	Mode: 5	

**BELĒFAN:** 6 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 0	Real: 0	[+Dynamic]: 0	[+Telic]: 0	[+Punctual]: 0
Negative: 6	Irre: 6	[-Dynamic]: 6	[-Telic]: 6	[-Punctual]: 6
Mean: 0	Mean: 0	Mean: 0	Mean: 0	Mean: 0
Median: 0	Median: 0	Median: 0	Median: 0	Median: 0



Mode: 0	Mode: 0	Mode: 0	Mode: 0	Mode: 0
<b>P6: Parts.</b>				
1 part: 1	<b>P7: Agency</b> No A (Irre): 6	<b>P8: Affect.</b> No U (Irre): 6	<b>Total</b> 0 points: 1	
2 part: 5	1 point: 5			
Mean: 0.83	Mean: 0	Mean: 0	Mean: 0.83	
Median: 1	Median: 0	Median: 0	Median: 1	
Mode: 1	Mode: 0	Mode: 0	Mode: 1	

**GELĀFAN:** 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 0	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 1	[-Telic]: 1	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 0	Mean: 0	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>				
1 part: 1	<b>P7: Agency</b> No A: 1	<b>P8: Affect.</b> Affected: 1	<b>Total</b> 3 points: 1	
2 part: 0				
Mean: 0	Mean: 0	Mean: 1	Mean: 3	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

**MELTAN:** 13 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 11	Real: 5	[+Dynamic]: 4	[+Telic]: 9	[+Punctual]: 0
Negative: 2	Irre: 8	[-Dynamic]: 9	[-Telic]: 4	[-Punctual]: 13
Mean: 0.84	Mean: 0.38	Mean: 0.30	Mean: 0.69	Mean: 0
Median: 1	Median: 0	Median: 0	Median: 1	Median: 0

Mode: 1	Mode: 0	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 10	No A: 8	No U: 1	1 point: 1	
2 part: 3	No A (Irre): 2	No U (Irre): 8	2 points: 6	
	A-: 2	Partial: 3	3 points: 2	
	A+/U-: 1	Affected: 1	3.5 points: 2	
			4 points: 1	
			5.5 points: 1	
Mean: 0.23	Mean: 0.07	Mean: 0.19	Mean: 2.73	
Median: 0	Median: 0	Median: 0	Median: 2	
Mode: 0	Mode: 0	Mode: 0	Mode: 2	

**FORMELTAN:** 5 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 5	Real: 4	[+Dynamic]: 0	[+Telic]: 5	[+Punctual]: 0
Negative: 0	Irre: 1	[-Dynamic]: 5	[-Telic]: 0	[-Punctual]: 5
Mean: 1	Mean: 0.8	Mean: 0	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 5	No A: 5	No U (Irre): 1	2 points: 1	
2 part: 0		Affected: 1	4 points: 1	
		H. Affected: 3	4.5 points: 3	
Mean: 0	Mean: 0	Mean: 1.1	Mean: 3.9	
Median: 0	Median: 0	Median: 1.5	Median: 4.5	
Mode: 0	Mode: 0	Mode: 1.5	Mode: 4.5	

**GEMELTAN:** 9 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 7	Real: 7	[+Dynamic]: 2	[+Telic]: 7	[+Punctual]: 0
Negative: 2	Irre: 2	[-Dynamic]: 7	[-Telic]: 2	[-Punctual]: 9
Mean: 0.77	Mean: 0.77	Mean: 0.22	Mean: 0.77	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 6	No A: 6	No U (Irre): 2	1 point: 1	
2 part: 3	No A (Irre): 1	Partial: 3	2 points: 1	
	A+/U-: 2	Affected: 4	3.5 points: 1	
			4 points: 4	
			5.5 points: 2	
Mean: 0.33	Mean: 0.22	Mean: 0.61	Mean: 3.72	
Median: 0	Median: 0	Median: 0.5	Median: 4	
Mode: 0	Mode: 0	Mode: 1	Mode: 4	

**MYLTAN:** 13 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 9	Real: 6	[+Dynamic]: 4	[+Telic]: 9	[+Punctual]: 0
Negative: 4	Irre: 7	[-Dynamic]: 9	[-Telic]: 4	[-Punctual]: 13
Mean: 0.69	Mean: 0.46	Mean: 0.30	Mean: 0.69	Mean: 0
Median: 1	Median: 0	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 0	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 6	No A: 1	No U: 1	1 point: 2	
2 part: 7	No A (Irre): 7	No U (Irre): 7	2 points: 4	
	A-: 2	Partial: 3	3 points: 2	
	A+/U-: 3	Affected: 2	3.5 points: 1	

4.5 points: 1			
5.5 points: 1			
6 points: 2			
Mean: 0.53	Mean: 0.23	Mean: 0.26	Mean: 3.19
Median: 1	Median: 0	Median: 0	Median: 3
Mode: 1	Mode: 0	Mode: 0	Mode: 2

**FORMYLTAN:** 3 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 3	Real: 3	[+Dynamic]: 0	[+Telic]: 3	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 3	[-Telic]: 0	[-Punctual]: 3
Mean: 1	Mean: 1	Mean: 0	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 3	No A: 3	Affected: 3	4 points: 3	
2 part: 0				
Mean: 0	Mean: 0	Mean: 1	Mean: 4	
Median: 0	Median: 0	Median: 1	Median: 4	
Mode: 0	Mode: 0	Mode: 1	Mode: 4	

**GEMYLTAN:** 11 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 7	Real: 5	[+Dynamic]: 3	[+Telic]: 8	[+Punctual]: 0
Negative: 4	Irre: 6	[-Dynamic]: 8	[-Telic]: 3	[-Punctual]: 11
Mean: 0.63	Mean: 0.45	Mean: 0.27	Mean: 0.72	Mean: 0
Median: 1	Median: 0	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 0	Mode: 0	Mode: 1	Mode: 0

<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>
1 part: 1	No A (Irre): 6	No U (Irre): 6	2 points: 5
2 part: 10	A-: 2	Partial: 3	3 points: 1
	A+/U-: 3	Affected: 2	5 points: 2
			5.5 points: 3
Mean: 0.90	Mean: 0.27	Mean: 0.31	Mean: 3.59
Median: 1	Median: 0	Median: 0	Median: 3
Mode: 1	Mode: 0	Mode: 0	Mode: 2

*SMĒOCAN*: 4 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 4	Real: 4	[+Dynamic]: 2	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 2	[-Telic]: 4	[-Punctual]: 4
Mean: 1	Mean: 1	Mean: 0.5	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 0.5	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 0 / 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 2	No A: 2	Partial: 1	3 points: 2	
2 part: 2	A+/U-: 1	Affected: 3	5.5 points: 1	
	A+/U+: 1		6.5 points: 1	
Mean: 0.5	Mean: 0.62	Mean: 0.87	Mean: 4.5	
Median: 0.5	Median: 0.5	Median: 1	Median: 4.25	
Mode: 0 / 1	Mode: 0	Mode: 1	Mode: 3	

*SMĪCAN*: 4 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 4	Real: 4	[+Dynamic]: 4	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 4	[-Punctual]: 4
Mean: 1	Mean: 1	Mean: 1	Mean: 0	Mean: 0

Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	A+/U-: 3	Partial: 3	5.5 points: 3	
2 part: 4	A+/U+: 1	Affected: 1	6.5 points: 1	
Mean: 1	Mean: 1.12	Mean: 0.62	Mean: 5.75	
Median: 1	Median: 1	Median: 0.5	Median: 5.5	
Mode: 1	Mode: 1	Mode: 0.5	Mode: 5.5	

**STINCAN:** 13 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 13	Real: 9	[+Dynamic]: 0	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 4	[-Dynamic]: 13	[-Telic]: 13	[-Punctual]: 13
Mean: 1	Mean: 0.69	Mean: 0	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 13	No A: 13	No U (Irre): 4	1 point: 4	
2 part: 0		Partial: 1	2.5 point: 1	
		Affected: 8	3 points: 8	
Mean: 0	Mean: 0	Mean: 0.65	Mean: 2.34	
Median: 0	Median: 0	Median: 1	Median: 3	
Mode: 0	Mode: 0	Mode: 1	Mode: 3	

**GESTINCAN:** 6 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 4	Real: 4	[+Dynamic]: 0	[+Telic]: 0	[+Punctual]: 0
Negative: 2	Irre: 2	[-Dynamic]: 6	[-Telic]: 6	[-Punctual]: 6

Mean: 0.66	Mean: 0.66	Mean: 0	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A: 1	No U (Irre): 2	0.5 points: 1	
2 part: 5	No A (Irre): 2	Partial: 1	1 point: 2	
	A+/U-: 3	Affected: 3	3 points: 3	
Mean: 0.83	Mean: 0.5	Mean: 0.58	Mean: 1.91	
Median: 1	Median: 0.5	Median: 0.75	Median: 2	
Mode: 1	Mode: 0.5	Mode: 1	Mode: 3	

**STENCAN:** 2 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 2	[+Telic]: 0	[+Punctual]: 0
Negative: 1	Irre: 1	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 2
Mean: 0.5	Mean: 0.5	Mean: 1	Mean: 0	Mean: 0
Median: 0.5	Median: 0.5	Median: 1	Median: 0	Median: 0
Mode: 0 / 1	Mode: 0 / 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 2	No A (Irre): 1	No U: 2	1 point: 1	
2 part: 0	A+: 1		4 points: 1	
Mean: 0	Mean: 0.5	Mean: 0	Mean: 2.5	
Median: 0	Median: 0.5	Median: 0	Median: 2.5	
Mode: 0	Mode: 0 / 1	Mode: 0	Mode: 1 / 4	

**TÖSTENCAN:** 8 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 7	Real: 6	[+Dynamic]: 8	[+Telic]: 8	[+Punctual]: 0
Negative: 1	Irre: 2	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 8

Mean: 0.87	Mean: 0.75	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>				
1 part: 0	No A (Irre): 2	No U (Irre): 2	3 points: 1	
2 part: 8	A-/U-: 3	Partial: 1	4 points: 1	
	A-/U+: 1	Affected: 5	6 points: 2	
	A+/U+: 2		7 points: 2	
			7.5 points: 2	
Mean: 1	Mean: 0.43	Mean: 0.68	Mean: 6	
Median: 1	Median: 0	Median: 1	Median: 6.5	
Mode: 1	Mode: 0	Mode: 1	Mode: 6 / 7 / 7.5	

**SWINGAN:** 48 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 46	Real: 42	[+Dynamic]: 48	[+Telic]: 2	[+Punctual]: 0
Negative: 2	Irre: 6	[-Dynamic]: 0	[-Telic]: 46	[-Punctual]: 48
Mean: 0.95	Mean: 0.87	Mean: 1	Mean: 0.04	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>				
1 part: 2	No A (Irre): 6	No U: 2	1 point: 1	
2 part: 46	A-/U+: 1	No U (Irre): 5	2 points: 3	
	A+: 1	Partial: 2	3 points: 2	
	A+/U-: 6	Affected: 39	4 points: 1	
	A+/U+: 34		5.5 points: 2	
			6 points: 4	
			6.5 points: 33	
			7 points: 2	



Mean: 0.95	Mean: 1.21	Mean: 0.83	Mean: 5.84
Median: 1	Median: 1.5	Median: 1	Median: 6.5
Mode: 1	Mode: 1.5	Mode: 1	Mode: 6.5

**BESWINGAN:** 11 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 11	Real: 10	[+Dynamic]: 11	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 1	[-Dynamic]: 0	[-Telic]: 11	[-Punctual]: 11
Mean: 1	Mean: 0.90	Mean: 1	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	No A (Irre): 1	No U (Irre): 1	3 points: 1	
2 part: 11	A+/U+: 10	Affected: 10	6.5 points: 10	
Mean: 1	Mean: 1.36	Mean: 0.90	Mean: 6.18	
Median: 1	Median: 1.5	Median: 1	Median: 6.5	
Mode: 1	Mode: 1.5	Mode: 1	Mode: 6.5	

**GESWINGAN:** 2 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 2	Real: 2	[+Dynamic]: 2	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 2
Mean: 1	Mean: 1	Mean: 1	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	A+/U+: 2	Partial: 1	6 points: 1	
2 part: 2		Affected: 1	6.5 points: 1	

Mean: 1	Mean: 1.5	Mean: 0.75	Mean: 6.25
Median: 1	Median: 1.5	Median: 0.75	Median: 6.25
Mode: 1	Mode: 1.5	Mode: 1 / 1.5	Mode: 6 / 6.5

**SWENGAN:** 3 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 3	Real: 3	[+Dynamic]: 3	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 3
Mean: 1	Mean: 1	Mean: 1	Mean: 0.33	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	A+/U-: 3	Affected: 3	6 points: 2	
2 part: 3			7 points: 1	
Mean: 1	Mean: 1	Mean: 1	Mean: 6.33	
Median: 1	Median: 1	Median: 1	Median: 6	
Mode: 1	Mode: 1	Mode: 1	Mode: 6	

**WÆCNAN:** 11 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 10	Real: 9	[+Dynamic]: 0	[+Telic]: 11	[+Punctual]: 0
Negative: 1	Irre: 2	[-Dynamic]: 11	[-Telic]: 0	[-Punctual]: 11
Mean: 0.90	Mean: 0.81	Mean: 0	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 11	No A: 11	No U (Irre): 2	1 point: 1	
2 part: 0		Partial: 4	2 points: 1	

		Affected: 5	3.5 points: 4
			4 points: 5
Mean: 0	Mean: 0	Mean: 0.63	Mean: 3.36
Median: 0	Median: 0	Median: 0.5	Median: 3.5
Mode: 0	Mode: 0	Mode: 1	Mode: 4

*ĀWĀĒCNAN*: 21 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 18	Real: 18	[+Dynamic]: 1	[+Telic]: 21	[+Punctual]: 0
Negative: 3	Irre: 3	[-Dynamic]: 20	[-Telic]: 0	[-Punctual]: 21
Mean: 0.85	Mean: 0.85	Mean: 0.04	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 21	No A: 21	No U: 1	1 point: 3	
2 part: 0	A+: 1	No U (Irre): 3	3.5 points: 2	
		Partial: 2	4 points: 15	
		Affected: 15	5 points: 1	
Mean: 0	Mean: 0.16	Mean: 0.76	Mean: 3.57	
Median: 0	Median: 0	Median: 1	Median: 4	
Mode: 0	Mode: 0	Mode: 1	Mode: 4	

*ONWĀĒCNAN*: 20 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 19	Real: 15	[+Dynamic]: 0	[+Telic]: 20	[+Punctual]: 0
Negative: 1	Irre: 5	[-Dynamic]: 20	[-Telic]: 0	[-Punctual]: 20
Mean: 0.95	Mean: 0.75	Mean: 0	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 1	Mode: 0

<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>
1 part: 20	No A: 20	No U (Irre): 4	1 point: 1
2 part: 0		Partial: 3	2 points: 3
		Affected: 13	3 points: 1
			3.5 points: 3
			4 points: 12
Mean: 0	Mean: 0	Mean: 0.72	Mean: 3.42
Median: 0	Median: 0	Median: 1	Median: 4
Mode: 0	Mode: 0	Mode: 1	Mode: 4

**WECCEAN:** 21 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 19	Real: 16	[+Dynamic]: 20	[+Telic]: 19	[+Punctual]: 0
Negative: 2	Irre: 5	[-Dynamic]: 1	[-Telic]: 2	[-Punctual]: 21
Mean: 0.90	Mean: 0.76	Mean: 0.95	Mean: 0.90	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 3	No A: 2	No U: 1	3 points: 2	
2 part: 18	No A (Irre): 5	No U (Irre): 5	4 points: 5	
	A-/U-: 3	Partial: 2	4.5 points: 1	
	A+: 1	Affected: 13	5 points: 1	
	A+/U-: 7		6 points: 2	
	A+/U+: 3		6.5 points: 1	
			7 points: 6	
			7.5 points: 3	
Mean: 0.85	Mean: 0.59	Mean: 0.66	Mean: 5.64	
Median: 1	Median: 1	Median: 1	Median: 6	
Mode: 1	Mode: 1	Mode: 1	Mode: 7	

**ĀWECCEAN:** 48 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 48	Real: 42	[+Dynamic]: 44	[+Telic]: 47	[+Punctual]: 0
Negative: 0	Irre: 6	[-Dynamic]: 4	[-Telic]: 1	[-Punctual]: 48
Mean: 1	Mean: 0.87	Mean: 0.91	Mean: 0.97	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 7	No A: 3	No U: 3	2 points: 1	
2 part: 41	No A (Irre): 6	No U (Irre): 6	3 points: 1	
	A-/U-: 1	Partial: 2	4 points: 7	
	A-/U+: 1	Affected: 37	5 points: 3	
	A+: 3		5.5 points: 1	
	A+/U-: 15		6 points: 1	
	A+/U+: 19		6.5 points: 1	
			7 points: 15	
			7.5 points: 18	
Mean: 0.85	Mean: 0.97	Mean: 0.79	Mean: 6.37	
Median: 1	Median: 1	Median: 1	Median: 7	
Mode: 1	Mode: 1.5	Mode: 1	Mode: 7.5	

**GEWECCEAN:** 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 1	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 1	Mean: 1	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	

1 part: 0	A+/U-: 1	Affected: 1	7 points: 1
2 part: 1			
Mean: 1	Mean: 1	Mean: 1	Mean: 7
Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A

**ONWECCEAN:** 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 1	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 1	Mean: 1	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>				
1 part: 0	A+/U-: 1	Affected: 1	7 points: 1	
2 part: 1				
Mean: 1	Mean: 1	Mean: 1	Mean: 7	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	
<b>P6: Parts.</b>		<b>P7: Agency</b>		<b>P8: Affect.</b>
1 part: 0	A+/U-: 1	Affected: 1	7 points: 1	
2 part: 1				
Mean: 1	Mean: 1	Mean: 1	Mean: 7	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

**TŌWECCEAN:** 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 1	[+Dynamic]: 1	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 1
Mean: 1	Mean: 1	Mean: 1	Mean: 1	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>		<b>P7: Agency</b>		<b>P8: Affect.</b>
1 part: 0	A+/U-: 1	Affected: 1	7 points: 1	
2 part: 1				
Mean: 1	Mean: 1	Mean: 1	Mean: 7	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

1 part: 0	A-/U-: 1	Affected: 1	6 points: 1
2 part: 1			
Mean: 1	Mean: 0	Mean: 1	Mean: 6
Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A

**WEGAN:** 19 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 17	Real: 12	[+Dynamic]: 3	[+Telic]: 1	[+Punctual]: 0
Negative: 2	Irre: 7	[-Dynamic]: 16	[-Telic]: 18	[-Punctual]: 19
Mean: 0.89	Mean: 0.63	Mean: 0.15	Mean: 0.05	Mean: 0
Median: 1	Median: 1	Median: 0	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 0	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A (Irre): 7	No U: 1	1 point: 2	
2 part: 18	A-/U-: 3	No U (Irre): 7	2 points: 5	
	A+: 1	Partial: 3	4 points: 2	
	A+/U-: 8	Affected: 8	4.5 points: 3	
			5 points: 6	
			6 points: 1	
Mean: 0.94	Mean: 0.47	Mean: 0.5	Mean: 3.65	
Median: 1	Median: 0	Median: 0.5	Median: 4.5	
Mode: 1	Mode: 1	Mode: 0 / 1	Mode: 5	

**ĀWEGAN:** 2 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 2	Real: 2	[+Dynamic]: 1	[+Telic]: 2	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 1	[-Telic]: 0	[-Punctual]: 2
Mean: 1	Mean: 1	Mean: 0.5	Mean: 1	Mean: 0

Median: 1	Median: 1	Median: 0.5	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 0 / 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	A+/U-: 2	Affected: 2	6 points: 1	
2 part: 2			7 points: 1	
Mean: 1	Mean: 1	Mean: 1	Mean: 6.5	
Median: 1	Median: 1	Median: 1	Median: 6.5	
Mode: 1	Mode: 1	Mode: 1	Mode: 6 / 7	

**GEWEGAN:** 22 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 22	Real: 8	[+Dynamic]: 2	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 14	[-Dynamic]: 20	[-Telic]: 21	[-Punctual]: 22
Mean: 1	Mean: 0.36	Mean: 0.09	Mean: 0.04	Mean: 0
Median: 1	Median: 0	Median: 0	Median: 0	Median: 0
Mode: 1	Mode: 0	Mode: 0	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 22	No A: 7	No U: 2	1 point: 13	
2 part: 0	No A (Irre): 14	No U (Irre): 13	2 points: 1	
	A+: 1	Affected: 7	3 points: 7	
			5 points: 1	
Mean: 0	Mean: 0.04	Mean: 0.31	Mean: 1.86	
Median: 0	Median: 0	Median: 0	Median: 1	
Mode: 0	Mode: 0	Mode: 0	Mode: 1	

**WECGAN:** 4 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 3	Real: 3	[+Dynamic]: 4	[+Telic]: 1	[+Punctual]: 0
Negative: 1	Irre: 1	[-Dynamic]: 0	[-Telic]: 3	[-Punctual]: 4



Mean: 0.75	Mean: 0.75	Mean: 1	Mean: 0.25	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>				
1 part: 0	No A (Irre): 1	No U (Irre): 1	3 points: 1	
2 part: 4	A-/U-: 1	Affected: 3	5 points: 1	
	A+/U-: 2		6 points: 1	
			7 points: 1	
Mean: 1	Mean: 0.5	Mean: 0.75	Mean: 5.25	
Median: 1	Median: 0.5	Median: 1	Median: 5.5	
Mode: 1	Mode: 0 / 1	Mode: 1	Mode: N/A	

*ĀWECCGAN*: 10 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 4	Real: 0	[+Dynamic]: 10	[+Telic]: 10	[+Punctual]: 0
Negative: 6	Irre: 10	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 10
Mean: 0.40	Mean: 0	Mean: 1	Mean: 1	Mean: 0
Median: 0	Median: 0	Median: 1	Median: 1	Median: 0
Mode: 0	Mode: 0	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>				
1 part: 0	No A (Irre): 10	No U (Irre): 10	2 points: 6	
2 part: 10			3 points: 4	
Mean: 1	Mean: 0	Mean: 0	Mean: 2.4	
Median: 1	Median: 0	Median: 0	Median: 2	
Mode: 1	Mode: 0	Mode: 0	Mode: 2	

**WINDAN:** 18 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 18	Real: 17	[+Dynamic]: 18	[+Telic]: 12	[+Punctual]: 0
Negative: 0	Irre: 1	[-Dynamic]: 0	[-Telic]: 6	[-Punctual]: 18
Mean: 1	Mean: 0.94	Mean: 1	Mean: 0.66	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 17	No A (Irre): 1	No U: 17	3 points: 4	
2 part: 1	A-: 11	No U (Irre): 1	4 points: 10	
	A+: 6		5 points: 4	
Mean: 0.05	Mean: 0.33	Mean: 0	Mean: 4	
Median: 0	Median: 0	Median: 0	Median: 4	
Mode: 0	Mode: 0	Mode: 0	Mode: 4	

**ĀWINDAN:** 3 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 3	Real: 2	[+Dynamic]: 3	[+Telic]: 3	[+Punctual]: 0
Negative: 0	Irre: 1	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 3
Mean: 1	Mean: 0.66	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 2	No A (Irre): 1	No U: 2	3 points: 1	
2 part: 1	A-: 1	Affected: 1	4 points: 1	
	A+/U-: 1		7 points: 1	
Mean: 0.33	Mean: 0.33	Mean: 0.33	Mean: 4.66	
Median: 0	Median: 0	Median: 0	Median: 4	

Mode: 0	Mode: 0	Mode: 0	Mode: 3 / 4 / 7
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**ÆTWINDAN:** 23 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 17	Real: 14	[+Dynamic]: 23	[+Telic]: 8	[+Punctual]: 0
Negative: 6	Irre: 9	[-Dynamic]: 0	[-Telic]: 15	[-Punctual]: 23
Mean: 0.73	Mean: 0.60	Mean: 1	Mean: 0.34	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 23	No A (Irre): 9	No U: 23	1 point: 5	
2 part: 0	A-: 2		2 points: 2	
	A+: 12		3 points: 2	
			4 points: 11	
			5 points: 3	
Mean: 0	Mean: 0.52	Mean: 0	Mean: 3.21	
Median: 0	Median: 1	Median: 0	Median: 4	
Mode: 0	Mode: 1	Mode: 0	Mode: 4	

**BEWINDAN:** 16 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 15	Real: 14	[+Dynamic]: 16	[+Telic]: 14	[+Punctual]: 0
Negative: 1	Irre: 2	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 16
Mean: 0.93	Mean: 0.87	Mean: 1	Mean: 0.87	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 1	No A (Irre): 2	No U: 1	2 points: 1	
2 part: 15	A-: 1	No U (Irre): 2	3 points: 1	

	A-/U-: 1	Affected: 13	4 points: 1
	A+/U-: 5		6 points: 1
	A+/U+: 7		7 points: 5
			7.5 points: 7
Mean: 0.93	Mean: 0.96	Mean: 0.81	Mean: 6.40
Median: 1	Median: 1	Median: 1	Median: 7
Mode: 1	Mode: 1.5	Mode: 1	Mode: 7.5

**GEWINDAN:** 7 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 7	Real: 6	[+Dynamic]: 7	[+Telic]: 3	[+Punctual]: 0
Negative: 0	Irre: 1	[-Dynamic]: 0	[-Telic]: 4	[-Punctual]: 7
Mean: 1	Mean: 0.85	Mean: 1	Mean: 0.42	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 5	No A (Irre): 1	No U: 5	2 points: 1	
2 part: 2	A-: 1	Affected: 2	3 points: 1	
	A+: 3		4 points: 2	
	A+/U-: 2		5 points: 1	
			7 points: 2	
Mean: 0.28	Mean: 0.71	Mean: 0.28	Mean: 4.57	
Median: 0	Median: 1	Median: 0	Median: 4	
Mode: 0	Mode: 1	Mode: 0	Mode: 4 / 7	

**OPWINDAN:** 3 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 3	Real: 3	[+Dynamic]: 3	[+Telic]: 0	[+Punctual]: 0
Negative: 0	Irre: 0	[-Dynamic]: 0	[-Telic]: 3	[-Punctual]: 3

Mean: 1	Mean: 1	Mean: 1	Mean: 0	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 0	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 0	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 3	A+: 3	No U: 3	4 points: 3	
2 part: 0				
Mean: 0	Mean: 1	Mean: 0	Mean: 4	
Median: 0	Median: 1	Median: 0	Median: 4	
Mode: 0	Mode: 1	Mode: 0	Mode: 4	

**WENDAN:** 261 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 242	Real: 225	[+Dynamic]: 261	[+Telic]: 215	[+Punctual]: 0
Negative: 19	Irre: 36	[-Dynamic]: 0	[-Telic]: 46	[-Punctual]: 261
Mean: 0.92	Mean: 0.86	Mean: 1	Mean: 0.82	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 216	No A (Irre): 36	No U: 216	1 point: 4	
2 part: 45				
	A-/U-: 5	Partial: 1	3 points: 22	
	A+: 139	Affected: 33	4 points: 69	
	A+/U-: 26		5 points: 116	
	A+/U+: 3		6 points: 5	
			6.5 points: 1	
			7 points: 25	
			7.5 points: 3	
Mean: 0.17	Mean: 0.64	Mean: 0.12	Mean: 4.56	

Median: 0	Median: 1	Median: 0	Median: 5
Mode: 0	Mode: 1	Mode: 0	Mode: 5

**ĀWENDAN:** 120 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 101	Real: 83	[+Dynamic]: 120	[+Telic]: 117	[+Punctual]: 0
Negative: 19	Irre: 37	[-Dynamic]: 0	[-Telic]: 3	[-Punctual]: 120
Mean: 0.84	Mean: 0.69	Mean: 1	Mean: 0.97	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 37	No A (Irre): 37	No U: 37	1 point: 2	
2 part: 83	A-: 15	No U (Irre): 29	2 points: 4	
	A-/U-: 2	Partial: 1	3 points: 15	
	A+: 14	Affected: 53	4 points: 33	
	A+/U-: 43		5 points: 12	
	A+/U+: 9		6 points: 2	
			6.5 points: 1	
			7 points: 42	
			7.5 points: 9	
Mean: 0.69	Mean: 0.58	Mean: 0.44	Mean: 5.22	
Median: 1	Median: 1	Median: 0	Median: 5	
Mode: 1	Mode: 1	Mode: 0	Mode: 7	

**BEWENDAN:** 10 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 8	Real: 7	[+Dynamic]: 10	[+Telic]: 8	[+Punctual]: 0
Negative: 2	Irre: 3	[-Dynamic]: 0	[-Telic]: 2	[-Punctual]: 10
Mean: 0.80	Mean: 0.70	Mean: 1	Mean: 0.80	Mean: 0

Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 8	No A (Irre): 3	No U: 5	1 point: 1	
2 part: 2	A+: 5	No U (Irre): 3	2 points: 1	
	A+/U-: 1	Affected: 2	3 points: 1	
	A+/U+: 1		4 points: 1	
			5 points: 4	
			7 points: 1	
			7.5 points: 1	
Mean: 0.20	Mean: 0.75	Mean: 0.20	Mean: 4.45	
Median: 0	Median: 1	Median: 0	Median: 5	
Mode: 0	Mode: 1	Mode: 0	Mode: 5	

**GEWENDAN:** 103 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 99	Real: 96	[+Dynamic]: 103	[+Telic]: 100	[+Punctual]: 0
Negative: 4	Irre: 7	[-Dynamic]: 0	[-Telic]: 3	[-Punctual]: 103
Mean: 0.96	Mean: 0.93	Mean: 1	Mean: 0.97	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 93	No A (Irre): 7	No U: 93	2 points: 4	
2 part: 10	A-: 14	No U (Irre): 1	3 points: 2	
	A+: 73	Affected: 9	4 points: 18	
	A+/U-: 9		5 points: 70	
			7 points: 9	
Mean: 0.09	Mean: 0.79	Mean: 0.08	Mean: 4.84	

Median: 0	Median: 1	Median: 0	Median: 5
Mode: 0	Mode: 1	Mode: 0	Mode: 5

***OPWENDAN***: 1 attestation

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 1	Real: 0	[+Dynamic]: 1	[+Telic]: 1	[+Punctual]: 0
Negative: 0	Irre: 1	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 1
Mean: 1	Mean: 0	Mean: 1	Mean: 1	Mean: 0
Median: N/A	Median: N/A	Median: N/A	Median: N/A	Median: N/A
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	No A (Irre): 1	No U (Irre): 1	4 points: 1	
2 part: 1				
Mean: 1	Mean: 0	Mean: 0	Mean: 4	
Median: N/A	Median: N/A	Median: N/A	Median: N/A	
Mode: N/A	Mode: N/A	Mode: N/A	Mode: N/A	

***TŌWENDAN***: 5 attestations

<b>P1: Affirmation</b>	<b>P2: Mode</b>	<b>P3: Dynamicity</b>	<b>P4: Telicity</b>	<b>P5: Punctuality</b>
Affirmative: 4	Real: 4	[+Dynamic]: 5	[+Telic]: 5	[+Punctual]: 0
Negative: 1	Irre: 1	[-Dynamic]: 0	[-Telic]: 0	[-Punctual]: 5
Mean: 0.8	Mean: 0.8	Mean: 1	Mean: 1	Mean: 0
Median: 1	Median: 1	Median: 1	Median: 1	Median: 0
Mode: 1	Mode: 1	Mode: 1	Mode: 1	Mode: 0
<b>P6: Parts.</b>	<b>P7: Agency</b>	<b>P8: Affect.</b>	<b>Total</b>	
1 part: 0	No A (Irre): 1	No U (Irre): 1	3 points: 1	
2 part: 5	A+/U-: 4	Affected: 4	7 points: 4	
Mean: 1	Mean: 0.8	Mean: 0.8	Mean: 6.2	



Median: 1	Median: 1	Median: 1	Median: 7
Mode: 1	Mode: 1	Mode: 1	Mode: 7

## RESUMEN

El presente estudio investiga los efectos transitivizantes de dos mecanismos de formación de palabras en inglés antiguo: la formación deverbial *-jan* y los prefijos verbales. Los datos analizados en este trabajo han sido tomados de pares causativos en inglés antiguo, junto con formas prefijadas, que han sufrido un proceso de labilización por el cual uno o ambos miembros del par causativo han tomado la valencia correspondiente a su contrario. De ese modo, verbos como *meltan* 'derretirse' y *myltan* 'derretir', solo intransitivo o transitivo en su caso originalmente, pueden usarse como transitivos o intransitivos sin ninguna marca morfológica.

Como primer objetivo, se examinará el poder transitivizante de la formación causativa. A tal fin, se estudia el proceso de labilización sufrido por los verbos analizados con el objetivo de arrojar luz acerca de los posibles motores de dicho proceso, como los prefijos o las similitudes fonológicas entre el verbo causativo y su par no causativo. Además, este estudio hace hincapié en el fenómeno de la variación dentro del periodo de inglés antiguo al explorar las diferencias de valencia en diferentes textos compuestos en diferentes periodos, llegando a la conclusión de que las divergencias a este respecto son relevantes.

Además, en este trabajo se investiga la influencia sobre los verbos analizados de otro mecanismo transitivizante: los preverbios, y cómo estos interactúan con la causatividad morfológica. Los resultados muestran que los prefijos tienen un efecto notable sobre la transitividad en el sentido cardinal (Hopper and Thompson (1980)), así como sobre otros parámetros específicos como la telicidad o la afectación. En cuanto a la interacción entre preverbios y causativos morfológicos, se llega a la conclusión de que los primeros no sustituyen al sufijo *-jan* como mecanismo transitivizante durante el periodo de inglés antiguo, aunque se revelan como una fuerza transitivizante al menos tan importante como ésta.

Esta tesis tiene como objetivo arrojar nueva luz sobre el estudio de estos mecanismos de formación de palabras al analizar los datos bajo un nuevo prisma. En primer lugar, el presente trabajo se basa en un corpus de ejemplos tomados directamente de los textos

más notorios en inglés antiguo en vez de en datos de diccionarios previamente procesados o en datos presentados en anteriores trabajos. Asimismo, estos datos han sido sometidos a análisis estadístico con el objeto de evitar conclusiones impresionistas y ofrecer una nueva perspectiva sobre estos datos que lleve a resultados nuevos y relevantes.

## **CONCLUSIONES**

Este capítulo final tiene el propósito de servir como visión de conjunto de los resultados y conclusiones ofrecidos por el análisis del corpus de verbos analizado con respecto a los objetivos presentados en la introducción. Los contenidos de este capítulo se dividen en tres secciones. La primera está centrada en los resultados principales del estudio. La segunda sección se concentra en los distintos problemas que surgieron durante la compleción de este trabajo así como en las soluciones ofrecidas para intentar paliarlos. Por último, la tercera parte de las conclusiones trata de futuras líneas de investigación.

### **1. Resultados principales**

Esta sección resume los resultados obtenidos en este estudio con respecto a los objetivos principales descritos en la introducción. El primero de ellos, desarrollado en detalle en el capítulo 4, se centra en el análisis del proceso de labilización de verbos que originalmente formaban una alternancia causativa / no-causativa. El segundo objetivo (capítulo 5) intentaba arrojar luz sobre el rol de la fecha de composición y el tipo de texto en la labilización, haciendo hincapié en la idea de que aunque el inglés antiguo es comúnmente considerado como un bloque, ignorando el hecho de que cubre un periodo de 400 años y que sobrevive en diferentes textos compuestos en diferentes épocas y que por tanto, las diferencias entre textos y fecha de composición de los mismos deberían ser tomados en cuenta para poder contribuir a un mayor entendimiento de dicha lengua. Con el tercer objetivo, capítulo 6, la idea era evaluar el rol de los preverbios con respecto a ciertos parámetros de la transitividad cardinal y de la Transitividad Total en el corpus de verbos pertenecientes a oposiciones causativas. En este trabajo, se explora además, la interacción de los preverbios como fuerza transitivizante en el sentido tradicional (parámetro Participantes) con respecto a la formación causativa. Así, entre los objetivos del presente estudio está el de determinar hasta que punto los preverbios han tomado el rol de la formación causativa como mecanismo transitivizante, si ése fuera el caso.

En cuanto a los resultados de cada objetivo específico, en primer lugar se presentarán los resultados generales concernientes al primer capítulo, es decir, el análisis de las

variaciones en valencia dentro del grupo de verbos lábiles cuyo origen está en una alternancia causativa, desarrollado en detalle en el capítulo 4. En términos generales, el análisis de este estudio concuerda con investigaciones previas sobre el tema como van Gelderen (2011), García García (2012) y Ottósson (2013) al mostrar que los verbos analizados, con la excepción de *deorfan-dyrfan* por las razones metodológicas explicadas en el capítulo 4, presentan signos de labilidad. Cinco de los pares analizados son casos de alternancias completamente empañadas, es decir, casos en los que ambos miembros del par son lábiles. Siete de ellos, por otro lado, están parcialmente empañados, solo uno de los miembros del par muestra signos de labilidad.

Este trabajo ofrece información que va más allá de la incluida en investigaciones previas ya que también tiene en cuenta los homólogos prefijados de los verbos analizados. El análisis de estos verbos de forma individual puede hacer pensar que la oposición causativa está mejor preservada en el caso de las formas con prefijo. De las 60 formas prefijadas incluidas en este estudio, solo algo más de la mitad de ellas son lábiles, 35 para ser preciso, mientras que 20 de ellas mantienen su valencia intacta. Esto podría estar relacionado con uno de los problemas más recurrentes de este estudio, la falta de atestiguación, comentado en la siguiente sección. De hecho, cuando estos verbos prefijados son analizados por pares, en vez de individualmente, los datos son muy similares a los de los verbos sin prefijo al mostrar que la labilidad está muy extendida entre estos verbos. Ocho de los pares de verbos prefijados están parcialmente empañados (un miembro lábil). Por otro lado, ocho de ellos muestran labilidad en ambos miembros. Sin embargo, es importante recalcar que al contrario de lo que sucede en el caso de los pares no prefijados, se detectaron tres pares de causativo / no-causativo cuya valencia permanece intacta en términos históricos, más concretamente, los pares formados por los verbos *onbūgan – onbīgan*, *onwācnan – onweccnan* y *opwindan – opwendan*.

Además del análisis de los datos, este trabajo tiene como objetivo arrojar luz sobre diversos factores que pueden haber influenciado el proceso de labilización. La primera causa tratada en el capítulo 4 como relacionada posiblemente con la labilización son los preverbios, debido a que están asociados con la transitividad en la bibliografía. Sin

embargo, por medio del análisis estadístico empleado en este trabajo, se descartó el rol de los preverbios como uno de los posibles motores de la labilización.

Como se resume en las conclusiones finales del capítulo 4, la comparativa del número de verbos lábiles sin prefijos con los prefijados, individualmente y en pares, ofrece resultados similares. Diecisiete (65.3%) de los 26 verbos no prefijados son lábiles, mientras que ese porcentaje es ligeramente más bajo en el caso de los verbos prefijados, 35 de 60, es decir, (58.3%). Cuando se comparan los pares de verbos, en lugar de los verbos individualmente, el número de pares preservados es de tres de 19 (15.7%), mientras que ninguno de los pares causativos sin prefijo mantiene la valencia original intacta, con la excepción de *deorfan-dyrfan* comentado anteriormente. A pesar de la diferencia en números y porcentajes, el test-t de la significación estadística determina que ambos grupos, prefijados y no prefijados, tanto individualmente como por pares, no presentan ninguna diferencia estadística en cuanto a su comportamiento respecto a la valencia. Ese resultado, por tanto, descarta los prefijos como un factor influyente en la expansión de la labilización sufrida por los verbos analizados.

Además de estar acompañados de prefijos, varios de los verbos estudiados comparten otras características que pueden haber influenciado el proceso de labilización. Uno especialmente relevante es un notable cambio semántico. El cambio semántico sufrido por verbos como *forbūgan* ‘declinar, evitar; huir de, escapar, pasar por’ o *behweorfan* ‘atender; preparar (comida, cuerpo para entierro); embalsamar, tratar’ con respecto a sus homólogos *būgan* ‘agacharse, doblar(se), someter(se) (intr. caus.)’ y *hweorfan* ‘girarse, cambiar; ir’, respectivamente, probablemente influido por los prefijos, podría ser un factor a tener en cuenta a la hora de estudiar el desarrollo de una valencia no histórica, transitiva en este caso.

Aunque probablemente influenciado por los prefijos, ciertos cambios semánticos notables tienen lugar en el caso de ciertos verbos sin prefijo, y como en el caso de los prefijados, parece tener un rol importante en el desarrollo de una nueva valencia en algunos casos. Este fenómeno se ve más claramente en el caso de *wendan* ‘girar(se), cambiar (intr. caus.); ir (intr.)’, atestiguado mayoritariamente con el significado ‘ir’ en

vez de con alguno de sus significados causativos originales. Como se explica en el capítulo 4, cambios como éste son vistos como una señal de lexicalización por algunos autores como Ramat (1992: 550-1). Según este autor, estos cambios pueden hacer que estos verbos se perciban como un nuevo elemento léxico en lugar de un signo lingüístico derivado a través de reglas gramaticales como es el caso de estos verbos desde un punto de vista histórico.

Además del cambio semántico, este trabajo trata otro factor que puede haber influido en la obsolescencia de la alternancia causativa: las similitudes fonológicas entre ambos miembros de la alternancia. Este aspecto se menciona en trabajos anteriores como Hermodsson (1952), Visser (1963), van Gelderen (2011) y Ottósson (2013), quienes enfatizan la falta de transparencia y asistematicidad en inglés antiguo a la hora de distinguir entre el verbo fuerte y su homólogo causativo en comparación con otras lenguas germánicas. El análisis llevado a cabo en este estudio apoya estas conclusiones, y a demás, va más allá que otros trabajos previos al mostrar ejemplos en los que es verdaderamente imposible distinguir entre el verbo fuerte y su derivado causativo por el hecho de que ambas formas son idénticas desde un punto de vista formal. El hecho de que algunos de estos verbos sean lábiles, por otro lado, hace que la diferenciación a través de medios sintácticos sea igualmente difícil. Así, es plausible imaginar que esa falta de diferenciación, tanto a nivel formal como sintáctico, contribuye al deterioro de la alternancia causativa. Este mismo fenómeno, como se comenta en el capítulo correspondiente, está teniendo lugar en el inglés actual en el caso de algunos verbos supervivientes de la formación *-jan*. Por lo tanto, es aceptable pensar que ese mismo escenario puede no ser nuevo en la historia de la lengua inglesa.

Finalmente, este trabajo ofrece información sobre la dirección del desarrollo de los verbos lábiles. Algunos autores, por ejemplo Visser (1963: 99) y van Gelderen (2011), basada en el anterior, abogan por que los verbos fuertes sufren un proceso de transitivización, mientras que otros como Hermodsson (1952: 104, 195, 208n y 308n) y Ottósson (2013: 377) piensan que la labilización es debida a un proceso de detransitivización a través del cual los causativos adquieren valencia intransitiva. En terminos generales, el análisis llevado a cabo en este estudio determina que el número

de verbos fuertes y causativos que se hacen lábiles es bastante similar, como muestran los análisis de verbos individuales así como de pares. Sin embargo, los resultados de algunas de las comparativas así como el análisis estadístico apuntan a la hipótesis de la detransitivización. Por ejemplo, la comparativa entre verbos fuertes que mantienen su valencia intacta y aquellos que son lábiles, por un lado; y aquella entre los causativos intactos y sus homólogos lábiles, por el otro, revelan que los causativos son más proclives a convertirse en lábiles que sus homólogos fuertes desde un punto de vista estadístico. De igual manera, el estudio de los pares de verbos que presentan una diferencia significativa en su valencia entre verbo fuerte y causativo, revela que la tendencia de los causativos a tomar la valencia de su par es más alta que la mostrada por los verbos fuertes.

Los siguientes resultados están relacionados con el rol del tipo de texto y la fecha de composición en la valencia. En cuanto a las categorías individuales, los datos muestran que en todas ellas, la valencia histórica es dominante en un grado extremadamente significativo estadísticamente hablando, con la excepción de las glosas tardías, cuya preferencia por la valencia histórica es “solo” muy estadísticamente significativa. Los resultados más relevantes, sin embargo, surgen de la comparación de las diferentes categorías y macrocategorías.

En cuanto a la fecha de composición, el examen meticuloso de los datos del capítulo 5 demuestra que existe una diferencia extrema entre textos tempranos y tardíos en el número de ejemplos de valencia no histórica que presentan. Esto sirve para constatar que hay una evolución notable de la labilización a través del periodo de inglés antiguo, como era de esperar, aunque como se menciona en el capítulo 5, no todos los autores enfatizan el rol de la labilidad en inglés antiguo. Según McMillion (2006: 193-5), por ejemplo, el número de verbos lábiles en inglés antiguo es comparable al del alemán o el sueco actuales, lenguas en las que el papel de la labilidad no es tan comúnmente resaltado como en el inglés antiguo.

Además, los datos muestran que no todos los tipos de texto evolucionan exactamente de la misma manera cronológicamente hablando. Mientras que la diferencia en los datos



entre prosa temprana y tardía es muy significativa estadísticamente, la diferencia entre el verso temprano y tardío lo es menos. Así, este resultado respalda la idea de que la evolución de la labilización en los textos en verso es más gradual que en aquellos compuestos en prosa.

Esto no debería resultar sorprendente considerando el resultado del análisis de tipos de textos. La comparativa de los diferentes tipos de textos revela que hay variación en el grado de labilización que estos presentan. Los textos en verso son, con mucho, los más conservadores ya que presentan un gran número de verbos con su valencia histórica en comparación a los verbos en prosa y glosas. La diferencia es, sin embargo, mayor en el caso de los textos en prosa, que a la luz de los datos, es con diferencia el tipo de texto más innovador de los tres en lo que concierne al número de verbos con valencia no histórica. En cuanto a las glosas, parecen representar un punto intermedio entre la innovadora prosa y el conservador verso. Esto no es sorprendente, dado el hecho de que las glosas incluidas en este estudio están escritas en prosa. Sin embargo, como se explica en detalle en el capítulo 5, la diferencia en términos de ejemplos de valencia no histórica presentes en las glosas en comparación a la prosa puede ser atribuida a la variación dialectal. Las glosas analizadas presentan características claras de inglés antiguo norteño y mercio que podrían estar detrás de la alta conservación de las oposiciones causativas en comparación con la prosa. De hecho, estos resultados concuerdan con las conclusiones expresadas por García García (2016) cuyo estudio muestra que el grado de empañamiento de la formación causativa no es más alta en los *Evangelios de Lindisfarne* que en otros textos en inglés antiguo aunque ocurre lo contrario en el caso de la morfología flexiva.

Los resultados concernientes a la variación en tipo de texto y fecha de composición resaltan la imprecisión de las generalizaciones, convenientes en cualquier caso, como asumir que el inglés antiguo es un único bloque lingüístico que no presenta variación interna a pesar del hecho de que ocupa un periodo de alrededor de 400 años. Como se comenta en este trabajo, este hecho es de especial importancia cuando se analiza un fenómeno conectado a la variación, ya que como se demuestra en este estudio, existen diferencias textuales y cronológicas que deben ser tenidas en cuenta.

Finalmente, los últimos y quizá los datos más relevantes obtenidos en este estudio tienen que ver con el rol de los prefijos. Estos resultados están relacionados con dos temas principales: en primer lugar, los efectos (o ausencia de estos) de los prefijos en la transitividad cardinal, así como en algunos de los parámetros con los que han sido tradicionalmente asociados, como Participantes, Telicidad o Afectación. En segundo lugar, el análisis llevado a cabo en el capítulo 6 sirve para arrojar luz sobre la cuestión de si la formación causativa ha sido suplantada por los preverbios como fuerza transitivizante.

En cuanto a los efectos de los preverbios en la transitividad de los verbos analizados, queda claro en el capítulo 6 que algunos de los preverbios sí muestran un efecto manifiesto y extendido en la Transitividad Total. Siendo más preciso, en seis de los nueve preverbios analizados en este trabajo, a saber: *ā-*, *be-*, *for-*, *ge-*, *tō-* e *ymb-*, los verbos prefijados muestran una puntuación más alta en Transitividad Total que sus homólogos no prefijados desde un punto de vista estadístico, lo que sirve para apoyar el rol que juegan los preverbios en la transitividad.

En cuanto a los efectos en parámetros específicos, los resultados muestran que en la mayoría de casos, las conclusiones a las que llega este estudio son similares a las ofrecidas en la literatura anterior, aunque con cierto grado de refinación en algunos casos.

El único preverbio que muestra efectos en todos los parámetros analizados en este estudio es *tō-*. De la misma manera *for-* actúa sobre Participantes, Telicidad y Afectación-individualización, al menos teniendo en cuenta los resultados totales. Sin embargo, es importante puntualizar que la alta puntuación que presentan algunos de los verbos con *for-* parece estar relacionada con un alto grado de especialización semántica más que con un efecto transitivizante del preverbio, como se demuestra en el análisis del grupo de verbos con *for-* que no muestran esa característica, pues no se detecta ningún efecto transitivizante en el sentido tradicional en estos verbos. Éste es, de hecho, uno de los resultados más relevantes de este estudio, ya que refuta una de las hipótesis

más extendidas en cuanto a *for-*: el hecho de que es principalmente un preverbio transitivizante. Los resultados determinan asimismo que el efecto más prominente de este preverbio es sobre el parámetro Afectación-individualización, demostrado claramente en ambos grupos de verbos, es decir, en aquellos que sufren un notable cambio semántico y aquellos que no.

Otros preverbios muestran funciones relacionadas con solo dos de los parámetros estudiados. Ése es el caso de *ā-*, por un lado, y de los muy similares, desde el punto de vista de sus funciones y significado, *be-* e *ymb-*. En el caso del primero, el análisis estadístico determina que los verbos con *ā-* presentan una puntuación más alta, estadísticamente, tanto en el parámetro Participantes como Telicidad con respecto a sus homólogos no prefijados. Es importante recalcar que en estudios previos solo el efecto sobre Telicidad es tenido en cuenta. Además este preverbio es asociado con un efecto intensificador, de la Cruz (1975: 73), que no es detectado en este trabajo. En cuanto a *be-* e *ymb-*, estudios previos, como por ejemplo Brinton (1988: 209-10), han enfatizado la función télica de estos preverbios, una función que no se aprecia en el análisis llevado a cabo en el capítulo 6. Sin embargo, el análisis de los datos no deja lugar a dudas en cuanto al efecto que los verbos con este preverbio presentan sobre los parámetros Participantes y Afectación-individualización, cuyas puntuaciones son mucho más altas en términos estadísticos que las de sus homólogos no prefijados.

Entre el grupo de preverbios que influyen en la Transitividad Total, el que muestra un impacto menor en términos de parámetros es *ge-*. A pesar de las afirmaciones en varios trabajos previos que asocian este preverbio con la transitivización o con funciones relacionadas con la afectación, según el análisis del capítulo 6, el único parámetro claramente afectado por *ge-* es la Telicidad. Se aboga por que este resultado puede estar relacionado con la falta de distinción semántica que los verbos con *ge-* muestran con respecto a sus homólogos, que llevaría a una mayor similitud entre verbos con preverbio y aquellos que no lo tienen en cuanto a transitividad. Además de sobre Telicidad, la influencia de *ge-* sobre la Transitividad Total es muy notable.

Finalmente, se comentarán brevemente los prefijos que no muestran un efecto sobre la Transitividad Total. Este grupo está compuesto por los prefijos *æt-*, *on-* y *op-*. Ninguno de estos preverbios está explícitamente conectado con ninguno de los parámetros analizados según trabajos previos. Esto se confirma en el caso de *æt-* y *op-*, pero no completamente en *on-*. El preverbio *on-* está relacionado con el aspecto ingresivo según algunos de los trabajos mencionados en este estudio como Quirk y Wrenn (1957: 111-2). Aunque no mencionan la telicidad con respecto a este aspecto, este parámetro está íntimamente relacionado con éste, ya que el aspecto ingresivo marca la barrera inicial de un evento, es decir, es télico, pero en vez de señalar el punto y final de un evento, marca su comienzo (véase Sasse (1991)). Por consiguiente, no es sorprendente ver que *on-* sí que tiene efectos sobre el parámetro Telicidad como se demuestra en el análisis del capítulo 6.

Antes de concluir con esta sección, comentaré el último grupo de resultados, el relacionado con la interacción entre causatividad y preverbios en cuanto al parámetro Participantes. En términos generales, las conclusiones del capítulo 6 muestran que no hay una disparidad notable en el número de pares en los que el sufijo causativo aún retiene sus funciones transitivizantes y aquellos en los que estas funciones han sido tomadas por los preverbios. En nueve casos, el causativo prefijado muestra una puntuación significativamente más alta en Participantes que su homólogo, lo que implica que la diferencia puede ser atribuible a la conservación de la oposición causativa más que a los efectos de los preverbios. Lo contrario es cierto en el caso de siete pares diferentes en los que ambos miembros muestran una puntuación similar en el parámetro Participantes. Así, en estos casos los resultados apuntan al hecho de que el preverbio ha adquirido las funciones transitivizantes de sufijo causativo. Además, el análisis de los datos ofrece información relevante acerca de los preverbios que son más proclives a adquirir las funciones transitivizantes de la formación causativa. Mientras que *ā-* toma esas funciones en la gran mayoría de pares en los que aparece, *be-* y *for-* lo hacen, pero en menor medida. *Ge-* es el preverbio que muestra una menor influencia, lo que no es sorprendente dado su escaso efecto en el parámetro Participantes.

Resumiendo, los resultados concernientes al segundo objetivo apuntan al hecho de que los preverbios son un mecanismo transitivizante tan relevante como el sufijo causativo – *jan* en el periodo de inglés antiguo. Esto apunta a una apropiación por parte de los preverbios de las funciones de una formación causativa desgastada que no está completamente obsoleta como fuerza transitivizante en este periodo de la lengua.

## **2. Problemas principales y soluciones**

Los siguientes párrafos son un resumen conciso de algunos de los principales problemas, comentados en los capítulos correspondientes, que surgieron durante la compleción de este trabajo. Asimismo, se ofrece un breve informe sobre las soluciones propuestas para solventar o al menos mitigar el impacto en este trabajo de dichos problemas.

El principal obstáculo en la compleción de este trabajo está relacionado con la compilación de ejemplos. Como se explica en el capítulo 2, el hecho de que el DOEC no esté lematizado presenta un problema relevante en cuanto a la compilación de textos. Esto implica que una lista de todas las diferentes raíces de los verbos analizados tuvo que ser compilada antes de llevar a cabo las búsquedas en DOEC. Esta tarea, simple en una lengua como el inglés actual, puede conllevar un importante reto en el caso del inglés antiguo, una lengua no estandarizada que como tal, presenta una variación considerable de tipo cronológico, dialectal, etc. en los paradigmas verbales. Afortunadamente, la información necesaria puede encontrarse en el DOE. Este diccionario lista cada una de las formas de las atestiguaciones de cada verbo. Sin embargo, debido al hecho de que solo estaba completado hasta letra G durante la compleción de este trabajo, significa que la mayoría de raíces necesaria para la compilación de mi corpus hubo de ser buscada en otros trabajos, principalmente diccionarios como Sweet (1868), Bosworth y Toller (1898), Clark-Hall (1960) y gramáticas de inglés antiguo como Campbell (1965). Gracias a estos medios, se pudieron reunir las distintas raíces (disponibles en la Figura 2.2) que hicieron posible la compilación del corpus.

Una vez que los ejemplos fueron seleccionados, se tuvo que hacer frente a otra dificultad comentada en el capítulo 2, a saber, el hecho de que algunas de las formas de los paradigmas verbales son compartidas por el verbo fuerte y su derivado causativo. Esto conlleva que en algunos casos, la distinción formal entre los miembros del par causativo no sea posible. El hecho de que los verbos en estas oposiciones a veces muestren notables diferencias semánticas fue decisivo a la hora de arrojar luz sobre este tema. Una vez más, como en el caso de la compilación de raíces, los diccionarios mencionado anteriormente fueron cruciales a la hora de ofrecer una solución a este problema. A través de la información obtenida de estos, se pudo determinar en muchos casos si una cláusula en concreto contenía un ejemplo del causativo o del verbo fuerte. Sirvan como ejemplo que los verbos *deorfan* y *dyrfan* comparten la forma de tercera persona de presente: *dyrffþ*. Sin embargo, según los diccionarios consultados, solo el verbo fuerte puede tener el significado ‘trabajar’. Por lo tanto, cuando se analizaba un ejemplo con tal significado, se catalogaba como ejemplo de *deorfan*. Sin embargo, varios de los verbos analizados, no solo comparten formas de sus paradigmas, sino también sus significados. Por consiguiente, el método mencionado anteriormente no era válido en estos casos. El hecho de que no pudieran usarse criterios sintácticos dado que los verbos analizados son lábiles, y que en consecuencia, no pueden ser diferenciados en base a su comportamiento sintáctico, hizo la distinción entre verbos imposible en algunos ejemplos. En este caso, se optó por compilar esa cláusula en concreto como un ejemplo tanto del verbo fuerte como de su homólogo causativo.

Aunque las anteriores son relevantes, las mayores dificultades de este estudio están relacionadas con la disparidad de atestigüaciones. Este obstáculo es, por supuesto, inherente a todos los trabajos de lingüística histórica ya que los datos sobre los que se trabaja son necesariamente limitados. El hecho de que varios de los verbos analizados apenas están atestigüados o directamente no lo están, o que los datos estén desequilibrados en algunos aspectos conforman el que es quizá el mayor reto en la compleción de este trabajo.

En primer lugar, me concentraré en las consecuencias y dificultades que surgen del desequilibrio del corpus y cómo éstas han sido solucionadas. Uno de los aspectos más

claramente afectados por este desequilibrio se ve en la clasificación por tipo de texto. Algunos de los verbos incluidos en mi corpus aparecen solo en cierto tipo específico de texto, o solo en textos tempranos o tardíos. Por ejemplo, *gebærnan* está atestiguado casi exclusivamente en textos médicos, mientras que *būgan* es mucho más frecuente en textos tardíos que tempranos. Esto tuvo un gran impacto en el diseño del corpus, como se explica en el capítulo 2. El diseño preliminar contemplaba distinciones mucho más concretas en cuanto al tipo de texto y la fecha de composición. Este primer diseño estaba basado en la división en géneros de Fulk y Cain (2013) y contemplaba asimismo, la división de textos en cuatro grupos cronológicos, de OE1 a OE4 como en el *Helsinki Corpus*. Sin embargo, las restricciones del corpus hicieron que tales distinciones fueran inviables. Como consecuencia, los textos fueron divididos en categorías mayores para que cada una de esas categorías contara con un número suficiente de ejemplos para poder ser comparada con las demás y que así, se pudieran obtener resultados relevantes en cuanto a la variación textual y cronológica, aunque estos sean más generales de lo previsto en un primer momento.

En otros casos, la aleatoriedad del corpus causó problemas como consecuencia de la metodología empleada. Con esto me refiero concretamente al caso de los verbos *deorfan* y *dyrfan*. Como se explica en el capítulo 2, algunos de los ejemplos tomados del DOEC tuvieron que ser descartados debido al hecho de que no podían someterse al análisis de los aspectos que conforman el núcleo de este estudio, como la valencia o los parámetros de Transitividad Total. Por consiguiente, los ejemplos de verbos en voz pasiva o en cláusulas de participio no fueron incluidas en el presente trabajo. Esta decisión, sin embargo, presentó una dificultad notable con respecto al par mencionado anteriormente, ya que estos verbos están atestiguados en su mayoría en los tipos de cláusulas que tuvieron que ser descartadas en este estudio. Debido a este desequilibrio en las cláusulas que han sobrevivido, fue imposible demostrar que estos verbos están en una oposición causativa / no-causativa con signos de labilidad basándome solamente en los ejemplos de mi corpus. Este problema tuvo que ser resuelto recurriendo a trabajos anteriores como el de García García (2012), donde estos verbos están incluidos como lábiles o tomando ejemplos del DOE, pues estos demuestran claramente la naturaleza

lábil de *dyrfan* aunque solo en cláusulas que no muestran las características requeridas por los ejemplos incluidos en mi corpus.

Otra de las principales consecuencias del desequilibrio del corpus tiene que ver con el hecho de que, en varios casos, las comparativas de datos se hacen entre verbos con un número muy diferente de atestiguaciones. Por ejemplo, mientras que *hweorfan* está atestiguado en 143 ocasiones, su causativo *hwyrfan* solo aparece en 23 cláusulas. Este problema se resolvió satisfactoriamente a través de una de las mayores contribuciones de este estudio, a saber, el análisis estadístico. Esta herramienta metodológica representa una diferencia decisiva con respecto a estudios anteriores. Ninguno de los trabajos que sirven de base a éste, como Hiltunen (1983), Brinton (1988) o García García (2012), por nombrar algunos, se basan en datos estadísticos. Esto representa una diferencia notable con respecto a estos. Entre otras cosas, el uso de estadísticas permite una comparativa de grupos de datos que contienen un número muy diferente de ejemplos entre sí. De la misma manera, el uso de estadísticas hizo posible obtener resultados relevantes de datos que *a priori* parecen muy similares en lo que concierne a sus porcentajes solamente, como en el caso de los datos relacionados con la influencia del tipo de texto y la fecha de composición. Además, el análisis estadístico sirve para arrojar una luz objetiva que va más allá de los datos impresionistas que se pueden recoger haciendo uso solo de porcentajes. Como se ha visto a lo largo de este estudio, los datos impresionistas pueden conducir a conclusiones equivocadas. En algunos casos, las diferencias entre verbos tanto en términos de números como de porcentajes, llevan a cierta conclusión que parece perfectamente lógica y obvia. Sin embargo, cuando es analizada bajo el prisma objetivo del análisis estadístico, ésa diferencia resulta ser inexistente y carente de ningún apoyo desde el punto de vista de los datos, que son, después de todo, la base de cualquier estudio cuantitativo. En conclusión, lo que hacen las estadísticas es filtrar los datos y presentarlos a través de la lente de objetividad de una análisis matemático. Esto no quiere decir que los datos ofrecidos por otros estudios que no se basan en estadísticas deban ser descartados. Su valor es, por supuesto, innegable. Sin embargo, como se ha mostrado en este trabajo repetidas veces, el análisis estadístico ayuda a determinar más firmemente si alguna de las conclusiones de un



estudio cuantitativo son completamente sólidas, así como a ofrecer resultados que pueden ser inesperados.

A pesar de su innegable utilidad, el método estadístico empleado en este estudio no sirve para superar todas las dificultades de atestiguación. Ciertos verbos solo están atestiguados una vez en mi corpus y por lo tanto, no pueden ser objeto de ningún tipo de análisis estadístico. Por consiguiente, los resultados concernientes a estos verbos y a aquellos que solo están atestiguados en dos ejemplos deben analizarse con las debidas precauciones y siempre deben ser contrastados con una evaluación cualitativa o con resultados de verbos similares atestiguados más frecuentemente.

Finalmente, para concluir con esta sección sobre problemas y soluciones, se tratará otra de las dificultades relevantes encontradas en la compleción de este trabajo, a saber, la aplicación de la teoría de la transitividad cardinal a mi análisis. Con esto, no me refiero al análisis de los parámetros en sí mismos sino a los cambios que tuvieron que ser aplicados al enfoque de Hopper y Thompson (1980) para poder utilizarlo en un estudio que depende de datos cuantitativos mayoritariamente. Otros trabajos anteriores, como Hollmann (2003) han llevado a cabo ciertos cambios. La mayoría de los cambios aplicados al esquema de Hopper y Thompson (*ibid*) están basados en Hollmann (*ibid*), aunque no todos. Como comenta este último autor (Hollmann (*ibid*: 185)), el principal defecto del enfoque de la transitividad cardinal es que no tiene un sistema numérico específico que permita puntuar las cláusulas analizadas para poderlas ordenar como más o menos transitivas, en total y parámetro por parámetro. Como se explica en el capítulo 6, (sección 6.2), en este estudio se ofrece un sistema de puntuación ya que sin él, las comparativas estadísticas parámetro por parámetro así como en Transitividad Total de cada uno de los ejemplos incluidos en este trabajo no hubiera sido posible.

Además, como hace Hollmann (*ibid*), algunos cambios fueron aplicados a ciertos parámetros presentados en el artículo de Hopper y Thompson. Algunos de estos cambios no representan ninguna solución a algún problema específico de la escala de estos autores pero sirve para simplificar el análisis evitando cierto grado de redundancia. Por ejemplo, el parámetro Agentividad está íntimamente relacionado con

Volición. De hecho, como apuntan van Valin (2005: 56) o Næss (2007: 29) los agentes son volitivos necesariamente. Como consecuencia, estos dos parámetros fueron fusionados en uno solo. De manera similar, Afectación e Individualización fueron analizados en un solo parámetro debido a la conexión entre ellos. El hecho de analizar los padecedores (undergoers) independientemente de la función sintáctica que tengan en la cláusula, sujeto u objeto, también es una novedad necesaria, en mi opinión, con respecto al enfoque original de Hopper y Thompson.

Sin embargo, no todos los cambios significan una simplificación de los parámetros de Hopper y Thompson. En algunos casos, su enfoque no captura matices relevantes como la diferencia en agentividad o volición de los padecedores, y no solo de los actores, reflejado en cambios sintácticos en algunas lenguas. La importancia del factor de la volición de los padecedores se tiene en cuenta en Hollmann (2003), basado en las investigaciones de Talmy (1976, 1985, 1988). Así, en este caso en particular, el análisis de los parámetros se vuelve más complejo que en el enfoque de la transitividad cardinal original desarrollado por Hopper y Thompson.

### **3. Futuras líneas de investigación**

Esta última sección trata brevemente las futuras líneas de investigación que pueden seguirse en trabajos posteriores. Como se ha explicado anteriormente, uno de los problemas principales de este estudio tiene que ver con la escasez de atestiguación. Un buen punto de partida para futuras investigaciones sería intentar rellenar alguno de los huecos dejados por mi corpus. Con esto me refiero específicamente a verbos que presentan un número muy escaso de atestiguaciones y que en consecuencia no pueden ofrecer conclusiones sólidas en cuanto a los objetivos de este estudio. Se necesita analizar más ejemplos de verbos como *onbīgan*, *onhwyrfan* o *tōwendan*, por citar solo algunos, para poder corroborar o descartar las hipótesis establecidas en este trabajo.

Otras posibles líneas de investigación tienen que ver con objetivos específicos. Por ejemplo, como se menciona en el capítulo 2, los textos que muestran características asociadas al inglés medio fueron descartados, por ejemplo la *Crónica de Peterborough*

(DOE: ChronE). Sería interesante analizar estos textos en detalle usando los métodos estadísticos utilizados en este estudio para arrojar luz sobre la evolución de los verbos incluidos en este trabajo en los textos que están en la frontera entre el inglés antiguo y el inglés medio. Se ha podido demostrar que existe una diferencia estadística en términos de labilidad entre el inglés antiguo temprano y el tardío. A través de la metodología usada en este estudio, se podría evaluar si existe una disparidad notable entre los textos de inglés antiguo tardío y aquellos que ya muestran claras características de inglés medio o incluso más tardíos. Este análisis serviría para aclarar si el colapso de la formación causativa en el inglés medio es tan abrupto como se presupone frecuentemente. Se espera además, que este estudio ofreciera más pistas acerca de los factores que pueden haber influido en el proceso de labilización más allá de los explorados en este trabajo.

Además de ofrecer conclusiones relevantes en cuanto a la fecha de composición, el análisis de los factores textuales del capítulo 5 apuntaba a la influencia de otro factor que no ha podido ser estudiado con tanta profundidad como hubiera sido necesario, es decir, la variación dialectal. Los resultados muestran que la variación diatópica puede ser relevante en el estudio de los verbos lábiles en inglés antiguo. Aunque son muy innovadores desde el punto de vista de la morfología flexiva, algunos de los textos norteños analizados son de hecho más conservadores que algunos en Sajón occidental con respecto a la labilidad. Un análisis centrado en los posibles efectos de la variación dialectal en la labilidad extendido a todos los verbos en un par causativo / no-causativo podría ofrecer resultados interesantes con respecto a si los textos norteños en general son más conservadores en este aspecto así como respecto a algunos de los factores que podrían estar detrás de este comportamiento.

La última línea de investigación futura a la que haré referencia está relacionada con la interacción de los preverbios y el sufijo causativo. Como se ha comentado, éste es un tema que ha sido explorado pocas veces en la literatura hasta el momento (véanse Visser (1963: 97-100) y Lindemann (1970: 30)). Los resultados en este estudio apuntan al hecho de que los preverbios son un mecanismo transitivizante tan relevante como el sufijo causativo *-jan* durante el periodo de inglés antiguo. Se muestra que aunque no

está completamente eliminada como fuerza transitivizante, el sufijo causativo comparte esta función transitivizante con ciertos preverbios, entre los que destacan *ā-*, *be-* y *for-*. Más investigación al respecto podría ofrecer más información sobre hasta qué punto las funciones del sufijo *-jan* han sido tomadas por los preverbios analizando un número mayor de ellos. Además este análisis podría ofrecer pruebas sobre su evolución posterior. Por ejemplo, se podría evaluar si los verbos frasales, el mecanismo que sustituye a los preverbios en el periodo de inglés medio como marcador de *Aktionsart*, también pueden funcionar como mecanismo transitivizante en el sentido tradicional, o en el caso de que no lo hagan, qué mecanismos toman ese rol en periodos posteriores.