Univerzita Karlova v Praze

Filozofická fakulta

Ústav anglického jazyka a didaktiky

Bakalářská práce

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Slovotvorba ablautem vs. slovotvorba sufixací v diachronii

Word-formation by Ablaut vs. Word-formation by Suffixation in Diachrony

Praha, 2010

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Nū sceal glēd fretan wīgena strengel.

Milému panu Čermákovi
– vlídnému vůdci bojovníků –

za to, že mi byl Gandalfem na mé bakalářské pouti, která ovšem nebyla poutí poslední,
stejně jako barva Gandalfova nebyla jen jedna jediná;
za to, že mi neustále pomáhá nalézat odpovědi na otázku Geralda Criche:

Do black-beetles bite?

Prohlašuji, že jsem bakalářskou práci vypracovala samostatně a že jsem uvedla všechny použité prameny a literaturu. Souhlasím s tím, aby moje bakalářská práce byla půjčována ke studijním účelům. Ve Zdicích dne 2.6. 2010. .....

I declare that the following BA thesis is my own work for which I used only the sources and literature mentioned. I have no objections to the BA thesis being borrowed and used for study purposes.

Abstract

The present bachelor thesis deals with word-formation by ablaut vs. word-formation by suffixation in diachrony, namely in Old and Middle English. The reason for choosing this theme lied in its general marginalization in grammar books, in which the reader finds detailed descriptions of the grammatical function of ablaut in Old and, to a lesser extent, also in Middle English. The aim of the thesis was to describe ablaut formations during these two stages of the language in a typological perspective. The analyses focus on introflectional features of the roots of the formations and show the decrease in various combinations of the individual realizations of the roots that display ablaut with inflectional (*-a*, *-e*, *-o*/*-u*; *-Ø*) and purely derivational, agglutinative, suffixes (*-lic*; *-full*; *-scip*; *-hād*; *-d*, *-t*, *-þ*). The thesis further focuses on whether the various realizations of the roots are connected with the selected suffixes also semantically, i.e. whether there exist formal and/or semantic correspondences in the combinations. The analyses themselves were preceded by determining morphologically related families on the basis of the *Dictionary of Old English: A-F*, the most recent and detailed dictionary of Old English, which covered entries under the letters A-F when our analyses were carried out. The same was done on the basis of the *Middle English Compendium*. As follows from the general typological development of the language and as the analyses of the materials prove directly and indirectly, the functional clarity, i.e. motivation, of ablaut formations is gradually obscured. This process is as a result of the typological and phonological changes, and these formations start yielding to the agglutinative means of derivation, which thus prove to be productive. They further yield to derivationally unmotivated means, such as lexical enrichment of the language, in the first place owing to the language contact with French, with which the present thesis does not deal for limitations of space.

Abstrakt

Tato bakalářská práce se zabývá slovotvorbou ablautem vs. slovotvorbou sufixací v diachronii, a to v období staroanglickém a středoanglickém. Důvod výběru tohoto tématu spočíval v obecném opomíjení této tématiky v gramatikách, v nichž čtenář nalézá podrobné popisy gramatické funkce ablautu ve staré a v menší míře i ve střední angličtině. Cílem práce bylo popsat vývoj ablautových formací během těchto období v typologických souvislostech.

Analýzy se zaměřují na introflektivní rysy v kořenech formací a ukazují, jak různé kombinace realizací těchto kořenů vykazující ablaut s flektivními (*-a*, *-e*, *-o*/*-u*; *-Ø*) a čistě derivačními, aglutinačními sufixy (*-lic*; *-full*; *-scipe*; *-hād*; *-d*, *-t*, *-þ*) postupně ubývají. Práce se dále zaměřuje na to, zda se různé realizace kořenů váží k vybraným sufixům také sémanticky, tj. zda v oněch kombinacích existují formální a/nebo sémantické pravidelnosti. Před samotnými analýzami byly určeny morfologicky příbuzné rodiny na bázi *Dictionary of Old English: A-F*, nejnovějšího a nejpodrobnějšího slovníku staré angličtiny, který v době našeho průzkumu pokrýval hesla spadající pod písmena A-F. Totéž bylo učiněno na bázi *Middle English Compendium*. Jak vyplývá z obecného typologického vývoje jazyka a jak analýzy materiálů prokazují přímo i nepřímo, funkční průhlednost, tj. motivovanost, ablautových formací se postupně zastřívá důsledkem typologických a fonologických změn. Tyto formace začínají ustupovat aglutinačním prostředkům odvozování, jež se tak ukazují jako produktivní. Dále také ustupují derivačně nemotivovaným prostředkům typu lexikálního obohacování jazyka, a to především díky jazykovému kontaktu s francouzštinou, kterým se ovšem tato práce pro nedostatek místa nezabývá.

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Abbreviations

Languages and language stages:

EME	Early Middle English
Gmc	Germanic
IE	Indo-European
LME	Late Middle English
ME	Middle English
OE	Old English
OF	Old French
PDE	Present Day English
PGmc	Proto-Germanic
WGmc	West Germanic

Corpora and/or Dictionaries:

DOE	*Dictionary of Old English: A-F*
LAEME	*The Linguistic Atlas of Early Middle English*
LALME	*The Linguistic Atlas of Late Mediaeval English*
MEC	*Middle English Compendium* (*Corpus of Middle English Prose and Verse*)
OED	*Oxford English Dictionary*

Other:

acc	accusative
f	feminine
ind	indicative
m	masculine
nom	nominative
pers	person

pl	plural
PP	principal part
pres	present
sg	singular
sub	subjunctive

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1. Preface

"*The following work is intended to be suggestive, not final. In spite of all that has been written on ablaut, the last word has not been said.*"[1]

Sundry essays and books have explored the inflexional function of ablaut through and through the history of the English language. One hundred and five years, more than a century, have passed since Francis A. Wood commented upon the study of the derivational role of ablaut; and, still, little attention seems to have been paid to this derivational function in literature, which is something this thesis attempts to redress by contributing a tiny mite.

Semantically loaded, the alternating vowels of Old English labelled as ablaut occurred in the roots of strong verbs and of derivationally related words. In hindsight, they have long ceased to be productive as a means of word formation as they had yielded to functionally transparent suffixation and to loanwords. Yet, a few remnants of this ancient derivational process are still traceable even in Present Day Standard British English: *batch*, *breach*, *drove*, *drunk*, *road*, *song*, *writ*[2], and others. The word-formational patterns that worked with the roots of strong verbs in Old English can be encountered also in PDE nursery rhymes:

Sing a song of sixpence[3]
See-saw sacradown[4]

Chapter 2, Theoretical Background, uses as its starting point papers by Dieter Kastovsky, whose work has been most influential and comprehensive. We supplement the information provided by his research by general commentaries found in grammar books and elsewhere. The chapter is divided in three basic sections: Ablaut, Suffixation, and Hypotheses.

The hypotheses are four. As already indicated above, PDE suggests that purely derivational, agglutinative, suffixes (such as *-full*) gradually replaced the inflectional suffixes (such as *-e*) in

[1] Francis A. Wood, *Indo-European a^x : $a^x i$: $a^x u$. A Study in Ablaut and in Wordformation* (Strassburg: Verlag von Karl J. Trübner, 1905) v.
[2] Dieter Kastovsky, "Vocabulary", in *A History of the English Language*, eds. Richard Hogg and David Denison (Cambridge: Cambridge University Press, 2006) 204 and 246. To clarify the PDE expressions, we indicate also the connections to the appropriate verbs: *batch ~ to bake*, *breach ~ to break*, *drove ~ drive*, *drunk ~ to drink*, *road ~ to ride*, *song ~ to sing*, *writ ~ to write*.
[3] *Mother Goose* (Great Britain: Wordsworth Edition Limited, 1994) 13.
[4] *Mother Goose* 20. The origin of the vocalic alternation in *see-saw* is not clear. However, see also 2.1.1.1.

the history of English.[5] So, this may be expected to occur in the transitional period connecting Old and Middle English.

Two other hypotheses deal with the levelling of introflection, i.e. of the morphological oppositions based on the vowels and consonants of the roots as well as on the inflectional suffixes. The last hypothesis is of semantic character, offering three possible solutions to the disappearance of stem variability on which certain meanings depended.

In the above-mentioned scraps of ditties, we could not see the fact that various roots of OE strong verbs, some with more than five realizations, were combined with suffixes of inflectional and agglutinative character in Old and Middle English. Chapter 2 also poses a question about whether or not there are any formal and semantic tendencies in the way individual realizations of the roots and various suffixes are combined.

Chapter 3, Methodology, renders detailed evidence on the processes of analyses and on the character of the material.

The analysed material has been collected from the dictionaries. No corpus-based analyses have been carried out owing to the reasons of time and space, and, thus, the results of our analyses have been based on dictionary entries only. The materials have been provided by the *Dictionary of Old English: A-F* and by the *Middle English Compendium*. Chapter 3 presents the reader with various problems connected both with the use of the dictionaries and with diachronic analyses in general.

Chapter 4, Analysis, is a detailed description of the collected material, which is interwoven with conclusions that can be drawn on its basis. The research focuses on formations in both inflectional and purely derivational, agglutinative, suffixes; namely, on nouns and adjectives in inflectional suffixes, on formations in dental suffixes, on nouns in *-scipe* and *-hād*, and on adjectives in *-lic* and *-full*.

[5] We distinguish purely derivational, or agglutinative, suffixes from inflectional suffixes. The latter type of the formatives has both an inflexional and derivational function, unlike the first type. So, the *-a* in *cuma* "he who comes" indicates both grammatical categories such as gender, case, and number, and a word-class to which the formation belongs (nouns). "Inflectional" relates to typology, "inflexional" to morphology.

The analyses have, of course, tried to prove the hypotheses stated in chapter 2 and, on the whole, succeed in doing so. The results are summed up in chapter 5, Conclusion.

Chapters 2 and 4 are set in the methodological framework of Prague School typology.

Apart from the analyses found in chapter 4, the thesis contributes to the subject matter by additional material (such as tables displaying verbal derivates) found in the appendices. The tables with formations in other suffixes than those analysed in the present thesis may thus serve as a basis for further research.

2. Theoretical Background

2.1. Ablaut[6]

2.1.1. The Term and Ablaut Generally

2.1.1.1. The Term

Barnhart & Barnhart describe Indo-European ablaut as "the systematic substitution of one root vowel sound for another in different inflectional forms or derivatives of a word, as in *ring*, *rang*, *rung*."[7] Words demonstrating ablaut in word-formation in PDE may be found in the Preface. The quoted definition is adopted in this thesis.

Ablaut had been in use "from 16th cent. in more general senses in German grammarians",[8] but Jakob Grimm reintroduced it into historical linguistics in his *Deutsche Grammatik I. Vowel gradation* or *vowel grades* are more iconic synonyms for the term. Another potentially synonymous, although less frequent, expression is *apophony.*[9]

Ablaut sometimes refers, among other things,[10] to the vocalic and/or consonantal alternation in PDE expressions used in nursery rhymes, e.g., *heigh-ho*, *shilly-shally*, or *zigzag*.[11] Warnke differentiates these alternations from the IE ablaut by calling them the primary ablaut or "the very Ablaut"[12], whereas he refers to the IE ablaut as the secondary ablaut. It seems that the new pattern based on vocalic alternations emerged in ME;[13] however, it was apparently used only for comic and jovial purposes.

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[6] German *ab* + *Laut*, i.e. *off* / *from* / *away* + *sound.*

[7] Clarence L. Barnhart, Robert K. Barnhart, eds., *The World Book Dictionary* (Toronto: World Book, Inc., 1988) 4.

[8] "Ablaut," def., *Oxford English Dictionary*, John Simpson, 11 Mar. 2010, 6 Aug. 2009 and 23 Apr. 2010 <http://dictionary.oed.com/cgi/entry/50000455?single=1&query_type=word&queryword=ablaut&first=1&max_to_show=10>.

[9] The French term has Greek etymology. See e.g. the *OED*.

[10] While in Indo-European languages the term refers primarily to a limited set of vowel alternations that emerged in IE, "[s]imilar vowel alternations in non-Indo-European languages are also sometimes called *ablaut* as are consonantal alternations in morphologically related words (as in Yuman, Siouan)." Lyle Campbell and Mauricio J. Mixco, *A Glossary of Historical Linguistics* (Edinburgh: Edinburgh University Press, 2007) 2. There appears "something like a consonantal parallel to ablaut" even in IE languages, at least according to Lass, which is called *s*-mobile or mobile *s*. He mentions what he labels *w*-mobile, too. Roger Lass, *Old English: A Historical Linguistic Companion* (Great Britain: Cambridge University Press, 1994) 118. See Lass also for what Hodge means by ablaut. In addition to that, mutations of Celtic languages may be understood as an instance of consonantal ablaut within the IE language family. Certain authors see consonantal ablaut even in PDE: "Often, reduplication in English occurs with consonantal ablaut (Wescott 1983) as in *heebie-jeebies* (jitters), […] *teeny-weeny*." Earl R. Anderson, *A Grammar of Iconism* (USA: Associated University Press, 1998) 115.

[11] Anderson 115.

[12] Karl Warnke, *On the Formation of English Words by Means of Ablaut: A Grammatical Essay* (Halle a/s Max Niemeyer, 1878) 11.

[13] As the first appearance of the reduplication with vowel ablaut in English, Anderson quotes *giue-goue* (PDE *gewgaw*) found in *Ancrene Riwle.* Anderson 115.

2.1.1.2. Ablaut Generally

Pairs similar to *history* /'hɪstərɪ/ ~ *historic* / hɪ'stɒrɪk/[14] may clarify the way in which ablaut most probably functioned in IE. Kastovsky claims that

> [*s*]*uch stress alternations automatically entail the segmental alternation of vowels, which is rather similar to the Indo-European ablaut alternation between full, reduced, and zero grade stems, which was also triggered by stress position.*[15]

Prokosch describes the situation in more detail:

> ***Ablaut*** […] *is a reflex of the two accent types of* [*IE*]. Pitch *accent led to an alternation between front and back vowels* [*… T*]*his type of gradation is restricted to the alternation between the mid vowels* e *and* o. Stress *accent resulted* […] *in a lengthening of over-stressed vowels. We call the result of pitch accent* qualitative *gradation or* Abtönung*, that of stress accent,* quantitative *gradation or* Abstufung.[16] […] *Germanic* […] *has greatly decreased the number of phonetic variations, but it has greatly increased their functional importance* [as the stress had been fixed on the root in Gmc, the ablaut alternations were no longer phonetically predictable]. *In particular, gradation has been systematized as the structural mechanism of the German 'Strong Verb'.*[17, 18]

The phonetic unpredictability of these alternations possibly supported the birth of the dental preterites of weak verbs, a morphologically fairly transparent strategy. Various sound changes occurring in PGmc (emerging app. in 500 BC[19]), WGmc, Early OE, and finally during the development of OE itself (verging finally into ME app. in 1150[20]) helped to obscure the

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[14] Dieter Kastovsky, "Typological Changes in Derivational Morphology", in *The Handbook of the History of English*, eds. van Kemenade, Ans and Bettelou Los, Blackwell Reference Online (Blackwell Publishing, 2006), 31 Dec. 2007 <http://www.blackwellreference.com/subscriber/tocnode?id=g9780631233442_chunk_g97806312334428>, 160.

[15] Kastovsky, "Typological Changes" 160.

[16] There is yet another type of ablaut, *Schwebeablaut*, or *plovoucí ablaut* in Czech. Furthermore, it is not only *e* and *o* that alternate in IE, it may be *α* and *o*, too. We should also compare Prokosch's maybe somewhat conservative and traditional explanation with that of Lass, who claims that "[s]ome scholars believe that qualitative ablaut is connected with an IE tonal accent, but this is at best not proven." Lass 107.

[17] E. Prokosch, *A Comparative Germanic Grammar* (Philadephia: University of Pennsylvania, 1939) 120-1.

[18] The very emergence of ablaut in IE, and thus its diverse occurrence in the daughter languages, has enkindled many debates in the philological field. Voyles sums the situation up into this nutshell: […] it has been generally assumed that at its earliest stage IE ABLAUT was mainly or entirely phonologically conditioned. It is a matter of conjecture whether this is true, and if so, what the original conditioning might have been. Some of the suggestions have been: the influence of laryngeals (Krahe 1967: 42-3), the IE 'musical' accent (Hirt 1895: 16) or the later IE 'dynamic' stress (Lockwood 1969: 96). Joseph B. Voyles, *Early Germanic Grammar: Pre-, Proto-, and Post-Germanic Languages* (London: Academic Press, Inc., 1992) 67. See also e.g. R.D. Fulk, *The Origins of Indo-European Quantitative Ablaut* (Innsbruck: Inst. f. Sprachwiss., 1986), especially p. 16, or Ronald I. Kim, *Topics in the Reconstruction and Development of Indo-European Accent: A Dissertation in Linguistics* (Michigan: UMI dissertation Services, 2002), especially p. 23. The numerous theories trying to explain the birth of ablaut may seem rather confusing, if not confused. Information on ablaut in PGmc may be found in Don Ringe, *From Proto-Indo-European to Proto-Germanic* and in Roger Lass, *Old English: A historical linguistic companion*.

[19] Don Ringe, *From Proto-Indo-European to Proto-Germanic* (Oxford: Oxford University Press, 2006) 213.

[20] Cf. Margaret Laing and Roger Lass, *A Linguistic Atlas of Early Middle English, 1150-1325* (Edinburgh: The University of Edinburgh, 2007), 22 Nov. 2009 <http://www.lel.ed.ac.uk/ihd/laeme1/laeme1_frames.html>.

grammaticalised vocalic alternations. The transparency of weak verbs logically started winning over gradually more and more opaque connections of the four principal parts (PPs) of strong verbs (see below).[21]

2.1.2. Ablaut in OE

2.1.2.1. Ablaut in OE Strong Verbs

According to their conjugational patterns, OE verbs could be divided into strong (athematic), weak (thematic), and anomalous or minor. The strong and weak are the most important to us and the third group will be completely omitted here.

The OE temporal system works with two tenses only, and it is the past tense where the differences between strong and weak verbs are found. Berndt describes the situation as follows:

> *As today, there were two ways of marking 'past tense', namely*
>
> *(i) formal modification through 'internal change' of the verb 'stem' (or 'root morpheme') itself, that is distinction from the 'present' (or 'non-past') by alternations in the quality or/and quantity (the length or duration) of the 'stem' (or 'root') vowel (also called 'vowel alternation or variation', 'ablaut' or (qualitative or quantitative) vowel gradation), or*
>
> *(ii) formal modification by addition to the verb (or 'base form') of a 'dental consonant suffix' (which has various phonological shapes, such as* [*OE*] -ede, -ode, -de, -te, *their choice depending partly on class membership of the verb and partly on* [*further factors*].[22]

The seven classes of strong verbs are distinguished by four PPs, or grades.[23]

The 1st PP is a realization of the root of a strong verb used in forming the present indicative, imperative, and subjunctive; the infinitive; and the present participle. The appropriate endings are added to this realization of the root.

[21] Related to English and Celtic languages in contact regarding the cause of the typological change of English, see Kastovsky, "Typological Differences between English and German morphology and their causes" 150.
[22] Rolf Berndt, *A History of the English Language* (German Democratic Republic: VEB Verlag Enzyklopädie Leipzig, 1989) 135.
[23] The term principal part was taken from Lass 153.

The 2nd PP is used only in the past indicative, 1st and 3rd persons singular. No overt endings are added, i.e. we may speak of a zero ending (cf. 2.2.2.2. The Problem of Zero). This would be the case also in the present indicative of the 2nd person singular.

The 3rd PP appears in the remaining persons of the past indicative and in the past subjunctive, combined with particular endings.

The 4th PP may be found in the past participle followed by *-en*.

Owing to numerous phonological developments, the seven classes can be subdivided, giving the following picture:

I	*rīdan*	*rād*	*ridon*	*geriden*
II	*bēodan*	*bēad*	*budon*	*geboden*
IIIa	*rinnan*	*rann*	*runnon*	*gerunnen*
IIIb	*helpan*	*healp*	*hulpon*	*geholpen*
IIIc	*weorpan*	*wearp*	*wurpon*	*geworpen*
IIId	*berstan*	*bærst*	*burston*	*geborsten*
IVa	*stelan*	*stæl*	*stælon*	*gestolen*
IVb	*niman*	*nōm*	*nāmon*	*genumen*
V	*metan*	*mæt*	*mæton*	*gemeten*
VIa	*faran*	*fōr*	*fōron*	*gefaren*
VIb	*hebban*	*hōf*	*hōfon*	*gehafen*
VIIa	*healdan*	*hēold*	*hēoldon*	*gehealden*
VIIb	*blāwan*	*blēow*	*blēowon*	*geblāwen*
VIIc	*hlēapan*	*hlēop*	*hlēopon*	*gehlēapen*
VIId	*bannan*	*bēonn*	*bēonnon*	*gebannen*
VIIe	*blōtan*	*blēot*	*blēoton*	*geblōten*
VIIf	*hātan*	*hēt*	*hēton*	*gehāten*
VIIg	*lætan*	*let*	*lēton*	*gelæten*

Illustration no. 1: PPs in OE Strong Verbs. Dieter Kastovsky, "Whatever happened to the ablaut nouns in English – and why did it not happen in German?", in *Historical Linguistics 1987*, eds. Henning Andersen and Konrad Koerner (Amsterdam: John Benjamins Publishing Company, 1990) 259.

The number of books on the history of English in which the reader can learn about the derivational role of ablaut, let alone the analyses of the patterns in which ablaut works, is not exactly overwhelming.[24]

2.1.2.2. Ablaut in OE Word-formation

Kastovsky claims that "ablaut alternations […] occur in various deverbal word-formation patterns", e.g. in deverbal nouns, deverbal adjectives, and deverbal causatives.[25] He further states that "Robert Hinderling (1967) in his study of the strong deverbal abstract nouns in Germanic places the strong verb at the centre of the Germanic word-formation system."[26]

His examples of deverbal nouns include those derived from the 2nd PP:

sang	"song, singing"	< *singan* "to sing"	3rd class
rād	"riding"	< *rīdan* "to ride"	1st
scear	"ploughshare"	< *scieran* "to cut, shear"	4th
scearu	"shearing"		
bend	"bond"	< *bindan* "to bind"	3rd

from the 3rd PP:

brǣc	"breaking"	< *brecan* "to break"	4th (5th)
gefrǣge	"hearsay"	< *fricgan* "to ask"	5th, pres root weak

from the 4th PP:

broc	"fragment, breach"	< *brecan*
fregen	"question"	< *fricgan*

from the 3rd or 4th PP:

gerid	"riding"	< *rīdan*	
ridda	"rider"		
for-ridel	"fore-rider"		
bund	"bundle"	< *bindan* "to bind"	3rd

[24] Joseph Wright and Elizabeth Mary Wright devote pp. 287-8 to ablaut formations in their *Old English Grammar* and refer to them as "simple nouns […] related to the various classes of strong verbs" [Joseph Wright and Elizabeth Mary Wright, *Old English Grammar* (London: Oxford University Press, 1908) 287-8.]. Lass deals with ablaut in word-formation on pp. 191-2. Campbell does not deal with derivational ablaut in his *Old English Grammar* at all.

[25] Kastovsky, "Whatever happened to the ablaut nouns" 254. As this thesis does not deal with ablaut in causatives, we do not mention individual examples here.

[26] Kastovsky, "Whatever happened to the ablaut nouns" 254.

bundenness "obligation"

from the 1st or 4th PP:

brecþa "broken condition" < *brecan* "to break" 4th (5th)

In addition, ablaut formations include also those derived from the 1st PP, such as *bring* "offering" ~ *bringan* "to bring, to carry"; *binde* "headband, fillet" ~ *bindan* "to bind"; *feohtere* "fighter, warrior" ~ *feohtan* "to fight".[27] As Kastovsky states,

> [*t*]*he infinitive had become established as an unmarked base form which served as a starting point for both inflection and derivation* […] *and the ablaut nouns were replaced by non-alternating re-formations to safeguard morphosemantic transparency*.[28]

Of course, the 1st PP is the most transparent one, being the least marked and functionally used to form the majority of verbal forms; and, thus, its ever increasing role as a base in derivational processes places it in a different position, since it is this base which will inevitably win over in the typological transformation of the language.[29]

However, the 1st PP, as well as other PPs, offers stem variability other than ablaut: *i*-mutation (*i*-umlaut). *i*-umlaut caused by the endings of strong verbs could occur in the 2nd and 3rd pers sg pres ind; in the 2nd pers sg past ind; in the past sub; and in the past participle. Relating to the last two, "the root vowel of the former should always have umlaut while that of the latter might be expected to have umlaut sometimes […]."[30] This is important, because we will often meet *i*-umlaut influencing the PPs and thus also the derivates. Kastovsky mentions the following examples in his paper:

lyge "lie" < *lēogan* "to lie" 2nd
lygen "lie"
lygness "lie"

He further deals not only with the form, but also with the semantics of various ablaut formations, writing that "the majority of [the ablaut nouns represented] action nouns, but agent

[27] Since it may be difficult to decide on what was derived from what, we decided to use the symbol "is related to" (~) rather than "is derived from" (<) in 3. Methodology and 4. Analysis.
[28] Kastovsky, "Whatever happened to the ablaut nouns" 263.
[29] See also Kastovsky, "Typological Differences between English and German morphology and their causes", in *Trends in Linguistics: Studies and Monographs 73*, ed. Werner Winter (NY: Mouton de Gruyer, 1994) 150-151.
[30] A. Campbell, *Old English Grammar* (Oxford: Clarendon Press, 1959) 306-7.

nouns and other semantic types (instrumental, locative, result nouns) [were also] fairly common."[31]

The other derivational group to which he pays attention is that of deverbal adjectives. In his essays, we will find almost always the following samples:[32]

bryce	"fragile"	< *brecan* "to break"	4th (5th)
gefrǣge	"well-known"	< *fricgan* "to ask"	5th
lyge	"lying"	< *lēogan* "to lie"	2nd
ond-fencge	"receptive"	< *onfōn* "to take"	7th
ēath-fynde	"easy to find"	< *findan* "to find"	3rd

Providing the reader with the derivates of *drincan* "to drink" and *brecan* "to break" elsewhere, Kastovsky claims that

> [*a*]*lthough these patterns probably were no longer productive, since the strong verbs were basically a closed class* […], *the related nouns and adjectives still formed a major part of the core vocabulary and must have been interpreted as derivationally related to these verbs* […].[33]

This is in accordance with a family tree given by Lass, who discusses the associative character of OE word-formation:

(a) e-*grade:* PRES *of* ber-an *"bear", including pres part* ber-ende. *By conversion, an adjective* ber-ende *"fruitful", and the noun* ber-end *"bearer", by affixation* ber-end-nes *"fertility".*

(b) o-*grade:* $PRET_1$ *of* beran, bær*;* bear-we *"barrow, basket, bar-row" (with breaking of */æ/ < */α/ < */o/); likewise* bear-m *"lap, bosom".*

(c) *Lengthened* e-*grade:* $PRET_2$ bǣr-on, *the bare stem in* bǣr "bier" *(for carrying corpses); affixation in* bǣr-e *"manner, behaviour" (cf. ModE* bearing *in this sense), (*ge-*)* bǣr-an *"conduct oneself",* -bǣr-e, *adjectival suffix in e.g.* lust-bǣr-e *"desirable, pleasant" ("lust-carrying"); as a compound element in* bǣr-disc *"tray",* bǣr-mann *"porter".*

(d) *Zero-grade:* PART boren. *Directly, an element* -bor-a *"carrier". With IU of the earlier stem-vowel */u/ and a following dental element,* ge-byr-d*(*u*) "birth",* byr-de

[31] Kastovsky, "Whatever happened to the ablaut nouns" 261.
[32] These are also taken from "Whatever happened to the ablaut nouns" 254.
[33] Kastovsky, "Typological Changes" 171.

"innate, natural" (= "in-born"), byr-ð-enn *"burden"; hence compounds like* byrd-dæg *"birthday"; with a different extension,* byr-ele *"cup-bearer", and* byr-el-ian *"pour" (i.e. "be a cup-bearer").*[34]

This were, in a nutshell, relevant main principles in the theory of ablaut found in the used sources. We will see yet more information on ablaut formations below in 2.2. Suffixation.

2.1.3. Ablaut in ME

2.1.3.1. Ablaut in ME Strong Verbs

"[M]any of the OE. strong verbs became weak in ME. either in the preterite or past participle or in both."[35] This and other processes of analogy, together with the phonetic developments[36] in the roots of the strong verb classes, undoubtedly make the "Middle" stage of English rather confused and confusing, and bring about variety in dialects and idiolects and not a merely potential threat to strong verbs and their classes.[37] Yet, in ME, some scholars still distinguish the seven classes which can be found in OE.[38] /ɛ:/

The following summary was extracted from Mossé,[39] and is, of course, simplistic:

1st class:	/i:/	/ǫ:/ (N. /a:/)	/i/	/i/
	wrīt-	*wrǭt* (N. *wrāt*)	*writ-*	*writ-*
2nd class, a):	/e:/, (/u:/)	/ę:/	/ǫ:/ (earlier /u/)	/ǫ:/
	chēs-	*chēs*	*chǭs-* (earlier *cur-*)	*cǭr-*
3rd class, a):	/i(:)/	/a(:)/ (/o(:)/)	/u(:)/	/u(:)/
	drink-	*drank* (*dronk*)	*drunk-*	*drunk-*
	fīnd-	*fǭnd*	*fōund-*	*fōund-*

[34] Lass 190-1.

[35] Joseph Wright and Elizabeth Mary Wright, *An Elementary Middle English Grammar*, 2nd ed. (London: Oxford University Press, 1946). Furthermore, "[i]mportant levelling of stems also occurred in the 3rd class of weak verbs" [Josef Vachek, *Historický vývoj angličtiny*, 7th ed. (Brno: Státní pedagogické nakladatelství Praha, 1977) 65].

[36] See Wright & Wright, *An Elementary Middle English Grammar*, pp. 178-9. The most important analogy is that relating to umlauted vowels and 2nd and 3rd PPs: "The old form of the [2nd pers sg] of the preterite was generally preserved in early ME. in the Midland and southern dialects, as **bounde**, **spēke**, **sp[/ę:/]ke** beside **band** (**bond**), **spak** of the [1st & 3rd pers sg], but in the northern dialects the form of the [1st & 3rd pers sg] became generalized for the [sg] at an early period, and similarly later in the Midland and southern dialects […]. Chaucer has the old beside the new form, as **songe** (= **sunge**), **b[/ę:/]re bēre** beside **drank**, **spak**. […] In the northern dialects the preterite [sg] had begun to be levelled out into the [pl.] already at the beginning of the [14th] century, whereas in the Midland and southern dialects the old distinction between the stem-vowels of the [sg] and [pl.] forms was generally preserved throughout the ME. period, but even in Chaucer the [sg] was sometimes levelled out into the [pl.]." (Wright & Wright, *An Elementary Middle English Grammar* 178-9.).

[37] Cf. the previous footnote.

[38] Mossé and Wright & Wright try to distinguish the classes of ME strong verbs.

[39] Fernard Mossé, *Handbook of Middle English*, trans. James A. Walker, 5th ed. (Baltimore: The Johns Hopkins Press, 1968) 69-73.

		fōund (N. *fa*(:)*nd*)		
3rd class, b)	/e/	/a/ (/o/)	/o/	/o/
	help-	*halp* (*holp*)	*holp-*	*holp-*
3rd class, c)	/i/	/au/	/ou/	/ou/
	fight-	*faught*	*fought-*	*fought-*
4th class[40]:	/ę:/	/a/	/e:/	/ǫ:/
	stēl-	*stal*	*stēl-*	*stǭl-*
5th class:	/ę:/	/a/	/e:/	/ę:/
	mēt-	*mat*	*mēt-*	*mēt-*
6th class:	/a:/	/o:/	/o:/	/a:/
	fār-	*fōr*	*fōr-*	*fār-*
7th class:	"[T]he vowel common to the present system and the past participle might be quite varied depending on phonetic evolution."[41]			
	A few exemplificatory verbs:			
	fall-	*fēl* (*fīl*)	*fēl* (*fīl*)	*fall-*
	blow-	*blew*	*blew-*	*blow-*

Illustration no. 2: PPs in ME Strong Verbs.

Somewhat confusingly to the reader, it seems that neither Mossé nor Wright & Wright distinguish graphemes and phonemes meticulously. Moreover, many of the classes could be divided even further according to the sound changes or analogical changes afflicting the patterns. Thus, the past sg of certain verbs of the 2nd class contained /ǫ:/ (*cr*/ǫ:/*pe*, sch/ǫ:/t) instead of the regular /ę:/, and both authors deal with this in their remarks.[42] Yet, while Wright & Wright distinguish two subclasses of the 2nd class (one with /e:/, the other with /u:/ <ou>, in the pres root), Mossé presents the reader with one class only, including the latter in one of his remarks on the 2nd class. Considering all the analogical and phonological process of the ME period, it is understandable, then, that the division of Wright & Wright slightly differs from that of Mossé.

The picture is simplistic as there were many exceptions to the verbal paradigms of ME strong verbs mentioned above. In fact, some scholars find little system in the verbs:

> [*T*]*he historical ablaut series no longer provide a basis for the decription of Middle English verb morphology. It is therefore not surprising that more and more verbs went over to the weak – or as it should be called now – regular verb inflection*.[43, 44]

[40] The verbs *cuman* "to come" and *niman* "to take" should be highlighted at least in a footnote, since their vocalic series differ and since *cuman* is fairly frequent.
[41] Mossé 73.
[42] Mossé 70.
[43] Kastovsky, "Whatever happened to the ablaut nouns" 261.

In addition, "[n]early a third of the strong verbs seem to have died out early in the Middle English period."[45]

2.1.3.2. Ablaut in ME Word-formation

The extinction of so many strong verbs and the vocalic levelling of verbal roots must have influenced the general picture of ablaut also in word-formation. Moreover, the loss of certain strong verbs may have brought about a loss of ablaut derivations. Relating to the strong verbs from the letter A to F, this is true for formations such as *crā* "crowing, croaking" and *crāwe* "crow (the bird)", related to OE *crāwan* "to crow" (7th). These are no longer found in ME and nor is the verb. It should also be noted that we had difficulties finding an illustrative example, which somewhat undermines the general claims concerning the death of numerous strong verbs in ME. However, we should also point out, once more, that we worked with verbs from the letter A to F only.

Kastovsky sums up ablaut in ME word-formation in two sentences:

> *Already in* [*ME*] *the overwhelming majority of ablaut nouns and ablaut adjectives had disappeared from the lexicon, so that in* [*PDE*] *only sporadic traces of this once widespread pattern can be found, such as* song, drove, writ. *It is therefore not surprising that* [*OE*] *grammars contain references to this type of formation, cf. Pilch (1970* […]*), while* [*ME*] *grammars do not, cf. Fisiak (1965, 1968), where we find a fairly extensive description of* [*ME*] *word formation but no reference whatsoever to ablaut nouns*.[46]

This could be applied also to treatments by Campbell, Wright & Wright, Mossé, and Burrow & Turville-Petre.

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[44] We will not find an overview of classes of ME strong verbs in Vachek, nor will we encounter them in Burrow and Turville-Petre, who claim that "[d]uring the [ME] period [the seven classes found in OE] began to be affected by so many dialectal changes and alterations of analogy with other verbs that it is no longer helpful to classify strong verbs in this way." J. A. Burrow, Thorlac Turville-Petre, *A Book of Middle English*, 2nd ed. (Great Britain: Blackwell Publishers, 1997) 36.

[45] Albert C. Baugh and Thomas Cable, *A History of the English Language*, 5th (Routledge and Taylor & Francis e-Library, 2005) 151.

[46] Kastovsky, "Whatever happened to the ablaut nouns" 256; ibidem: "It is true that a greater number of these formations have survived in dialects, but in most cases the relationship between verb and noun is rather obscured […]."

2.2. Suffixation

2.2.1. A General Definition

Suffixation, an agglutinative phenomenon, is a subtype of "affixation or derivation[, in which] a bound morpheme is added to [the end of] a lexeme / stem)"[47]. This word-formational process may also be described typologically:

> *In agglutinative languages there is one-to-one correspondence between morphological exponent and category and vice versa, that is, each morphological exponent expresses one and only one morphosemantic category, and each morphosemantic category has its own exponent.*[48]

2.2.2. Types of OE Suffixes

2.2.2.1. Endings vs. Suffixes

In his typological theory, Skalička characterises endings characteristic of the introflectional[49] construct by several criteria. The ones most important for our purposes can be found in the following statements by Skalička and Sgall:

> *1) Every lexical (autosemantic) word has a single grammatical ending (in each of its occurrences); this concerns not only nouns and verbs, but also adjectives and* […] *numerals* […].
>
> *2) The numerous endings express the different functions of the words, thus presenting a basis for their classification; not only word-classes, but also word subclasses are distinguished, cf. genders of the noun* […].
>
> *3) The endings also serve the derivation of words,* [*cf.*] *Spanish* perro *"dog" vs.* perra *"bitch"* […].
>
> *4) If derivational affixes are present* […], *then they differ radically from the inflectional endings.*
>
> *5)* [*A*] *single ending* […] *(i) does not necessarily have its own syllable, (ii) can express more than one function at once ("accumulation of functions") and (iii) exhibits a large amount of synonymy and ambiguity.*[50]

[47] Kastovsky, "Typological Changes" 153.
[48] Kastovsky, "Typological Changes" 156.
[49] As Jan Čermák writes in one of his essays, "[t]o prevent misunderstanding, I use the spelling distinction between inflection and inflexion throughout to distinguish between references to language typology and morphology, respectively." Jan Čermák, "The Case of Old English *N*-stem Masculine Derivatives: A typological contribution to categorization in English word-formation", in … *for thy speech bewrayeth thee: A Festschrift for Libuše Dušková*, eds. Markéta Malá and Pavlína Šaldová (Praha: Univerzita Karlova v Praze, 2010) 76.

This disproves Kastovsky's claim that

> [*t*]*he distinction between isolating, agglutinative, inflectional, and incorporating languages is useful, but it only deals with aspects of inflectional morphology and thus characterizes only one part of what determines the overall* gestalt *of the morphology of a language. It does not tell anything about the typological properties of derivational morphology and its interdependence with infle*[*x*]*ional morphology.*[51]

Agreeing with what Skalička and Sgall write, we again cannot be of one mind with Kastovsky when he claims that

> [*OE*] *endings are part of the inflectional system and thus do not have any derivational function. Formations such as* cuma *["one who comes, guest"*], giefu [*"gift"*], beorhtian [*"to shine"*] *thus lack an overt derivational affix just as their Modern English counterparts do.*[52]

First of all, *cuma* contains an ending functioning both grammatically (*-a*: 1st pers sg m) and derivationally (*cum-a* is definitely a noun, unlike the verb *cum-an*). Moreover, postulating a zero in *cuma* and other OE words (*cum-Ø-a* < *cum-an*; *beorht-Ø-ian* < *beorht* "bright"), where it is not exactly well-founded, Kastovsky states that we have to do with zero derivation in OE, with which we do not agree, since this, according to Kastovsky, means that the derivational role is represented by the postulated zero and the endings are then merely grammatical. The problem is that the zero is well-founded on the whole only if we look at OE from the period preceding the OE stage (cf. 2.2.2.2. The Problem of Zero).

We agree with Skalička-Sgall and Čermák[53] that OE endings have both grammatical, i.e. inflexional, and word-formational, i.e. derivational, functions. To conform to the general use of the term *suffix*, which applies both to endings and to suffixes, as well as to the distinction ending-suffix made by Skalička-Sgall and Čermák (suffixes have merely derivational role in their terminology), we will call endings, such as *-a*, inflectional suffixes and suffixes, such as *-lic*, purely derivational, agglutinative, suffixes. This terminology will be used although it does not reflect the fact that OE endings have both inflexional and derivational functions and, thus, that there is a scale with purely inflexional function at one end and purely derivational function

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[50] Vladimír Skalička and Petr Sgall, "Praguian Typology of Languages", in *Prague School of structural and functional linguistics: A short introduction* (Amsterdam: Benjamins, 1994) 337-8.
[51] Kastovsky, "Typological Changes" 156.
[52] Kastovsky, "Typological Changes" 153.
[53] Jan Čermák, "The Case of Old English *N*-stem Masculine Derivatives: A typological contribution to categorization in English word-formation," in … *for thy speech bewrayeth thee: A Festschrift for Libuše Dušková*.

at the other. After all, the term suffix as understood by the Praguian School of typology characterises the agglutinative *type*, and languages are never pure types. As we shall see below (2.2.2.2. – 2.2.2.4.), one of the reasons for this is that even formatives undergo typological changes.

We may illustrate the scale at synchronic level, too. The suffix *-lic* in *drǣdlic* "sad, mournful" informs us only about the word-class (adjective); the categories of gender, case, and number are expressed by zero. The suffix *-a* behaves differently, since it expresses both these categories and also to what word-class the expression belongs. So, *cuma* "one who comes" is a masculine noun, sg nominative.

2.2.2.2. The Problem of Zero

As mentioned above, Kastovsky discusses a zero suffix in OE words such as *cuma*, analysed as *cum-Ø-a*. He further states that "since in OE, we find endingless nominatives like *cyning*, *dæg*, *stān* beside nominatives like *luf-u*, *end-e*, *gum-a*, the infle[x]ional and derivational system is partly word-based, e.g. *dag-ian* "to dawn", partly stem-based, e.g. *luf-ian*, *end-ian*."[54] Thus, he would postulate the zero in the word-based expressions in the following way: *luf-Ø-u*, *end-Ø-e*, *gum-Ø-a*, *dag-Ø-ian*, although the *-i-* in *-ian* is not exactly analytical.[55] Moreover, as Jan Čermák suggested to me, "the alternation of *dæg-* and *dag-*, i.e. the non-existence of the lexeme *dag*, may indicate that *dagian* should not be classified as word-based". Next, *cyning*, *dæg*, and *stān* are supposed to have no ending whatsoever; but this is exactly the issue: are they really endingless? That is to say, cannot there be a different analysis, reading the words as *cyning-Ø*, *dæg-Ø*, and *stān-Ø*?

Interestingly enough, it is Kastovsky again who defends the important functional role of zero in another paper: "[Z]ero can only be established on the basis of a proportional opposition of the

[54] Kastovsky, "Typological Changes" 166.

[55] It brings about subclasses of verbs, which is a synthetic feature. In addition, it could cause *i*-umlaut and gemination in PGmc, with morphological consequences for OE. furthermore, pre-OE and OE are not brief stages of the language, and we should discuss the zeros as postulated by Kastovsky for particular, more specified, periods and base the discussions on corpus-based analyses, not on dictionary entries. In one of his essays, Kastovsky writes that "[t]he description of Old English is based on a list of all deverbal nouns (including compounds) recorded in Bosworth-Toller (1898/1921) and Clark Hall (1960), which I had collected quite some time ago. I have not included a similarly detailed description of Middle English, partly, because I did not have available a comparatively extensive data base, partly, because the developments during this perio […] merit a separate study." Dieter Kastovsky, "Deverbal nouns in Old and Modern English: from stem-formation to word-formation", in *Historical Semantics, Historical Word Formation*, ed. Jacek Fisiak (New York: Mouton de Gruyter, 1985) 222-3. Of course, one cannot be blamed for the lack of corpora.

type *a* : *a-Ø* = *b* : *bc*, where *Ø* is functionally (or semantically) equivalent to *c*."[56] This, as he informs us, was proposed by Godel and adopted by Bally.[57] Moreover, Kastovsky himself adopts it in the paper.

However, *cyning*, *dæg*, and *stān* meet the requirement *a* : *a-Ø* = *b* : *bc*, where *Ø* is functionally (or semantically) equivalent to *c*. It is true that, within the pure *a*-stems, there are only *stān*, *dæg*, and *mearh* "horse", which might give the impression of there being no corresponding *c*; nevertheless, if we analyse these nouns within the larger frame of *a*-stems embracing i) pure *a*-stems, ii) *ja*-stems, and iii) *wa*-stems, we will get forms with the same functions, such as *secg* "man" and *end-e* "end"; *bear-u, -o* "grove" and *þēow* "servant". Thus, *secg* : *secg-Ø* = *end* : *end-e*. We may then compare OE nouns in general. The "functional (or semantic)" equivalency is not further specified by Kastovsky, and, indeed, it seems there would really be no reason for doing so, because one can always embrace subsystems of individual paradigms with a broader perspective and analyse the zero of pure *a*-stems from the perspective of all *a*-stems as well as from the perspective of all nouns.

Further Kastovsky claims that

> [*i*]*f phonological rule deletes a segment which exhaustively represents a formative* [which is what happened with the nouns such as *stān*, *dæg*, and *cyning*; our note] *then Ø resulting from the deletion operation has morphological surface status.*[58]

The trouble is that Kastovsky analyses OE as if from the stage of PGmc and as if OE were just a point in time that may be laid immediately beside the "point" of PGmc. From the synchronic viewpoint, there was no *cum-Ø-a* or *cum-Ø-an*, and, therefore, this zero is not a PDE suffix "[o]f Old English origin"[59]. This, indeed, reflects the fact that OE misses certain formatives that used to be in PGmc. However, the *-a* and *-an* have both a derivational and inflexional function, which means that there was no longer any need for this postulated zero. When discussing PGmc **dagaz*, Kastovsky says that

> *consistent representation of the original stem-formative is a thing of the past, and the forms have to be analysed simply as stem* *dag- + *case / number endings* -az, -es, -e:, -o:s. *Similar analyses can be postulated for the other inflectional classes*.[60]

[56] Dieter Kastovsky, "Zero in morphology: a means of making up for phonological losses?", in *Historical morphology*, ed. Jacek Fisiak (Hague: Mouton de Gruyter, 1980) 216.
[57] Kastovsky, "Zero in morphology" 216.
[58] Kastovsky, "Zero in morphology" 230.
[59] Dieter Kastovsky, "Deverbal nouns" 225.
[60] Kastovsky, "Typological Changes" 165.

So, we do not agree with Kastovsky that words such as *dæg* are endingless. The existence of the zero suffix (*dæg-Ø*) is supported by the requirement Kastovsky himself proposes: *a* : *a-Ø* = *b* : *bc*, where *Ø* is functionally (or semantically) equivalent to *c*. We also reject the postulated purely derivational zero in words such as *cuma* and *dagian* (*cum-Ø-a*; *dag-Ø-ian*). We will work with zero as it appears in OE, without contrasting it to the more or less gone stem-formatives.[61] In what follows, zero will be taken as an inflectional suffix equal to those such as *-a*, *-e*, *-o* / *-u*.

2.2.2.3. Traces of Ancient Suffixes

This passage will briefly touch upon suffixes that are no longer productive in OE. For general description of derivational formatives, the reader is referred e.g. to *Old English Grammar* by Wright & Wright and various papers or book contributions by Kastovsky for the overviews on OE and ME suffixes.

A few OE expressions contain traces of what used to be a suffix in PGmc and what is no longer felt as such in OE. This only demonstrates the general typological tendency of agglutination changing into inflection. Examples such as *fearm* "cargo, freight" (*faran* "to go, travel") serve as exemplary cases in point, although, of course, the *-m* does not have a grammatical function. The trace of a PGmc suffix, *-m*, is no longer used to form new derivations in OE. The only information we found concerning this formative is provided by Lass:

> *The segmentations* bear-we, bear-m *are historically valid, but synchronically dubious. Still, one might imagine an OE speaker aware of patterns like* bearm/bær *but* weorþan/wearþ, *etc. relating* ber- *and* bear-, *even if by this stage the* -m- *has no meaning* […]. [*For t*]*he IE affiliations of the post-radical element in* […] bearm, *cf. Gr* phor-m-ós *'carrying basket' (*phér-ō *'I carry')* [… . *M*]*any* [*OE formations in*] -m *reflect an important old derivational formative */-m-/; many apparently 'simplex' words descend from derivations with common IE formatives, buried word-formations from an earlier time.*[62]

For more "*m*-formations" and other ancient formations ("*s*-formations" and "*w*-formations"), see Appendix 6 in the Appendices to Analysis. For other, more transparent, traces of ancient

[61] Kastovsky's zero may be defended in cases such as *trymm-Ø-an*, where, as Jan Čermák suggested to me, the zero may be seen as an extreme case of inflection, where its phonetic realisation merges with the root by causing *i*-umlaut and gemination, itself becoming realised by zero. This, however, is not the case for *cum-a* or *cum-an*.
[62] Lass 191 and 199.

suffixes[63] see Wright & Wright. These formatives are not unlike dental suffixes, the syllabic structure of which is similar to OE inflectional endings.

2.2.2.4. Suffixes vs. Suffixoids

Considering the fact that suffixes emerge from grammaticalisation of components in compound structures (such as noun *līc* "body" giving PDE suffix *-ly*), it is natural that OE suffixes differ in productivity, coming into existence in different periods. Language contact (in the context of the history of English bringing about suffixes such as *-ity*, *-ous*, *-age*, or *-ment*) is another important influence on productivity. One cannot wonder that there are certain borderline cases: no longer compound elements, but not suffixes as yet. These are, in the relevant theoretical framework,[64] called suffixoids.

Nevertheless, the term suffixoid is not used by all the authors we have consulted. So, Wright & Wright discuss OE derivational formatives under the single label of suffixes; however, they mention the fact that a certain "suffix" may also exist as an independent word in OE. Instances of these "suffixes" are *-bora* (*bora* "one who bears"), *-dōm* (*dōm* "judgement"), *-hād* (*hād* "grade, rank"), *-lāc* (*lāc* "battle; offering"), *-rǣden*(*n*) (*rǣden*(*n*) "state, condition"), *-stafas* ("the plural of **stæf**, *staff, stick*"[65]), *-wist* (*wist* "being, existence, substance"), *-fæst* (*fæst* "fast, fixed, firm), *-full* (*full* "full"), *-lēas* (*lēas* "devoid of"), *-lic* (independently surviving as *līc* "body" and *gelīc* "like"), and *-lǣcan* (*lǣcan* "to move quickly, spring").[66] There are, however, differences in the relations of these "suffixes" and the independent words: the individual "suffixes" differ in that they may be formally or semantically closer to the independent lexemes than other "suffixes". Wright & Wright do not deal with this issue.

To decide on the status of the formatives mentioned so far, we would have to analyse OE materials in great detail or read publications specialized in the subject matter. Therefore, we follow Kastovsky's descriptions regarding what formatives may be considered suffixoids in OE.[67] As a conclusion to this section, let us quote an illustrative statement:

> *The status of* -had is *not quite clear. Marchand (1969: 293) and Sauer (1985: 282ff.) regard it as the second element of compounds, while Quirk and Wrenn (1957: 116) and Wright and*

[63] E.g., the *-el* in *yfel* "evil" is no longer felt as a suffix in OE. Wright & Wright 306.
[64] Dieter Kastovsky, "Semantics and Vocabulary", in *The Cambridge History of the English Language,* ed. Richard M. Hogg (Cambridge: Cambridge University Press, 2006) 356.
[65] Wright & Wright 298.
[66] Wright & Wright 294-313.
[67] Kastovsky, "Semantics and Vocabulary".

Wright (1925: 316) treat it as a suffix. As an independent word, had *had the meaning 'state, rank, order, condition, character' and this is more or less also the meaning it would have as a 'suffix'* […]. *It is probably justified, therefore, to follow Marchand and Sauer and assume that the development towards a suffix took place in the post-OE period.*[68]

2.2.3. Suffixation and Ablaut

Of OE suffixes, "only *-end*, *-ere*, *-estre*, *-icge*, *-ing*/*-ung*, *-ing*$_2$ and *-ling* derive exclusively from an unmodified infinitival stem. All other suffixes may cause *-i*-mutation in the root, and may derive from a non-infinitival base."[69] Out of the "other suffixes", we will comment only upon inflectional suffixes (i.e. those having both an inflexional and derivational function; e.g *-a* in *cuma* "one who comes"), dental suffixes, *-lic, -full, -scipe,* and *-hād,* as these are the suffixes analysed in chapter 4. To understand why exactly these have been chosen, see below (2.2.3.2. Purely Derivational Suffixes.)

2.2.3.1. Inflectional Suffixes

In the literature we have worked with, we have not encountered any remarks concerning potential patterns in the combinations of PPs with various inflectional or derivational suffixes. Thus, we have decided to focus on this issue to find out why this is so: whether no one had analysed this subject matter or whether there are simply no patterns.

Also, Kastovsky is the only one who discusses the semantics of ablaut nouns. Unfortunately, he never states explicitly if he tries to find any regularities in the association of certain forms with particular semantics.

He mentions[70] examples of ablaut nouns derived by inflectional suffixes *-a*, *-e*, and *-u* (not by zero in the sense/position we understand it; i.e. *dag-Ø*, not *cum-Ø-a*) which are agentive. Those in *-e* and *-u* appear only with the 1st and/or 4th PP(s).

1st PP:	*crāwa* "crow"	:	*crāwan* "to crow"
2nd PP:	*gestala* "one who steals with another"	:	*stelan* "to steal"
3rd PP:	*hlāf-ǣta* "domestic servant"	:	*etan* "to eat"
4th PP:	*bora* "one who bears"	:	*beran* "to bear"

[68] Dieter Kastovsky, "Semantics and Vocabulary", 386.
[69] Kastovsky, "Vocabulary" 256. However, many of the suffixes "cause" i-umlaut owing to the processes of analogy.
[70] The following examples all come from "Deverbal Nouns".

1st PP:	*flēoge* “fly”	:	*flēogan* “ to fly”
4th PP:	*loc-bore* “one wearing long hair” (f)	:	*beran* “to bear”
1st / 4th PP:	*faru* “troops, train”	:	*faran* “ to go, travel”

The 2nd PP is not represented by the agentive nouns when followed by *-e* or *-a*, and no clear instances of the 1st and 3rd PPs combined with *-u* are given.

1st PP:	*feohte* “fight”	:	*feohtan* “to fight”
3rd PP:	*gewǣge* “weighing”	:	*gewegan* “to weigh”
4th PP:	*frore* “frost”	:	*frēosan* “to freeze”

1st / 4th PP:	*giefu* “gift”	:	*giefan* “ to give”
2nd PP:	*stalu* “theft”	:	*stelan* “to steal”
3rd / 4th PP:	*geswicu* “cessation”	:	*geswīcan* “to cease”
4th PP:	*bedu* “request”	:	*biddan* “to ask”

1st PP:	*steorfa* “mortality”	:	*steorfan* “to die”
3rd PP:	*sǣta* “a holding of land”	:	*sittan* “to sit”
4th PP:	*sopa* “sup, draught”	:	*sūpan* “to swallow, sup”

1st PP:	*rīp* “harvest”	:	*rīpan* “to reap”
2nd PP:	*wræc* “suffering”	:	*wrecan* “to avenge, punish”
3rd PP:	*sprǣc* “speech”	:	*sprecan* “to speak”
4th PP:	*broc* “break”	:	*brecan* “to break”

Ablaut nouns derived by *-u* and labelled as objective are never mentioned with the 3rd PP, and *giefu* is the only sample demonstrating either the 1st or the 4th PP. Derivates in *-e* and *-a* show only the 1st and 4th PPs.

1st PP:	*flēote* “raft, ship”	:	*flēotan* “to fly”
1st / 4th PP:	*dræge* “dragnet”	:	*dragan* “to draw, drag”

1st / 4th PP:	*giefu* “gift”	:	*giefan* “ to give”
2nd PP:	*stalu* “what is stolen”	:	*stelan* “to steal”

1st PP:	*hweorfa* “spindle”	:	*hweorfan* “to spindle”
4th PP:	*loca* “locker”	:	*lūcan* “to lock”
1st PP:	*rīp* “what is reaped in”	:	*rīpan* “to reap”
2nd PP:	*sang* “song”	:	*singan* “to sing”
3rd PP:	*ǣt* “food”	:	*etan* “to eat”
4th PP:	*gescot* “weapon shot or hurled”	:	*scēotan* “to shoot”

Factitive nouns reflect all the PPs if the suffix is zero, but the other suffixes occur only with a few PPs:

3rd PP:	*bryce* “fragment”	:	*brecan* “to break”
4th PP:	*cwide* “sentence”	:	*cweþan* “to speak”
3rd / 4th PP:	*bita* “bit, morsel”	:	*bītan* “to bite”
1st PP:	*grafu* “cave”	:	*grafan* “to dig”
1st / 4th PP:	*hlāf-gebrecu* “fragment of bread”	:	*brecan* “to break”
1st PP:	*gesweorf* “filings”	:	(*ge*)*sweorfan* “to file, polish”
2nd PP:	*snǣd* “slice”	:	*snīþan* “to cut”
3rd PP:	*sprǣc* “what is said, speech”	:	*sprecan* “to speak”
4th PP:	*broc* “fragment”	:	*brecan* “to break”

In his summaries of semantic categories of nouns, Kastovsky provides the reader with examples of formations with benefactive meaning. In case of nouns derived from strong verbs, none of this semantic type is mentioned.

All PPs if derived by *-e* or zero appear in instrumental nouns. The other suffixes seem to be restricted to the 1st and/or 4th PP(s) in this semantic class:

1st PP:	*wringe* “press”	:	*wringan* “to press”
2nd PP:	*seohhe* “strainer, sieve”	:	*sēon*, *sīhan* “to strain”
3rd PP:	*wǣge* “scales”	:	*wegan* “to weigh”
4th PP:	*slege*/*slæge* “plectrum”	:	*slēan* “to beat”

1st PP:	*sceafa* "plane"	:	*sceafan* "to shave, scrape"
4th PP:	*cēac-bora* "yoke for buckets":		*beran* "to bear"
1st PP:	*wegu* "carriage"	:	*wegan* "to weigh"

1st PP:	*weald* "bridle"	:	*wealdan* "to control"
2nd PP:	*scear* "plough-share"	:	*sceran* "to cleave, cut"
3rd PP:	*scēar* "shears"	:	*scieran* "to cut, shear"
4th PP:	*hol* "cover"	:	*helan* "to cover"

The locative nouns do not seem to appear in combination of the 2nd PP and *-e*, *-a*, and *-u*. *-u* combines only with either 1st or 4th PP. Zero is not represented with the 3rd PP.

1st PP:	*hunig-sūce* "clover"	:	*sūcan* "to suck"
3rd PP:	*rynne* "path, course"	:	*rinnan* "to run"
4th PP:	*gelege* "lair, bed"	:	*gelicgan* "to lie"

1st PP:	*stīga* "path"	:	*stīgan* "to go"
3rd / 4th PP:	*brand-rida* "firegrate":		*rīdan* "to ride"

1st / 4th PP:	*ād-faru* "way to the funeral"	:	*faran* "to go, travel"

1st PP:	*here-beorg* "shelter, lodgings"	:	*beorgan* "to shelter"
2nd PP:	*drāf/drǣf* "drove, road"	:	*drīfan* "to drive"
4th PP:	*hlot* "the urn in which the lots are placed"	:	*hlēotan* "to cast lots"

Kastovsky concludes the lists of formations by stating that

> *Derivation is made both from strong and weak verbs, with and without -i-mutation, and in the case of strong verbs, practically all ablaut grades are used as bases, although with a preference for infinitive and past participle stems. All genders are represented in all types, but personal Agentive nouns are more or less restricted to masculines and feminines.*[71]

[71] Kastovsky, "Deverbal nouns" 253.

The list is precarious in the sense that Kastovsky nowhere in the essay claims his aim was to find as many combinations of PPs with the suffixes as possible. On the other hand, the length of and information in the lists give impression of being final not only in terms of genders, etc.

Another difficulty of Kastovsky's summary of the semantic subclasses of ablaut nouns is set by the character of semantics in general: *giefu* is classified into the semantic classes twice with the same meaning; it is not clear why *steorfa* is classified as action when it might as well be classified as state; some of the nouns would rather fit in a category of resultant nouns; *wringe* is an instrument indeed, but cannot it be also considered an objective noun just like *fleote*; could we not consider *hweorfa* to be instrumental rather than objective; *sang* is classified as objective, but cannot it be identified also with the action nouns?

On the whole, on the basis of Kastovsky's lists, it does not seem there are any clear patterns in the combinations of PPs with suffixes; nor do there seem to be any regularities in the association of forms with particular meanings.

2.2.3.2. Purely Derivational Suffixes

2.2.3.2.1. In chapter 4, our analyses of formations in purely derivational suffixes have focused on dental suffixes, *-scipe*, *-lic*, *-full*, and *-hād* for the following reasons:

i) Kastovsky, or anyone else, does not comment upon ablaut in connection with these suffixes, except for the dental suffixes (see 2.2.3.2.2. below for information on these).

ii) All the suffixes, except for *-hād* and *-scipe*, could derive formations directly from verbs, apart from nominal and adjectival bases. However, this criterion is undermined by the fact that formations in purely derivational, agglutinative, suffixes, may be derived from ablaut nouns in inflectional suffixes, not directly from the verbs. One often cannot decide upon what was derived from what and, for this reason, we are of the opinion that even *-hād* and *-scipe* should be included, even though they do not derive formations from verbs, i.e. not directly.

iii) OE derivates are most often nouns, adjectives, and verbs. The selected suffixes represent the first two word-classes: *-full* and *-lic* derived adjectival formations; *-scipe*, *-hād*, and dental suffixes (*-d*, *-t*, *-þ*) derived nominal formations.

Additionally, ablaut formations in inflectional suffixes are nominal and adjectival, and so we consider it important to include both word-classes to form the counterparts to them.

Other open word-classes have not been analysed. First, adverbs have not been included owing to the reasons of space. Moreover, there are no adverbs derived by inflectional suffixes in the collected data. Second, verbs have not been included, either, partly because of the reasons of space and time and partly because there was another thesis that dealt with them at the time this thesis was coming into existence,[72] although not in direct connection with ablaut.

iv) The choice of representative suffixes has also been based on a notional productivity scale. This scale has no longer productive formatives at one end and newly arising formatives, i.e. suffixoids, at the other.

So, we have chosen dental suffixes because they are rather old and the degree of their productivity in OE is not always clear.[73] Moreover, inflectional suffixes may be attached to them. They represent the bottom of the notional productivity scale relating to OE in our thesis.

On the other hand, the suffix *-hād* is usually treated as a suffixoid in OE[74] and, so, it may be taken as the opposite of the dental suffixes.

To cover the middle part of the scale, *-full* and *-lic*, functioning as suffixes already in PGmc,[75, 76] have been chosen. Their position as suffixes is unthreatened in OE, still producing

[72] Helena Filipová, "Old English causative and factitive verbs, their formal build-up and subsequent development", diploma thesis, ÚAJD, forthcoming. To this group, especially verbs such as *bǣtan* "to bridle" would belong in case it is a derivation of *bītan* "to bite" (more specifically from its 2nd PP, *bāt*). Pairs such as *cwelan ~ cwellan, etan ~ ettan*, and *fretan ~ frettan* are also typologically interesting.

[73] Kastovsky mentions "four groups of deverbal nouns" in dental suffixes (*-d, -t, -þ,* and *-oþa*) and further comments upon them: "It would seem that *-d* […] was no longer productive in OE, because there are no derivatives from weak verbs in contradistinction to the other three groups; but the derivatives are fairly transparent and semantically regular. Present-day English derivatives like *spilth*, *growth* suggest that *-þ* was productive in OE; the same is probably true of *-oþa*, because it combines with weak class 2 verbs; the status of *-t* is not quite clear, but the existence of derivatives from weak verbs also suggests that it may still have been productive." Kastovsky, "Semantics and Vocabulary" 398-9. However, one could state that neither *spilth* nor *growth* (with the first occurrences in 1587 and 1607) are, statistically speaking, exactly numerous and that analogy and language may produce formations based on patterns which may not be extremely productive.

[74] Kastovsky treats *-hād*, together with Marchand and Sauer, as suffixoid. Wright & Wright and Quirk and Wrenn, as Kastovsky himself states, regard the formative as a suffix. See further Kastovsky, "Semantic and Vocabulary" 386, especially in connection with his claim that "[i]t is probably justified, therefore, to follow Marchand and Sauer and assume that the development towards a suffix took place in the post-OE period." (Kastovsky, "Semantics and Vocabulary" 386) We may add that Wright & Wright treat all the derivational formatives as suffixes, commenting upon their potential existence as independent words. The term suffixoid does not appear in their grammarbook.

[75] "Forming adjs. In OE. the adj. *full*, like its equivalent in the other Teut. langs., was used in composition with a preceding n., forming adjs., the etymological sense of which (= 'full of...') is usually somewhat weakened, so that the words may be rendered 'having', 'characterized by' (the attribute denoted by the n.) […]." *Oxford English Dictionary*, John Simpson, Mar.

quite a few derivates. The suffix *-scipe* also represents the middle of the scale; however, it does not derive adjectival formations, but nominal ones.

2.2.3.2.2. As stated above, the dental suffixes have been commented upon in literature in connection with ablaut. For the sake of completion, we present the information here:

> [*U*]*sually the stem form containing the weak grade, which also occurs in most past participles and preterite plurals, is selected, cf.* cyst […,] flyht […]. *With verbs of the 5th, 6th and 7th class, however, past participle and infinitive stem are identical, cf.* flōd […,] *and from there analogical formations with the present tense stem as base are to be expected also in the other classes, cf.* brectha […] cwild*, etc*.[77]

2.2.3.2.3. It has also been mentioned above and it follows from the terminology used that the inflectional and purely derivational, i.e. agglutinative, suffixes are typologically different. Ablaut then presents a third typological type: introflection. How the three types may have developed in the history of OE and ME word-formation is summed up in the following section of this chapter.

2010, 27 Apr. 2010 <http://dictionary.oed.com/cgi/entry/50090668?single=1&query_type=word&queryword=-ful&first=1&max_to_show=10>.

[76] Guimier comments upon *-lic*: "It is highly probable that the transformation of the substantive into the suffix took place in Common Germanic, as cognates of both Old English suffix *-lic(e)* and the substantive *lic* are to be met with in all Germanic dialects." Claude Guimier, "On the origin of the suffix *-ly*", in *Historical Semantics, Historical Word-Formation*, ed. Jacek Fisiak (New York: Mouton Publishers, 1985) 156.

[77] Kastovsky, "Deverbal nouns" 234.

2.3. Hypotheses

2.3.1. Skalička writes that, in the introflexive type, "[w]ord classes are easily differentiated by introflection".[78] It may be expected that as the language changes typologically from synthetic to analytic, i.e. as the inflectional suffixes erode and as the introflection disappears, the language/speakers will try to support the lexemes by more transparent suffixes and gradually level the introflection in words which survive in ME (CV_1C-*a* > CV_1C-*er*; CV_2C-*e* > CV_1C-*full*). Kastovsky indeed observes this tendency in his research:

> *The ablaut nouns disappeared in the course of the Middle English period, more precisely in Early Middle English, being either replaced by derivatives based on the infinitive stem or lost completely together with the verbal base*.[79]

Whether the ablaut nouns disappeared in the course of the Middle English period, though, is a question to which we give the answer in chapter 4.

2.3.2. We assume there may be certain subtendencies in the gradual disappearance of the ablaut nouns and adjectives identifiable with other than the 1st PP.

First, as the 1st PP is unmarked, it is expected that there will be gradually more and more formations showing this PP in the root. Apart from being unmarked, the 1st PP is also most easily recognizable out of the other PPs (e.g. the 1st class of strong verbs uses the 4th PP identical to the 3rd).

Second, out of the 2nd, 3rd, and 4th PPs, the 4th is the least marked, being used in past participles, which are often converted to adjectives (and these to nouns). Thus, we expect the 4th PP to be numerically represented better than the 2nd and the 3rd PPs.

2.3.3. As indicated in the first hypothesis (2.3.1.), as the language changes typologically and the inflectional suffixes gradually erode, both the inflectional suffixes and other synthetic phenomena are expected to cease forming the opposition they sometimes do.[80]

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[78] Skalička and Sgall 339.
[79] Kastovsky, "Whatever happened to the ablaut nouns" 256.
[80] Other supportive means of opposition, here the presence vs. absence of /w/ may be expected to dissipate (*crāwan* "of a cock: to crow"):

[1] *crā-Ø* "crowing, croaking" [2] *crāw-e* "crow (the bird)"

In case of *brēowan* "to brew" and *cēowan* "to chew; to gnaw, bite", we do find derivates containing <w>: *brīw* "a paste or pottage made mainly with grain, meal, etc.", *ge-cow* "food, what is chewed". However, as the <w> /w/ appears at the end of

2.3.4. In ME, the repertoire of forms is expected to be shrunken. Since the forms no longer existing in the language carried certain meanings, repertoire of the existing forms will have to cope with the whole load of the meanings attached to the lost formations.

Not unlike the inflectional suffixes, the prefix *ge-* also becomes progressively endangered and, as the prefix could form morphological oppositions in OE as well, its disappearance also increases the chance of the formal clash, at least in pairs both formally and semantically contrasted by the prefix (e.g. CVC "meaning A" > CVC "meaning A"; *ge*-CVC "meaning B" > CVC "meaning B" → CVC "meaning A & meaning B" ?).[81]

The language may react to the formal clash in at least three ways.

The first option has already been described in the first tendency (2.3.1.): inflectional suffixes are replaced by purely derivational, agglutinative suffixes.

The second option is the potential transfer of some of these meanings to newly borrowed expressions (CVC "meaning A" > CVC "meaning A"; *ge*-CVC "meaning B" > "meaning B" → CVC "meaning A"; $C_xV_yC_z$ "meaning B").

The third solution is polysemy, i.e. fewer forms being loaded with more meanings than there were before the losses: CVC "meaning A" > CVC "meaning A"; *ge*-CVC "meaning B" > CVC "meaning B" → CVC "meaning A & meaning B". Note that unlike above, this formula has no question mark. However, this, of course, does not mean that the forms potentially loaded with additional meanings should not perish, i.e. the first and the second option may be reached indirectly via the third option.

So, the four hypotheses are interconnected. As the inflectional suffixes yield to phonological changes and erode, the exploitation of agglutinative suffixes suggests itself as a more transparent means of word-formation. Other phonological changes bringing about allomorphy in the roots of strong verbs become so numerous that the processes of analogy work in different

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the word, its stability is threatened more than in case of *crāwe*, where it is more stable due to the vocalic neighbourhood. Ex 1 is attested only once, ex 2 shows 21 occurrences, none of which lacks an ending and a grapheme standing for /w/ (*crawe*, *crauue*, *crauuae*, *crawan*, *craven*).

[81] For further information, see for example Masayuki Higuchi's "The Roles of the ME Preverbal *y-*, with Special Reference to Chaucer's English" and "Old English Preverbal "ge-": Its Meaning." by J. W. Lindemann.

directions in different dialects, which inevitably influences, together with the loss of the inflectional suffixes, the transparency of vocalic alternations in the roots, i.e. of the PPs, and also the morphological oppositions, based both on the realizations of the roots and on the inflectional endings. Finally, all this may lead to formal clash of derivates associated with various meanings in OE.

To see whether our hypotheses reflect the situation in the development of the language, we have analysed formations both in Old and Middle English. These analyses have been connected with a few obstacles. The following chapter describes how the materials have been collected and the character of the obstacles.

3. Methodology

3.1. Collecting OE Data

3.1.1. The Source: its Profile and its Problems

3.1.1.1. Profile

The analyses of this thesis have been based on the texts written in OE as they are presented in *The Dictionary of Old English: A-F* (further referred to as *DOE*). This source has been chosen because it is the most recent and the most detailed OE dictionary. Only the entries under the letters A-F had been covered when the data for the thesis were collected.

The authors of the *DOE* claim that "DOEsearch ™ allows you to search a given pattern (a string that can be a regular expression) in a selected section (a data file)."[82] The files are seven, according to the first seven letters of the OE alphabet: A, *Æ*, B, C, D, E, and F. Each file presents a list of alphabetically ordered entries beginning with the letters in question. The user may submit entries as well as search through the lists of the files.

As the time boundaries delimiting OE and ME are continuous, one may ask on what mediaeval English texts the *DOE* is based. On the official website of the project enabling the publication of the work, the authors claim that the *DOE* "defines the vocabulary of the first six centuries (600 – 1150 AD)"[83] of the history of English.

3.1.1.2. Problems

3.1.1.2.1. Minor Inconsistencies

Working with the entries found in the *DOE* is connected with several minor inconsistencies.

The first one lies in the marking of prefixes: the dictionary provides us, for example, with *eft-āsittan* "to remain", where there are two prefixes (*eft-* and *ā-*), but only one is marked; unlike in *ā-sittan* "to sit up; to fear" and *ā-ge-dōn* "to remove".

[82] *The Dictionary of Old English in Electronic Form A-F*, University of Toronto, 2003.

[83] *The Dictionary of Old English*, University of Toronto, 12 Feb. 2009, 23 Nov. 2009, <http://www.doe.utoronto.ca/about.html>.

Next, some verbs are marked with asterisks in the dictionary, [84, 85] whereas some are not, although they survive as participles only (*ā-helpan* "to help" is attested only in the form of past participle - *aholpen* or *aholpeno*).

Finally, the information on dialectological and chronological data, as well as genre commentaries, is generally not sufficient for more detailed analyses.

3.1.1.2.2. Relatedness of Formations Found Problematic by the *DOE*

3.1.1.2.2.1. The dictionary sometimes provides the references to other formations with a question mark, meaning, as we understand it, that the relatedness of formations is undecided. This is demonstrated by the following example:

[1]	*flēah*$_3$ "flight"	(attested once in *The Riming Poem*)
	~ ? *flēogan*	"to fly; to move rapidly; to flee; to flow"
	~ ? *flēon*	"to flee; to depart; to fly"

We have not included such spurious and undecided formations in the Appendices to Analysis, nor in the Analysis itself.

3.1.1.2.2.2. There have been more complicated instances of this type of problems: the verb *belgan* "to swell with anger, become angry" and *bellan* "to bellow, roar", both pertaining to the 2nd strong verb class, potentially gave rise to various formally and semantically similar derivates.

The verb *bylgan*$_1$ "to bellow" is linked in the *DOE* with *bellan*, whereas *bylgan*$_2$ "to anger, offend, provoke" with *belgan*, presenting a homonymous pair. The *OED* suggests that the two verbs are of the same PGmc origin: **balligôjan*.[86] Sometimes, the semantic aspects of various potential derivates of the two verbs are very similar, and it is hard to reconstruct the likeliest etymological scenarios, since the form may have influenced the semantics as well as the semantics may have influenced the form:

[2]	*belg*, *bylg*	"bag, pouch, sack; a (pair of) bellows"

[84] The authors do not state what exactly is meant by the symbol, but we suppose it is used in its usual meaning: reconstructed.
[85] *Ā-betēon* "to reproach, accuse" may be taken as an example.
[86] *Oxford English Dictionary*, John Simpson, Dec. 2009, Dec. 2009 <http://dictionary.oed.com/cgi/entry/50020023?query_type=word&queryword=bellow&first=1&max_to_show=10&sort_type=alpha&result_place=2&search_id=49Vx-8sOChF-1388&hilite=50020023>.

[3] *ge-belg* “anger, outrage, indignation”

[4] *bȳl, bȳla, bȳle* “boil, infected swelling, blister; protuberance; callus”

We can see that *belg, bylg* contains the velar fricative of *belgan* and semantically resembles *bellan*. *Gebelg* is a semantically and formally clear derivate of *belgan*. Ex 4, formally a possible derivate of *bellan*, could semantically correspond to both verbs. Ex 4 is an etymologically undecided formation, the *DOE* does not refer it to any verb.

Ideally, such dubious formations should have been checked by way of historical phonetics; however, this was not feasible. Thus, we have not included such formations in our tables.

3.1.1.2.3. Relatedness Found by the *DOE*, or, “Somehow” Related

The main problem with the *DOE* seems to lie in the fact that it presents the user with various references to other “somehow” related formations: the relatedness of the formations is sometimes suggested in the dictionary; nevertheless, one cannot always say, on the basis of these suggestions, of what character and period the relatedness is.

In case of *faru* “action of going”, its cognation with *faran* “to go, travel” is quite straightforward. But there are instances such as *fēra* “companion”, where the user is told “See also: (*ge*)*faran*; *gefēra*; cf. *fēran*, *fēre* noun”. Hence, it is not always possible to say what was derived from what: whether *fēran* gave rise to *fēra*, whether it was the other way round, or whether the two were derived from *faran*. This is something which is almost impossible to decide.

However, by various references found in the individual entries, one could find very indirectly related formations. We have included them in the Appendices to Analysis, but we do not analyse them in the Analysis itself. They are marked with # in the tables with formations we have examined. In this chapter, we present the reader with a sample only:

bēodan	2nd class	*bodiendlic*#

Table no. 1: *bēodan* “to bid; to declare; to offer” indirectly related to *bodiendlic* “to be proclaimed”.

In connection with table no. 1, it should be stated that there existed the verb *bodian* "to announce, proclaim, prophesy, preach" in OE. The formative *-end-* indicates that *bodiendlic* was derived from *bodian*, since it is used to form present participles, which are afterwards potentially converted to adjectives, from the 1st PP, used in the present tense and in the infinitive.

3.1.1.2.4. Relatedness not Found by the *DOE*

Sometimes, the relatedness is not indicated by the *DOE*. In our tables, these cases are marked with ^{o} ("ours"), a symbol meaning that it is not the authors of the *DOE*, but we, who regard the formations as related to the verbs in question. *Bēod* "table; dish; urn" is thus referred to *bēodian* "to make tables", but neither of the two has any reference to *bēodan* "to command, often with connotations of announcing and offering; ordain a feast; etc.". Owing to the sources such as the *OED*, we could defend our decision to regard these as related.

More transparent instances are for example *blāc* "bright, shining" as related to *blīcan* "to shine".

3.1.1.2.5. Ghost Words

Ghost words, such as *fleaþe* "? water-lily" or **clengoþ*, have been included neither in the Analysis nor in the Appendices to Analysis.

The dictionary poses other problems, based on the graphical representation of the entries that was chosen by the authors. As, however, more needs to be said about the selection of the OE examples to understand the character of these problems fully, we deal with them in 3.1.2.2. Tracing All the Derivates of the Prefixless Verbs.

3.1.2. Selection of OE Examples

The excerption of OE data has been carried out in the following steps:

I. Division of the strong verbs into prefixed and prefixless
II. Tracing all the derivates of the prefixless verbs
III. Classification of the derivates according to their suffixes and alternations

Prefixed strong verbs are represented by 703 verbs, prefixless strong verbs by 86 verbs. Since the prefixless verbs are over-abundant, we work with the prefixed verbs only.

3.1.2.1. Division of the Strong Verbs into Prefixed and Prefixless

The results of the first step are displayed in the tables below. The abbreviations anom. and vb., as labelled in the *DOE*, stand for anomalous verbs and further unspecified verbs, i.e. verbs that are not further commented upon by the authors of the dictionary. Why this group had to be introduced by the authors could be demonstrated on the verb *bealcan* "to utter (words)", which survives only in two forms: *bealceþ* and *belceð* (3rd pers sg pres ind). On the basis of these two slightly different attestations,[87] both of which show the present tense, one cannot say whether the verb is weak, strong, or anomalous.

The most important tables resulting from our analysis of OE verbs (A-F) are given here. Other tables are to be found in the Appendix to Methodology.

	1st – 5th	6th	7th	Anom.	Vb.
Total	505.5 (64.07%)	71 (9.00%)	126.5 (16.03%)	27	22

Table no. 2: Prefixed Strong Verbs (A-F).

	1st – 5th	6th	7th	Anom.	Vb.
Total	62.5 (7.92%)	6 (0.76%)	17.5 (2.22%)	2	21

Table no. 3: Prefixless strong verbs, anomalous verbs, and verbs / further unspecified verbs (A-F).

	1st	2nd	3rd	4th	5th
Total	8 (1.01%)	19.5 (2.47%)	22 (2.79%)	4 (0.51%)	9 (1.14%)

Table no. 4: Prefixless strong verbs of the 1st – 5th classes (A-F).

We find it essential to present the reader with comments on the tables displayed above:

i) the verbs listed in the *DOE* as anomalous verbs, verbs, or preterite-presents form 9.52% (83 verbs altogether) of all the non-weak verbs listed there (872 non-weak verbs altogether; i.e. anomalous verbs, verbs, preterite-presents, and strong or strong-weak verbs / verbs that may be conjugated at least partially as weak or as strong); the percentage figures found in our tables are based upon the remaining 789 verbs (90.48%), the number 789 being taken as 100%

ii) the tables are tentative for several reasons

[87] The <ea>, realised most likely as /æə/ in at least Late OE, is due to the influence of /l/. This phonetic change is called breaking.

a) the prefixed verbs appearing in the dictionary contain only those prefixes which lay within the scope of the letters A-F (F included) plus the suffix *ge-*

b) the tables (see also those in the Appendix to Methodology) do not show the instances of entries in which there are more than one prefix, e.g. in *ge-ā-bīdan* or *ge-and-spurnan*, both listed under the letter A in the *DOE*

c) although the authors of the *DOE* do not state any criteria for polysemy or homonymy, in case a formally identical lexical item is listed twice, i.e. under two entries (e.g. *ā-rīsan*), it is counted as two lexical items in our tables

d) there are verbs assimilated to other classes of strong verbs or conjugated according to classes of weak verbs to a certain extent already in OE, such as *ā-brēotan* "to kill, destroy"; in the first case, the verb is divided between the two classes with the figure 0.5 for each class, even though it may not have been conjugated according to both classes to the same extent

e) The morphological behaviour of some verbs is hard to ascertain as they have not been attested in full paradigm; in addition, the ME material is not fully reliable as concerns verbal classes, since verbs may have changed their class affiliation during their development as part of the general tendency for word-formation to change from stem-based to word-based

iii) the instances intricate as regards class affiliation or paradigm attestation are, however, by no means prevailing

The division of the strong verbs into prefixed and prefixless is necessary mainly for practical purposes; in particular, more time would be needed to analyse all the prefixed strong verbs. As we do not want to choose representative samples at random, since this would make the results unreliably relatable to the prevailing situation in the language, prefixless verbs, numerically weaker than prefixed verbs (10.90% of OE strong verbs from the letter A to F are prefixless.), have been chosen.

One of the tables to be found in the Appendix to Methodology describes prefixed verbs and may encourage further, more detailed analyses of OE verbs, especially as regards the productivity of prefixation with relevance to particular classes and gradual disappearance of various representatives of these classes.

3.1.2.2. Tracing All the Derivates of the Prefixless Verbs

The second step of the excerption consists in searching for all the derivates of the prefixless strong verbs. The list of the derivates of the prefixless verbs may be found divided in tables according to the suffixes in the Appendices to the Practical Research.

3.1.2.2.1. Although we are interested in suffixation, prefixed derivates of the strong verbs have to be included as well, since there are no prefixless counterparts to some of them and they could be associated with various PPs. Thus, for example, the derivates of *bacan* "to bake" listed in our tables are *ge-bæc*, *bæceling*, *bæcere*, *bæcering*, and *bæcestre*.

In consequence, where there appear both prefixless and prefixed derivates, we have included both in the tables for the sake of completion. So, for example, *ge-bǣre*, *ge-bǣru*, one of the derivates of *beran* "to carry, bear; to bring; to spread; to wear; etc.", can be found only with the prefix, and, therefore, although prefixless *byre* is available, *ge-byre* have also been included.

3.1.2.2.2. Compounds have not been included. First, had we included them, we would not have been able to analyse all the formations. Second, we omit compounds for the reasons stated above, i.e. we do not want to choose representative samples at random, which we would have to do if compounds were analysed, too. Third, compounds would require further analyses, one of the reasons of which is that they often appear in poetry,[88] and it may not always be clear to what extent they were used, if used at all, in non-poetic discourse.

3.1.2.2.3. We have taken the individual verbs and examined entries with the same consonants combined with any vowels in the root. In case of verbs such as *delfan* "to dig; to bury" or *cēowan* "to chew; to gnaw, bite at", identification of various derivates is not problematic. Hence, we have *delf-* as one and *cēow-* and *cow-* as two realisations of the roots of the verbs in question:

[5] *delf* "trench, ditch, water-channel"

[6] *ge-delf* "trench, ditch, water-channel; the act of digging, excavation"

[88] "[M]odern scholarship has convincingly demonstrated that compounding as a specific word-formation and naming process can be figuratively located in the heart of Old English poetic diction." Jan Čermák, "*A Prow in Foam*: the Old English Bahuvrihi Compound as a Poetic Device", in *Prague Studies in English XXII* (Prague: The Karolinum Press, 2000) 13. "[C]ompounds were one of the most important stylistic devices of poetry, but were of course not restricted to poetic language. Accordingly, their number is substantial […]. Kastovsky, "Semantics and Vocabulary" 362.

[7] *delfing* “trench”

[8] *delfere* “one who digs, as a tiller of the ground or as an excavator”

Since one of our hypotheses is the fact that the variability of stems will diminish in ME, it is necessary to identify the principal parts (PPs) in both Old and Middle English periods. In case of *delfan*, *delf-* can be swiftly traced to the 1st PP as the other three PPs differ: *delf-*; *dealf-*; *dulf-*; *dolf-* according to *helpan* “to help”, the representative of the 3rd class: *help-*; *healp-*; *hulp-*; *holp-*.

[9] *cēowung* “chewing”

[10] *ge-cow* “food, what is chewed (referring to the body as food for worms)”

Cēow- might be quickly traced to the 1st PP, also differing from the other PPs: *cēow-*; *cēaw-*; *cuw-*; *cow-*, according to *bēodan* “to command”, 2nd class: *bēod-*; *bēad-*; *bud-*; *bod-*.

3.1.2.2.4. In contrast, two verbs, *acan* “to ache” and *etan* “to eat”, are problematic for different reasons: the root vowel alternations cannot be found in the *DOE*. For vowels coming in the alphabet after the letter F, *An Anglo-Saxon Dictionary* by Bosworth and Toller has to be used.

3.1.2.2.5. As suggested above, the dictionary sometimes makes the description of the examples relatively difficult, namely as regards the graphemes representing the vocalic sounds of the roots of the formations.

3.1.2.2.5.1. In case of verbs such as *brūcan* “to use, employ; to enjoy (the use of); to possess; to fulfil; to suffer”, identification of various derivates with the PPs, and thus their description, is rather intricate. In this particular case, we have *brūc-*, *bruc-*, *brȳc-*, *bryc-*, and *broc-* as five possible realisations of the root:

[11] *brūcendlīce* “appropriately, by a proper use”

[12] *brūcung* “function, occupation, way of life”

[13] *brucende* perhaps “a using, use, enjoyment of a thing”

[14] *brycsian*, *brȳcsian* “to be of use or benefit, to be useful”

[15] *brycian*, *brȳcian* “to be of use or benefit, to be useful”

[16] *brȳce* “useful, beneficial”

[17] *bryce*$_2$ “use, enjoyment, benefit”

[18] *broc*$_2$ “use, advantage”

Bruc- can be linked with the 3rd PP and *broc*- with the 4th. Although most of the verbs of the 2nd class show *-ēo-* in the 1st PP, *brūcan* ranks among a special subgroup, where *-ū-* is present instead. Thus, the *brūc*- formations may also be traced to their source.

Nevertheless, as for exx 14, 15, and 17, i.e. *brycsian, brȳcsian*; *brycian*, *brȳcian*; and *bryce*$_2$, the allocation of the roots to the PPs presents a problem. The <y> /y/ must have resulted from /u/ which underwent *i*-umlaut. Knowing that the 3rd PP could not be affected by *i*-umlaut, there being no ending containing the needed phonemes, only the 1st PP suggests itself as the original form of the root. On the other hand, it is not clear why the vowel present in the roots of exx 14, 15, and 17 is, or may be[89], short. The description of the roots of the derivates and their relatedness to the verbal roots is sometimes complicated by problems of this character.

The reader will find ablaut formations in inflectional suffixes and selected purely derivational suffixes allotted to PPs in the next chapter. Tables with formations in non-analysed suffixes are available in the Appendices to Analysis. In this chapter, we give only a representative sample:

beorgan	3rd class	*beorg*$_2$	1st PP
		borg	4th
		burh	3rd

Table no. 5: *beorgan* "to protect" and Related Formations in Zero.

3.1.2.2.4.2. When tracing the PPs, another difficulty lies in the fact that the *DOE* does not distinguish <y> as /y/ and <i> as /i/. The entry *byrst*, *berst* may serve as an example. The 1st PP, *berst*-, may be mutated to /birst/, but not to /byrst/. This means that we have often been unable to decide to which PP a particular formation is related. These formations are marked with a question mark in our tables. See the table below:

berstan	3rd	*ge-berst*	1st
		byrst$_2$	1st?; um
		byrst$_3$, *berst*	1st?; um

Table no. 6: *berstan* "to burst" and Related Formations in Zero.

In our analyses, such dubious examples are not worked with directly, but usually only referred to as formations whose roots are not allocable unambiguously.

[89] The methodology, and thus also the criteria establishing the length of vowels, used by the authors of the *DOE* is not known to us.

The problem concerning the graphical/phonetic representations of these dubious formations is complicated by the fact that certain non-verbal inflectional suffixes may have caused *i*-umlaut as well, for example the *-a* deriving nouns in *ja*-stems,[90] and it may be hard to say whether nominal formations in inflectional suffixes or the strong verbs themselves gave birth to ablaut adjectives or nominal formations in purely derivational suffixes (such as *-lic*). If the first case is true, the *i*-umlaut may be, for example, the influence of the *-ja* formative, not of a verbal ending.

3.1.2.3. Classification of the Derivates According to their Suffixes and Alternations

The third step classifies the derivates into tables according to their suffixes, which, we should note, are of various age and productivity. The classification has not been problematic in itself, since the suffixes are almost always well-recognisable. The formations have been divided according to practically any traceable formatives, even if the formatives may no longer have been productive in the language (e.g. *brytsnian* "to give, bestow" is classified as a verbal formation in *-s-n-ian*, where the *-s-* must have been understood, synchronically, as a part of the verbal root).[91]

As we have made an additional table contrasting examples with and without gemination (see table no. 7 below), we should state we classify the derivates also on the basis of alternations. Nevertheless, this is the case of gemination only.

Verb #	Strong verb	Weak verb	Class
1	*blīcan*	*bliccettan*	1st
2	*cīnan*	*cinnan*	
3	*brēotan*	*bryttian*	2nd
4	*crēopan*	*cryppan*	
5	*drēopan*	*drýpan, dryppan*	
6		*droppettan*	
7	*ceorran*	*ceorian, cyrian*	3rd
8	*crimman*	*crammian*	
9	*cwelan*	*cwellan*	4th
10	*biddan*	*ge-bedian*	5th
11		*bedēcian*	
12	*cwethan*	*cwiddian*	
13	*etan*	*ettan*	
14	*fretan*	*frettan*	

[90] The sound causing *i*-umlaut survives in the appellation *ja*-stems. The inflectional suffix *-a*, of course, cannot bring about *i*-umlaut.

[91] This might serve various purposes in comparative historical linguistics, such as analyses of the historical development of Germanic suffixes.

15	*bannan*	*bēnsian, bensian*	7th

Table no. 7: Strong and Weak Verbs with the Opposition of Geminal Character.

To conclude this section, we can state that any diachronic analysis is inevitably connected with problems of at least two types. First, the surviving materials limit our analyses according to what amount and what character of the texts, such as charters or glosses, are available to historical linguists. Partially as a consequence of this and partially as a consequence of non-uniform orthography, it is a difficult task to produce a dictionary that would enable unproblematic analyses. Out of this, other obstacles, some of which we have seen in this section of the present chapter, follow.

So, during our analyses, it should always be born in mind that the *DOE* presents us with written evidence, not with sounds.

Another source, *The Middle English Compendium*, has been used to collect ME data, without which we could not contrast the OE data to anything and thus prove or disprove our hypotheses stated in 2.3. The profile of the *Compendium* and various difficulties encountered during the collecting, especially those arising from non-uniform orthography so characteristic of ME, are described in the next section.

3.2. Collecting ME Data

3.2.1. The Source

The Middle English Compendium (*MEC*) has been used for the analyses of word-formation in ME. It consists of six sections: HyperBibliography, Middle English Dictionary, Corpus of Middle English Prose and Verse, Related Sources, About the Middle English Compendium, and Help with Using this Resource. Since dictionary entries have been used for OE, the second section, Middle English Dictionary, has been used for ME.

The dictionary itself is then divided into three sections: lookups, search of ME entries, and search of ME quotations. We have collected our data using the first choice, lookups. Lookups enable both submitting individual entries and viewing entries alphabetically ordered under various letters. The latter may be achieved by submitting a single letter and an asterisk, meaning "zero or more of any character."

The lower time boundary suggested by the *MEC* corresponds to that suggested by the *Linguistic Atlas of Early Middle English* (*LAEME*).[92] The printed version of the *MEC* offers "a comprehensive analysis of lexicon and usage for the period 1100-1500, based on the analysis of a collection of over three million citation slips"[93]. The period 1100-1500 is respected by the online version as well.

3.2.2. Working Strategies and Problems with the Source

The working strategies used with the *MEC* vary according to the types of derivates we have wanted to find and analyse. The types of the derivates differ according to the suffixes.

As indicated above in 3.1., working with the *MEC* presents the user with certain obstacles arising mainly from the non-uniform orthography of the ME period. We will describe these obstacles step by step together with the different working strategies that have been chosen.

[92] See the introduction to the *LAEME* for more details relating to dialectological and diachronic boundaries: Margaret Laing and Roger Lass, *A Linguistic Atlas of Early Middle English, 1150-1325* (Edinburgh: The University of Edinburgh, 2007) 417; < http://www.lel.ed.ac.uk/ihd/laeme1/laeme1_frames.html>.
[93] *The Middle English Compendium*, Feb. 2006, 21 Feb. 2010 <http://quod.lib.umich.edu/m/mec/about/>.

3.2.2.1. Purely Derivational Suffixes

3.2.2.1.1. We will comment upon the suffix *-scipe* and thus provide the reader with a general character of the problems we have faced. The suffix is chosen as a model example because the first and the last phonemes of the formative were transcribed in sundry ways in ME.

Tracing the formations derived by *-scipe*, we submitted *scip* (as stated above, the asterisk stands for "zero or more of any character"). We expected the suffix to be more productive in ME, because of which we had to go through all the entries derived by it so that potential new formations were found. That is why we did not decide for an easier strategy consisting in tracing only the formations in *-scipe* that occurred in OE and see if they and how many of them survived in ME. As the reader will see below, this latter strategy has been used with certain suffixes.

After submitting *scip* , the *MEC* offered a list of formations derived by the suffix.

At this stage, affiliation to particular OE word-formational families had to be traced. This was more or less straightforward in cases such as *dērneship* "secrecy", where the *MEC* referred us to ME *dērne* "secluded". *Dērne* then referred us to West Saxon *dierne*, *dyrne*. Neither *dierne* nor *dyrne* could be found in the *DOE*, but the verb *dyrnan* "to hide, conceal" could. Since *dyrnan* is a weak verbs, we could see that *dērneship* did not belong to any word-formational family of the OE verbs we worked with. Thus, when following the strategy chosen for *-scipe* also in case of some other suffixes, we have had to face the problem that lies in that the *MEC* and the *DOE* sometimes offer the OE entries with different orthography, potentially in different dialects.

There were more tricky examples, such as *fērdship* "fear, terror", where the *MEC* referred us to ME *fērde* "(the emotion of) fear". However, no further reference was provided. So, we had to take all the verbs that were, on the phonetic basis, potentially related to these formations and find out whether any cognation was possible. In case of *fērdship*, it was not.

Another problem that may be demonstrated on *-scipe* but generalised as the most serious problem posed by the *MEC* is that the dictionary (i.e. the look-ups) is far from consistent in the spellings of the entries, as already indicated several times. So, just to hedge against any such possible inconsistencies, we submitted *scip* and obtained *feondscipe* "enmity, hostility".

Then, we tried also *ship* and found many formations among which there were four derivates pertaining to the families of the OE verbs we had collected from the *DOE*. To be even more sure, we submitted *schip*, the last of the most general spelling variations; and, of course, we received *deopschipe* "deep mystery", which is not a derivation pertaining to any of the families of the OE verbs, but serves as a demonstration of our point, i.e. that collecting ME data is needlessly complicated because the authors did not choose a uniform orthography at least for the entries of the dictionary of the *MEC*. Finally, we submitted *s*p*, which embraced all the variants.

As follows, the graphical inconsistencies of the *MEC* may be responsible for potentially overlooked, and therefore non-included, derivations pertaining to the families of the OE verbs collected from the *DOE*.

We have decided to submit the following combinations to trace the formations in the remaining suffixes:
1) -*full*: *f*l*
2) -*lic*: *l*c*
3) -*hād*: *h*d*
4) dental suffixes: *t, *d

In case of 1), 2), and 4), we have analysed only the ME formations related to the verbs that are associated with formations in the same suffixes in OE. We have thus chosen an easier strategy than with the suffix -*scipe* described above. In case of 4), the reasons arising from the lack of time have limited us in the exploration of other possible formations in *t* and *d*, where the latter asterisk stands for a potential final -*e*, either realised as /ə/ or merely graphical, i.e. not reflecting the zero phoneme.

3.2.2.2. Inflectional Suffixes

As there are only three inflectional suffixes in OE other than zero (i.e. those having both an inflexional and derivational function; -*e*, -*a*, and -*u*/-*o*), all of them were, during ME, reduced either to -*e* /ə/ or eventually to zero (*bite*, *bit* "blow; biting/bite; sting; mouthful; metal mouthpiece of a bridle; a short distance" < OE *bite* "bite, sting, wound; cut; grip of bonds; disease characterised by ulcerous sores").

Above, we have already commented upon the fact that, if still surviving in ME, OE formations ending in zero survive with a zero suffix in ME, although they may be graphically represented with final *e*'s. ME *cyste* "virtue", descending from OE *cyst* "choice; excellent, precious thing; virtue", serves as an example: when we submit *cust* "virtue" in the *MEC*, nothing is found, although the *DOE* gives *cyst-Ø* as the OE form of the entry. The *MEC* presents the expression as *custe*. The fact that the word was *-e*-less in OE is very likely to exclude the possible ME final /ə/, because /ə/ in this word cannot be of phonetic origin. The only explanation for the sound is that it could be gained by analogy. The word is otherwise attested only as *coste*.

Owing to the time restrictions, we have had to focus only on a few verbs that serve as bases of a relatively high number of OE formations. These are *bacan* "to bake" (6th), *bannan* "to summon" (7th), *bēatan* "to beat, to fight" (7th), *bītan* "to bite" (1st), and *faran* "to fare" (6th). All the verbs except for *bannan* survive in PDE. Of course, the representation of the verbal classes might have been more well-proportioned; however, we believe the research will continue. Furthermore, the situation of the existence of verbal classes in ME is considered somewhat disputable by certain scholars, such as Burrow and Turville-Petre.[94]

Searching for the derivates in the *MEC*, we have used the following strategies:

1) the derivates of *bacan* have been looked for by the submission of the following combinations: b*c*, b*k*
2) *bannan*: b*n*
3) *bēatan, bītan*: b*t*
4) *faran*: f*r*

We have also tried to look for any of the prefixed OE derivates of the verbs in question. None have been found. The table with the resulting forty-three formations may be found in Appendix 6 in Appendices to Analysis.

[94] We state the following quotation once more in this thesis for the sake of convenience: "In Old English seven classes of strong verbs may be distinguished. During the Middle English period these began to be affected by so many dialectal changes and alternations by analogy with other verbs that it is no longer helpful to classify strong verbs in this way." Burrow and Turville-Petre 36.

Apart from the symbol/tool *, the function of which has already been commented upon twice in this chapter, the *MEC* offers other tools. The other we have used in our research is ?, standing for one grapheme. See the following chapter for the results.

4. Analysis

4.1. Formations in Inflectional Suffixes

4.1.1. OE Formations in Zero

Our analyses have given the following table showing nouns in zero (A-F):

Verb	Class	Derivate	PP
bacan	6th	*ge-bæc*	1st/4th; um
bannan	7th	*bann*	1st/4th
		ge-bann, ge-benn	1st/4th; um
		bēn	2nd/3rd
		ge-bēn	2nd/3rd
bēatan	7th	*ge-bēat*	1st/4th
belgan	3rd	*belg, bylg*	1st?; um
		ge-belg	1st
bēodan	2nd	*bēod*^{o}	1st
		bod	4th
		ge-bod	4th
beorcan	3rd	*ge-beorc*	1st
beorgan	3rd	*beorg*$_2$	1st
		borg	4th
		burh	3rd
berstan	3rd	*ge-berst*	1st
		byrst$_2$	1st?; um
		byrst$_3$, *berst*	1st?; um
bīdan	1st	*bid*	3rd/4th
		bād$_1$	2nd
		bād$_2$	2nd
bindan	3rd	*ge-bind*	1st
		bund	3rd/4th
biddan	5th	*bed*	4th
		ge-bed	4th
bītan	1st	*ge-bitt*	3rd/4th
blandan	7th	*bland*	1st/4th
		ge-bland	1st/4th
blinnan	3rd	*blinn*	1st
blōtan	7th	*blōt*	1st/4th
		ge-blōt	1st/4th
		blōd	1st/4th
brecan	4th	*broc*$_1$	4th
		ge-broc	4th
		ge-brec, ge-bræc	1st/2nd
		brǣc$_2$	3rd
bregdan	3rd	*ge-bregd*	1st
		brægd, bregd	1st/2nd; um

		brygd	1st?; um
brēotan	2nd / 7th	*ge-brot*	4th
brēowan	2nd	*brīw*	1st/2nd; um
bringan	3rd	*bring*	1st
brūcan	2nd	*broc*$_2$	4th
būan, būgan, būgian	7th	*bū*	1st
būgan	2nd	*bōg*	4th
		bēag	2nd
ceorfan	3rd	*corf*	4th
		cyrf	1st?; um
cēosan	2nd	*ge-cor*	4th
cēowan	2nd	*ge-cow*	4th
crāwan	7th	*crā*	1st/4th
cringan	3rd	*cring*	1st
cwethan	5th	*ge-cwed*	4th
delfan	3rd	*delf*	1st
		ge-delf	1st
deorfan	3rd	*ge-deorf*	1st
drēogan	2nd	*ge-drēog* ^{o}	1st
drēosan	2nd	*drēor*	?
drepan	5th	*ge-drep*	1st/4th
drīfan	1st	*drāf*	2nd
		drīf, drif	1st/3rd/4th
		ge-drīf, ge-drif	1st/3rd/4th
drincan	3rd	*drenc*	2nd; um
		ge-drenc	2nd; um
		ge-drync	1st/4th?; um
etan	5th	*æt*	3rd
faran	6th	*fær*	1st/4th; um
		ge-fær	1st/4th; um
		fōr$_1$	2nd/3rd
fealdan	7th	*fyld*	1st/4th?; um
feallan	7th	*feall*	1st/4th
		ge-feall	1st/4th
		fyll$_2$	1st/4th?; um
		ge-fyll	1st/4th?; um
feohtan	3rd	*feoht*	1st
		ge-feoht	1st
fēon, fēagan	5th	*fēa*	1st
		gefēa	1st
flēogan	2nd	*ge-flog*	4th
flēon	2nd	*flēah*$_1$, *flēa*$_1$	2nd
flēotan$_1$	2nd	*flēot*$_1$	1st
		flēot$_2$	1st
		flot	4th
flītan	1st	*flit*	3rd/4th
		ge-flit	3rd/4th
fōn	7th	*feng*	4th; um
		ge-feng	4th; um
		fang	4th

Table no. 1: Nouns in Zero.

4.1.1.1. Oppositions

As we can see, OE nouns in zero may contrast with one another by vocalic or consonantal alternations of the root:

[1] *bēag-Ø* "circular ornament"

[2] *bōg-Ø* "shoulder, forequarter (of an animal); bough, shoot"

[3] *ge-cor-Ø* "choice, decision"

[4] *ge-cow-Ø* "food, what is chewed"

There are also pairs contrasted by the prefix *ge-*; however, in some of the pairs the prefix does not seem to differentiate the formations semantically.[95]

Although prefixation is not the subject of this thesis, we think it important to point out a few observations on the situation of the prefix in OE word-formation, as some of the formations are attested only with the prefix *ge-*. Out of the 88 nominal formations in zero, 35 are prefixed. This shows that the prefix was widely used even in word-formation. However, all the nouns should be analysed one by one so that we know to what extent the prefix differentiates the meaning and in how many cases the difference is significant. Out of the 88 nouns, 17 have no prefixless equivalents, which, of course, disables any semantic comparison with prefixless formations.

As for adjectives in zero, these prove far less numerous, giving only eight pieces, two being distinguished only by the prefix *ge-*. Moreover, another two of the eight are only very indirectly related to their strong verb, which leaves us with 6 formations for analyses.

The vocalic alternations of the nominal formations are not always exploited in the way one might expect. Exx 5-8 and 11-12 are semantically differentiated enough; nevertheless, 9-10 and 13-14 are not. Exx 9-10 present an ablaut doublet. Exx 13-14 present a mutated doublet (ex 14 reflects *i*-umlaut):

[5] *broc-Ø*$_1$ "misery; labour; fragment"

[6] *brǣc-Ø*$_2$ "breaking; fallow land"

[7] *flēot-Ø*$_1$ "estuary, tidal inlet"

[8] *flot-Ø* "deep water, the sea"

[95] [1] *fyll*$_2$*-Ø* "fall; collapse; death; ruin; grammatical case"
[2] *ge-fyll-Ø* "fall, collapse, ruin, destruction"

[9] *fōr-Ø*$_1$ "(state of) motion; journey; foray; vessel"

[10] *fær-Ø* "state of motion, journey; road; vessel"

[11] *drenc-Ø* "drink; drinking; drowning…"

[12] *dryncˇ-Ø* "drink; communion"

[13] *feall-Ø* "fall, ruin; inflection"

[14] *fyll-Ø*$_2$ "a fall (also figurative); ruin"

These examples require a detailed corpus-based analysis in which the individual attested forms would be analysed separately in the individual linguistic contexts and with respect to the datation of the manuscripts. The chronological outcome of such an analysis might cast more light on why some of the examples are semantically identical and whether the linguistic contexts prove that identical they really are. Of course, the establishing of the individual forms chronologically may not be possible owing to various problems connected with the datation of the surviving texts. Moreover, the scribes could have only copied the forms mechanically in case they still found them comprehensible enough.

For more information on mutated formations, see Marcin Krygier, *From Regularity to Anomaly: Inflectional i-Umlaut in Middle English*, where a section on the situation in OE is also to be found.

Exx 9-10 present the only nominal ablaut pair where the different PPs seem to be interchangeable. Nonetheless, this is the only example of this happening. Moreover, occasional formal variability of the root with apparently no semantic differentiation is not unusual in synthetic languages (compare with Czech *dmýchadlo* "blowpipe, bellows", *dmychadlo* "blowpipe, bellows"[96]; *dvěma* "two (dative and instrumental pl)" *dvouma* "two (dative and instrumental pl; non-standard)").

4.1.1.2. Nouns

To be able to describe the development of the ablaut formations in as much detail as possible, we have found an analysis of the situation of the PPs in OE important for further analyses; first, to know how exactly the usage of the PPs may have been reduced in the course of ME period; second, to find out whether the usage may have been connected with particular inflectional or purely derivational suffixes; and, third, to get to know if any possible word-

[96] For other examples in which the vocalic quantity varies without semantic differentiation, see Alois Bauer, *Čeština na dlani*, 2nd ed. (Olomous: Rubico: 2005) 372.

formational patterns (By patterns we understand here that a certain form is regularly connected with a certain meaning, such as the instrument or the locus.) may have been displayed by various combinations. Answers to these questions then enable a better description of ablaut formations in ME, especially as regards what exactly had been lost and what had been preserved.

To grasp the view of the situation as easily as possible, we have decided to present the results both in cardinal and in percentage figures.

19 nouns are clearly related to the 4th PP (16.72%; see Table no. 1: Nominal Derivates in Zero above); 5 to the 3rd/4th PP (4.4%); 3 to the 3rd PP (2.64%); 3 to the 2nd/3rd PP (2.64%); and 7 to the 2nd PP (6.16%). The instances which are clearly identified with other than 1st PP give 32.56%. 21 nouns (18.48%) are associated only with the 1st PP. This means that the remaining 48.96% of the nouns could be connected with more PPs.

The semantic analysis of the zero nouns has been based on the meanings provided by the *DOE*. As indicated above, we focused on general semantic features such as agent, patient, instrument, locus; or animate vs. inanimate. No particular patterns, consisting in individual PPs combined with certain semantic features, struck our attention. The semantics of the formations, as far as the general features are considered, was too heterogeneous. The non-existence of semantically loaded word-formational patterns thus facilitates the discarding of ablaut in word-formation in the development of English by the language/speakers.

The sole interesting finding may be the fact that the only nouns having at least one meaning related to human beings are traced to the 4th PP in two cases and to the 1st/4th PP in one case; never to other PPs:

[15] *borg-Ø*“guarantor” ~ *beorgan* “to protect” 2nd

[16] *feng-Ø* “(human) prey; captive” ~ *fōn* “to seize” 7th

[17] *fær-Ø* “collective: body of people, company” ~ *faran* “to go, travel” 6th

It is interesting that ablaut nouns in zero denoting human beings reflect the 4th PP and, potentially, also the 1st PP; which are the least marked PPs, 1st being more unmarked than the 4th, of course.

However, only three samples in 88 formations cannot support an existence of a word-formational pattern (being that nouns in zero expressing human beings are derived either from the 4th or from the 1st PP). Moreover, ex 16 is found in its second meaning, “captive”, in an anomalous gloss, as the authors of the *DOE* call it.

Finally, as we shall see below, nouns in inflectional suffixes other than zero do not show any semantic tendencies based on the PPs. This, too, bolsters our claim regarding the facilitation of the discarding of the variability of roots based on ablaut. Also, if there were the connection of the 1st/4th PP with the zero suffix denoting together human beings, the situation of other suffixes as combined with various PPs would have influenced the general picture, thus also nouns in zero.

4.1.1.3. Adjectives

Our analyses have given the following table showing adjectives in zero:

Derivate	Verb	Class
blāc^{o}	*blīcan*	1st
brēath	*brēothan*	2nd
cīs	*cēosan*	2nd
drēog^{o}	*drēogan*	2nd
ge-drēog^{o}		
drōf$^{\#}$	*drīfan*	1st
ge-drōf$^{\#}$		
frett	*fretan*	5th

Table no. 2: Adjectives in Zero.

Only two of the adjectival formations are clearly identifiable with other than 1st PP, incidentally, both with the 2nd:

[18] *brēaþ-Ø* “brittle” ~ *brēoþan* “to decay, waste away” 2nd

[19] *blāc*^{o} “shining; pale” ~ *blīcan* “to shine; to glitter”, etc. 1st

Relative to the other PPs, the *DOE* suggests that ex 20 (see below) is a derivate of *frettan*, itself a derivate of *fretan*; however, as the final doubled letter was not realised as geminated in OE and the two verbs were semantically not dissimilar, we may speculate that, to the speakers, the exact relationship may not have been a great issue. Still, if the adjective was associated with *fretan*, it would be either only to the 1st or to the 4th PP.

[20] *frett-Ø* “gluttonous” < *frettan* “to graze; to devour” < *fretan* “to devour” 5th

Ex 21 is derived from the 1st or 2nd PP of the verb, showing *i*-umlaut:

[21] *cīs-Ø* "fastidious, squeamish" ~ *cēosan* "to choose" 2nd

The remaining examples are derived from the 1st PP:

[22] *drēog-Ø* "(fit, suitable;) serious, sober" ~ *drēogan* "to do; to perform; to suffer" 2nd

[23] *ge-drēog-Ø* "fit, suitable; serious, sober"

Generally speaking, the number of ablaut adjectives in zero is not overwhelming. Having only eight examples at our disposal, two of which are related to the strong verbs only indirectly (thus not included in the analysis), the only conclusions we can draw are the following: first, there are formations the roots of which cannot always be unambiguously identified with the PPs; second, this again supports the facilitation of the discarding of ablaut in word-formation, i.e. reducing the word-formational process only to the least marked, 1st, PP; third, as none of the adjectival formations in zero is related to the 3rd PP, the discarding had probably already begun or the 3rd PP had never been used to form ablaut adjectives in zero. To decide on the last point, more formations are needed.

4.1.2. OE Formations in Inflectional Suffixes Other than Zero

4.1.2.1. Oppositions

OE offers minimal pairs working on the opposition of the zero inflectional suffix and some other inflectional suffix:

[24] *bed-Ø* "praying, prayer; prayer"

[25] *bed-u* "petition, request"

The fact that OE inflectional suffixes, such as *-a*, *-e*, *-o*, *-u*; could have had a distinguishing role may be further supported by the following examples (derived from *bītan* "to bite" and *blīcan* "to shine; to glitter; to be radiant; to be exposed"):

[26] *bit-a*$_1$ "something that bites, biter; wild beast"

[27] *bit-e* "a bite, sting, wound; a cut of a weapon; grip of bonds; sores"

[28] *blǣc-e* "skin ailment, esp. one characterised by depigmentation or scales"

[29] *blǣc-o* "pallor, paleness"

However, the examples in which the suffix does not seem to play a significant role can also be found:

[30] *feoht-Ø* “fighting; a fight”

[31] *feoht-e* “fighting; a fight”

Pairs of this type (exx 30-31) do not have to be necessarily of a word-formational character. The lexeme may simply have more declensional paradigms. As Jan Čermák states,

> [*t*]*he Old English noun system was very rich in this type of morphological alternation, cf. e.g.* blōstm – blōstma *(‘blossom, flower’),* eolh – eolha *(‘elk’),* ford – forda *(‘ford’). The evidence suggests that semantic differentiation in such morphological pairs was highly peripheral.*[97]

This is supported also by the following tables resulting from our analyses:

PP	**Derivate**	**Verb**	**Class**
1st?; um	*beorc, byrce*	*beorcan*	3rd
3rd/4th; um	*drync, drynca*	*drincan*	3rd

Table no. 3: Nouns in Zero or Some Other Inflectional Suffix.

PP	**Derivate**	**Verb**	**Class**
3rd/4th	*bita*$_2$*, bite, bitu*	*bītan*	1st
3rd	*ge-bǣre, ge-bǣru*	*beran*	4th

Table no. 4: Nouns in More Inflectional Suffixes Other than Zero.

4.1.2.2. Nouns in *-a*

The results of our analysis of nouns in *-a* are as follows:

Verb	**Class**	**Derivate**	**PP**
bannan	7th	*bēna*	2nd/3rd
bēodan	2nd	*boda*	4th
beorgan	3rd	*byrga*	1st/4th?; um
beran	4th	*bora*	4th
bītan	1st	*bita*$_1$	3rd/4th
brēotan	2nd / 7th	*brytta*$^{\#}$	um
būgan	2nd	*boga*	4th
clēofan	2nd	*ge-clofa*	4th
crimman	3rd	*cruma*^{o}	3rd/4th
cuman	4th	*cuma*	1st/4th
drēopan	2nd	*dropa*	4th
		ge-dropa	4th
drincan	3rd	*ge-drynca*	3rd/4th; um
faran	6th	*ge-fara*	3rd/4th
		fēra	2nd/3rd; um

[97] Čermák, “The Case of Old English N-stem Masculine Derivatives” 78.

		ge-fēra	2nd/3rd; um
flēotan$_1$	2nd	*flota*	4th
		ge-flota	4th
fnesan	5th	*fnora*#	?

Table no. 5: Nouns in *-a*.

None of the nouns in *-a* may be clearly identified with the 1st PP on the basis of written evidence provived by the *DOE*. 8 formations are related to the 4th PP (47.06%; see Table no. 5: Nouns in *-a*); 4 to the 3rd/4th PP (23.53%); and 3 to the 2nd/3rd PP (17.65%).

The 4th PP is again prevailing. We have already seen the tendency for the 1st and the 4th PPs to be exploited most in nominal derivates in zero. The reoccurrence of this tendency only strengthens it.

The fact that many of the formations express human beings or animals is relevant because this semantic aspect is conveyed by the suffix, not by the PPs. Thus, we can see that the suffix overrides the meaning potentially connected with individual PPs in earlier stages of the language. The prevalent usage of the 1st and 4th PPs relates, rather than to semantics associated with particular PPs, to the unmarkedness of the two PPs, i.e. especially of the 1st PP, only then of the 4th, which is more marked than the 1st.

4.1.2.3. Nouns in *-e*

Our analyses have given the following table:

Verb	**Class**	**Derivate**	**PP**
acan	6th	*ece*	2nd/3rd
beran	4th	*byre*$_1$	1st?; um
		byre$_2$	1st?; um
		byre$_3$	1st?; um
		ge-byre	1st?; um
bindan	3rd	*binde*	1st
bītan	1st	*bite*	3rd/4th
		ge-bāte^{o}	2nd; um
blīcan	1st	*blice*	3rd/4th
		blāce^{o}	2nd; um
brecan	4th	*bryce*$_1$	1st?; um
		ge-bryce	1st?; um
brūcan	2nd	*brýce*$_2$	1st?; um
būgan	2nd	*byte*	3rd?; um
		ge-byge	3rd?; um

byrnan	3rd	*bryne*	1st
cēosan	2nd	*cyre*	3rd; um
cīnan	1st	*cíne*	1st
clēofan	2nd	*clofe*	4th
clīfan	1st	*clife*	3rd/4th
crāwan	7th	*crče*	1st/4th
cuman	4th	*cyme*	1st/4th; um
cwethan	5th	*cwide*	4th
		ge-cwide	4th
dragan	6th	*dræge*	1st/4th; um
drēosan	2nd	*dryre*	3rd; um
drepan	5th	*drepe*	1st
faran	6th	*fóre*	2nd/3rd
		ge-fēre$_1$	2nd/3rd; um
		ge-fēre$_2$	2nd/3rd; um
feohtan	3rd	*feohte*	1st
flēogan	2nd	*flēoge*	1st
		flyge	1st?; um
flēotan$_1$	2nd	*flēote*$_1$	1st
		flēote$_2$, *flýte*$_1$	1st?; um
flēotan$_2$	2nd	*flēote*$_3$, *flýte*$_2$, *flēte*	

Table no. 6: Nouns in *-e*.

Most of the formations could be identified with the 1st PP, the least marked PP: 7 (19.44%). 3 formations are related to the 4th PP (8.33%); 3 to the 3rd/4th PP (8.33%); 2 to the 3rd PP (5.56%); 4 to the 2nd/3rd PP (11.11%); 2 to the 2nd PP (5.56%).

The ablaut nouns clearly related to the PPs give 38.89% in total. The remaining 41.67% are not unambiguously identifiable. In this context of potential PP ambiguity (i.e. our inability to decide to which PP formations belong), it is not surprising that there seem to be no semantic patterns based on the choice of particular PPs combined not only with *-e*, but also with other suffixes. So far, we have seen that the PPs do not carry the semantic load of the word-formational patterns, which makes them somewhat vulnerable to typological changes.

4.1.2.4. Nouns in *-u*/*-o*

Derivate	**PP**	**Verb**	**Class**
bedu	4th	*biddan*	5th
clawu	?	*clāwan*	7th
clufu	2nd	*clēofan*	2nd
cwalu	?	*cwelan*	4th
faru	1st/4th	*faran*	6th

Table no. 7: Nouns in *-u*.

Der. #	Derivate	PP	Verb	Class
1^{o}	*blǣco*^{o}	2nd; um	*blīcan*	1st

Table no. 8: Nouns in *-o.*

As we can see, there are so few nouns in *-u*/*-o* that no detailed analysis is really possible. The only formations which we can clearly allot to PPs are two related to the 2nd PP (*clufu* "bulbil, clove" and *blǣco* "pallor, paleness") and one to the 4th (*bedu* "petition, request"). None of the formations can be positively associated only with the 1st PP.

No semantic tendencies are visible. This is probably due to the fact that *-u* (later becoming *-o*) comes from various historical sources

1) "The **ō**-declension contains feminine nouns only"[98] and is characterised by *-o*/*-u* in the nom sg (except for the *jō*-stems[99]), descending from PGmc *-ō*.
2) In *a*-declension, masculine *wa*-stems contain *-u*/*-o* in the nom and accusative sg, originating in vocalised */w/[100]. Neuter *wa*-stems contain *-u*/*-o* in the nom and acc sg and pl.
3) The feminine abstract nouns, "already in the prehistoric period of OE.[, were] remodelled on analogy with the […] *ō*-stems […] so that the nom. came to end in *-u*, later *-o* […]."
4) The *i*-declension displays "the influence of the […] neuter *a*-stems"[101] in the neuter nom and acc pl.
5) Both maculine and feminine *u*-stems use the suffix in the nom and acc sg.

So, the suffix is used in the declension of all genders, and in *Old English Grammar* by Wright & Wright we managed to find out that *cwalu* "murder; torment" and *faru* "state of movement; conduct; body of people; freight" are pure *ō*-stems. However, the DOE labels all the formations as feminine nouns pertaining to class 2, which, when compared with the evidence found in Wright & Wright, must stand for pure *ō*-stems.

If judged on the basis of the data we collected, the suffix is not extremely productive.

[98] Wright & Wright 186.
[99] See Wright & Wright 191 for further information.
[100] "[T]he w being final became vocalized to *-u* which remained after short vowels followed by a consonant, but with a preceding short vowel it combined to form a diphthong." Wright & Wright 185.
[101] Wright & Wright 198.

4.1.3. Formations in Inflectional Suffixes in ME

4.1.3.1. Oppositions

We have analysed the development of the formations in inflectional suffixes by tracing those connected with the verbs that seemed richest in them (i.e. those mentioned in chapter 3: *bāken* < OE *bacan, bannen* < OE *bannan, bēten* < OE *bēatan, bīten* < OE *bītan, faren* < OE *faran*). Since the inflectional suffixes survive as *-e* and/or zero, at least as the evidence provided by the *MEC* suggests, the number of oppositions is inevitably lower in ME. Moreover, the graphic occurrence of *-e* does not have to reflect /ə/, but phonetic zero.

The following table shows the nominal formations in zero or/and *-e*:

Verb	**Mening**	**Der #**	**Derivate**	**Mening**
bāken	to bake	1	*bach*	process/product of baking
		2	*bāke/n*	dish baked in pastry, pie
bannen	to summon by proclamation;	1	*ban* (*banne*)	proclamation;
	to curse; to ban; to outlaw			troop of warriors summoned
		2	*bēne*	regest, prayer; gift; extra service
bēten	to beat, flog; to punish; to strike	1	*bēte*$_2$	beating, whipping
		2	*bēte*$_3$	implement for beating flax
bīten	to pierce; to bite; to offend	1	*bite* (*bit*)	blow; biting/bite; sting; mouthful;
				metal mouthpiece of a bridle;
				a short distance
		2	*bot*	parasite infesting the skin
faren	to travel; to depart; to advance;	1	*fœrð*	faring, voyage
	to pass; to behave; to live, exist;	2	*fāre*$_1$	journey; travelling company;
	to happen;, to turn out; to appear;			road; proceeding, adventure;
	to carry			provision
		3	*fērd/e*$_2$	national army; battle;
				a company of people
		4	*fēre*$_1$ (also as *feir*)	companion; peer; spouse
		5	*fēre*$_2$	company; unison
		6	*feri/e*	charge for transporting; ferry-boat;
				place of transport
		7	*ford*	ford; path
		8	*fōre* (also as *fur/e, fuyr*)	journey; track; ditch; conduct;
				proceedings

Table no. 9: ME Nouns in zero and/or *-e*.

As the table suggests, we still find the opposition based on the vocalic alternation of the roots in ME:

[32] *bach-Ø*	"process/product of making"	:	*bāken* "to bake"
[33] *bāk-e*(*n*)	"dish baked in pastry, pie"		
[34] *ban/ne*	"proclamation; troop of warriors summoned by their lord;	:	*bannen* "to summon by proclamation; to curse; to ban; to outlaw"
[35] *bēn-e*	"request, prayer; gift, extra service		
[36] *bēt-e*$_2$	"beating, whipping"	:	*bēten* "to beat, flog; to punish; to strike"
[37] *bēte*$_3$	"implement for beating flax"		
[38] *bit/-e*	"blow; biting/bite; sting; mouthful; metal mouthpiece of a bridle; a short distance"	:	*bīten* "to pierce; to bite; to offend"

[39] *bot-Ø* "a parasite infesting the skin" (origin unknown to the authors of the thesis)

Exx 38-39 and 34-35 are differentiated only by the root vowel alternation. As we have already indicated, final *-e* may well not have been pronounced at all, which could strengthen, at least for some time, the vocalic alternations in that they were the only means of morphological opposition, except for ex 32, which survives with the phoneme /ʧ/ in Standard PDE, thus having the possible realisation with the affricate also in OE and ME. This means that in exx 32-33, the contrast may be based both on the vowel and on the consonant.

4.1.3.2. Formal Development of Formations in Inflectional Suffixes from OE to ME

As for the PPs, 7 of the examples (41.18 %) listed in the table above (Table no. 8: Nominal Derivates in zero and/or *-e*) may be identified either with the 1st or to the 4th PP. The rest, 10 examples (58.82 %), is allotted to other PPs. 8 examples out of the 10 belong either to the 2nd or to the 3rd PP. 1 belongs either to the 3rd or the 4th PP (*bit*) and the last one is disputable. As the *OED* states, the "[e]tymology [of PDE bot, bott "a parasitical worm or maggot" is]unknown: connexion with BITE is phonologically inadmissible."[102]

[102] *Oxford English Dictionary*, John Simpson, Mar. 2010, 29 Apr. 2010 <http://dictionary.oed.com/cgi/entry/50025564?query_type=word&queryword=bot&first=1&max_to_show=10&sort_type=alpha&result_place=1&search_id=kEJT-Lcuciu-7190&hilite=50025564>.

The situation may be summed up as follows: the opposition based on the root vowel still survives in ME, but the endings are not as important as in OE, as suggested by some derivates of *faren* (see exx 3, 4, 6, and 8 in the table above), *bīten* (ex 1), and *bannen* (ex 1)

We can see that ablaut nouns identifiable with other PPs than the 1st did not die as soon as one may think on the basis of the descriptions found in grammar books. However, there are no adjectives in any inflectional suffix in our five word-formational families. Furthermore, although the PPs are still exploited in ME, apart from the derivational family of the verb *faran*, the utilization of the PPs had slightly shrunk, especially in case of *bītan*.

This is observable also if we analyse the word-formational families as wholes, not only the formations in inflectional suffixes. Here, we present the reader only with two families. See Appendix 7: ME Derivates for the other families. Notice that most of the formations belong to the 1st/4th PP in case of *bāken* and to the 1st PP in case of *bīten*.

bāken	to bake	1	*bach*	process/product of baking
		2	*bacher*	baker
		3	*bākere*	baker, member of the b. craft
		4	*bāke/n*	dish baked in pastry, pie
		5	*bāking*	action/procces/product of baking

Table no. 10: the *bāken* family.

bīten	to pierce; to bite; to offend	1	*baiten*	to bait; to fatten; to graze;
				to put a beast to graze;
				to stop to feed one's horses, etc.
		2	*bītāble*	? fit to be crushed with the teeth,
				? edible
		3	*bite* (*bit*)	blow; biting/bite; sting; mouthful;
				metal mouthpiece of a bridle;
				a short distance
		4	*bited* (ppl.)	having two bits or cutting edges
		5	*bitel*	sharp-edged, cruel
		6	*bīter*	slanderer
		7	*bitil*	bug, beetle, insects, vermin
		8	*bīting*	sharp, cruel
		9	*bītinge*	act of biting
		10	*bītinglī*	shuply
		11	*bot*	parasite infesting the skin

Table no. 11: the *bīten* family.

4.1.3.3. Semantic Development of Formations in Inflectional Suffixes from OE to ME

Semantically, we can observe three general paths the OE formations took in their development.

4.1.3.3.1. First, there are those the meaning of which did not change much. Thus, ME *bach* means much the same that OE *ge-bæc* meant: "process and product of baking".

4.1.3.3.2. Second, some of the OE ablaut nouns in inflectional suffixes were lost. This is the case of OE *bēna* "petitioner" and of the following formations:

[40] *fōr*$_1$ "action of going, state of movement, motion; journey, trip, voyage; armed foray, march of an army; the approach, access; path, course; vehicle"

[41] *faru* "action of going, state of movement, passing, journey, voyage; action, conduct; body of people; freight"

[42] *fær* "action of going, state of motion, passing, journey; path, road, thoroughfare; vessel; action, course of conduct; body of people, company"

[43] *ge-fær* "departure; journey"

[44] *fǣr* "action of going, state of motion, passing; path, road, thoroughfare; vessel; action, conduct; body of people, company"

Exx 41-44, unlike *fōr*$_1$ (ex 40), are related to the 1st/4th PP. The ME expression in which the meanings are found to a relatively large extent is *fāre*$_1$ "journey; travelling company; road; proceeding, adventure; provision". It is difficult to decide from which OE expression the ME word had descended for two reasons:

1) *OE /æ/ had apparently lowered to /a/ in all dialects by the end of ME. However, its development is somewhat obscured by the fact that the graphic symbol <æ> was abandoned early in ME; to what extent the grapheme <a> represented both /æ/ and /a/ is uncertain.*[103]

2) *OE monosyllabic nouns and adjectives containing an* ***æ*** *(****a****),* ***e****, or* ***o*** *in the stem-syllable gave rise to double forms in ME. according as the vowel of the inflected forms was levelled out into the uninflected forms or as the vowel of the uninflected forms was levelled out into the inflected forms. Examples of such double forms are: -* ***bāre*** *beside* ***bar*** *(OE.* ***bær****, gen.* ***bares****)* […].[104]

[103] C. M. Millward, *A Biography of the English Language*, 2nd ed. (UK: Wadsworth Publishing Company, 1996) 152.
[104] Wright & Wright, *Middle English* 52.

The *MEC* solves the situation by stating that the ME form comes from both OE *faru* and *fær*. This would support the fact that exx 41-42 do not follow the second choice in their development, but the first one.

A combination of both developmental paths is visible in the history of the following OE formations:

[45] *bann*	"command, summons"
[46] *ge-bann*, *ge-benn*	"edict, decree, proclamation; indiction",
[47] *bēn*	"prayer, petition, supplication; ? audience; the Litany; compulsory service held by a tenant to his lord"
[48] *ge-bēn*	"prayer, petition, supplication"

Exx 45-46 survive as ME *ban* (*banne*) "proclamation; troop of warriors summoned", exx 47-48 as ME *bēne* "request, prayer; gift; extra service". A certain loss, however, is observable here: the prefix *ge-* is lost. The meaning "proclamation" is preserved in the prefixless form. As for exx 47-48, there is a semantic difference between OE *bēn*-formations and ME *bēne*, but it seems to be only a semantic change, not imposing old meanings on the surviving formations. ME *bēne*, however, is not attested with the animate, human meaning of OE *bēna*: "petitioner".

4.1.3.3.3. This gets us to the third path, consisting in the formal clash of more formations, which leads to accumulation of meanings in the "new" forms. The *bīten* family is used to demonstrate this tendency:

[49] *bite* (*bit*)	"blow; biting/bite; sting; mouthful; metal mouthpiece of a bridle; a short distance"
[50] *bot*	"parasite infesting the skin"

OE *ge-bǣte*^{o} "harness of a horse, bridle and saddle", which does not survive in ME. However, its meaning had been, at least partially, transferred to ME *bite* (*bit*) "metal mouthpiece of a bridle".

The meanings of OE *bite* and *ge-bitt* are also semantically well preserved in ME *bite* "blow; biting/bite; sting". OE *bita*$_2$, *bite*, *bitu* "bit, morsel" seems to survive in one of the meanings of ME *bite*, too: "mouthful". Finally, ME *bite* gains an entirely new meaning, "a short distance".

OE *bita*$_1$ “something that bites, biter; wild beast” (even a horse or a man in a runic inscription) is not attested as being preserved in ME *bite*. However, we can find ME *bot* “parasite infesting the skin”, which is not etymologically commented upon in the *MEC*. As the *OED* states, to use the quote once more, the “[e]tymology [of PDE bot, bott “a parasitical worm or maggot” is]unknown: connexion with BITE is phonologically inadmissible.”[105] Whatever the origin, the formation absorbs one of the OE meanings.

[105] *Oxford English Dictionary*, John Simpson, Mar. 2010, 29 Apr. 2010 <http://dictionary.oed.com/cgi/entry/50025564?query_type=word&queryword=bot&first=1&max_to_show=10&sort_type=alpha&result_place=1&search_id=kEJT-Lcuciu-7190&hilite=50025564>.

4.2. Formations in Purely Derivational Suffixes[106]

4.2.1.1. OE Formations in Dental Suffixes

Interestingly enough, dental suffix *-d* may be associated only with the 1st and 4th PPs. See Tables 11-13 below, in which the nouns in *-d*, *-d-e*, and *-d-u*; and adjectives in *-d-e* strongly suggest this tendency. Formations in *-þ* and *-t* are related to all four PPs (see also below).

PP	Derivate	Verb	Class
?	*gy-byhth*	*būan, būgan, būgian*	7th
1st	*brecth*	*brecan*	4th
4th	*broth*	*brēowan*	2nd

Table no. 12: Nouns in *-th.*

PP	Derivate	Verb	Class
2nd; um	*blǣctha*o	*blīcan*	1st
3rd/4th	*clitha*	*clīfan*	1st
1st	*ge-drīhtha*	*drēogan*	2nd

Table no. 13: Nouns in *-th-a.*

PP	Derivate	Verb	Class
?	*clawetha*	*clāwan*	7th
4th	*flogotha*	*flēogan*	2nd

Table no. 14: Nouns in *-e*/*-o-th-a.*

PP	Derivate	Verb	Class
3rd/4th	*clithe*	*clīfan*	1st

Table no. 15: Noun in *-th-e*.

PP	Derivate	Verb	Class
1st?; um	*brythen, bryth*	*brēowan*	2nd

Table no. 16: Nouns in *-th* / *-th-en.*

PP	Derivate	Verb	Class
4th	*drohtoth, drohtnoth*	*drēogan*	2nd

Table no. 17: Noun in *-t-oth*/*-t-n-oth.*

[106] "[T]he affixes *-d* / *-t*/ *-þ* continue a sufix family, historically based on *-t-*, which derives various types of deverbal nouns […]." Kastovsky, "Semantics and Vocabulary" 384.

PP	Derivate	Verb	Class
?	*byht*$_2$	*būan, būgan, būgian*	7th
3rd; um	*byht*$_1$	*būgan*	2nd
1st?; um	*cyst*	*cēosan*	2nd
4th	*droht*	*drēogan*	2nd
2nd/3rd	*drōht*	*dragan*	6th
1st/3rd?; um	*flyht*	*flēogan*	2nd
2nd	*fnæst*	*fnesan*	5th
4th	*forst*	*frēosan*	2nd
3rd; um	*ge-fyrst*		

Table no. 18: Nouns in *-t.*

PP	Derivate	Verb	Class
1st?; um	*ge-clyft*	*clēofan*	2nd

Table no. 19: Adjectives in *-t.*

PP	Derivate	Verb	Class
4th; um	*ge-byhte*	*būgan*	2nd
3rd/4th	*clite*	*clīfan*	1st
2nd	*clāte*		

Table no. 20: Nouns in *-te.*

PP	Derivate	Verb	Class
1st?; um	*byrd*$_1$	*beran*	4th
1st?; um	*byrd*$_2$		
1st; um	*ge-byrd*		
1st/4th; um	*blǣd*	*blāwan*	7th
1st/4th?; um	*blēd, blǣd*	*blōwan*	7th
1st/4th?; um	*cwyld*	*cwelan*	4th
?	*fyrd*	*faran*	6th
1st/4th	*flōd*	*flōwan*	7th

Table no. 21: Nouns in *-d.*

PP	Derivate	Verb	Class
1st/4th	*flōde*	*flōwan*	7th

Table no. 22: Noun in *-d-e.*

PP	Derivate	Verb	Class
1st?; um	*byrde*	*beran*	4th
1st?; um	*ge-byrde*		
1st/4th	*flōde*	*flōwan*	7th
1st/4th; um	*flēde*		

Table no. 23: Adjectives in *-d-e.*

PP	Derivate	Verb	Class
1st?; um	*ge-byrdu*	*beran*	4th

Table no. 24: Noun in *-d-u.*

However, the tendency is merely formal, for the formations in question are semantically heterogeneous as far as semantic features such as the agent or the locus are considered: *ge-byrdu* "nature, quality; lineage, birth"; offspring"; $byrd_1$ "birth, lineage, descent"; $byrd_2$ "burden"; *gebyrd* "birth; fate, destiny; nature, natural quality"; *blǣd* "blowing; fire, flame; glory, prosperity"; *blēd*, *blǣd* "fruit; crops, harvest; blossom, leaf, foliage, twig, shoot, grass"; *cwyld* "pestilence, disease; destruction, slaughter"; *fyrd* "military service; campaign; troops, army; vast assemblage"; etc.

However, both formal and semantic regularity is supported by what Kastovsky states: "It would seem that *-d* […] was no longer productive in OE, because there are no derivates from weak verbs […], but the derivates are fairly transparent and semantically regular."[107] Yet, what exactly is meant by "semantically regular" is not entirely clear.

As for other formal regularities, Kastovsky writes that

> [*a*]*s to the treatment of* -d, -t*(*a, e*)*, -þ*, and* -oþa *as independent suffixes, it should be noted that a fairly systematic complementary distribution seems to obtain,* -d *occurring after roots ending in a glide, liquid, or nasal,* -t *after roots ending in a fricative,* -þ *after roots ending in a stop* […].[108]

Of course, as Kastovsky further claims, there are exceptions; but on the whole, it seems the suffixes conform to a formally complementary distribution, which may function as a support of the tendency related to the root vowels. On the other hand, the tendency Kastovsky discusses is observable without exceptions only in our formations in *-d* and *-t*. Thus, although the suffix follows the formally distributional pattern quoted above, so does the suffix *-t*. The formations in *-t* do not show any regularities concerning the option of the PPs. This, then, excludes the formal tendency stated by Kastovsky as a potential support and explanation of the occurrence of the suffix *-d* with the 1st/4th PP.

The only conclusion we can make on the basis of the stated facts is that the suffix-*d* is very regularly combined with the 1st/4th PP. It is likely that more derivates in *-d* should be examined,

[107] Kastovsky, "Semantics and Vocabulary" 359.
[108] Kastovsky, "Semantics and Vocabulary" 359-360.

since Kastovsky analysed more formations than we have, and, hence, our examples probably do not reflect the semantic tendency he sees in the dental formations. What tendency this should be, though, is not clear to us.

4.2.1.2. ME Formations in Dental Suffixes

Unfortunately, the orthographic problem of the *MEC* has considerably complicated the tracing of the survivals of OE formations in dental suffixes (only dental suffixes without the potential following *-e* have been looked for because of the time reasons; moreover, the inflectional suffix may be expected to be gone in ME).

4.2.1.2.1. We have managed to find out that the prefixed formations had been lost. This may have resulted in polysemy, which we could see above in connection with inflectional suffixes.

This tendency may be demonstrated as follows: it seems that both meanings of *forst* "frost, extreme cold; hoarfrost" and *ge-fyrst* "(season or period of) frost" appear in ME *frost* "freezing weather; sleet", but *ge-fyrst* is attested only once in OE. This low number of occurrences complicates our analyses; however, one of the ME spellings of the entry *frost* is *frist*, which might support both formal and semantic merging of the two OE nouns. Why this is so lies in the fact that /y/ in *ge-fyrst* must have been unrounded in ME, thus giving /i/ eventually in all dialects. On the other hand, we may be misled by a deficiency of the *MEC* seeing two potential formations, i.e. *frost* and *frist*, as one.

4.2.1.2.2. Blocking, another word-formational phenomenon, can be demonstrated on the history of OE *ge-byhþ* and *byht*$_2$, both meaning "dwelling, abode". OE *byht*$_1$ "bend, corner, angle; bay, bight" and *ge-byhte* "bend, corner, angle" apparently blocked them, since in ME we find only one: *bight*, with the senses of "the fork (of the legs), the hollow or pit (of the arm); bend, bay (in names)".

4.2.1.2.3. Similarly to the developmental tendencies of nouns in inflectional suffixes, many of the other formations we have managed to trace seem to be formally and semantically more or less undisturbed continuations of their OE ancestors: *blōd* "blood; bloody" (n; adj), *blēd* "vegetation; progeny", *clift* "crack; crotch of a body; splinter; a cliff", *draught* "pulling; a pull; drawbridge, etc.", *flight* "fleeing, flight, escape", and *fnast* "breath, breathing; the fiery breath of a dragon".

To conclude this section, we can state that the prefix *ge-* had disappeared in the formations we analysed, possibly leading to polysemy. However, blocking may function as a counterpart to this tendency. On the whole, many of the OE formations seem to survive undisturbed.

4.2.2.1. OE Nouns in *-scipe*[109]

The collected examples give three formal patterns with *-scipe*:

a)

[51]	*bod-scipe*	"message, command"	~ *bēodan*	2nd
[52]	*ge-bod-scipe*	"command"		
[53]	*burh-scipe*	"town, township; citizenship"	~ *beorgan*	3rd
[54]	*ge-burh-scipe*	"town, township"		
[55]	*fēr-scipe*	"community; fellowship"	~ *faran*	6th
[56]	*ge-fēr-scipe*	"fellowship; company, community"		

b)

[57]	*byr-d-scipe*	"pregnancy, child-bearing"	~ *beran*	4th

c)

[58]	*cor-en-scipe*	"election (to salvation)"	~ *cēosan*	2nd
[59]	*ge-cor-en-scipe*	"election (to salvation); perfection"		
[60]	*drunc-en-scipe*	"drunkenness"	~ *drincan*	3rd

Groups b) and c) differ from a) in that the suffix is added to another formative; namely, to *-d* and *-en*. The prefixed formations do not differ in their meanings dramatically from the prefixless ones, and so any meaningful morphological oppositions cannot be discussed.

As for the PPs, exx 51-52 are related to the 4th PP. This applies also to exx 58-59, where this is supported also by the formative *-en*, which is used in past participles (thus in combination with the 4th PP). Owing to this formative, we may say that exx 60 does not relate to the 3rd but to the 4th PP as well (3rd and 4th PPs are identical in case of *drincan* "to drink"). Exx 53-54 may be allotted to the 2nd PP. Exx 55-56 are not so straightforward, giving the possibility of the 2nd/3rd PP with umlaut. The only formation that might be identified with the 1st PP is ex 57, containing an old dental suffix confirming the non-deverbal process of derivation: *byrd* must have been derived from the verb, but this cannot be said of *byr-d-scipe*. 50% of the examples (5

[109] See our note on *-scipe* above (2.2.3.2. Purely Derivational Suffixes).

examples) are related to the 4th PP. Of these 5 examples, 3 contain the formative *-en*, conditioning the choice of the PP. Surprisingly, the 1st PP is represented only by 1 example (10%). The PPs other than the 1st are prevailing. We shall see below whether this is the case also in ME.

Semantically, there appear to be no tendencies apart from those conditioned by the suffix: most of the meanings are abstract, denoting an action or a state. This, again, could make the formations with the PPs other than the 1st PP susceptible to the typological development of the language.

4.2.2.2. ME Nouns in *-scipe*

The *DOE* does not contain any non-native bases combined with *-scipe*. Analysing the entries given by the *MEC*, we can find many hybrids of the sort.[110] This only supports the fact that the suffix had increased in the productivity.

The *MEC* provides us with the following formations pertaining to the word-formational families we traced in the *DOE*:

[61] *bōnde-ship* "bondage, servitude; customary service"
~ OE *bindan* 3rd > ME *bīnden* 3rd

[62] *borwe-ship* "suretyship"
~ OE *beorgan* 3rd > ME *berwen* 3rd

[63] *drŏnke-shipe* "the state of being drunk; vice of indulging in heavy drinking; a drunken company"
~ OE *drincan* 3rd > ME *drinken* 3rd

[64] *Fership* a proper name
~ OE *faran* 6th > ME *fāren* 6th

None of the examples are exactly related to the 1st PP: Ex 64, the root being connected with the 2nd/3rd PP and undergoing umlaut, is the 1st PP of *feren*, which is in competition with *fāren*. Moreover, the vowel has shortened and the noun is a proper name.

[110] We may name a few specimens: *capitainship*, *cardinalship*, *chaumberleinship*, *cŏnstableship*, *coronership/e*, *debonairshipe*, and *excellentship*.

Only ex 63 survives from OE. *Drŏnke-shipe* is attested also with the root realised as *dronk-***,** *drunk*/*e-***,** *dronc-*, and *drunc-*; and with the *-en-* formative *dronken-*, *drounken-*, and *drinkenchipe*. If these formations do not differ semantically, which is hard to confirm without a detailed corpus-based analysis, then the last realisation, *drinkenschipe*, confirms the hypothesis that the language will gradually prefer the 1st, unmarked, PP. The other spellings may be related to all the other PPs. Again, more detailed analyses would be needed to enable us to decide on the phonetic realisations.

Exx 61-62 may be associated with the 4th PP. Wright & Wright mention only the 1st and 4th PPs of *berwen* (ex 62) as appearing with /w/. The long vowel of ex 61 appears only in the 3rd and 4th PPs, which are formally identical. So, neither of the examples excludes the choice of 4th PP, the 1st makes it very likely.

Semantically, the words may be connected only by the meaning of the suffix. The only thing we can state as regards formations in *-scipe* in question is that they are fewer in ME, forming only 40% of the OE derivates, 10% of which is represented by a proper noun. On the other hand, only one of these is a continuation of the OE formation. However, on the whole, the tendency for the usage of the PPs to be reduced mainly to the 4th and the 1st PPs is suggested by our examples.

4.2.3.1. OE Nouns in *-hād*[111]

There is only one OE formation derived by *-hād* among our formations:

[65] *drunc-en-hēd* "drunkenness" ~ *drincan* 3rd

Wright & Wright claim that the suffix derives masculine abstract nouns from nouns and adjectives,[112] but we can see the adjective is actually a past participle (owing to the *-en-* formative), meaning it is connected with the 4th PP, i.e. the least marked PP after the 1st PP. On the basis of the data we have collected, we can say *-hād* is not very productive. As with the formations in *-scipe*, it may be expected that the number of the formations will diminish.

[111] As we noted earlier, Kastovsky claims that the status of the formative is not quite clear. Wright & Wright describe it formally, but the formations most often denote a state.
[112] Wright & Wright 298.

4.2.3.2. ME Nouns in *-hād*

However, the *MEC* offers more formations, which are described there as derived from nouns, adjectives, and past participles, if commented upon:

[66]	*bōnde-hēde*	"bondage, servitude"	ME *bīnden*	3rd
[67]	*drŏnk-en-hēde*	"the state of being drunk; the habit or vice of indulging in heavy drinking"	ME *drinken*	3rd
[68]	*borwe-hōd*	"suretyship; redemption"	ME *berwen*	3rd

The *-en-* formative suggests that ex 67 is connected with the 4th PP. About ex 66, the *MEC* states that there was an occurrence *bunde-hede*, "influenced by the past participle *bŏnde*(*n*)"[113]. Ex 67 had variants *dronke-*, *drunk-en-*, and early *drunk-en*, suggesting the 4th PP, formally same with the 3rd PP.

The possible spellings of ex 68 suggest the oscillation in the association with the 3rd and the 4th PP and allomorphy as well as analogy caused by phonological changes: *borwe-hēd*, also *borg-*, *boru-*, *borow-*.

Both the number of formations related to strong verbs and the fact that the suffix is also found with Romance loanwords[114] proves the productivity of the suffix had increased.

Generally, the derivates tend to be associated again with the 4th PP. Although our ME formations are more numerous than the OE ones, it is noteworthy that they come from the very same families as the ME formations derived by *-scipe* and, furthermore, that all of them have roots identical to those of ME formations in *-scipe*. So, the productivity of the suffix *-hād* had increased indeed; moreover, it is connected with other than 1st PP, but this all may be caused by the fact that the formations belong to word-formational families which are strong, i.e. represented by many formations and often used by the speakers.

[113] *The Middle English Compendium*, Feb. 2006, 16 Apr. 2010 <http://quod.lib.umich.edu/cgi/m/mec/med-idx?size=First+100&type=headword&q1=binden&rgxp=constrained>.
[114] *Costumhēde*, *doublehēde*, *felhēde*, to name a few.

4.2.4.1. OE Adjectives in *-full*[115]

Only three examples in *-full* have been found for OE families:

[69]	*byrst-full*	"disastrous, calamitous"	~ *berstan*	3rd
[70]	*flit-full*	"contentious; dialectical"	~ *flītan*	1st
[71]	*ge-flit-full*	"contentious"[116]	~ *flītan*	1st

Ex 69 relates to the 1st PP of *berstan* "to break apart; to burst; to fail" and the remaining two to either 3rd or 4th PP of *flītan* "to contend". Thus, it may be expected that the 1st and 4th PPs will be preferred in ME, too.

4.2.4.2. ME Adjectives in *-full*

Among the ME formations found in the *MEC*, only one, that pertaining to the 1st PP, proves to be a continuation from OE:

[72]	*byrst-ful*	"calamitous, disastrous"	~ *bresten*	3rd

The remaining ME formations are the following:

[73]	*āke-ful*	"painful"	~ OE *ācan*, ME *āken*
[74]	*bēde-ful*	"prayerful, suppliant"	~ OE *bēodan*, ME *bēden*[117]
[75]	*drēde-ful*[118]	"timorous; worried; devout"	~ OE *drǣdan*, ME *drēden*
[76]	*derf-ful*	"terrifying", also as a surname	~ OE *deorfan*, ME *derfen*

The only opposition meaningful for our analysis is the pronunciation of the 1st <f> in *derfful*: is it pronounced as /f/ or could it also be realised as /v/, the sound appearing in the 1st PP in ME? The latter does not seem likely. Analogy levelling OE allomorphy must have affected even /v/, a phoneme newly arising in ME.

All the examples may be identified with the 1st PP, which means that here agglutination had won over introflection. The fact that the ME meaning of *byrstful* is identical to the OE one also supports the prevalence of agglutination.

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[115] "The suffix *-full* derives adjectives from nouns, adjectives and occasionally, verbs with the meaning 'having'." Kastovsky, "Semantics and Vocabulary" 390.
[116] The formation is, according to the *DOE*, also used as a noun. Thus, it presents a nice example of conversion.
[117] The *MEC* refers us to OE *biddan*. However, we believe that formally the long vowel may be explained by cognation with OE *bēodan*.
[118] Also *dredful*, *dredvol*, and *dreful*, as the *MEC* states. The word is used as a noun meaning "a timid person or animal" as well.

4.2.5.1. OE Adjectives in *-lic*[119]

In the collected materials, there were 28 OE derivates in *-lic* which could be more or less directly related to the PPs:

PP	Derivates	Verb	Class
2nd/3rd	*bēnlic*[o]	*bannan*	7th
1st	*ge-beorglic*	*beorgan*	3rd
4th	*broclic*	*brecan*	4th
1st/4th	*drǣdlic*	*drǣdan*	7th
2nd; um	*drōflic*[#]	*drīfan*	1st
?	*drēorlic*	*drēosan*	2nd
3rd; um	*ǣtlic, ētlic*	*etan*	5th
2nd/3rd; um	*ge-fērlic*	*faran*	6th
1st	*ge-fēalic*	*fēon, fēagan*	5th
4th	*flot-lic*	*flēotan*$_1$	2nd
4th	*forstlic*	*frēosan*	2nd

Table no. 25: Adjectives in *-lic.*

PP	Derivates	Verb	Class
3rd/4th	*ge-flit-fullic*	*flītan*	1st

Table no. 26: Adjectives in *-full-ic.*

PP	Derivates	Verb	Class
4th	*brocenlic*	*brecan*	4th
4th	*ge-corenlic*	*cēosan*	2nd
4th	*ge-drorenlic*	*drēosan*	2nd

Table no. 27: Adjectives in *-en-lic.*

PP	Derivates	Verb	Class
1st?; um	*ge-byredlic*	*beran*	4th
2nd; um	*ge-drēfedlic*[#]	*drīfan*	1st

Table no. 28: Adjectives in *-ed-lic.*

PP	Derivates	Verb	Class
?	*drēoriglic*	*drēosan*	2nd

Table no. 29: Adjective in *-ig-lic.*

[119] "The suffix *-lic* derives denominal, deadjectival and deverbal adjectives with the meanings 'being, characterized by, having' […]." Kastovsky, "Semantics and Vocabulary" 390.

PP	Derivates	Verb	Class
?	*fyrdlic*[#]	*faran*	6th
1st/4th	*flōdlic*	*flōwan*	7th

Table no. 30: Adjectives in *-d-lic.*

PP	Derivates	Verb	Class
4th	*bodiendlic*[#]	*bēodan*	2nd
1st	*blōwendlic*	*blōwan*	7th
?	*bīgendlic*[#]	*būgan*	2nd
?	*ge-bīgendlic*[#]		
1st	*ge-cēosendlic*	*cēosan*	2nd
1st	*cumendlic*	*cuman*	4th
1st	*drēosendlic*	*drēosan*	2nd
1st	*farendlic*	*faran*	6th
1st	*feallendlic*	*feallan*	7th
1st	*flēogendlic*	*flēogan*	2nd
1st	*flōwendlic*	*flōwan*	7th

Table no. 31: Adjectives in *-end-lic, -i-end-lic*.

Table no. 30: Adjectives in *-end-lic, -i-end-lic* contains 8 (28.57%) of the 28 examples, always reflecting the 1st PP owing to the *-end-* formative.

The remaining derivates show all the PPs; however, it is the 4th PP that is related to the overwhelming majority of 6 formations among the 2nd, 3rd, and 4th PPs (21.43% out of the 28 pieces). 4 examples (14.29%) are related to the 1st/4th PP. The 1st and 4th PPs are thus prevalent already in OE.

There are no oppositions meaningful for the theme of this thesis.

4.2.5.2. ME Adjectives in *-lic*

Only two ME derivates in *-lic* belonging to the same derivational families that had formations in *-lic* in OE were found in the *MEC*:

OE *brecan* "to break" 4th

[77] *broc-lic* "full of miseries, miserable"

[78] *broc-en-lic* "fragile"

ME *brēken* "to break" 4th

[79] *broc-en-lic* "easily broken or destroyed, fragile"

	OE *drēosan* “to decline, perish”		2nd
[80]	*drēos-end-lic*	“perishable, transitory”	
[81]	*drēor-lic*	“bloody, savage, cruel”	
[82]	*ge-dror-en-lic*	“perishable, mortal”	
	ME *drēsen*, also *drosen* “to fall down, perish”		2nd
[83]	*drōs-end-līc*	“perishable”	

The *drēosan* family reveals an interesting piece of information on the oppositions: neither of the OE formations derived from the 4th PP containing /r/ instead of /s/, or rather [z], appearing in the 1st PP had survived to ME. The variability of consonantal alternations characteristic of *drēosan* and other verbs that had undergone the Verner’s law and then rhotacism does not survive in the above-mentioned formations. The *drēosan* family thus serves as a sample showing the gradual decline of the variability of morphological oppositions based on the roots. In addition, we may speculate on the pronunciation of <c> in ME *brocenlic*, i.e. whether it was realised as a velar plosive or as an affricate. If the first alternative was true, the derivate would follow suit in that the morphological oppositions would be simplified. Like ex 83, *brocenlic* is related to the 4th PP, possibly again due to the *-en-* formative.

Ex 81 is a hard nut to crack, since the /r/ signifies it must be related either to the 3rd or to the 4th PP. However, the long diphthong cannot be easily traced to any of the PPs. In this example, the stem allomorphy seems to endure, although – and maybe because of that – the derivational pattern must have been obscured as it cannot be easily allotted.

We could see that the number of formations in *-lic* is much lower in ME. The morphological oppositions in the root are also slightly less diverse in ME. Moreover, the ME formations may be identified with the 4th PP.

5. Conclusion

As stated in chapter 1, Preface, all our hypotheses have been proved or at least strengthened.

First, we claimed that the purely derivational, agglutinative, suffixes were expected to replace those of inflectional nature. Since we have not focused on the word-formational families as wholes, we could not compare their state in Old and Middle English and thus say to what extent the OE formations ending in inflectional suffixes came to be replaced by purely derivational, agglutinative, formations in ME. However, our analysis has supported the hypothesis by the results stated in the following paragraphs:

i) The collected data have shown that OE inflectional suffixes, *-a*, *-e*, *-o*/*-u*, and zero, were reduced either to /ə/ or to zero in the early stages of ME, which means that purely derivational, agglutinative, suffixes offered themselves as a solution to the formal clash of derivates that had been distinguished in OE by the inflectional endings.

ii) Moreover, none of the OE ablaut adjectives in inflectional suffixes survives in ME.

iii) Also, as the formations in *-full* related to the strong verbs are more numerous in ME than in OE and as all of them may be identified with the root used in the present tense and in the infinitive, i.e. with the unmarked root (1st PP), the hypothesis has thus been at least strengthened, if not to a certain extent proved.

iv) Formations in purely derivational, agglutinative, suffixes have generally shown an increase in their number in ME.

Second, above in this chapter we have already touched upon the realisations of the roots, the PPs, of the analysed formations and their development. In 2.3. Hypotheses, we stated that the preference for the 1st, or the 4th, PP was expected.

It is noteworthy that ablaut nouns identifiable with other PPs than the 1st did not die as soon as one may think on the basis of the descriptions found in books on the history of English.

However, it has proved that the PP that is most widely exploited by the ME formations, other than the 1st, is the 4th PP, used in forming past participles.

OE ablaut nouns in zero and *-e* are most often associated with the 1st PP. The other choice of the first group of the nouns is the 4th PP. Nouns in *-a* have shown a high degree of preference to the 4th PP. The formations in inflectional suffixes thus show the tendency relating to the development of the PPs.

OE formations in *-d* are identifiable only with the 1st and/or the 4th PP(s). Similarly, the OE formation in *-hād* is connected with the 4th PP. The ME derivates in *-hād* display various PPs; however, this may be explained by the fact that the word-formational families in question are strong, i.e. rich in associated formations and frequently used by the speakers. A half of the OE nouns ending in *-scipe* reflects the 4th PP. In ME, the suffix occurs most often with the 1st or the 4th PP. The adjectives in *-lic* share this tendency, being combined most often with the 1st and the 4th PPs. The adjectives in *-full* have been commented upon above. The formations in purely derivational, agglutinative, suffixes also show the tendency.

Thus, our hypothesis consisting in that the 1st and the 4th PPs will be preferred more and more by the language has been proved in formations ending in both inflectional and purely derivational, agglutinative, suffixes.

Third, the morphological oppositions based on vocalic and consonantal alternations in the roots and on inflectional suffixes indeed diminished in ME. In addition, the prefix *ge-*, contributing to the variety of the oppositions, does not appear in ME formations at all.

OE nouns in inflectional suffixes could contrast on the basis of all the morphological oppositions stated in the preceding paragraph. Yet, the opposition is sometimes merely formal and does not reflect any apparent semantic differentiation.

Adjectival derivates in inflectional suffixes have proved to be too scarce, which makes an analysis of the morphological oppositions impossible. Moreover, none of the formations survived in ME.

The opposition based on the root vowel still survives in ME; yet, in a lesser scale. The opposition based on the inflectional suffixes is logically far less exploited, since the repertoire of the suffixes is much reduced. In the later stages of ME, the inflectional suffixes are gone altogether.

The fourth hypothesis dealing with the semantic development of ablaut formations is closely connected with the second hypothesis focusing on the history of the realisations of the roots (PPs). Since the stem variability on which certain meanings depended decreased in ME, the meanings must have been re-correlated with other forms. We believe there are three possible solutions:

The first possible solution, that of purely derivational, agglutinative, suffixes taking over the role of the inflectional suffixes, has been commented upon above.

Our analysis has not focused on the second solution, the potential transfer of some of the meanings to expressions newly borrowed from other languages, especially from French.

The last, third, solution we mentioned in our hypotheses was polysemy, i.e. fewer forms being loaded with more meanings than there were before the losses in OE forms: CVC “meaning A” > CVC “meaning A”; *ge*-CVC “meaning B” > CVC “meaning B” → CVC “meaning A & meaning B”. This has proved to be the case both for the opposition based on the prefix *ge-* and for the opposition based on the root vowels, i.e. on ablaut itself. Thus, we find *ge-bǣte* “harness of a horse, bridle and saddle” in OE, and *bite* (*bit*) “blow; biting/bite; sting; mouthful; metal mouthpiece of a bridle; a short distance” in ME.

The results of our analysis have also answered the question consisting in whether or not there are any semantic tendencies in the combinations of the individual realizations of the roots and various suffixes: there are none. This proves that word-formation by ablaut was no longer predictable already in OE, for there was neither semantic, and as we have seen above, nor formal, clue connecting the vocalic alternations with the meanings such as the locus, the agent; the animate, the inanimate, etc.

To conclude, the thesis serves as a basis for further research of word-formation by ablaut in the history of English. Derivates in other suffixes should be analysed and the results then

compared with those presented in this thesis in order to strengthen our hypotheses or supplement our results. As the appendices contain tables with derivates in the suffixes we did not analyse, further research is facilitated.

Since we have not focused on the comparison of the development of individual families, there is yet another option that would enable us to learn more about the history of ablaut in English word-formation. This alternative is very likely to strengthen the first tendency, i.e. the gradual prevalence of the purely derivational, agglutinative, suffixes over the inflectional ones.

This is connected with another potential area of research, concerning possible reasons for the disappearance of certain formations. These reasons were not analysed in our thesis, since this would have required comparing well-analysed whole word-formational families both in OE and in ME. In our analyses, we could see one instance of blocking in the area of homonymy, but a comparison of ME materials of native origin with those of non-native origin should also be done to complete the picture.

The present thesis, then, serves at least as a small cut in the loaf of ablaut formations in Old and Middle English, containing somewhat exhaustive tables of the OE formations belonging to the word-formational families based on strong verbs from the letter A to the letter F.

As Francis A. Wood claimed, *in spite of all that has been written on ablaut, the last word has not been said.*

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Czech Résumé

1. Úvod

V první kapitole bakalářské práce je vymezeno její téma, tedy tvoření slov ablautem vs. tvoření slov sufixací v diachronii, přičemž se diachronií míní období staroanglické a středoanglické. Jak kapitola podotýká, ablaut ve slovotvorbě historického vývoje angličtiny představuje oblast značně opomíjenou, což byl jeden z hlavních důvodů pro zvolení právě tohoto tématu práce. Úvod stručně seznamuje čtenáře s následujícími kapitolami utvářejícími její jádro.

2. Teoretická část

Kapitola druhá popisuje teoretické pozadí našeho výzkumu v typologických souvislostech, a to proto, že metodologický rámec byl založen na typologii Pražské školy.

První část kapitoly se zaměřuje na popis dosavadní práce, která byla v souvislosti se slovotvornou funkcí ablautu v historickém vývoji angličtiny pokryta. Jako vstupní východisko slouží práce Dietera Kastovského, který se, jak je nám známo na bázi dostupných zdrojů, touto tematikou zabýval nejdůkladněji. Součástí tohoto oddílu je také sumář gramatických přehledů týkajících se silných sloves, jež sloužila jako orientační body ve staroanglické a následně také středoanglické slovotvorbě, a to proto, že o nich lze bez pochyb prohlásit, že vykazují ablaut.

Druhou částí kapitoly je pak typologický popis různých druhů formantů: od neproduktivních „sufixů“ či sufixů flektivních až po sufixoidy. Sekce také řeší problematiku nulové realizace flektivních sufixů.

V třetí části se pak nalézají čtyři vstupní hypotézy této práce. Ty předpokládají ústup ablautu, tj. introflexe, jenž je spjatý s ústupem flektivních sufixů (koncovek), tj. flexe. K ústupu těchto dvou typů dochází v jazyce díky změnám v jeho fonologii: koncovky jsou obrušovány a jazyk přechází z typu syntetického na typ analytický. To vše je doprovázeno analogickým vyrovnáváním alternací vokálů v kořenech, tedy ablautových alternací.

Následně lze očekávat např. postupný nástup čistě derivačních sufixů (přípon), tj. aglutinace, které funkčně postupně nahradí jak ablaut, tak flektivní sufixy; popř. v období středoanglickém dojde důsledkem fonologických změn k formálnímu splynutí více staroanglických formací. To

potenciálně vyústí v polysémii přeživších forem, což může ustoupit sémanticky nezatěžující slovotvorbě čistě derivačními, aglutinačními sufixy.

3. Metodologická část

Třetí kapitola obsahuje dvě podkapitoly.

První se zabývá popisem zdroje, z něhož jsme čerpali formace pro samotnou analýzu staroanglického období (*The Dictionary of Old English: A-F*). Po stručném popisu slovníku následuje přehled základních problémů, s nimiž jsme se potýkali jak při sběru dat, tak při jejich analyzování, neboť problémy zdrojů nutně představují problémy samotného výzkumu. Dále jsou shrnuty metody třídění získaných formací a metody jejich analýzy.

Podkapitola druhá pak informuje o zdroji, který byl užit pro sběr dat z období středoanglického (*Middle English Compendium*). Stejně jako v předchozí sekci, i zde je pozornost věnována popisu zdroje a problémům, které jsou s ním spjaty. Oddíl je zakončen popisem metod užitých při excerpci dat a při jejich analýze.

4. Analýza

Čtvrtá kapitola představuje vlastní analýzu ablautových formací ve staré a střední angličtině. Její první podkapitola rozebírá formace utvořené sufixy flektivními, druhá pak sufixy čistě derivačními, aglutinačními.

Zvláštní pozornost je věnována morfologickým opozicím a jejich vývoji, což úzce souvisí s realizacemi kořenů formací, které vykazují různé ablautové stupně. Analýza se zaměřuje na využívání ablautových alternací ve staré a střední angličtině, na jejich kombinovatelnost s různými vybranými sufixy a dále na to, zda se pojí se sémantickými rysy jako agens, instrument; životnost, neživotnost. Vybranými čistě derivačními sufixy jsou sufixy dentální, dále substantivní sufixy *-scipe* a *-hād* a adjektivní sufixy *-full* a *-lic*.

Kapitola samozřejmě vychází ze vstupních hypotéz uvedených v kapitole druhé.

5. Závěr

V závěru jsou shrnuty výsledky našeho výzkumu, přičemž jsou porovnány se vstupními hypotézami. Následuje stručný výčet směrů, jimiž je třeba se ubírat k získání dalších poznatků v dané oblasti diachronní slovotvorby.

Bakalářská práce dále obsahuje bibliografii, seznam užitých zdrojů a přílohy ke kapitole metodologické a ke kapitole zabývající se analýzou.

Appendix to Methodology

Table no. 1: Prefixed Strong Verbs of the 1st – 5th Classes (A-F).

	1st	2nd	3rd	4th	5th
Total	103.5 (13.12%)	106 (13.43%)	165 (20.91%)	46 (5.83%)	85 (10.77%)

Table no. 2: The Overall Summary of the Strong Verbs (A-F).

	1st	2nd	3rd	4th	5th
Total	111.5 (14.13%)	125.5 (15.91%)	187 (23.70%)	50 (6.34%)	94 (11.91%)
	6th	**7th**	**Anom**	**Vb**	**Pret-Pres**
Total	77 (9.76%)	144 (18.25%)	29	43	11

Appendices to Analysis

Notes to the Tables

i) the tables contain even formations very indirectly related to the strong verbs, beside which they appear in the tables; the primary reason for this was done to present the reader with the word-formational families as wholes

ii) "^{o}" (= ours) stands for derivational relations not included in the *DOE*, i.e. those posited by the author

iii) only the tables with formations analysed in chapter 4 have been supplied with further comments, i.e. "um" standing for "umlaut/mutated", "$^{\#}$" signalling that the derivate is very indirectly related, and PP indicating the principal part; these commentaries should facilitate the orientation in the outcome of our analyses presented in chapter 4 as well as in the vocalic alternations themselves

iv) *þ* and *ð* are written as *th* here

Appendix 2: Adjectives in Inflectional Suffixes

Table no. 1: Adjectives in *-e.*

Verb	Class	Derivate	PP
brecan	4th	*bryce*	1st?; um
brūcan	2nd	*brýce*	1st; um
būan, būgan, būgian	7th	*býne*	?; um
cnāwan	7th	*ge-cnǣwe*	1st/4th; um
drīfan	1st	*ge-drǣfe*$^{\#}$	
faran	6th	*fēre*	2nd/3rd; um
		ge-fēre	2nd/3rd; um

Table no. 2: Noun/Verb/Adjective in *-e.*

PP	Derivate	Verb	Class
1st/4th; um	*cnǣwe*	*cnāwan*	7th

Appendix 2: Verbal Formations

Table no. 1: Verbal Formations in *-an.*

Derivate	Verb	Class
bylgan$_2$	*belgan*	3rd
bylgan$_1$	*bellan*	3rd
bǣtan	*bītan*	1st
blǣcan^{o}	*blīcan*	1st
brýtan	*brēotan*	2nd
brīwan	*brēowan*	2nd
brengan	*bringan*	3rd
bīgan	*būgan*	2nd
bærnan	*byrnan*	3rd
cinnan^{o}	*cīnan*	1st
clengan	*clingan*	3rd
ge-crymman	*crimman*	3rd
cwellan	*cwelan*	4th
dyrfan	*deorfan*	3rd
drýpan, dryppan	*dréopan*	2nd
drǣfan	*drīfan*	1st
drēfan		
drencan	*drincan*	3rd
dýfan	*dūfan*	2nd
ettan	*etan*	5th
fēran	*faran*	6th
fyllan$_2$	*feallan*	7th
fnǣran	*fnesan*	5th
frettan	*fretan*	5th

Table no. 2: Verbal Formation in *-an*/*-ian.*

Derivate	Verb	Class
blican, blician	*blīcan*	1st

Table no. 3: Verbal Formations in *-an.*

Derivate	Verb	Class
bēodian^{o}	*bēodan*	2nd
bodian		
borgian^{o}	*beorgan*	3rd
byrian	*beran*	4th
bidian	*bīdan*	1st
ge-bedian	*biddan*	5th
blācian^{o}	*blīcan*	1st
brocian	*brecan*	4th
brogdian	*bregdan*	3rd
bryttian	*brēotan*	2nd
brýcian, brycian	*brūcan*	2nd

bōgian$_2$	*būan, būgan, būgian*	7th
ge-bēagian	*būgan*	2nd
ceorian, cyrian	*ceorran*	3rd
clāwian	*clāwan*	7th
clifian	*clīfan*	1st
crammian	*crimman*	3rd
cwiddian	*cwethan*	5th
drēopian	*drēopan*	2nd
dropian		
drūsian	*drēosan*	2nd
fandian	*findan*	3rd
fundian		
flotian	*flēotan*$_1$	2nd
fnæstian	*fnesan*	5th

Table no. 4: Verbal Formations in *-lǣc-an.*

Derivate	Verb	Class
ge-drēog-lǣcan	*drēogan*	2nd
fēr-lǣcan	*faran*	6th

Table no. 5: Verbal Formations with Dental Suffixes.

Derivate	Verb	Class
bladesian	*blāwan*	7th
cystan	*cēosan*	2nd
drohtnian, drohtian	*drēogan*	2nd
fyrdian	*faran*	6th

Table no. 6: Verbal Formation in *-ig-an.*

Derivate	Verb	Class
drēorigian	*drēosan*	2nd

Table no. 7: Verbal Formations in *-n-ian.*

Derivate	Verb	Class
brytnian	*brēotan*	2nd
ge-drysnian	*drēosan*	2nd
druncnian, druncian	*drincan*	3rd
fægnian, fagnian	*fēon, fēagan*	5th
frægnian	*frignan*	3rd

Table no. 8: Verbal Formation in *-n-ian, -n-an.*

Derivate	Verb	Class
ge-frægnian, ge-frægnan	*frignan*	3rd

Table no. 9: Verbal Formation in *-n-an.*

Derivate	Verb	Class
drysnan	*drēosan*	2nd

Table no. 10: Verbal Formations in *-er-ian.*

Derivate	Verb	Class
*biterian*o	*bītan*	1st
floterian	*flēotan*	2nd

Table no. 11: Verbal Formations in *-s-ian.*

Derivate	Verb	Class
*bēnsian, bensian*o	*bannan*	7th
brycsian, brýcsian	*brūcan*	2nd

Table no. 12: Verbal Formation in *-s-n-ian.*

Derivate	Verb	Class
brytsnian	*brēotan*	2nd

Table no. 13: Verbal Formations in *-ettan* with Gemination.

Derivate	Verb	Class
bliccettan	*blīcan*	1st
droppettan	*drēopan*	2nd

Table no. 14: Verbal Formations in *-ettan.*

Derivate	Verb	Class
brogdettan	*bregdan*	3rd
feallettan	*feallan*	7th
fnǽrettan	*fnesan*	5th

Table no. 15: Verbal Formation in *-ol-ian.*

Derivate	Verb	Class
cwedolian, cwidolian	*cwethan*	5th

Table no. 16: Verbal Formations in *-lan* / *-lian.*

Derivate	Verb	Class
bytlian, bytlan	*bēatan*	7th
brǽclian	*brecan*	4th
corflian	*ceorfan*	3rd
cwedolian, cwidolian	*cwethan*	5th
drinclian	*drincan*	3rd

Appendix 3: Nouns in Purely Derivational Suffixes/Suffixoids

Table no. 1: Nouns in *-scipe.*

PP	Derivate	Verb	Class
4th	*bod-scipe*	*bēodan*	2nd
4th	*ge-bod-scipe*		
2nd	*burh-scipe*	*beorgan*	2nd
2nd	*ge-burhscipe*		
2nd/3rd; um	*fērscipe*	*faran*	6th
2nd/3rd; um	*ge-fērscipe*		

Table no. 2: Nouns in *-en-scipe, -d-scipe.*

PP	Derivate	Verb	Class	Verb #
1st?; um	*byrdscipe*	*beran*	4th	1
4th	*corenscipe*	*cēosan*	2nd	2
4th	*ge-corenscipe*			
3rd/4th	*druncenscipe*	*drincan*	3rd	3

Table no. 3: Nouns in *-en-hēd.*

PP	Derivate	Verb	Class
3rd/4th	*druncen-hēd*	*drincan*	3rd

Table no. 4: Nouns in *-wist.*

PP	Derivate	Verb	Class
1st	*bēod-wisto*	*bēodan*	2nd

Table no. 5: Nouns in *-stafas.*

Derivate	Verb	Class
ge-brægd-stafas, ge-bregd-stafas	*bregdan*	2nd

Table no. 6: Nouns in *-rǣden.*

Derivate	Verb	Class
burh-rǣden	*beorgan*	3rd
bed-rǣden	*biddan*	5th
ge-bed-rǣden		
fēr-rǣden	*faran*	6th
ge-fēr-rǣden		

Table no. 7: Nouns in *-ing.*

bīding	*bīdan*	1st
binding	*bindan*	3rd
bǣting	*bītan*	1st
býing	*būan, būgan, būgian*	7th
byrning	*byrnan*	3rd
bærning		
delfing	*delfan*	3rd
dyrfing	*deorfan*	3rd
drēfing	*drīfan*	1st
dýfing	*Dian*	2nd
eting	*etan*	5th
fēring	*faran*	6th
fylling$_2$	*gallan*	7th
flōwing	*flōwan*	7th

Table no. 8: Nouns in *-ung.*

Derivation	**Verb**	**Class**
bodung	*bēodan*	2nd
blāwung	*blāwan*	7th
blācung^{o}	*blīcan*	1st
blōtung	*blōtan*	7th
brocung	*brecan*	4th
brūcung	*brūcan*	2nd
clēofung	*clēofan*	2nd
ceorung	*ceorran*	3rd
cēowung	*cēowan*	2nd
clāwung	*clāwan*	7th
crēopung	*crēopan*	2nd
drēopung	*drēopan*	2nd
drūpung		
dropung		
ge-dropung		
drēorung	*drēosan*	2nd
fēowung	*fēon, fēagan*	5th
fnēosung	*fnesan*	5th

Table no. 9: Verbs Related to Nouns both in *-ung* and *-ing.*

(these formations are not included in tables 7 and 8)

Derivate	**Verb**	**Class**
brytnung	*brēotan*	2nd
breting		
bogettung	*būgan*	2nd
bīging		
fading	*findan*	3rd
fundung		
fandung		

ge-fandung		

Table no. 10: Nouns in *-n-ung, -n-ung/-n-ing.*

Derivate	Verb	Class
brytnung	*brēotan*	2nd
drohtnung, drohtung	*drēogan*	2nd
ge-drohtnung		
druncning	*drincan*	3rd
fægnung	*fēon, fēagan*	5th
ge-fægnung		
frignung, frigning	*frignan*	3rd
frægnung, frægning		

Table no. 11: Nouns in *-d-ung*.

Derivate	Verb	Class
cwiddung	*cwethan*	5th

Table no. 12: Nouns in *-s-ung.*

Derivate	Verb	Class
bletsung	*blōtan*	7th
ge-bletsung		

Table no. 13: Nouns in *-lǣc-ung.*

Derivate	Verb	Class
cnāw-lǣcung	*cnāwan*	7th

Table no. 14: Nouns in *-ett-ung.*

Derivate	Verb	Class
bliccettung	*blīcan*	1st
brogdettung	*bregdan*	3rd
*clangettung*o	*clingan*	3rd
droppettung	*drēopan*	2nd

Table no. 15: Nouns in *-d-e(-)s-ung.*

Derivate	Verb	Class
bladesung, bladesnung	*blāwan*	7th

Table no. 16: Nouns in *-er-ing.*

Derivate	Verb	Class
bæcering	*bacan*	6th

Table no. 17: Nouns in *-d-ing(/-ung*).

Derivation	Verb	Class
fyrding, fyrdung	*faran*	6th
fading	*flōwan*	7th

Table no. 18: Nouns in *-s-od, -od.*

Derivate	Verb	Class
ge-bletsod (1.a.i. used as n)	*blōtan*	7th
ge-brocod (used as n - sense 3)	*brecan*	4th

Table no. 19: Nouns in *-nes.*

Derivates	Verb	Class
belgnes	*belgan*	3rd
ge-beorgnes	*morgan*	3rd
blinnes	*blinnan*	3rd
ge-brecnes	*Brňan*	4th
ge-brægdnes	*bregdan*	3rd
ge-brengnes	*bringan*	3rd
ge-būnes	*būan, būgan, būgian*	7th
bīgnes	*būgan*	2nd
ge-bīgnes		
bærnnes	*byrnan*	3rd
usnes	*nosan*	2nd
ge-cnāwnes	*cnāwan*	7th
deorfnes	*deorfan*	3rd
ge-deorfnes		
drēfnes	*drīfan*	1st
ge-drēfnes		
ge-dryncnes	*drincan*	3rd
ætnes	*etan*	5th
fines	*faran*	6th
fines		
ge-fērnes		
fyllnes[2]	*gallan*	7th
ge-fyllnes[2]		
ge-fēanes	*fēon, fēagan*	5th
flōwnes	*flōwan*	7th
fengnes	*fōn*	7th

Table no. 20: Nouns in *-full-nes.*

Derivates	Verb	Class
ge-flit-fullnes	*flītan*	1st

Table no. 22: Nouns in *-ig-nes.*

Derivates	Verb	Class
cystignes	*cēosan*	2nd
drēorignes	*drēosan*	2nd

Table no. 23: Nouns in *-el-nes.*

Derivates	Verb	Class
crypelnes	*crēopan*	2nd

Table no. 24: Nouns in *-end-nes.*

Derivates	Verb	Class
berendnes, berendnise, berendnis	*beran*	4th

Table no. 25: Nouns in *-en-nes.*

Derivates	Verb	Class
ge-bundennes	*bindan*	3rd
ge-corennes	*cēosan*	2nd
drifennes	*drīfan*	1st
druncennes	*drincan*	3rd
farennes	*faran*	6th
fægennes	*fēon, fēagan*	5th
flōwennes	*flōwan*	7th
frigennes	*fricgan*	5th
ge-frigennes		

Table no. 26: Nouns in *-ed-nes.*

Derivates	Verb	Class
drēfednes	*drīfan*	1st
ge-drēfednes		
flōwednes	*flōwan*	7th

Table no. 27: Nouns in *-d-nes.*

Derivates	Verb	Class
ge-byrdnes	*beran*	4th

Table no. 28: Noun in *-ed-nes*/*-end-nes*/*-nes.*

Derivates	Verb	Class
ge-bīgednes, ge-bīgendnes, ge-bīgnes	*būgan*	2nd

Table no. 29: Noun in *-fæst-nes.*

Derivate	Verb	Class
ge-blǣdfæstness	*blāwan*	7th

Table no. 30: Nouns in *-lāc/-lǣc.*

Derivate	Verb	Class
bod-lāc	*bēodan*	2nd
brēow-lāc	*brēowan*	2nd
bærne-lāc	*byrnan*	3rd
feoht-lāc	*feohtan*	3rd
cnāw-lǣc	*cnāwan*	7th

Table no. 31: Nouns in *-full.*

Derivates	Verb	Class
flit-full (sense 2.a)	*flītan*	1st
ge-flit-full		

Table no. 32: Nouns in *-ere.*

Derivates	Verb	Class
bæcere	*bacan*	6th
bēatere	*bēatan*	7th
bodere	*bēodan*	2nd
bǣrere	*beran*	4th
biddere	*biddan*	5th
bindere	*bindan*	3rd
blāwere	*blāwan*	7th
blōtere	*blōtan*	7th
brytnere	*brēotan*	2nd
crēopere	*crēopan*	2nd
cwellere	*cwelan*	4th
delfere	*delfan*	3rd
drēfere	*drīfan*	1st
drincere	*drincan*	3rd
etere	*etan*	5th
fandere	*findan*	3rd
feohtere	*feohtan*	3rd
flītere	*flītan*	1st

Table no. 33: Noun in *-estre.*

Derivates	Verb	Class
bæcestre	*bacan*	6th

Table no. 34: Noun in *-th-estre.*

Derivates	Verb	Class
byrthestre	*beran*	4th

Table no. 35: Nouns in *-th-ere.*

Derivates	Verb	Class
byrthere$_1$	*beran*	4th
byrthere$_2$		
ge-byrthere		

Table no. 36: Noun in *-er.*

Derivates	Verb	Class
clifer	*clēofan*	2nd

Table no. 37: Nouns in *-re.*

Derivates	Verb	Class
blǣdre	*blāwan*	7th
clǣfre^o	*clēofan*	2nd

Table no. 38: Nouns in *-end.*

bannend	*bannan*	7th
blāwend	*blāwan*	7th
bēodend	*bžodán*	2nd
bodiend		
borgiend	*morgan*	3rd
berend	*beran*	4th
biddend	*biddan*	5th
ge-biddend		
bringend	*bringan*	3rd
ge-būend	*būan, būgan, būgian*	7th
cwellend	*cwelan*	4th
drǣfend	*drīfan*	1st
drēfend		
ge-drēfend		
fērend	*faran*	6th
feohtend	*feohtan*	3rd
findend	*findan*	3rd
fricgendra	*fricgan*	5th

Table no. 39: Noun in *-ende.*

Derivate	Verb	Class
blinnende	*blinnan*	3rd

Table no. 40: Nouns in *-end/e.*

Derivate	Verb	Class
būend, būende	*būan, būgan, būgian*	7th
etend, Vende	*etan*	5th

Table no. 41: Nouns in *-et.*

Derivate	Verb	Class
bærnet	*byrnan*	3rd
fyllet	*feallan*	7th

Table no. 42: Nouns in *-el.*

Derivate	Verb	Class
býtel	*bēatan*	7th
bydel	*bēodan*	2nd
ge-bǣtel	*bītan*	1st
Cyril	*ceorfan*	3rd
crypel$_1$	*crēopan*	2nd
crypel$_2$		
fyndel	*findan*	3rd
fengel$_2$	*fōn*	7th

Table no. 43: Nouns in *-eld/-elt.*

Derivate	Verb	Class
færeld, færelt	*faran*	6th
fēreld		

Table no. 44: Noun in *-el-e.*

Derivate	Verb	Class
byndele	*bindan*	3rd

Table no. 45: Noun in *-el-a.*

Derivate	Verb	Class
bitela	*bītan*	1st

Table no. 46: Noun in *-ol.*

Derivate	Verb	Class
bitol	*bītan*	1st

Table no. 47: Noun in *-els.*

Derivate	Verb	Class
bīgels	*būgan*	2nd

Table no. 48: Nouns in *-n.*

Derivate	Verb	Class
bearn	*beran*	4th
ge-bearn		

Table no. 49: Nouns in *-th-en.*

Derivate	Verb	Class
byrthen	*beran*	4th
ge-byrthen		

Table no. 50: Nouns in *-s-en.*

Derivate	Verb	Class
brytsen	*brēotan*	2nd
ge-brytsen		

Table no. 51: Nouns in *-en.*

Derivate	Verb	Class
ge-boren (sense B.1.e.: used as n; also in glosses as n)	*beran*	4th
ge-beden (6.a.: used as n in glosses)	*biddan*	5th
ge-bunden (D.1.a.ii: used as n)	*bindan*	3rd
ge-coren (4.: n)	*cēosan*	2nd
ge-cweden (G.: n)	*cwethan*	5th
druncen (n)	*drincan*	3rd
ge-faren (I.C.: n)	*faran*	6th
ge-faren (II.B.: n only in plural)		
ge-fangen (2.c.i.: n)	*fōn*	7th
fregen (n)	*frignan*	3rd

Table no. 52: Nouns in *-l-ung, -s-ung.*

Derivate	Verb	Class
bletsung	*blōtan*	7th
ge-bletsung		

Table no. 53: Nouns in *-l-ing.*

Derivate	Verb	Class
bæceling	*bacan*	6th
feohtling, fyhtling	*feohtan*	3rd

Table no. 54: Noun in *-d-l-ing.*

Derivate	Verb	Class
byrdling	*beran*	4th

Table no. 55: Noun in *-th-l-ing.*

Der. #	Derivate	Verb	Class	Verb #
1	*byrthling*	*beran*	4th	1

Table no. 56: Noun in *-th-incel.*

Derivate	Verb	Class
byrth-incel	*beran*	4th

Appendix 4: Adjectives in Purely Derivational Suffixes/Suffixoids

Table no. 1:Adjectives in *-full.*

PP	Derivates	Verb	Class
1st?; um	*byrst-full*	*berstan*	3rd
3rd/4th	*flit-full*	*flītan*	1st
3rd/4th	*ge-flit-full*		

Table no. 2: Adjective in *-er-lic.*

Derivate	Verb	Class
biterlic#	*bītan*	1st

Table no. 3: Adjectives in *-ig.*

Derivates	Verb	Class
byrstig	*berstan*	3rd
brynig	*byrnan*	3rd
ceorig	*ceorran*	3rd
drēorig	*drēosan*	2nd
drōfig	*drīfan*	1st
*fyndig*o	*findan*	3rd
forstig	*frēosan*	2nd
fyrstig		
frēorig		

Table no. 4: Adjectives in *-en-ig.*

Derivates	Verb	Class
druncenig	*drincan*	3rd

Table no. 5: Adjectives in *-t-ig.*

Derivates	Verb	Class
cystig	*cēosan*	2nd

Table no. 6: Adjectives in *-iht.*

Derivates	Verb	Class
bogiht	*būgan*	2nd
ciniht	*cīnan*	1st
clufiht	*clēofan*	2nd

Table no. 7: Adjective in *-d-iht.*

Derivates	Verb	Class
cwyldiht	*cwelan*	4th

Table no. 8: Adjectives in *-en* with an alternation (/t/ > /d/).

Derivate	Verb	Class
blōden	*blōtan*	7th

Table no. 9: Adjectives in *-en.*

Derivate	Verb	Class
ge-boren (sense B.1.d.:used as adj)	*beran*	4th
ge-brægden, ge-bregden (adj)	*bregdan*	3rd
ge-bogen (5.: adj)	*būgan*	2nd
ge-coren (3.: adj)	*nosan*	2nd
ge-cweden (A.3.: adj)	*cwethan*	5th
druncen (adj)	*drincan*	3rd
druncen (n < adj (sense 2.)		
ge-faren (II.A.: adj)	*faran*	6th
fægen, fagen (adj)	*fēon, fēagan*	5th
ge-fægen, ge-fagen (adj)		

Table no. 10: Adjectives in *-ol.*

Derivate	Verb	Class
bedol	*biddan*	5th
ge-bēogol, ge-býgol	*būgan*	2nd
frettol	*fretan*	5th

Table no. 11: Adjective in *-ende.*

Derivate	Verb	Class
trende	*faran*	6th

Table no. 12: Adjective in *-fæst.*

Derivate	Verb	Class
*bid-fæst*o	*bīdan*	1st

Table no. 13: Adjectives in *-d-fæst.*

Derivate	Verb	Class
blǣd-fæst	*blāwan*	7th
ge-blǣd-fæst		

Table no. 14: Adjective in *-sum.*

Derivates	Verb	Class
*bēnsum, boensu*o	*bannan*	7th

Table no. 15: Adjectives in *-lēas.*

Derivate	Verb	Class
borglēas	*beorgan*	3rd
cwide-lēas	*cwethan*	5th
ge-deorf-lēas	*deorfan*	3rd

Table no. 16: Adjectives in *-d-lēas.*

Derivate	Verb	Class
blōd-lēas	*blōtan*	7th
fyrd-lēas	*faran*	6th

Table no. 17: Adjective in *-t-lēas.*

Derivate	Verb	Class
cystlēas	*cēosan*	2nd

Table no. 18: Adjective in *-n-lēas.*

Derivate	Verb	Class
bearn-lēas	*beran*	4th

Table no. 19: Adjectives in *-ed.*

Derivate	Verb	Class
ge-bīged	*būgan*	2nd
ge-bærned	*byrnan*	3rd
ge-fēred	*faran*	6th

Appendix 5: Adverbs in Purely Derivational Suffixes

Table no. 1: Adverbs in *-er-e.*

Derivate	Verb	Class
bitere	*bītan*	1st

Table no. 2: Adverbs in *-līce/-lice.*

*bēnlīce*o	*bannan*	7th
drēoglīce	*drēogan*	2nd
ge-drēoglīce		
ge-fēalice	*fēon, fēagan*	5th
ge-flitlīce	*flītan*	1st

Table no. 3: Adverbs in *-ig-līce.*

Derivates	Verb	Class
drēoriglīce	*drēogan*	2nd

Table no. 4: Adverbs in *-t-līce.*

Derivates	Verb	Class
cystiglīce	*cēosan*	2nd

Table no. 5: Adverbs in *-ed-līce.*

Derivates	Verb	Class
ge-byredlīce	*beran*	4th

Table no. 6: Adverbs in *-en-līce, -d-en-līce.*

Derivates	Verb	Class
ge-brægdenlīce, ge-bregdenlīce	*bregdan*	3rd
ge-corenlīce	*cēosan*	2nd

Table no. 7: Adverbs in *-er-līce.*

Derivates	Verb	Class
*biterlīce*o	*bītan*	1st

Table no. 8: Adverbs in *-end-līce.*

Derivates	Verb	Class
berendlīce	*beran*	4th
brūcendlīce	*brūcan*	2nd

Appendix 6: *-m*, *-s*, and *-w* Formations

Table no. 1: *-m* Formations.

Derivates	Verb	Class
breahtm, bearhtm	*brecan*	4th
breahtmian		
bearhtmung, breahtmung		
bearm	*beran*	4th
cirm	*ceorran*	3rd
cirman		
cwealm	*cwelan*	4th
cwealm-bǣre, cwylm-bǣre		
cwealm-bǣrnes		
cwealmlic		
cwealmnes, cwylmnes		
drysmian	*drēosan*	2nd
fearm	*faran*	6th
flēam	*flēon*	2nd
flýma		
flýme		
ge-flýme		
flýmig		
flýman		
flēam-dōm		
flýtme	*flēotan*$_1$	2nd

Table no. 2: *-s* Formations.

Derivates	Verb	Class
blǣs	*blāwan*	7th
blǣst		
cis	*cwethan*	5th
ge-cwis		
flēwsa	*flōwan*	7th
ǣs	*etan*	5th

Table no. 3: *-w* Formations.

Der. #	Derivates	Verb	Class
1	*bearwe*	*beran*	4th

Appendix 7: ME Formations

Verb	Meaning	Der #	Derivate	Meaning
bāken	to bake	1	*bach*	process/product of baking
		2	*bacher*	baker
		3	*bākere*	baker, member of the b. craft
		4	*bāke/n*	dish baked in pastry, pie
		5	*bāking*	action/procces/product of baking
bannen	to summon by proclamation;	1	*ban* (*banne*)	proclamation;
	to curse; to ban; to outlaw			troop of warriors summoned
		2	*banner*	one who curses
		3	*banning*	summoning; cursing; outlawing
		4	*bēne*	request, prayer; gift; extra service
bāten	to beat, strike; to fight	1	*bāting*$_1$	beating (of wings)
bēten	to beat, flog; to punish; to strike	1	*bēte*$_2$	beating, whipping
		2	*bēte*$_3$	implement for beating flax
		3	*bēter*$_1$	one who beats or flogs
		4	*bēting*$_1$	flogging; hammering; embroidering
		5	*bēting*$_2$	reward
bīten	to pierce; to bite; to offend	1	*baiten*	to bait; to fatten; to graze;
				to put a beast to graze;
				to stop to feed one's horses, etc.
		2	*bītāble*	? fit to be crushed with the teeth,
				? edible
		3	*bite* (*bit*)	blow; biting/bite; sting; mouthful;
				metal mouthpiece of a bridle;
				a short distance
		4	*bited* (ppl.)	having two bits or cutting edges
		5	*bitel*	sharp-edged, cruel
		6	*bīter*	slanderer
		7	*bitil*	bug, beetle, insects, vermin
		8	*bīting*	sharp, cruel
		9	*bītinge*	act of biting
		10	*bītinglī*	sharply
		11	*bot*	parasite infesting the skin
faren	to travel; to depart; to advance;	1	*færð*	faring, voyage
	to pass; to behave; to live, exist;	2	*fāre*$_1$	journey; travelling company;
	to happen;, to turn out; to appear;			road; proceeding, adventure;
	to carry			provision
		3	*fāringe*	trachea
		4	*fāringlī*	without inconvenience
		5	*fērd/e*$_2$	national army; battle;
				a company of people
		6	*fēre*$_1$ (also as *feir*)	companion; peer; spouse
		7	*fēre*$_2$	company; unison
		8	*fērelēs*	alone; peerless

		9	*fēren*$_3$	to assemble
		10	*fēriāge*	charge for transporting; ferry-boat
		11	*feri/e*	charge for transporting; ferry-boat;
				place of transport
		12	*ferien*	to transport; to cross in a boat
		13	*ferier/e*	ferryman
		14	*feriing*	ferrying
		15	*Fership*	a proper name
		16	*ford*	ford; path
		17	*fōre* (also as *fur/e*, *fuyr*)	journey; track; ditch; conduct;
				proceedings

Notes to the Table:

i) *bannen* seems to overlap semantically with *bōnen*; the derivates of *bōnen* are, however, not listed in the table

ii) *bāten* is semantically and formally very similar to *baten* (borrowed from OF *batre*); the derivates of *baten* are not mentioned in the table

iii) *bāten* and *bēten* are treated as two independent labels by the *MEC*; nevertheless, the two verbs seem so similar that we decided to treat them as two realisations of a single verb

iv) derivates *bēting*$_2$, *bot*, and *fāringe* are not supplemented by any etymological information in the *MEC*; thus, their status as being related to the particular verbs is uncertain

v) *baiten* is listed as a derivate of *bīten*; the derivate is a base for other derivates - these are not mentioned in the table

vi) the expressions semantically related to "bitterness" are not listed among the derivates of *bīten*, since in ME the connection must have been gone (we mentioned the derivates in their OE form in the tables with OE formations for those interested in no longer productive suffixes)

vii) *bited* survives only in *dublebited*; yet, the *MEC* treats it as an independent entry

viii) we do not mention the derivates of *fērd/e* in the tables