## A STUDY OF NOUN-DERIVING SUFFIXES IN COMPETITION IN MIDDLE ENGLISH

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#### Abstract

This paper presents a corpus-driven analysis of the Germanic suffixes - dom, -hood, -lac, -ness, -rede (n), and -ship in Middle English. The main objective is to assess the occurrence and use of synonymous derivations in the corpora examined, namely the Middle English Grammar Corpus (MEG-C) (Stenroos et al. 2014) and the Middle English Local Documents Corpus (MELD) (Stenroos and Thengs 2014). The six suffixes could be attached to the same base with no apparent distinction in meaning, giving way to competing abstract formations. The analysis can shed light and offer fresh insight into the co-occurrence of these contending formations in different Middle English text types, including specialised and more general texts, and help explain their survival or demise.


Keywords: derivational morphology, synonymous derivations, Middle English, MEG-C, MELD.

## Resumen

Este artículo presenta un análisis basado en corpus de los sufijos germánicos -dom, -hood, -lac, -ness, -rede(n) y -ship en inglés medio. El objetivo principal es evaluar la aparición y uso de derivaciones sinónimas en los corpus examinados, a saber, el

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Middle English Grammar Corpus (MEG-C) (Stenroos et al. 2014) y el Middle English Local Documents Corpus (MELD) (Stenroos y Thengs 2014). Los seis sufijos en cuestión pueden aparecer unidos a la misma base sin distinción semántica aparente, dando lugar a sustantivos abstractos en competición. El análisis puede arrojar luz y proporcionar nuevos datos sobre la coexistencia de estas formaciones rivales en distintos tipos de texto en inglés medio, entre los que se incluyen textos especializados y más generales, así como ayudar a explicar su supervivencia o desaparición.
Palabras clave: morfología derivativa, derivaciones sinónimas, inglés medio, $M E G-C, M E L D$.

## 1. Introduction

Inflectional and derivational morphology have been traditionally considered the two domains of morphology; the former is concerned with the "derivation of word-forms from uninflected simple or complex bases", whereas the latter involves the "creation of new lexemes" (Kastovsky 2009: 151). The present study delves into historical derivational morphology and, more specifically, into suffixation, which is understood as the process by means of which a bound morpheme is added to a base, in Middle English. This is an area which has attracted increasing scholarly attention with a wealth of studies in the last decades (Zbierska-Sawala 1993; Dalton-Puffer 1996; Miller 1997; Ciszek 2008; Trips 2009, to name but a few). ${ }^{1}$ Within this area the focus of the paper is on derivational suffixes building abstract nouns. The main aim is to carry out a corpus-driven analysis of the Germanic suffixes -NESS, ${ }^{2}$-SHIP, -DOM, -HOOD, -LAC and -REDE(N) in Middle English in order to describe them and to assess the occurrence and use of suffixal doublets in the corpora examined. The six above-mentioned suffixes have been selected because they could be attached to the same base with no evident distinction in meaning, yielding rival abstract formations or suffixal doublets. ${ }^{3}$
Recent studies on the topic of Middle English derivational suffixes include those by Ciszek (2008), who analyses seven Early Middle English suffixes (amongst which -DOM, -HED, -SHIP and -NESS are included), taking into account semantics, productivity and dialect distribution, and Trips (2009), who traces the development of -HOOD, -DOM and -ship through the history of English and also deals with the rivalry between suffixes. ${ }^{4}$ Synonymous derivations in different historical corpora have also been recently investigated by Esteban-Segura (2011) and Gardner (2011). Lindsay and Aronoff (2013) tackle the issue of competing suffixes from a diachronic perspective by paying attention to the productivity of certain suffixes.

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Despite this and previous work (Aronoff 1980; Riddle 1985; Romaine 1985; Plag 1999; Bauer 2009; Hegedüs 2014), the study of synonymous derivations in English is "still in need of more thorough investigation" (Kastovsky 2009: 169).

## 2. Methodology

The investigation is corpus-based, which allows for both quantitative and qualitative analysis. The body of texts transcribed within the Middle English Scribal Texts Programme at the University of Stavanger, 345 of which are to date unpublished, ${ }^{5}$ have been examined in order to retrieve and assess data. The texts date from the late mediaeval period (ca. 1200-1500) and are divided into two main corpora: the Middle English Grammar Corpus (MEG-C) (Stenroos et al. 2014) and the Middle English Local Documents Corpus (MELD) (Stenroos and Thengs 2014). MEG-C 2014.0, an 'in between', unpublished version of $M E G$-C containing 482 texts and 791,689 words, has been the one employed for the present study. The latest published version is $M E G-C 2011.1$ with 410 texts, and the team aims to publish a new one with at least 500 texts. MEG-C 2014, hereafter simply referred to as $M E G$-C, contains 256 documentary texts (155,448 words) and 226 non-documentary texts $(636,241$ words). For the analysis, only the nondocumentary texts have been taken into consideration to avoid any kind of overlap with the texts in MELD 2014, which is the other corpus that has been examined. Non-documentary texts in $M E G$ - $C$ include religious prose, alliterative verse, medical and cookery recipes, etc. ${ }^{6}$
MELD 2014, henceforth $M E L D$, contains 518 documentary texts (legal, administrative and business documents and letters) and the overall word count is 283,922 . The texts are dated and connected to specific places. Approximately half of the texts are also in $M E G$-C, which explains why the documentary texts in $M E G-C$ have been left out. This division allows studying the suffixes in different text types: on the one hand, those texts in $M E G-C$, which are religious, medical, literary, etc., and, on the other hand, those in $M E L D$, which are only documentary. Thus, the results can provide valuable insights into the development and usage of suffixes and words in certain text types in the history of English. ${ }^{7}$
The corpora have been constructed so that they are suited for use with concordance programmes such as $A n t$ Conc (Anthony 2011), which has been in fact the one employed to retrieve data. In order to get all the instances of each of the suffixes under consideration, all the forms of the suffix in Middle English as provided by the Middle English Dictionary (MED) and the Oxford English Dictionary (OED) were taken into account and wild-card searches were made to cater for all possible

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spelling variants. ${ }^{8}$ The data were then copied into Excel spreadsheets. The results had to be culled manually, which proved to be a time-consuming task. After the irrelevant data had been weeded out, ${ }^{9}$ the information in the Excel spreadsheets was distributed into six columns: context, word, the lemma taken from the $M E D$ (so as to unify all the different spelling variants of the same word), the reference, the meaning from the $M E D$, and the word in the $O E D$. The $O E D$ online was taken as a reference to check whether the word has survived into Present-Day English and, if so, whether it is obsolete or archaic. The following have been registered: the root or base in Present-Day English, ${ }^{10}$ the corpus ( $M E G-C$ or $M E L D$ ), the suffix in question, and whether the word appears as a main entry or as an alternative form within that entry.
The different sheets containing the individual suffixes were then combined in a master file and an Access database was created. The only difference is that the Reference column in Excel was replaced with the Corpus code in Access (see Figures 1 and 2). With the Access database, the possibilities for research are plentiful. We can, for instance, look for the forms with the suffix -hood in the Northern half of the country in the $15^{\text {th }}$ century, to find out, for example, that they only occur in the genres "Document" and "Religious prose". We can compare them with those found in the South or in different centuries.

| CONTEXT WORD | lemma (med) | Reference Meaning (med) | OED | T | US | fix |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1242 L OF GOSTELY DEYE FOR SININE IF YEV WLL ANO BY CLENLYNES OF SAULE COU TO CLENLYNES | *denlinesse | Leics_LO299_OK1 NOT INMED | deanliness | Cleanly | MEGC | ness |
| 409 LDES YAT NON WNEUENNES MAY BE INHMM. WHOM SO HE DAMPNES 8 WHOM SO HE DAMPNES | -dampness | Derbss_LO188_OKNOTINIMED | campness | DMMP | MEGC | ness |
| 3922 ME ALSO YT AMANLYE NOT: FOR SE MOUTHE YT LYES DAMPMES Y S SVLE [FOR NO IDAMPNES | -dampnoss | WR_L0217_OK1 NOTINMED | campness | DAMP | MEGC | ness |
| 311 WCE=[KID FENDE WT-OUTYNLIGHT : CRIST CROSE YE DAmP-(WYS \& AL Y M LYGHT : DAmPNYS |  | Lincs_L0213_OK1. NOT INIMED | dampness | DAMP |  |  |
| 258 RO COURT ALE HER FOR TO PLAY \& THEN VENUS WAS SET DEFIMES TO DELE \& GAR DEFTNES | vdetnesse | Ches_LO104_OK1 1 NOT INMED | detness | DEFT | MEGC | ness |
| 1240 CHAUNGEABLE AND ALSO DEDLY THUS FEL MANKIND INTO MYSCHEUESNES AFTER MYSCHEUESNES | *mischedousnes | Lelcs LO299-OK1 WOT IN MED | mischievousness | MISCHEVOUS |  |  |
| 1606 F HOLYNESSE, WHHIMAKEST YOU YIN.SELF A MESSEL OF PMEFULNESSE. A LADY WIF PYNEFULNESSE | pinemunesse | Nortolk_LO424_OKNOT INMED. p3 | notin oed | pineful | MEGC | ness |
| 962 AT SOUPER- AND NO THYNG THE KYNG WYSTE OF HER TRAYTORSNESSE AND WF TRAYTORSNESSE | 'raitournesse | Herefs_L7481_OK NOT INMED: tra | ditailorousness | TRATOR |  | ness |
| 1655 BUT IF YU WLT \& YAT SCHAL NOT TEEN II DEWER NE ANGRYIE SSE AND HEUYNESS ANGRYNESSE | angrines (5e | Nortolk_L4252_OK anger | angriness (rare) | ANGRY | Megc | ness |
| 3994 YE FIFT IS LYTHERNES OF HERT MT-IN. YE SEXT IS ARGHES TO QE-GYN : OTHER ¢ ARGHNES | arghnes(se | WR_L0410_OK2 cowardice | arghness (obsolute |  | MEGC | ness |
| 4158 NNES HATHE FORSAKYN THE \& NOT THOW THY STINES. -ARGHIES OF DREDE IS W ARGHINES | argnnes(se | WWR_LO597_OK1_ cowarace | arponness coosolete |  |  | ness |
| 245 OUn YY HEDE TO LAW WHIL ANY MANN SPEKES WT CRETE BESENES HERKEN HIS W PEESENES | bisinesse | Ches_LOO43_OK1.0ccupation, business; d | d business (obsolete |  | MEGC | ness |
|  | bisinesse | Nots_L0164_OK2, occupation, bus | d business (obsole |  | UEGC | ness |
| 4028 WONDRE THING IT WERE YAT MAN YAT GYFE HYU TO YE BESENES OF YE WERLDE I, EESENES | Dishesse | WWR_L0454-OK1_occupation, business; | d business (obsole |  | MEGC | ness |
| 58 F GOD ALL WORDILRICHES. WURCHIPES AND OUTWARD BESENESSES. AND HOL EESENESSES | bisinesse | Berks_L6770_OKioccupation, business: | d business (obsolet |  | MEGC | ness |
| 1267 AYNE YENINYE MANER BE REPENTAUNT AND DO YOURE BESSINES TODO VERY PENBESINES | oilinesse | Leics_L0299_OK1, occupation, busine |  |  |  |  |

Figure 1. Arrangement of data in Excel

| CONTEXT | WORD | Lemma (MED) - | Corpus code |  | Meaning (MED) - | OED | ROOT | CORPUS | SUFFIX |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | cleniynes | *clenlinesse | 10299 |  | NOTIN MED | cleanliness | Cleanly | MEGC | ness |
| LDES YAT NON VNEUENNES MAY BE IN HYM. WHOM SO HE DAmPNES \& W DA | DAmPNES | -dampness | 10188 |  | NOTIN MED | dampness | DAMP | MEGC | ness |
| ME ALSO Y\T A MAN LYE NOT: FOR YE MOUTHE Y YT LYES DAMPNES YE SOVI DA | DAMPNES | *dampness | 10217 |  | NOTIN MED | dampness | DAMP | MEGC | ness |
| WIC=[KID FENDE WIT-OUTYN LIGHT ; CRIST CROSE YE DAmP $=[$ [NYS \& AL YI DA | DAmPNYS | *dampness | 10213 |  | NOTIN MED | dampness | DAMP | MEGC | ness |
| RO COURT ALE HER FOR TO PLAY \& THEn VENUS WAS SET DEFTNES TO DELE D | DEFTNES | *deftnesse | 10104 |  | NOTIN MED | deftness | DEFT | MEGC | hess |
| CHAUNGEABLE AND ALSO DEDLY :THUS FEL MANKIND INTO MYSCHEUESNE | MYSCHEUESNE | - "mischēvŏusnes | 10299 |  | NOTIN MED | mischievousne | MISCHIEVOUS | MEGC | ness |
| F HOLYNESSE; WHI MAKEST YOU YIN-SELF A VESSEL OF PYNEFULNESSE. : A | PYNEFULNESS: | : *pinefulnesse | 10424 |  | NOTIN MED; pain | Not in oed | pineful | MEGC | ness |
| AT SOUPER . AND NO THYNG THE KYNG WYSTE OF HER TRAYTORSNESSE | TRAYTORSNES: | "traitŏumesse | 17481 |  | NOTIN MED; traitu tr | traitorousness | traitor | MEGC | ness |
| BUT IF YUU WILT. \& Yat Schal not ben in dewer ne angrynesse and h | ANGRYNESSE | angrines(se | 14252 |  | anger | angriness (rart | ANGRY | MEGC | ness |
| YE FIFT IS LYTHERNES OF HERT WIT-IN, :YE SEXT IS ARGHNES TO BE-GYN. : A | ARGHNES | arghneslse | 10410 |  | cowardice | arghness (obsc | ARGH | MEGC | ness |
| NNES HATHE FORSAKYN THE \& NOT THOW THY SYNNES . : $:$ ARGHNES OF DF | arghnes | arghnes(se | 10597 |  | cowardice | arghness (obsc | ARGH | MEGC | ness |
| OUn YY HEDE TO LAW WHIL ANY MAnN SPEKES WTT GRETE BESENES HERKE | besenes | bisinesse | L0043 |  | occupation, busine b | business fobsc | BUSY | MEGC | ness |
| E BRERES MAY BETOKYN YE PRIK=[KYNGS OF VICYS \& yE BESENES OF YIS LIF E | besenes | bisinesse | 10164 |  | occupation, busine b | business (obsc | BUSY | MEGC | ness |
| WONDRE THING IT WERE YAT MAN YAT GYFE HYM TO \E BESENES OF YE B | besenes | bisinesse | L0454 |  | occupation, busine b | business fobsc | BuSY | MEGC | ness |
| FGOD ALLE WORDILI RICHES. WURCHIPES AND OUTWARD BESENESSES. A | beSENESSES | bisinesse | 16770 |  | occupation, busine b | business lobsc | BUSY | MEGC | ness |
| AYNE $Y$ \EN IN $Y$ \E MANER BE REPENTAUNT AND DO YOURE BESINES TO DO | BESINES | bisinesse | 10299 |  | occupation, busine b | business (obsc | BUSY | MEGC | ness |

Figure 2. Arrangement of data in Access

Several modifications with regard to how the data appear in the corpora have been made. Letters, for instance, are transcribed as capitals, whereas lower-case letters

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are employed for Middle English graphs (thorn, yogh, ash, eth), abbreviations and comments. The words have been changed to lower-case and the graphs have been replaced with the actual symbols for which they stand (e.g. FORyERHED > forperhed 'further'; KNYzTHOD > knyzthod 'knighthood'); for abbreviations italics have been used (e.g. BUXUmNES > buxumnes 'buxomness'; LOurDSCHYP > lourdschyp 'lordship'). Curly brackets ('\{ \}') that indicate insertions (in the corpora words are bracketed individually) have been deleted. Likewise, codes for word division across the line ('[') and ('=') have also been removed for the sake of clarity. Nonetheless, tildes which stand for squiggles (' $\sim$ ') —a type of flourish which may indicate an <e> or be otiose (e.g. towneshyp~ 'township') - have been kept. Hyphens ('-') joining two elements of what would correspond to a single word in Present-Day English have also been maintained (e.g. falsse-hed 'falsehead').

The study focuses on derived lexical categories, which can be inflected (as is the case of kyngdomes 'kingdoms', which is in the plural), and more specifically on nouns. It should be pointed out that -ing forms (such as worschypyng 'worshipping') have been excluded as they could be derived from verbs. Forms such as hoggeshede (MED hogges-hēd 'hogshead') and merehed (MED mōr + hēd 'top of the moor') have not been considered either since these are compounds, with hed(e) being a noun rather than a suffix.

## 3. Analysis

### 3.1. Frequency of the suffixes

An overview of all the abstract noun derivation occurrences including the Germanic suffixes under study ${ }^{11}$ and their overall frequencies, both absolute and normalised, is presented in Tables 1 and 2.

|  | MEG-C | MELD |
| :--- | :---: | :---: |
| -DOM | 386 | 30 |
| -HOOD | 305 | 16 |
| -NESS | 2,454 | 541 |
| -SHIP | 349 | 321 |
| -LAC | 3 | 0 |
| -REDE(N) | 36 | 1 |

Table 1. Suffixes (tokens) attested in the corpora analysed (absolute frequencies)

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|  | MEG-C | MELD |
| :--- | :---: | :---: |
| -DOM | 6.06 | 1.05 |
| -HOOD | 4.79 | 0.56 |
| -NESS | 38.57 | 19.05 |
| -SHIP | 5.48 | 11.3 |
| -LAC | 0.04 | 0 |
| -REDE(N) | 0.56 | 0.03 |

Table 2. Suffixes (tokens) attested in the corpora analysed (normalised frequencies per 10,000 words)

In general, as can be more clearly seen in Figure 3, the frequency of all the derivative suffixes is higher in $M E G$ - $C$ than in $M E L D$, except for the suffix -ship, which occurs more frequently in $M E L D$. This can be explained by the presence of certain recurring words containing the suffix -sHIP in documentary texts, such as lordship or worship, as these were common forms of address in administrative correspondence and legal documents.


Figure 3. Suffixes (tokens) attested in the corpora analysed (normalised frequencies per 10,000 words)

### 3.2. Productivity of the suffixes

Productivity is a contentious issue in historical word-formation (Ciszek 2008: 21-31). According to Cowie and Dalton-Puffer (2002: 432), morphological

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productivity is "not only a theoretical concept but a measurable property of wordformation rules". In order to measure the productivity of the suffixes, ${ }^{12}$ attention has been paid to token and type frequency. Token frequency alone is not helpful as an indicator of the productivity of a given suffix, since "the token count is often inflated by a small number of very common types" (Cowie and Dalton-Puffer 2002: 426). On the other hand, the higher the number of different types, the more productive a suffix is. If suffix $A$ has produced a greater number of new types than suffix B , it can be argued that suffix A is more productive than suffix B . Type figures have not been normalised because, following Cowie and Dalton-Puffer, normalising with tokens would be counting "types out of tokens (i.e. words in the text), which is not counting like out of like" (2002: 427). This makes it unfeasible to compare the two corpora in terms of types and therefore each corpus will be dealt with individually.
As can be seen in Table 3, the suffix with most types is -Ness in both corpora. The number of tokens is higher for -sHIP than for -NESS in $M E L D$, but if we take into account types, -NESS is more productive.

|  | MEG-C | MELD |
| :--- | :---: | :---: |
| -DOM | 14 | 4 |
| -HOOD | 43 | 5 |
| -NESS | 199 | 24 |
| -SHIP | 19 | 14 |
| -LAC | 2 | 0 |
| -REDE(N) | 6 | 1 |

Table 3. Suffixes (types) attested in the corpora analysed

### 3.3. Synonymous derivations

Synonymous derivations can be defined as rivalling forms from the same base with different suffixes with no apparent distinction in meaning that coexisted for a certain time in the language. Eventually one of the forms survived and the other or others (if more than two) were discarded or ousted, e.g. smallness and smallship (both forms are found in Middle English, but smallship has not survived into Present-Day English and is not even recorded in the OED; see Esteban-Segura 2011). The other possibility was that some semantic differentiation took place. Continuing with the -NESS and -SHIP dichotomy, both hardness and hardship have remained in Present-Day English, but with a clear difference in meaning. The fact that, at one point, they ceased to be synonymous enabled them to survive autonomously. Hegedüs (2014: 314-315) discusses another case of this semantic

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divergence: the free variants -ic / -icalin the example economic crisis vs. economical person. In this connection, Bauer argues that "where we have several forms, there is a tendency to try to distinguish them semantically, and where we have a single meaning, there is a tendency to try to express that consistently with a single form" (2009: 183). Lindsay (2012: 192), however, contends that while one affix will normally dominate, the less competitive affixes could still be productive if they "find a niche: a clearly defined subdomain within its potential domain -a subsystem that is therefore distinct and predictable to a speaker in spite of a general trend towards another affix". An instance of this is the suffix -ical, which has carved out a morphological productive niche for itself: this suffix became dominant when combined with stems that ended in -olog (Lindsay 2012: 201).
A remarkable number of synonymous derivations ${ }^{13}$ have been found, but with a different distribution among text types: all of the constructions occur in $M E G$-C and not a single one has been retrieved from MELD. This difference may be explained by the types of texts contained in $M E L D$ : legalese and administrative language, as happens with the terminology of other scientific disciplines, tends to avoid meaning identity so that ambiguity is reduced. As far as suffixal doublets are concerned, there is a total of 25 (which make up 50 types of suffixes), including -NeSS and -HOOD $(12 \times) 1,{ }^{14}$-NESS and -SHIP $(7 \times)$, -NESS and -DOM $(2 \times)$, -DOM and -HOOD $(1 \times),-$ DOM and -REDE( n$)(\mathrm{l} \times$ ), -SHIP and $-\operatorname{Rede}(\mathrm{n})(\mathrm{l} \times$ ), and -HOOD and -LAC ( $\mathrm{l} \times$ ).
The most frequent doublet is the one consisting of -ness and -hood. ${ }^{15}$ As can be seen in Table 4, the number of occurrences with -Ness is higher in eight of the doublets. In three of them, it is the same for -NESS and -HOOD; and on one occasion the number of constructions with -HOOD is higher.

| - NESS > -HOOD | - NESS = -HOOD | $-H O O D>-N E S S$ |
| :---: | :---: | :---: |
| wikkednes(se (125x) / wikkedhēd(e (1×) <br> derknes(se (28x) / derkhēde (1x) fulnes(se (14x) / fulhēd(e (7x) kīndenes(se (12x) / kīndehēde (1x) nōblenes(se (9x) / nōblehēd(e (1x) ēvennesse ( 8 x ) / ēvenhēde ( 2 x ) unkīndenes(se (4x) / unkīndehēde (2x) blessednesse ( $3 \times$ ) / blessedhēde ( $2 \times$ ) gōstİnes(se (1x) / gōstIThēde (1x) neuenesse (1x) / neuehēde (1x) | muchelnes(se (3x) / <br> muchelhēd(e (3x) <br> gōstIInes(se (1x) / gōstIIhēde (1x) <br> neuenesse (1x) / neuehēde (1x) | lustīhēd(e (2x) / <br> lustīnes(se (1x) |

Table 4. Occurrences of -NESS and -HOOD

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With regard to their continuity in Present-Day English, all the forms are collected in the OED, but those with -HOOD are now obsolete (blessedness / †blessedhead; darkness / †darkhead; evenness / †evenhead; fullness / †fullhead; ghostliness / $\dagger$ ghostlihead; kindness / $\dagger$ kindhead; lustiness / $\dagger$ lustihead; mickleness / $\dagger$ micklehead$\dagger$ micklehood; newness / †newhead; nobleness / †noblehead; unkindness / $\dagger$ unkindhead; wickedness / $\dagger$ wickedhead). In the case of this suffixal doublet, it can be safely said that the formations with -Ness have been the successful ones.

Both -NESS and -HOOD attach primarily to adjectives; we also find instances of some of them being attached to past participles. It is interesting to note that derknes(se and $\bar{e} v e n n e s s e$ were already present in Old English and both forms have been the ones that have remained in the language. ${ }^{16}$ This may indicate that the longer a form has existed, the more chances it has of surviving when competing with another.
The second most frequent doublet is that containing -Ness and -sHIP with seven different pairs. ${ }^{17}$ This was somehow expected, since -SHIP was the third most frequent type of suffix. In five of the seven doublets, formations with -NESS are more common, whereas in two of them, the number of occurrences for each pair is the same, as shown in Table 5.

| -NESS > -SHIP | -NESS = -SHIP |
| :---: | :---: |
| wōdnes(se (26x) / wōdship(e (1x) <br> gladnes(se (22x) / gladshipe (3x) <br> īdelnes(se (20x) /īdelship(e (3x) <br> drŏnkenes(se ( $6 \times$ ) / drŏnkeshipe ( $2 x$ ) <br> clērnesse (4x) ~ clērshipe (1x) | treunesse ( $1 \times$ ) / treushipe ( $1 \times$ ) <br> wīldnes(se (1x) / wïldeship (1x) |

Table 5. Occurrences of -NESS and -SHIP
Concerning their permanence in Present-Day English, all the forms are collected in the OED except for clearship; those forms with -ship are now obsolete (clearness; drunkenness- $\dagger$ drunkness / $\dagger$ drunkship; gladness / †gladship; idleness / †idleship; trueness / †trueship; wildness / †wildship; woodness / †woodship.
The suffixes attach mainly to adjectives and also to past participles. Likewise, there are forms inherited from Old English: drŏnkenes(se > OE druncen(n)es / drǒnkeshipe > OE druncenscipe; gladnes(se > OE gladnes / gladshipe > OE gledscipe; wōdnes(se > OE wōdness / wōdship(e > OE wōdscipe; īdelnes(se > OE īdelnes; treunesse > OE trēowness, trēwnes.
Another doublet is the one formed by -Ness and -DOM, which includes frēnes(se and frēdōm, and hōlīnes(se and hātī-dōm. ${ }^{18}$ Halidom is now obsolete, whereas both freeness and freedom are collected in the OED with no indication of obsolescence.

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As for the base to which the suffixes attach, this is an adjective in all cases. Most of the forms have been in the language before Middle English: frēdōm> OE frēodōm; hōt̄̄nes(se > OE hālignes / hāt̄̄-dōm> OE hālig-dōm.
Competition between the suffixes -DOM and -HOOD and -DOM and -REDE(N) is also found in the doublets thraldōm and thralhēd (e, and martirdōm and martirrēde. ${ }^{19}$ -DOM was the fourth most common type and $-\operatorname{REDE}(\mathrm{n})$ the fifth. In both doublets, the forms with -dOm are the most frequent ones and also the ones that have survived into Present-Day English (thraldom / †thrallhead; martyrdom ${ }^{20}$ ). The base to which both suffixes attach are nouns.
Moreover, with one suffixal doublet, there is competition between the suffixes $-\operatorname{sHIP}$ and $-\operatorname{Rede}(\mathrm{N})$ in the words félauship (e and félau-rēde. ${ }^{21}$ The formation with -sHIP is by far the more frequent and the one that has won out in Present-Day English (fellowship / $\dagger$ fellowred). Both suffixes are attached to a noun.
Finally, and also with one suffixal doublet, there is rivalry between -HOOD and -LAC in the pair wedhōde (wedhode $[1 \times]$ ) and wedlōk (wedlac $[1 \times]$, wedloc $[1 \times]$ ). Wedlock has been the formation surviving into Present-Day English ( $\dagger$ wedhood). Both suffixes attach to a past participle. Wedlōk already existed in Old English (OE wedlā ), which is another example of an older form surviving its rival.
Although we initially set out to assess suffixal doublets, two suffixal 'triplets' have also been found; the suffixes competing are -NESS, -HOOD and -DOM, on the one hand, and -NESS, -HOOD and -ship, on the other. As for the first triplet, there are two different ones in MEG-C: falsnesse, falshēde and falsdōm, and wrecchenes(se, wrecchehēde and wrecchedōm. ${ }^{22}$ Formations with -NESS have once again been the most successful ones (falseness / †falsehead / †falsedom; wretchedness / $\dagger$ wretchedhead / $\dagger$ wretcheddom), although falsehood has also made it to PresentDay English. All suffixes are attached to adjectives.
For -NESS, -HOOD and -SHIP, there is only one triplet: rēchelēsnes(se, rēchelēshēd(e and rēchelēsship (e. ${ }^{23}$ Even though the number of words carrying each suffix is similar, the formation with -ness is again the strongest one. The three suffixes attach to an adjective. Rēchelēsnes(se was already available in Old English (OE rēelēeasnes), proving once again that the oldest form is the one that has survived into Present-Day English.
Apart from doublets and triplets, there is one suffixal 'quadruplet', involving the suffixes -NESS, -HOOD, -LAC and -SHIP in the words fairnes(se, fairhēde, fair-lēk and fairshipe. ${ }^{24}$ All the words are registered in the $O E D$, but as expected in line with the evolution of the doublets and triplets, the only one which is not obsolete in Present-Day English is the one with the suffix -ness (fairness / $\dagger$ fairhead / $\dagger$ fairlec $/ \dagger$ fairship). The suffixes coalesce with an adjective and the form with -ness, the successful one, dates from Old English. It is worth mentioning that Old Icelandic

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has the word fagrleik-r, which could explain the origin of fair-lēk as a borrowing. This needs further investigation but, if such were the case, the borrowing was not successful.

In order to explain the existence of the synonymous derivations presented so far, attention has been paid to other variables made available for investigation by the corpus, such as geographical localisation, date and genre of the texts in which the synonymous derivations appear, but they do not seem to supply any relevant information. Thus, the forms for fulnes(se and fulbēd(e appear both in the North and South of the country, in the $15^{\text {th }}$ century, in religious prose and verse.

## 4. Conclusions

This study has presented a new account of the use of the suffixes under study by examining their occurrence in recently compiled corpora. The value of corpus work for the study of historical word formation is more than evident and the availability of fresh material offers the possibility of revisiting and enhancing previous knowledge as well as of opening new avenues of research.
Why does a certain suffix in rival patterns win over another one? Lindsay and Aronoff (2013) regard languages as "self-organizing in a manner similar to biological systems; languages are complex, continuous systems that change through numerous smaller interactions" (Aronoff and Lindsay 2014: 80). If the derivational suffix system is viewed as a continuous, living system, we could say that a process similar to that of natural selection (Lindsay and Aronoff 2013) takes place and this can help to answer the question. When there is synonymy, productive derivation, as is the case of the suffix -ness, ensures a successful pattern which is more likely to remain, whereas the forms with the less productive suffix will be eventually eliminated from the system and become extinct (following the natural selection metaphor). Therefore, we think that productivity has a great say when it comes to successful suffixes in synonymous derivations: the higher the productivity of a suffix, the more chances it has of surviving and this is corroborated by the data obtained. More common or token-frequent forms are the ones which continue in the language, whereas lower frequency forms are less likely to be picked up by the speakers. This involves their not becoming fixed and disappearing as a result. Some suffixes had a short life, while others seem to have been widely employed. On the other hand, older forms appear to have more chances of surviving, since they have been established for longer in the language.
Not a single instance of synonymous derivations has been found in MELD, which points to the fact that legal and administrative language favours fixedness of forms and univocity.

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The co-occurrence of the same base with different suffixes could have been due to stylistic factors, for instance, an alternative form may have been created with the intention of contrasting it with the established form. Another explanation could be scribal preference of one form over another.
As can be seen from what has been discussed so far, noun formation in Middle English was a much freer process than it is in Present-Day English. The changing and heterogeneous nature of the language at this period is especially reflected in derivational patterns.

## Acknowledgements

Research for the present study has received funding from the Research Council of Norway under the Yggdrasil mobility programme 2013-2014 (project number $227293 /$ Fll). This grant is hereby gratefully acknowledged. I would like to warmly thank Prof. Merja Stenroos and Dr. Jacob Thaisen from the Middle English Scribal Texts Programme, Department of Cultural Studies and Languages, University of Stavanger, for their generous help and valuable advice throughout the whole process of researching for and writing this article. I am also grateful to the Faculty of Arts and Education of the University of Stavanger for hosting me during a three-month research stay in the spring of 2014 and to the Stavanger Middle English team for providing a congenial setting for research.

## Notes

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*lez*, *lack*, *loc*; *nes*, *nys*, *nis*, *nus*, *nas*, *naes*, *nec*; *red, *rede, *redd, *redde, *raed, *raede, *raedd, *raedde, *reden, *redden, *raeden, *raedden; *ship* , *chip*, *scip*, *sipe*, *sip, *sipp, *sippe, *shyp*, *chyp*, *scyp*, *sype*, *syp, *sypp, *syppe, *shep*, *chep*, *scep*, *sepe*, *sep, *sepp, *seppe, *chup*, *sup*, *shup*, *chop*, *shap, *scap.
${ }^{9}$ Many of the instances retrieved were not suffixes and, as a consequence, they were not pertinent: *nes*, for example, returned words such as persones, townes or nescessary.

10 'Root' and 'base' are taken as synonyms (see Blake 1992: 624).
${ }^{11}$ In the OED, -HEAD and -HOOD are listed as two different suffixes, although there seems to be some controversy because, as explained, ultimately -HEAD comes from the same Germanic base as the suffix -Hood, although the details are not clear. Marchand (1969: 293) points out that -HEAD is "an unexplained by-form" of -ноод. In the MED, the main entry for the suffix is -hēd(e and -hōd is provided as an alternative form. Taking this into account and for the purposes of the present research, -hed and -hood are treated as forms of the same suffix, -HOOD. Therefore, in words such as childhood (childehede, childehode, childhede, child-hood) or manhood (manhede, manhed, manhode, manheed, manhod, monhed, manhood, manheede, manhoode, monhede), in which both suffixes are found, they have not been considered a suffixal doublet.
${ }^{12}$ Since only two Late Middle English corpora have been used, it is beyond the scope of this paper to assess productivity diachronically in a comprehensive way; our intention is to compare it in two different corpora from a synchronic perspective.
${ }^{13}$ Synonymous derivations include suffixal doublets (the same base with two different suffixes), suffixal triplets (the same
base with three different suffixes) and suffixal quadruplets (the same base with four different suffixes).
${ }^{14}$ Although the forms 'godnes' and 'godhede' (with different spelling realisations) occur, they have not been included since there is a semantic differentiation -the latter refers to divinityand therefore the pair cannot be considered a suffixal doublet.
${ }^{15}$ Appendix I lists the items found in the corpus: firstly, the lemma taken from the MED in bold; secondly, the different spelling realisations; and finally, the number of occurrences in decreasing frequency.
${ }^{16}$ If not stated, the forms date from the Middle English period.
${ }^{17}$ Appendix II includes the items found in the corpus: firstly, the lemma taken from the MED in bold; secondly, the different spelling realisations; and finally, the number of occurrences in decreasing frequency.
${ }^{18}$ See Appendix III for the different spelling realisations.
${ }^{19}$ See Appendix IV for the different spelling realisations.
${ }^{20}$ The formation of martyr + the suffix -REDE(N) is not attested either in the MED or the OED, nor is it found in Bosworth-Toller's Anglo-Saxon Dictionary. There is only one instance of it in the corpus ('marrtirred'), in a text from the West Midlands.
${ }^{21}$ See Appendix $V$ for the different spelling realisations.
${ }^{22}$ See Appendix VI for the different spelling realisations.
${ }^{23}$ See Appendix VII for the different spelling realisations.
${ }^{24}$ See Appendix VIII for the different spelling realisations.

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## Appendix I: Occurrences of -NEss and -hood

| -NESS | -hood |
| :---: | :---: |
| blessednesse: blessydnesse (2x), blessidnes (1x) | blessedhēde: blissedhede ( $1 \times$ ), blyssedhede (1x) |
| derknes(se: derkenesse ( $9 x$ ), derkenes ( $7 x$ ), derknesse ( $5 x$ ), derknes ( $4 x$ ), derkenusse ( $1 \times$ ), derknessis ( $1 \times$ ), derknysse ( $1 \times$ ) | derkhēde: derkhede (1x) |
| ēvennesse: euenesse ( $3 x$ ), euennes ( $3 x$ ), euenesses ( $1 \times$ ), euennesse ( $1 \times$ ) | ēvenhēde: euenhed ( $2 \times$ ) |
| fulnes(se: fulnes ( $6 \times$ ), volnesse ( $5 x$ ), fullenesse ( $1 \times$ ), fulness ( $1 \times$ ), volnes ( $1 \times$ ) | fulhēd(e: fulhede (4x), fulhed (2x), fulthede ( $1 \times$ ) |
| gōstlīnes(se: gostlynes (1x) | gōstIThēde: gostlyhed (1x) |
| kīndenes(se: kyndenes ( $5 x$ ), kyndnes ( $4 \times$ ), kendenes ( $1 \times$ ), kyndenese ( $1 \times$ ), kyndnesse ( $1 \times$ ) | kīndehēde: kyndehede (1x) |
| lustīnes(se: lustenes (1x) | lustīhēd(e: lustihede (1x), lustyhed (1x) |
| muchelnes(se: mykelnes (2x), mochelnesse (1x) | muchelhēd(e: mikelhed (1x), mikelhode (1x), mykelhed (1x) |
| neuenesse: newnes (1x) | neuehēde: newe-hed (1x) |
| ```nōblenes(se: nobylnesse (4x), nobelnes (1x), nobilnes (1x), noblenes (1x), nobulnes (1x), nobylnes (1x)``` | nōblehēd(e: nobel-hede (1x) |
| unkīndenes(se: vnkyndenes (2x), vnkyndenesse (1x), vnkyndnes (1x) | unkīndehēde: vnkyndehede (1x), vnkyndhede (1x) |
| wikkednes(se: wickednes (22x), wickidnes (11x), wykkednes ( $9 x$ ), wickednesse ( $8 x$ ), wickidnesse ( $5 x$ ), wikkenesse ( $5 x$ ), wyckednes ( $5 x$ ), wykkednesse ( $5 x$ ), wikkednes $(4 x)$, wikkednesse $(3 x)$, wyckydnes ( $3 x$ ), wiccutnes ( $2 x$ ), wickenesse ( $2 x$ ), wickudenusse $(2 x)$, wikednes ( $2 x$ ), wikkidnesse ( $2 x$ ), wyckydnesse ( $2 x$ ), wykednesse ( $2 x$ ), wckednes ( $1 \times$ ), wekydnes ( $1 \times$ ), wiccodnes ( $1 \times$ ), wiccudnisse ( $1 \times$ ), wickedenesse ( $1 \times$ ), wickidnesses ( $1 \times$ ), wicodnes ( $1 \times$ ), wikednesse ( $1 \times$ ), wikidnes ( $1 \times$ ), wikidnesse ( $1 \times$ ), wikkedenesse ( $1 \times$ ), wikkedenessis ( $1 \times$ ), wikkenes ( $1 \times$ ), wikkudnesse $(1 \times)$, wikodnes ( $1 \times$ ), wikydnesse ( $1 \times$ ), wilkednes ( $1 \times$ ), wyckednesse (1x), wyckednesses (1x), wyckydnesses $(1 \times)$, wyckydnessys ( $1 \times$ ), wyckydnysse ( $1 \times$ ), wykednes (1x), wykkedenes (1x), wykkednisse ( $1 \times$ ), wykkenes (1x), wykkenesse (1x), wykkidnes (1x), wykkydnes (1×), wykkydnesse (1×), wykydnesse (1×) | wikkedhēd(e: wickedhede (1×) |

## Appendix II: Occurrences of -Ness and -sHIP

| -NESS | -SHIP |
| :---: | :---: |
| clērnesse: clerenes ( $2 \times$ ), clernes ( $2 x$ ) | clērshipe: clerchippe (1x) |
| drŏnkenes(se: drunkenesse ( $2 \times$ ), dronkenes ( $1 \times$ ), dronkennesse ( $1 \times$ ), drounknes ( $1 \times$ ), drunknes ( $1 \times$ ) | drŏnkeshipe: dronkeschype (1×), dronkschep (1x) |
| gladnes(se: gladnes (12x), gladnesse ( $8 \times$ ), gladdenes ( $2 \times$ ) | gladshipe: gladship (3x) |
| īdelnes(se: ydelnesse ( $4 x$ ), jdelnes ( $3 x$ ), ydelnes ( $3 x$ ), idelnes ( $2 x$ ), ideInesse ( $1 \times$ ), jdilnesse ( $1 \times$ ), jdylnes ( $1 \times$ ), ydelnese ( $1 \times$ ), ydelnessys ( $1 \times$ ), ydelnys ( $1 \times$ ), ydulnes ( $1 \times$ ), yldelnesses (1x) | īdelship(e: jdelschippe (1x), ydellschyp (1x), ydelship (1×) |
| treunesse: triwenesse (1x) | treushipe: truship (1x) |
| wildnes(se: wildenesse (1x) | wīldeship: wildeschepe (1x) |
| wōdnes(se: wodnes ( $5 \times$ ), woodnesse ( $5 \times$ ), wodenes ( $4 x$ ), wodnesse ( $3 x$ ), wodenesse $(2 x)$, woodenesse $(2 x)$, woddenes ( $1 x$ ), wodenys ( $1 \times$ ), wodnisse ( $1 \times$ ), woidenes ( $1 \times$ ), woodenes ( $1 \times$ ) | wōdship(e: widship (1x) |

## Appendix III: Occurrences of -NEss and -DOM

| -NEss | -DOM |
| :--- | :--- |
| frēnes(se: freenesse (2x) | frēdōm: fredom (12x), fredam ( $3 \times$ ), <br> fredome $(2 \times$ ), fredomes ( $2 \times$ ), fredom~ ( $1 \times$ ) |
| hōlīnes(se: holynesse (13x), holynes (12x), <br> halynes (9x), holines (2x), halynese (1x), <br> helynes (1x), holenes ( $1 \times$ ), holinesse (1x), <br> holynusse ( $1 \times$ ) | hālī-dōm: halydom ( $1 \times$ ), halydome ( $1 \times$ ), <br> holydome ( $1 \times$ ) |

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## Appendix IV:

## Occurrences of -DOM and -HOOD / -DOM and -REDE(N)

| -DOM | -Hood |
| :---: | :---: |
| thraldōm: praldome (9x), thraldam~ ( $2 x$ ), thraldom ( $2 x$ ), thraldom~ $(2 x)$, thraldome $(2 x)$, braldom $(2 x)$, thraldame ( $1 x$ ), praldam ( $1 \times$ ), praldom $\sim(1 x)$ | thralhēd(e: pralhede ( $3 \times$ ) |
| -Dom | -REDE(N) |
| martirdōm: marterdom (3x), martirdome $(3 x)$, martyrdome ( $3 x$ ), martirdam (1x), marrtirdom (1x), martirdom (1x), martirdom~ (1x), marturdam (1x), marturdomys ( $1 \times$ ), martyrdam ( $1 \times$ ) | martirrēde: marrtirred (1x) |

## Appendix V: Occurrences of -sHIP and -REdE(n)

| -SHIP | -REDE(N) |
| :---: | :---: |
| fëlauship(e: felawschyp ( $2 x$ ), felawshipp $(2 x)$, feleschip ( $2 x$ ), feleschype ( $2 x$ ), felischip ( $2 x$ ), felaschep ( $1 \times$ ), felaschip ( $1 \times$ ), felaschup ( $1 \times$ ), felauship ( $1 \times$ ), felaweschup ( $1 \times$ ), felawschepe ( $1 \times$ ), felawschip ( $1 \times$ ), felawschipe ( $1 \times$ ), felawschype ( $1 \times$ ), felawship (1x), felawshipe (1x), felechip (1x), feleschipe ( $1 \times$ ), feleshyp ( $1 \times$ ), felischipe ( $1 \times$ ), felischippe ( $1 \times$ ), feliship ( $1 \times$ ), felowschipe $(1 \times)$, felowshipe ( $1 \times$ ), felyschip ( $1 \times$ ) | fēlau-rēde: felaghrede (1x) |

## Appendix VI: Occurrences of -NESS, -HOOD and -DOM

| -NESS | -Hood | -DOM |
| :---: | :---: | :---: |
| falsnesse: falsnes (15x), falsnesse ( $7 x$ ), falsenes ( $3 x$ ), falnesse ( $1 \times$ ), falsenesse (1x), falnysse (1x) | falshēde: falshede ( $12 x$ ), falshed ( $7 x$ ), falsehed ( $1 \times$ ), falshode (1x), falsse-hed (1x) | falsdōm: falsedom (1x) |
| wrecchenes(se: wrichenes $(1 \times)$ | wrecchehēde: wrecchede $(1 \times)$ | wrecchedōm: wrecchedome (1x) |

## Appendix VII: Occurrences of -NESS, -HOOD and -SHIP

| -NEss | -HOOD | -sHIP |
| :--- | :--- | :--- |
| rēchelēsnes(se: reklesnes <br> $(1 \times)$ | rēchelēshēd(e: rechleshede <br> $(1 \times)$, reklesheed (1x) | rēchelēsship(e: <br> rechelaschepe (1x) |

## Appendix VIII:

Occurrences of -NESS, -HOOD, -LAC and -SHIP

| -NESS | -HOOD | -LAC | -SHIP |
| :---: | :---: | :---: | :---: |
| fairnes(se: fayrnesse <br> ( $8 \times$ ), fairenes <br> (3x), fayrenes <br> (3x), fairnesse <br> $(2 x)$, fayrnes ( $2 x$ ), <br> fayrnusse ( $2 x$ ), <br> fairenesse ( $1 \times$ ), <br> fayrenesse ( $1 \times$ ), <br> fayr~nes ( $1 \times$ ), <br> fayr~nesse (1x), <br> fayrnysse (1x), <br> feirnes ( $1 \times$ ), feyrenes <br> (1x), feyrnes (1x) | fairhēde: fairehede $(3 x)$, fairhed ( $3 x$ ), fayrehed (1x) | fair-lēk: feyrelac (1x) | fairshipe: feyrship $(1 \times)$ |

Received: 4 December 2017
Accepted: 15 June 2018


[^0]:    ${ }^{6}$ See <http://www.uis.no/getfile. php/1339078/Forskning/Kultur/MEG/ Catalogue_2011_Master_3.pdf> for further information.
    ${ }^{7}$ Esteban-Segura found suffixal doublets in Middle English medical prose and examined other registers to determine whether this variation occurred elsewhere. She concluded that alternation took place "in a restricted number of words (all of them with a specialized medical sense)" (2011: 191).

    8 The search elements included the following: *dom*, *dam*, *doom*, *daam*; *hod*, *hood*, *had*, *head*, *heed*, *hat*, *hied*, *hed, *hede, *hedd, *heid, *hyd, *heuede; *lac*, *lec*, *leac*,

