

**The Influence of Old Norse on English Inflectional Morphology and Syncretism**  
A contrastive investigation supported by a corpus based analysis

“NORD”

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# **The Influence of Old Norse on English Inflectional Morphology and Syncretism**

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### **1. Introduction**

This aim of this paper is to address, examine and answer the following question and issue: to what extent can the influence of Old Norse be attributed to the simplification of the Old and Middle English grammatical system. Building on Thomason and Kaufman's (1991) theoretical framework and case studies, as well as on Dawson's (2003) theory of koinéization and on the theory that the simplification of this system came about through the propensity of speakers to concentrate on the shared and similar elements of the two languages (i.e. the roots), I will attempt to track down the contact induced changes in English through corpus analysis, more precisely through the analysis of the possible correlation between frequency, resemblance and morphological simplification

### **2. Theoretical Framework**

Language contact and contact induced language change is an integral part of language development, and traces of borrowing can be discovered from the earliest stages of certain languages. Languages and language families have been in contact with each other since their emergence, and of course genetic relation does not exclude the possibility of borrowing. Borrowing is an absolutely natural phenomenon of human languages. If a language falls short in describing a certain notion, the easiest way to remedy this situation is that of borrowing. It should also be noted that there are no simple or complex languages, and languages do not change to become simpler or more complex, thus they cannot be compared on such grounds. Languages do not deteriorate through borrowings and loanwords and they cannot be improved through conscious effort and linguistic purism.

Haugen (1950:212) defines borrowing as the “attempted reproduction in one language of patterns previously found in another”. Borrowing is, then, essentially a process, or at least an attempt, of pattern reproduction: of phonemes, lexical items or even syntactical structures. Based on Haugen's account, the following categories or types of borrowing can be distinguished: loanwords, loanblends and loanshifts.

Barðdal & Kulikov (2009) discuss case syncretism and the possible scenarios and phenomena that can lead to certain construction falling out of use. They suggest that case

syncretism and the type frequencies, and therefore the productivity, of the individual constructions are correlated, and the case construction “lowest in type frequency is expected to disappear first [...] until only the productive case constructions are left” (Barðal & Kulikov 2009:475). Furthermore, they also maintain that productive constructions can attract new verbs and contact situations which involve “massive replacement of the vocabulary” accelerate this process, which they exemplify with the contact situation between English and Norse.

Concerning linguistic interference, Thomason and Kaufman (1991:34) point out that the main determinant of the outcome of language contact is the speakers’ sociolinguistic history and not the structure of their language. They argue that the social factors determine the direction of the interference, i.e. which language borrows and which supplies the forms borrowed, also the extent of the interference, i.e. which layers are affected and how deeply, and finally “to a considerable degree [...] the kinds of features transferred from one language to another” (ibid.).

Thomason and Kaufman also provide a definition of borrowing, namely that while maintaining their native language, speakers incorporate foreign features into their language, and these foreign features change the original language. They claim that words are the first to enter the language, and typically they are treated as stems. However, in prolonged contact situation with strong cultural pressure structural features can also enter the language.

The issues of the constraints of borrowing and questions of what can be borrowed have also been discussed by Thomason and Kaufman, Haugen (1950) and Lass (1997). In accordance with the previously described discussion by the first authors, they claim that linguistic and structural constraints all fail in favor of social and cultural factors conditioning the outcome of language contact. Lass (1997:185) discusses the issue and raises awareness to the problem that there are no “protocols for ruling out particular kinds of borrowings” and that it is very difficult, if not impossible, to define absolute constraints on what can be borrowed (ibid.).

Regarding the English-Norse contact situation, Thomason and Kaufman provide a detailed case study (1991:275-304) in which they examine, analyze and evaluate the nature of this contact situation, its characteristics and outcomes. They conclude that the English-Norse linguistic contact was “pervasive, in the sense that its results are found in all parts of the language; but it was not deep” (1991:302). However Lutz (forthcoming) and Millar (1997) levels criticism against this approach. Lutz criticizes their approach because they “take insufficient note of the Old English evidence” and are therefore unaware of “the parallels

between the influences of Old Norse and Old French". Millar (1997) criticizes Thomason and Kaufman's approach for being led by "the lack of a holistic view" (1997:24), which seems to be in accordance with the Lutz's criticism.

Finally, Lutz describes the OE-ON contact situation as special, since the two languages were genetically closely related which enabled easy transfer between them. Furthermore, many ON loans have basic meanings and even include function words (most importantly the third person plural personal pronouns) and the influence was somewhat localized, namely to the area of the Danelaw, from which it later spread out to the other areas and Standard English.

## **2.1. Questions of Creolization and Koinéization**

If we were to give a very basic description of the notion of creolization and pidginization, we can say that they involve the elements of language contact and contact-induced simplification. Pidginization, which is the precursor of creolization, comes about when two languages, usually unrelated, come in contact with each other, from which a simplified, mixed language emerges. Later, when this newly emerged language is nativized can we speak about a creole language.

The hypothesis of Middle English being a creole of Old English and Old French was first put forward by Bailey & Maroldt (1977) who describe the creolization process in two stages. First, the OE-ON contact situation is described, which they claim to have resulted in a creole in the North, after which a second creole was formed under the influence of Old French. Bailey & Maroldt also suggest that Middle English "began with a heavy admixture of Anglo-Saxon elements into Old French" (Bailey & Maroldt 1977:38). Naturally, this theory received much attention and criticism since it's first been published, and Thomason & Kaufman (1991:306-315) in their case study of the contact between Old English and Old Norse conclusively disprove Bailey & Maroldt's theory.

Dawson (2003) discusses the English-Norse contact situation in the light of the process of koinéization, whereby a standard language (i.e. koiné) emerges as a result of contact between two mutually intelligible varieties. Drawing on the works of Siegel (1985) and Trudgill (1986), she makes a convincing argument as to why this situation is to be considered one where a koiné emerges through three stages.

The first stage is when leveling and mixing begins with some degree of reduction but without the emergence of new forms, the second is when a new compromise system, that is a

stabilized koiné emerges, and finally the third is when an expanded koiné can appear with greater morphological complexity.

The first stage of koineization corresponds to the early contact between English and Norse when words of English and Scandinavian origin were used side by side, the second stage can be identified with the era when “assimilation and adjustment was taking place socially and politically” (Dawson 2003:47), and finally the third stage corresponds to the time when Norse presence was nearing its end.

### 3. Linguistic Structure

What follows is a comparison of the Old English and Old Norse phonological and morphological structure with attention to the differences between these two systems and the possible points of interference between them.

#### 3.1. Phonology

The Old English vowel system consists of seven short vowels: *a*, *æ*, *e*, *i*, *o*, *u* and *y*. The long pairs of these short vowels provide the seven long vowels, the length of which are indicated with a macron: *ā*, *ǣ*, *ē*, *ī*, *ō*, *ū* and *ȳ*. In each case the individual vowels represent the regular sound that should be expected from their orthography. The system of Old English monophthongs can be arranged as follows:

|      |       | front    |         | back   |
|------|-------|----------|---------|--------|
|      |       | unround. | rounded |        |
| high | short | i [ɪ]    | y [y]   | u [u]  |
|      | long  | ī [i:]   | ȳ [y:]  | ū [u:] |
| mid  | short | e [ɛ]    |         | o [ɔ]  |
|      | long  | ē [e:]   |         | ō [o:] |
| low  | short | æ [æ]    |         | a [ɑ]  |
|      | long  | ǣ [æ:]   |         | ā [ɑ:] |

Fig. 1. The System of Old English Monophthongs

This system is very much symmetric since each vowel has its long pair and for every front vowel we can find a corresponding back one. Besides these monophthongs there existed at least two pairs of diphthongs: *ea* [æə] and its long pair *ēa* [æ:ə], *eo* [ɛə] and its long pair *ēo* [e:ə]. Apart from these there are two more pairs: *io* [io] and *īo* [i:ɔ] plus in the early texts *ie* [ie] and *īe* [i:e]. These latter two pairs are early Old English digraphs which have changed by

the classical Old English period: *ie* became *i* or *y*, *īe* became *ī* or *ȳ*, *io* changed into *eo* and finally *īo* into *ēo* (Hutterer 1986:182).

The consonantal system can also be considered quite regular since the majority of the consonants are realized as one would expect. There are, however, a number of exceptions. As in many languages the pronunciation of *g* is quite problematic in Old English, since perhaps only under two conditions is it pronounced as [g]: after *n* and if doubled; otherwise it is either [j] or [ɣ]. *G* is palatalized to [j] before front vowels, however those front vowels which are derived by umlaut (that is, they are secondary) do not bring about palatalization. Thus, for instance *geard* ‘yard’ is pronounced with a [j] as [jæærd] while *gæt* ‘goats’ supposedly has a fricative [ɣ] (but definitely not a [j]) since it goes back to the form *\*gātiz* which contains the back vowel *a* from which the *æ* is derived.

In all other positions, as described by Robinson (1992:155), *g* was most probably pronounced as the fricative [ɣ]. Here we should mention that it is not quite clear whether *g* (if not palatalized) was always pronounced as [ɣ] or there existed certain other phonetic environments in which it was pronounced as a velar stop. As opposed to Robinson, Pyles suggests that “the symbol indicated the velar stop [g] before consonants, initially before back vowels and initially before [secondary] front vowels” (Pyles 1984:105).

There is one thing that can be said for sure: *g* was pronounced as a fricative before back vowels, since “a word such as *dagas* ‘days’ [...] undoubtedly contained a voiced velar fricative” (Hogg 1992:77). Orthography may also provide us some evidence. In Old English the letter yogh <ȝ> was used to represent *g*, while the letter <g> was introduced in the post-Conquest era, that is after 1066. From this time on “insular <ȝ> and Caroline <g> were often distinguished so that they represented different sounds [thus] generally insular <ȝ> was used for the fricative [and] <g> for the stop” (Hogg 1992:77). We may conclude that *g* was most probably pronounced as a stop not only if it was doubled or stood before *n* but also in other position such as word-initially before back vowels.

Word-initially *h* is realized as [h]; word-finally and after back vowels and diphthongs it was pronounced as [x] and after front vowels it became [ç]. The letter <k> is rarely found in Old English, since most frequently <c> is used for representing [k]. However, [k] is not the only possible way in which <c> can be realized, since before original front vowels it palatalizes and is pronounced as the affricate [tʃ] (Pyles 1984:104).

*F* and *v*; *s* and *z* along with *þ* and *ð* were subject to the rule of medial voicing, that is in intervocalic positions *f* was pronounced as [v], *s* as [z] and *þ* [θ] as [ð]. Finally we can

mention that there existed two digraphs in Old English: *cg* and *sc*, the pronunciation of which are problem-free and regular, since *cg* was always pronounced as [dʒ], as in *ecg* [edʒ] ‘edge’ and *sc* was always realized as [ʃ] as in *scip* [ʃip] ‘ship’ (Pyles 1984:104).

Consisting of the five basic vowels *a*, *e*, *i*, *o* and *u* (each having a long counterpart), plus four umlaut ones (*y*, *ø*, *æ*, *œ*, with only *y* and *ø* having their long counterparts) the Old Norse vocalic system can be considered very much regular. Besides these vowels, we can find three diphthongs in Old Norse, two of which are basic: *au* and *ei*, while the third one, *ey* is derived from *au* via umlaut. The vowels of Old Norse can be arranged in the following manner:

|          | front     |        |         |        | back      |        |         |        |         |
|----------|-----------|--------|---------|--------|-----------|--------|---------|--------|---------|
|          | unrounded |        | rounded |        | unrounded |        | rounded |        |         |
|          | short     | long   | short   | long   | short     | long   | short   | long   |         |
| high     | i [i]     | í [i:] | y [y]   | ý [y:] |           |        | u [u]   | ú [u:] | non-low |
| non-high | e [e]     | é [e:] | ø [ø]   | œ [ø:] |           |        | o [o]   | ó [o:] |         |
|          |           | æ [æ:] |         |        | a [a]     | á [a:] | ɔ [ɔ]   |        | low     |

Figure 2.

The system of Old Norse monophthongs (based on Valfells and Cathey 1981:2)

In each case the acute accents are markers of length, thus they do not denote differences in quality. All three diphthongs bear the exact sound values as their constituents. In an earlier stage of the language there used to exist a long pair for *ɔ*, but by the early literary era this vowel merged with the long, low, back unrounded *á*. The original sound value of this short low back rounded *ɔ* was [ɔ] but, still in the Old Norse period, as early as the 13<sup>th</sup> century, this has changed to [ø] and in Modern Norse orthography it is represented by an <ö>. Furthermore, before diphthongizing in the early Modern Norse era the letter <æ>, as Hutterer suggests, carried the value of [ɛ], rather than [æ] which would be expected from the orthography (cf. Hutterer 1986:135, 137). This, however, need not be true, as, for instance, there is no trace of [ɛ] in Árnason’s account of Old Icelandic vowels, yet there is a long low [æ] (cf. Árnason 1980:98). Besides these, there were no other exceptions concerning the representation of sounds by the vowels.

Concerning the consonant system, however, one can observe greater differences in the phonological representations. The Old Norse consonants can be arranged as follows:

|  |         |             |      |
|--|---------|-------------|------|
|  |         | oral cavity |      |
|  | labials | front       | back |

|              |   |   |   |
|--------------|---|---|---|
| stops:       |   |   |   |
| – voiced     | p | t | k |
| – voiceless  | b | d | g |
| continuants  | f | þ | h |
| sibilant     |   | s |   |
| nasals       | m | n |   |
| liquids:     |   |   |   |
| – continuant |   | l |   |
| – trilled    |   | r |   |

Figure 3.

The system of Old Norse consonants (based on Valfells and Cathey 1981:1)

The first thing we should note is that the pronunciation of *t*, *b* and *d* is regular in every position, and *p* is usually pronounced as [p], but it turns into a [f] if it stands before *t* or *s*, e.g. *skapt* [skaft] ‘handle’. The realization of *k* and *g* is, however, a more complex issue, as front vowels have the capability of palatalizing these two consonants. But instead of completely replacing [k] and [g] with [j] or a [j]-like sound (as, for instance, in Old English), the presence of the original sound is maintained as in *gefa* [g<sup>j</sup>eva] ‘to give’ and *kenna* [k<sup>j</sup>enna] ‘to recognize’.

Besides being subject to palatalization, *k* and *g* brought about a change in the pronunciation of *n* if it stood before *k* or *g*, namely that it was then pronounced a velar nasal [ŋ], much like the *n* in English [siŋ]. Furthermore, in intervocalic position [g] was pronounced [ɣ], as in *saga* [saɣa], and before front vowels or before a *j* this intervocalic [ɣ] could undergo ‘real’ palatalization. In this case by ‘real’ I mean real as opposed to the previously discussed palatalization of word initial *k* and *g*, where the original consonant is retained and the palatal [j] is only present additionally. In the case of palatalizing intervocalic [ɣ] the fricative really is replaced with a [j], e.g. *degi* [deji] ‘day (dat. sg.)’.

However, <g> was not the only letter to be pronounced in a different manner if surrounded by vowels. While *g* was subject to fricativization and palatalization, *f* and *þ* were subject to voicing if they stood between vowels. The question of voicing in intervocalic positions shall be further elaborated on in a later subchapter, so suffice it to say at this point that under given circumstances [f] and [θ] would voice to [v] and [ð].

Old Norse has only one sibilant consonant, a voiceless [s], which has no voiced pair, not even an allophone, thus *s* is never voiced, it remains a [s] in every position, even intervocalically. However, the letter <z> does exist, but (just like in Modern German) it is only a representation of the affricate [ts]. The consonant [v] probably derives ultimately from a Proto-Germanic [w], which was first transformed in Old Norse into a bilabial [b] that later

(but still in the Old Norse period) changed into the fricative [v], now found in both the Old and Modern version of Icelandic.

One of the most peculiar features of the Old Norse consonant system is the presence of voiceless pairs for sonorants [m], [n], [l] and [r]. These voiceless sonorants can occur in word-final position and in clusters with [h] or voiceless plosives [p], [t] and [k]. Thus, for instance, *fara* ‘to go’ has a regular voiced [r] in it and is pronounced as [fara], while *fótr* ‘foot’ has a voiceless [r] and should have sounded as [fo:tr̥] (cf. Robinson 1992:84). The voiceless [m], [n], [l], [r] sounds have all been preserved throughout the history of the language, and are still present in Modern Icelandic.

Finally, the pronunciation of [h] can also be considered quite regular, for in the majority of cases it sounded as a [h], but before *v* it was pronounced more like a [x]. Thus *hart* ‘hard’ contained a [h] and sounded as [hart̥], while *hvat* ‘what’ was realized as [x<sup>w</sup>at].

### **3.2. Morphology**

In what follows, a rather brief enumeration of the Old English and Old Norse nominal and verbal morphology will be presented, focusing on the inflectional markers and conjugational patterns of the individual classes of nouns and verbs, respectively.

#### **3.2.1. Nominal morphology**

##### *The classification of nouns*

Old English and Old Norse nouns were divided into four classes of vocalic stems (*a-*, *ō-*, *i-*, *u-*) which constitute the strong declension, and three classes of consonantal stems *n-*, *r-*, *nd-* and a class of athematic nouns which together make up the weak declension. Just like in the case of Old English, the distribution of the individual nouns among these stem classes was not even and certain classes had a tendency to absorb elements from classes comprising fewer nouns.

Before discussing the individual paradigms, it might be relevant to point out that there is one universal feature common to every class of ON nouns, that the dative plural, with one exception (*jō*-stem) is invariantly *-um* throughout the entire nominal system, including the vocal, consonantal and athematic classes. This is only partly true of OE, since in the *wa-* and *wō*-stems the thematic *w* surfaces before the *um* ending, thus yielding *-wum*. Otherwise the

marker appears invariantly as *-um*. Furthermore, in the case of ON *a*-, *i*-, *u*-, *r*- and *nd*-stems the stem vowel or consonant surfaces in at least one of the plural forms.

### *The strong noun classes*

Four categories constitute the Old English and Old Norse strong nouns: the *a*-, *ō*-, *i*- and *u*-stems, with *a*- and *ō*- further dividing into two subcategories each: *ja*- and *wa*- for the *a*-stem and *jō*- and *wō*- for the other. The category of *a*-stems consists of masculine and neuter nouns with no feminines, which is, by extension, true for both its subcategories. The *a*-stem masculine nouns in ON show a different form from their Old English counterparts, which is due to the fact that while in OE the PGmc. nominative singular ending *\*-az* was lost completely, in ON this PGmc ending developed (through rhotacism) into *-r* (Robinson 1992:88; 160; Ringe 2006:269).

Concerning the ON neuter *a*-stems, their nominative and accusative forms are always identical in the same number and they have no endings in the nominative and accusative plural forms. However, these forms are not entirely unmarked, as they show a mutated vowel, *ø*, created by the historical *-u* ending for nominative and accusative plurals. In the case of OE neuter *a*-stems, the plural nouns can take different endings in the nominative and accusative, depending on the length of the root syllable. Namely, if the syllable is long, there are no endings in the nominative and accusative plurals, but if the syllable is short, then the noun takes a *-u* in both cases. If we disregard the syllable length issue, this marking is, in principle, exactly the same as in ON, with the only difference being the mutation triggered by the *-u* ending in ON that had no effect on the preceding vowel in OE.

Among the *ja*-stems, syllable length also plays quite an important role, as in the case of Old Norse short *ja*-stems, a *-j-* is inserted between the root and the ending for every plural form of the masculine nouns and the dative and genitive plurals for neuter nouns. However, this *-j-* is dropped between a long syllable and a back vowel, unless the *j* is preceded by *g* or *k*, in which case it is retained. In the case of Old English, syllable length is also an important factor, yet the medial *-j-* never appears in any of the paradigms.

Finally, in the case of the *wa*-stems, the PGmc. *\*w* transformed either into ON *v* or dropped altogether if it was preceded by a short stem or *g* or *k*, and at the same time followed by *a* or *i*. However, the outcomes of this regular and conditioned sound change were disrupted by analogy which restored the lost *v* in certain cases. Concerning the OE nouns of this subclass, the original *w* is retained, sometimes in the form of *u*, and it is always present in every case, both singular and plural.

The  $\bar{o}$ -stem class contains only feminine nouns, and they can generally be described as complementing the  $a$ -stem class from which such elements are completely absent, both in Old English and Old Norse. In the latter language, members of this class have a zero suffix, and occasional mutated forms, for their nominative, accusative and dative singulars. This derives from an earlier nominative and dative singular marker  $-u$  which caused umlaut and then disappeared, and the mutated vowel later analogically spread to the accusative singular from the nominative case. In the case of the dative plural (and occasionally in the singular as well) however, the mutation-inducing  $-u$  is still retained, either in its original form or as part of the universal dative plural marker  $-um$ . The analogical formation of the ON accusative singular can be evidenced by the corresponding forms in Old English, which have an  $-u$  in the nominative singular and  $-e$  in the accusative singular. Furthermore, in OE, as opposed to ON, syllable length is also a factor in the case of  $\bar{o}$ -stems, though it only causes one single form to be different, namely the singular and plural nominative, yet this also means that the entire paradigms of the  $\bar{o}$ - and  $j\bar{o}$ -stems differ only in that form.

The  $j\bar{o}$ - subcategory of this class in Old Norse is similar to the  $ja$ -stems in the way they retain or drop the medial  $-j-$ , and they have fairly regular patterns of declension. In Old English the medial  $-j-$  never surfaces in this subcategory, and with the exception of the previously discussed nominative singular form, these paradigms are identical with the  $\bar{o}$ -stems. Finally, the  $w\bar{o}$ - subclass of ON is a rather limited one, as it comprises only a handful of words, and exhibit similar phonological changes as the  $wa$ -stems. In OE the endings are the same as in the case of  $\bar{o}$ -stems, with the addition of a  $w$  in both numbers and all four cases apart from the nominative singular. Furthermore, in Old English there is a certain amount of variation in the plural endings of these nouns, namely that the nouns can take an  $-e$  in the nominative and accusative plurals and the weak  $-ena$  ending in the genitive plural alongside  $-a$  (Mitchell and Robinson 2007:27 §47). Table 1 summarizes the  $\bar{o}$ -stem declensions:

|            | Old Norse         |     |                    |      |                   |      | Old English                  |     |                                           |     |                  |      |
|------------|-------------------|-----|--------------------|------|-------------------|------|------------------------------|-----|-------------------------------------------|-----|------------------|------|
|            | $\bar{o}$ -       |     | $j\bar{o}$ -       |      | $w\bar{o}$ -      |      | $\bar{o}$ - ( <i>short</i> ) |     | $\bar{o}$ - ( <i>long</i> ), $j\bar{o}$ - |     | $w\bar{o}$ -     |      |
|            | sg.               | pl. | sg.                | pl.  | sg.               | pl.  | sg.                          | pl. | sg.                                       | pl. | sg.              | pl.  |
| <i>nom</i> | - $\emptyset$     | -ar | - $\emptyset$      | -jar | - $\emptyset$     | -var | -u                           | -a  | - $\emptyset$                             | -a  | -u/- $\emptyset$ | -wa  |
| <i>acc</i> | - $\emptyset$     | -ar | - $\emptyset$      | -jar | - $\emptyset$     | -var | -e                           | -a  | -e                                        | -a  | -we              | -wa  |
| <i>gen</i> | -ar               | -a  | -jar               | -ja  | -var              | -va  | -e                           | -a  | -e                                        | -a  | -we              | -wa  |
| <i>dat</i> | - $\emptyset$ /-u | -um | - $\emptyset$ /-ju | -jum | - $\emptyset$ /-u | -um  | -e                           | -um | -e                                        | -um | -we              | -wum |

Table 1. The  $\bar{o}$ -stem declensions (see Appendix A for examples)

In ON, masculine and feminine nouns belong to the group of *i*-stems, while the *u*-stems comprise masculines only. In Old English, on the other hand, all three genders are represented among the *i*-stems, and the *u*-stem class contains feminine nouns along the masculines, but no neuters. In Old Norse, the *i*-stems show similarities with the declension patterns of the *a*- and *ō*-stems, including the zero markers for the feminine nominative, accusative and dative singulars which go back to a historical *-u* that triggered umlaut, and the *-r* marker of the masculine nominative singulars. Naturally, the *i*-stem nouns would show a different stem vowel in their plural forms (i.e. *i*) than the *a*-stem ones, which provides a way in which these two classes can be distinguished. In Old English, on the other hand, the stem vowel only surfaces in the masculine genitive plural, in the form of *-isa* as an alternative to the *-a* ending.

Finally, the *u*-stem declension in Old Norse is notable for the extensive breaking and umlaut that the stem vowel brought about. The umlaut in this case works exactly like in the other paradigms, yet the phenomenon of breaking seems to be unparalleled. Breaking means that an *a* or *u* sound causes the *e* of the preceding syllable to change into (*ea* >) *ja* as in *\*skelda-* > *skjaldar* ‘shield (gen. sg.)’; or, in the case of *u*, *e* changes into (*eo* > *jo* >) *jō*, as in *skjōldr* > PGmc. *\*skelduz* ‘shield (nom. sg.)’. This breaking, however, did not occur if the stem vowel was preceded by *l*, *r*, or *v*. A third, and final, sound change is characteristic of *u*-stem nouns, and that is *i*-mutation, which affects the dative singular and nominative plural of a number of *u*-nouns. During *i*-umlaut, the *i* of the dat. sg. and nom. pl. markers transform the preceding original *a* in the affected nouns into *e*, as in *vellir* ‘field (nom. pl.)’ cf. *valla* ‘field (gen. pl.)’.

Since the *u* did not bring about any mutation in Old English, there are no traces of such phenomenon in the forms of the *u*-stem declensions either, nor are there any signs of breaking. It should be noted though that breaking did exist in Old English, but it was of a different nature than in Old Norse. The major difference in breaking in Old English and Old Norse lies in the fact that while in English breaking was conditioned by consonants, in ON it was conditioned by vowels.

Regarding the genders of the nouns found in this class, in Old English masculine and feminine elements made up the *u*-stem nouns, while in ON it was only masculines that belonged here, however the masculine and feminine declensions were completely identical in Old English. Finally, length distinction is also relevant in the case of *u*-stem OE nouns, where the nominative and accusative singular is marked with an *-u* for short-stemmed nouns, which

are disyllabic, and zero marker for long-stemmed ones, which are monosyllabic (cf. Mitchell and Robinson 2007:30 §61).

*The weak nouns and the issues of their classification*

Faarlund (2004:42) describes Old Norse weak nouns as being bi- or trisyllabic and terminating in a vowel in every case in the singular. This statement is, in itself, true, however Faarlund's categorization of nouns is problematic since he groups the nouns according to the way in which they form their plurals and not according to their original PGmc. stem vowel or consonant, giving rise to such groups as "a-class" and "r-class" which are not to be confused with *a*-stems and *r*-stems. This way of categorizing nouns according to plural formation or gender, however, is not unique, in fact it could even be considered the traditional way, as a great number of Old Norse and Old English grammars, either written for the purpose of language education or for historical linguistics, employ this method (for ON cf. Sweet 1895, Zoëga 1910, Valfells and Cathey 1981, or for a new perspective Barnes 2008; for OE cf. Mitchell and Robinson 2007).

Nevertheless, the Old Norse weak nominal declensions contain less unique forms as compared to elements found in the strong declensions. In fact it is true of every *n*-stem noun that their singular oblique cases invariantly employ the same suffix. However, this is only valid within the paradigms of the individual subgroups of the *n*-stem class, which are *an*-, *ōn*- and *īn*-, and not universally across the whole *n*-stem class in its entirety. In Old English, there are no subdivisions among the *n*-stem nouns, and generally this class comprises rather few elements, yet all three genders are represented in the class, and the stem consonant is present throughout the paradigms, except for the nominative singulars and dative plurals.

|            | Old Norse   |                     |             |     |             |       | Old English |      |            |      |             |      |
|------------|-------------|---------------------|-------------|-----|-------------|-------|-------------|------|------------|------|-------------|------|
|            | <i>an</i> - |                     | <i>ōn</i> - |     | <i>īn</i> - |       | <i>masc</i> |      | <i>fem</i> |      | <i>neut</i> |      |
|            | sg.         | pl.                 | sg.         | pl. | sg.         | pl.   | sg.         | pl.  | sg.        | pl.  | sg.         | pl.  |
| <i>nom</i> | -i/-a       | -ar/-u <sup>1</sup> | -a          | -ur | -i          | (-ar) | -a          | -an  | -e         | -an  | -e          | -an  |
| <i>acc</i> | -a          | -a/-u               | -u          | -ur | -i          | (-ar) | -an         | -an  | -an        | -an  | -e          | -an  |
| <i>gen</i> | -a          | -a                  | -u          | -a  | -i          | (-a)  | -an         | -ena | -an        | -ena | -an         | -ena |
| <i>dat</i> | -a          | -um                 | -u          | -um | -i          | (-um) | -an         | -um  | -an        | -um  | -an         | -um  |

Table 2. Declension patterns of the *n*-stem nouns (see Appendix A for examples)

<sup>1</sup> Triggers u-umlaut on preceding *a*: *a* < *o*; the -um suffix also triggers umlaut

When two variants are given in the *an*-stem columns, the first one is valid for masculine nouns, while the second one is used for neuter nouns. The *an*-stem class consists mostly of masculine nouns along with a smaller number of neuters, while the *ōn*-stems are made up of chiefly feminine nouns with a few masculines. The small *īn*- subset of the *n*-stem class is a special case, as it contains only feminine nouns which usually lack the plural form and indeclinable in the singular.

The classes of *r*- and *nd*-stem nouns are often categorized among the weak classes of nouns, but at times they are treated as independent groups because they do not fully conform to patterns of the *n*-class declensions, yet on the other hand they can not be classified as strong nouns either. Furthermore, all the nouns of the *nd*-class are masculine both in Old English and Old Norse, and, more importantly, present participle stems, which means that they were derived through the addition of the present participle marker *-nd*-. The *r*-stem class constitutes another special case in both languages as it contains only nouns of kinship, i.e. *faðir* (ON), *fæder* (OE) *móðir* (ON), *mōdor* (OE) etc. (interestingly, *sonr* and *sunu* ‘son’ does not belong to this group, as it is an *u*-stem noun), and the gender of these nouns always match the actual gender of what they denote. It should also be noted that members of this class exhibit a degree of irregularity in their markers and the phonological phenomenon they trigger, meaning that the *-u* markers do not always bring about umlaut in Old Norse. The markers of the *nd*- and *r*-stem classes can be represented as follows:

|     | Old Norse  |     |             |     | Old English |     |             |     |
|-----|------------|-----|-------------|-----|-------------|-----|-------------|-----|
|     | <i>r</i> - |     | <i>nd</i> - |     | <i>r</i> -  |     | <i>nd</i> - |     |
|     | sg.        | pl. | sg.         | pl. | sg.         | pl. | sg.         | pl. |
| nom | -ir        | -r  | -i          | -r  | -or         | -or | -∅          | -as |
| acc | -ur        | -r  | -a          | -r  | -or         | -or | -∅          | -as |
| gen | -ur        | -a  | -a          | -a  | -or         | -a  | -es         | -a  |
| dat | -r/-ur     | -um | -a          | -um | -or         | -um | -e          | -um |

Table 3. Declension patterns of *r*- and *nd*-stem nouns (see Appendix A for examples)

Besides the *r*- and *nd*-stems there is a third class that is not always discussed among the weak or strong classes and that is the class of athematic nouns, sometimes referred to as root nouns or consonant stems. This latter naming, however, can be somewhat problematic since a primary way in which strong and weak nouns could be differentiated is whether they have a vowel or a consonant as their stem. Nevertheless, athematic nouns are either masculine

or feminine and their nominative plurals, and through analogy also their accusative plurals, show the signs of *i*-mutation, brought about by the PGmc. *\*-iz* plural suffix, and therefore true for both Old English and Old Norse. Another peculiar feature of this class of nouns, although only true in the case of ON, is the assimilation of the *-r* plural marker into stem-final *-l* and *-n*, as in, for instance *maðr* ‘man (nom. sg.)’ but *menn* ‘men (nom. pl.)’ instead of *\*mennr*. For the overview of the athematic declension see Table 5, *i*-mutated plurals in ON are denoted by bold face.

|     | Old Norse       |                       |             |           | Old English   |               |               |               |
|-----|-----------------|-----------------------|-------------|-----------|---------------|---------------|---------------|---------------|
|     | <i>masc.</i>    |                       | <i>fem.</i> |           | <i>masc.</i>  |               | <i>fem.</i>   |               |
|     | sg.             | pl.                   | sg.         | pl.       | sg.           | pl.           | sg.           | pl.           |
| nom | -r              | <b>-r<sup>2</sup></b> | -∅          | <b>-r</b> | -∅            | <i>i</i> -mut | -∅            | <i>i</i> -mut |
| acc | -∅              | <b>-r</b>             | -∅          | <b>-r</b> | -∅            | <i>i</i> -mut | -∅            | <i>i</i> -mut |
| gen | -ar             | -a                    | -ar         | -a        | -es           | -a            | <i>i</i> -mut | -a            |
| dat | -i <sup>3</sup> | -um                   | -∅          | -um       | <i>i</i> -mut | -um           | <i>i</i> -mut | -um           |

Table 4. Declension patterns of athematic nouns (see Appendix A for examples)

Finally, regarding the distribution of the nouns among the stem classes it can be briefly said that, just like in the case of Old English, the *a*- and *o*-stems provided most of the Old Norse noun stock, while the athematic and *r*-stem classes contained a limited amount of elements, yet these occurred very frequently in actual language use.

### 3.2.2. Verbal morphology

Old English and Old Norse verbs divide into weak and strong, and this opposition or categorization is based on the way in which the individual verbs form their preterits. If a verb forms its preterit through ablaut, then it is a strong verb, if it employs the dental suffix, then it is a weak one. This classification of verbs in Old English is exactly the same as in Old Norse, and, as matter of fact, in every other Germanic language. The dental suffix employed by the weak verbs shows up in Old English in its basic form as *-de* which can change to *-te* or *-d* depending on the phonological context. In Old Norse the basic form is *-ði*, however the final *i*

<sup>2</sup> Derives from PGmc. *\*-iz* which causes *i*-umlaut and then drops, and *\*z* develops, through rhotacism, into *-r*

<sup>3</sup> Can trigger *i*-mutation but is still retained

is often lost, depending on the additional endings or suffixes attached to the verb, and may surface as *d* or *t*, depending, again, on the phonological context.

In Old English there are three classes of weak and seven classes of strong verbs, which is also the case in Old Norse. Both languages have two tenses: present and preterit, and three moods: indicative, subjunctive and imperative, and perhaps the most striking peculiarity of the Old Norse verbal system is the middle voice of the weak nouns, which is unparalleled in Old English and is recognizable by a *-Vmk* or *-Vsk/-Vzk* ending present in every person, number, tense and mood.

Due to the rather convoluted nature and complexity of the verbal paradigms, with a large number of different forms and endings which can change if conditioned by phonological phenomena, what follows is a brief, one might call it somewhat sketchy, description of the most important features of the Old English and Old Norse system of verbal morphology concentrating on the principal parts. The additional peculiarities of the individual languages and the discrepancies arising from them shall be discussed in the Analysis section, should they ever appear.

### *The weak verbs*

Old Norse weak verbs are divided into three classes: *i/j*-stems, *a*-stems and *i*-stems. The *i/j*-stems further subdivide into two categories: long and short, distinguished by the weight, or length, of the root syllable. Since the stem of these verbs are either *i* or *j*, both of which trigger *i*-mutation on the preceding vowel, the short *i/j*-stems have mutated forms in most of their paradigms, except for the preterit indicative and the past participle, while the long stems have mutated forms throughout their entire paradigms. Furthermore, in the case of short stems, the stem vowel appears in the form of *-j-* before a back vowel, while in the case of long stems it surfaces exclusively as *-i-*.

In the case of the *a*-stem weak verbs, there is no distinction between short and long stems, yet the stem vowel is also present through the paradigms, either in its original *a* form, or mutated to *o* due to the effect of the *u* in the ending. Finally the class of *i*-stem nouns is also subdivided into two categories, the first of which is notable for its relatively restricted amount of mutated forms, namely that only the preterit subjunctive forms show mutation. In contrast, the second subtype has mutation throughout its paradigms, save for the preterit indicative, and before back vowels the thematic *-i-* takes the form of *j* in the present indicative and subjunctive, and remains *i* in every other configuration in the present tense.

### *The strong verbs*

Concerning the strong verbs, seven classes can be set up for both languages, and these seven categories are similar across every Germanic language, as they are based on patterns of vowel gradation which date back to the reconstructed Proto Indo-European language. All seven classes of strong verbs have distinct vowel gradation patterns in their four principal parts: the infinitive, the singular preterit, the plural preterit and the past participle.

Before further discussing the strong verbs, a few important phonological phenomena should be described which affect, among others, the strong verb vowel gradations. First and foremost that process should be discussed that has uniformly affected every Germanic language, and that is the phenomenon of *Grammatischer Wechsel*, i.e. grammatical alternation, brought about by Verner's Law and the different accent patterns of PIE. Basically, Verner's Law affects voiceless sounds in a preaccented position, and its outcome is the voicing of these sounds.

The issue at hand here lies in the nature of the PIE accent, which was mobile unlike Germanic stress which became fixed on the first syllable. In fact there were four types of mobile Indo-European accent, all of which comprised a weak and strong variant. Reconstructed PIE words are usually described as having a monosyllabic root with a CVC structure into which sonorants and semivowels may intervene, plus a suffix plus an ending, and it is the nature of the suffix that determines the stem class.

Furthermore, each root, suffix and ending can take three different forms, depending on its vowel: it can be *e*-grade, *o*-grade and zero-grade. This classification is very straightforward, since the *e*-grade forms have an *e* in the vowel slot, the *o*-grades have an *o*, while in the case of the zero-grades there is no vowel present. Basically, in the mobile accent system it is always the *e*-grade part that carries the accent, while the other constituents are usually, though not always, in the zero-grade (Clackson 2007:80-81). Due to the operation of Verner's Law being conditioned on the relative place of the accent to the sound in question, it can be seen here that this mobile IE accent coupled with the voicing created by Verner's Law brought about the phenomenon of grammatical alternation in forms such as *weorðan* 'to become (present)' and *wordan* 'to become (past participle)'. However, it should be borne in mind that a number of these grammatical alternations have been wiped by analogy by the present day forms of the affected languages.

Moving on to language specific processes, breaking in Old English which has been previously mentioned in connection with the *u*-stem nouns, is also relevant in this case. Old English breaking was conditioned by consonants, namely *r* and *l*, and affected the front vowels if they stood before the fricative /x/ or before consonants clusters of *rC* and *lC*. Under these conditions the front vowels changed into diphthongs, *æ* into *ea* and *e* into *eo*, however the *lC* cluster only brought about limited breaking (Mitchell and Robinson 2007:38 §97) as it did not affect *e*, only *æ*. Furthermore, the *hC* cluster caused *ī* to break into *eo*.

Another process, similar to breaking, also affected the Old English words and therefore, naturally, the strong verbs. This process is the palatal diphthongization whereby an initial *g* /j/, *sc* /ʃ/ and *c* /tʃ/ causes the following *e* and *æ* to become *ie* and *ea*. Finally, the two nasals, *m* and *n* also had their influence on neighboring sounds in Old English, namely in the case of class III strong verbs. These verbs have two consonants following their vowel, and if the first consonant is a *m* or *n*, then instead of *e*, *æ* and *o* we get *i*, *a* and *u*, respectively.

In the case of Old Norse strong verbs, on the other hand, the following characteristics can be observed. First, in every class except for class I the preterit subjunctive has a fronted vowel throughout the paradigm. Second, the class III verbs show a similar form as seen in Old English, namely that they have two consonants following the root vowel. However, the similarity ends here, as Old Norse class III verbs show the signs of a different phonological process: sharpening, which is oddly enough more characteristic of the weak verbs. Nevertheless, sharpening affects PGmc. geminate clusters of *jj* and *ww*, which in Old Norse change to *ggj* and *ggv* respectively, as in *hoggva* 'to hew, to strike'. Another characteristic feature of Old Norse is in connection with nasals, yet this is also different from the phenomena occurring with nasals in Old English. The *n* in Old Norse is given to assimilation to the following *k* in *nk* clusters, yielding *kk* which is characteristic of class III verbs, e.g. *drekkva* 'to drink' (cf. OE *drincan*), however it is also found among weak verbs.

Since it would be too long to include a table describing the Old English and Old Norse strong verb vowel gradations, see Appendix B for these patterns.

### 3.3. A Brief Comparison of Old English and Old Norse

Generally speaking, the morphology, both verbal and nominal, of Old Norse can be considered quite conservative as compared to that of Old English. Concerning the issues of phonology, rhotacism, breaking and mutation should be mentioned as significant processes the outcomes of which differentiate these two languages. However, all three of these sound

changes were present in Old English, their mechanism, input and conditions were somewhat different.

The effects of rhotacism can be seen in the case of the ON *a*-stem masculine nominative singular ending *-r* which is developed from PGmc. *\*-z > R > r* and was lost in the West Germanic languages. However, in medial position the *r* was retained in WGmc, as in *more < OE mara < PGmc. \*maizon*. Umlaut seems to have affected North Germanic to a greater extent, since *a*-, *i*-, and *u*-umlaut have all operated there, while in Old English the most prominent type of mutation was *i*-umlaut, though some slight traces of *u*-mutation may also be found. Finally, breaking in Old Norse was conditioned by vowels, and happened during the evolution of Old Norse from Proto-Germanic, while in Old English consonants brought about breaking which happened during the individual, isolated development of Old English. Isolated here, of course, means after it had separated from the North Sea Germanic languages, Old Saxon and Old Frisian.

Furthermore, two phonological features unique to Old English, in the sense of unparalleled in Old Norse, should also be mentioned, namely the Ingvaemonic nasal loss and Anglo-Frisian Brightening. The Ingvaemonic nasal loss affects Old Saxon, Old Frisian and Old English, and it is a process whereby Proto-Germanic *\*m* and *\*n* are dropped if they stand before the spirants *\*/f/*, *\*/s/* and *\*/θ/*. After the nasal has been dropped, the preceding vowel undergoes compensatory lengthening.

The Anglo-Frisian Brightening only affect Old Frisian and Old English, and the change affects the Proto-Germanic low back vowel *\*[ɑ]*, which is fronted to *[æ]* in Old English and Frisian. There are, however, two exceptions from this rule: *\*[ɑ]* is never fronted if it stands before a nasal, or a doubled consonant which is followed by a back vowel. It should be noted here, though, that *æ* was restored to the original *a* in Old English if the following syllable contained a back vowel.

Concerning the nominal morphology, generally it can be said that the stem classes of the nouns correspond to each other in the two languages examined, yet there are differences in the distribution of the genders within the classes. Two such cases are relevant here: the neuter *i*-stems are present in OE but absent from ON, and similarly only Old English contains feminine *u*-stems. Syllable length plays an important role in both languages, namely in the *o*-stem class, yet in OE it is also relevant in the case of *a*-stem nouns.

Finally, regarding verbal morphology the previously discussed sound changes are also of high importance. Mutation affects the paradigms of both OE and ON, and so does the

grammatical alternation, however there are some specific sound changes, namely palatal diphthongization and assimilation of nasals that only affect OE or ON, respectively.

### 3.4. Conclusions

Based on the discussion of the Old English and Old Norse morphological systems, it can be seen that the Old English nominal inflections have fewer forms, even in the strong declensions which usually contain more varied endings in order to convey more grammatical information in one form. On the other hand, in Old Norse there a larger number of more varied endings, which bring about phonological changes in the roots. Furthermore, both languages exhibit a number of sound changes, three of which have corresponding phenomenon in the other language, yet the outcomes of these are different which contribute to the differences in the forms of Old English and Old Norse words, and perhaps this discrepancy also contributed to the disintegration and breakdown of the OE inflectional system.

## 4. Instruments and Data Collection

The underlying principle or idea behind the research was to find or create a sizable corpus of Old Norse and based on the frequency data gathered from there, search for evidence of influence in a corpus of Old English. The rationale behind this is if we establish, or at least arrive at a reasonable base for assuming, which parts of speech, and later more specifically which kinds of words (e.g. *a*-stem noun, *class VII* strong verb etc.) occur more frequently in Old Norse, then later we can search specifically for these elements in the corpus of English to see how their frequencies relate those of their Old Norse counterparts.

For the purposes of analysis, two corpora were used, one of Old English and one of Old Norse. The Old Norse corpus mostly comprises sagas and was collected by me, with a total word count of 499,587 words, which is made up from 56 texts, averaging about 8,900 words per text (see Appendix C for the list of texts that form part of the corpus). The texts are analyzed with the freely available AntConc concordancer software (version 3.2.4.), developed by Laurence Anthony<sup>4</sup>. For the Old English part, I relied on Madden & Magoun's Grouped frequency word-list of Anglo-Saxon poetry (Madden & Magoun 1972) which comprises over

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<sup>4</sup> Downloadable from <[http://www.antlab.sci.waseda.ac.jp/antconc\\_index.html](http://www.antlab.sci.waseda.ac.jp/antconc_index.html)>

168,500 words, organized into one list of word frequencies. However, this list falls short of giving frequency data regarding the occurrences of the different forms each headword comprises. Still, in the rather limited circumstances of acquiring corpora, or gaining access to them, this is of much help.

## 5. Analysis

The corpus of Old Norse was fed into the AntConc concordancer and analyzed with the help of the Word List tool which produced the frequency list and the type and token count of the texts. After this, the first 300 words were collected and, where possible, lemmatized with the different word forms compiled into a lemma list, after which the concordancer reanalyzed the frequencies using the list of lemmas.

This was done incrementally, hundred words at a time, and the amount of 300 words were chosen because that is a manageable amount and it comprises the most important and most frequently occurring elements of the sample, furthermore after a given point, the frequency counts begin to stagnate and acquire a very slowly descending figure. The procedure of incremental lemmatization was necessary in order to obtain more reliable information about the distribution and occurrence of the words, since each word on average has about a dozen different forms and if they are analyzed individually for their frequencies it may present a distorted image about their occurrences.

From the first frequency list that was created, without any lemmatized forms, it emerged that the most frequent word was *ok* ‘and’ and among the first hundred words 74 were function words and only 26 content, but this ratio was almost reversed by the third set of hundred items, namely 38 were function and 62 were content words, and out of the hundred elements of the intervening second set, 43 were function words and 57 content ones. Before lemmatization the overall type count of the corpus was 37.733 and after lemmatization it was 37.268 which means a mere 1.2% decrease and this at first may seem insignificant. However, the image changes when it comes to the examination and interpretation of these figures in context.

From the 300 words, altogether 13 strong verbs, 9 weak verbs, 9 nouns and the irregular *vera* ‘to be’ were lemmatized which still does not seem to be too big a number. Yet the 13 strong verbs produced 18.338 tokens, the nine weak ones produced 19.268, and the nine nouns comprised 10.767 tokens, while the different forms of *vera* altogether amounted to 27.236 instances. This means, that these 32 lemmas produced 75.609 occurrences from which

it can be calculated that they amount for the 15.2% of the 498.628 words found in the corpus. This last figure of the overall word count should require a bit of a commentary, as earlier it was mentioned that the corpus was made up of 499,587 words. The figure used for the calculation of the percentage does not take into account a number of proper nouns (names), which had a distorting effect on the frequency counts, therefore they were removed from analysis.

Concerning the contents of these categories, Class VI and VII strong verbs, *i*-stem weak verbs, and *a*-stem nouns, both masculine and feminine, were the most prominent. This latter figure is not surprising, since both in Old Norse and Old English this category of nouns comprises more elements, and has the tendency of absorbing nouns from other classes, especially in Old English.

The frequency count of these 300 words analyzed show a steep drop from the first to the tenth element (*vera, ok, hann, at, þá, í, en, til, á, konungr*) where the first content word, which is an *a*-stem masculine noun meaning 'king' appears. The frequencies in these first 10 items drop from 27,236 to 6,715 after which the decline in numbers acquires a more stable pace and a steady curve. In the case of Old English, similar tendencies can be observed. Out of the first 10 most frequent items, 8 are function words and the first five elements make up almost 30% of all the words. Concerning the distributions of nominal and verbal classes, it emerged that the most frequently occurring nominal class was the *a*-stem, while the most frequent verbal class was class III strong verbs.

In a language that has rich inflectional morphology it is not surprising that inflected forms occur more frequently than their base forms, since the number of different inflectional endings that can attach to a noun would dictate that they are bound to occur more frequently. Even though at times it may seem that, based only on its frequency count, the base form outnumbers the individual occurrences of the inflected forms. However, this is true only to a certain extent. If there are a larger number of inflected forms with a relatively low frequency count, they may still amount to more in total than the base form.

This is true, for instance in the case of *vera*, where the base form, in this case the infinitive, is only ranked fifth in the order of frequency, and furthermore the most frequent form in which this verb appears is *er* (3<sup>rd</sup> person singular) with 12,743 occurrences, which is outnumbered by the combined frequencies of the inflected forms, which is 14,493. For a similar example from among the nouns we can cite *maðr* 'man' (athematic, masc.) the base form of which is only ranked second, after the nominative plural *menn*.

In general it can be stated about the nouns and verbs occurring in this corpus after they have been lemmatized, that the nouns tend to occur quite frequently in their oblique cases and verbs tend to occur quite frequently in their conjugated forms. This means that there is more variation in their occurrence and the hearers are exposed to a wider variety of different forms. Although this difference is not very significant, it still brought about a discrepancy, since Old English employed less varied suffixes, even in the category of strong nouns which usually carry more endings, and if a speaker of a language that employs a limited number of endings in a limited variation within a paradigm is confronted with a language which makes use of more varied suffixes then that speaker is more likely to concentrate more on conveying the message and less on the form.

Finally, as an interesting side-note in the discussion of nominal and verbal occurrences, it should be worth to take a quick look at one of the famous and oft-cited examples of OE borrowing from ON, namely the third person plural personal pronouns, all three of which rank quite high in the 300-word list. The first is *þeir* (nom. masc.), which is the 11<sup>th</sup> most frequent word in the corpus, with an occurrence of 6206, followed at the 33<sup>rd</sup> place with 1861 instances by *þeim* (dative, all genders) and *þeira* (genitive, all genders) comes 49<sup>th</sup> with 1144. Unfortunately Madden & Magoun's list is quite inadequate from this point of view, since all we can learn from that is that the personal pronouns are ranked first in the frequency list, yet the individual occurrences of the original OE plural pronouns (*hie*, *hira*, *him*, *hie*) are unlisted.

## 6. Conclusions

The analysis of the linguistic structure of Old English and Old Norse revealed what the major differences are between the phonological and morphological system of these two languages. Even though these processes have rendered the two languages dissimilar, surely there existed a level a mutual intelligibility which facilitated transfer and borrowing, and made the contact situation a non-code switching one, meaning that the two languages were genetically closely related and sufficiently similar so as not to bring about major disruptions in communication.

From the corpus analysis it emerged that the most frequent elements in both languages were function words, which is not at all surprising since words in a sentence require to be organized and often words in themselves are incapable of expressing and conveying the relations between agents, patients, objects and other constituents. Furthermore, it also

emerged that nouns and verbs occur very frequently in their oblique cases and conjugated forms, respectively, and the combined number of such occurrences can, at times, surpass the frequency count of the base forms. This would mean that hearers would encounter more different forms of the same word, and if the language to which that given word belongs to has a wider variety of endings than the language of the recipient, then this situation is likely to promote communication using a somewhat simplified version of the language. The corpus analysis was relevant for this investigation, as it enabled us to gain a little insight into how the individual paradigms discussed in the bulk of this paper are actually represented in real language.

Finally, in agreement with Lutz (forthcoming), and based on the examined paradigms and patterns of the weak and strong nouns and weak and strong verbs, coupled with the frequency analysis, it can be concluded that the discrepancies could have meant that speakers and hearers found it the easiest way to simply drop the interfering elements and concentrate on the communicative content. Lutz has convincingly shown in the case of the discrepancy between the available data from the late Northumbrian Lindisfarne Gospels gloss which shows a “strong tendency towards the simplified inflection of Northern Middle English” (Lutz) and the available data for Old Norse which does not agree with the evidence from northern English. Therefore, Lutz concludes that the paradigms attested in the Lindisfarne gloss must have resulted from the concentration on the “lexical content of the root” (Lutz).

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## Appendix A — Old English and Old Norse Nominal Inflections

|     | Old Norse       |        |                  |        |                    |        | Old English       |        |                  |       |                      |         |
|-----|-----------------|--------|------------------|--------|--------------------|--------|-------------------|--------|------------------|-------|----------------------|---------|
|     | gǫf ‘gift’ (ō-) |        | egg ‘edge’ (jō-) |        | bǫð ‘battle’ (wō-) |        | giefu ‘gift’ (ō-) |        | ecg ‘edge’ (jō-) |       | beadu ‘battle’ (wō-) |         |
|     | sg.             | pl.    | sg.              | pl.    | sg.                | pl.    | sg.               | pl.    | sg.              | pl.   | sg.                  | pl.     |
| nom | gǫf             | gjafar | egg              | eggjar | bǫð                | bǫðvar | giefu             | giefa  | ecge             | ecge  | beadu                | beadwa  |
| acc | gǫf             | gjafar | egg              | eggjar | bǫð                | bǫðvar | giefe             | giefa  | ecge             | ecge  | beadwe               | beadwa  |
| gen | gjafar          | gjafa  | eggjar           | eggja  | bǫðvar             | bǫðva  | giefe             | giefa  | ecge             | ecga  | beadwe               | beadwa  |
| dat | gǫf             | gǫfum  | eggju            | eggjum | bǫð                | bǫðum  | giefe             | giefum | ecge             | ecgum | beadwe               | beadwum |

**Table 1.** The *ō*-stem paradigms

|            | Old Norse                 |       |                               |        |                           |       | Old English                |        |                               |         |
|------------|---------------------------|-------|-------------------------------|--------|---------------------------|-------|----------------------------|--------|-------------------------------|---------|
|            | gumi ‘man’ ( <i>an</i> -) |       | tunga ‘tongue’ ( <i>ōn</i> -) |        | lygi ‘lie’ ( <i>īn</i> -) |       | guma ‘man’ ( <i>mas</i> c) |        | tunge ‘tongue’ ( <i>fem</i> ) |         |
|            | sg.                       | pl.   | sg.                           | pl.    | sg.                       | pl.   | sg.                        | pl.    | sg.                           | pl.     |
| <i>nom</i> | gumi                      | gumar | tunga                         | tungur | lygi                      | lygar | guma                       | guman  | tunge                         | tungan  |
| <i>acc</i> | guma                      | guma  | tungu                         | tungur | lygi                      | lygar | guman                      | guman  | tungan                        | tungan  |
| <i>gen</i> | guma                      | gumna | tungu                         | tunga  | lygi                      | lyga  | guman                      | gumena | tungan                        | tungena |
| <i>dat</i> | guma                      | gumum | tungu                         | tungum | lygi                      | lygum | guman                      | gumum  | tungan                        | tungum  |

**Table 2.** The *n*-stem paradigms

|     | Old Norse                          |        |                                    |       | Old English                        |        |                                   |       |
|-----|------------------------------------|--------|------------------------------------|-------|------------------------------------|--------|-----------------------------------|-------|
|     | <i>maðr</i> ‘man’ ( <i>masc.</i> ) |        | <i>bókr</i> ‘book’ ( <i>fem.</i> ) |       | <i>mann</i> ‘man’ ( <i>masc.</i> ) |        | <i>bōc</i> ‘book’ ( <i>fem.</i> ) |       |
|     | sg.                                | pl.    | sg.                                | pl.   | sg.                                | pl.    | sg.                               | pl.   |
| nom | maðr                               | menn   | bók                                | bækr  | mann                               | menn   | bōc                               | bēc   |
| acc | mann                               | menn   | bók                                | bækr  | mann                               | menn   | bōc                               | bēc   |
| gen | manns                              | manna  | bókar                              | bóka  | mannes                             | manna  | bēc                               | bōca  |
| dat | manni                              | mönnum | bók                                | bókum | menn                               | mannum | bēc                               | bōcum |

**Table 3.** The athematic paradigms

|     | Old Norse                            |         |                                       |         | Old English                            |           |                                       |          |
|-----|--------------------------------------|---------|---------------------------------------|---------|----------------------------------------|-----------|---------------------------------------|----------|
|     | <i>systir</i> ‘sister’ ( <i>r-</i> ) |         | <i>frændi</i> ‘friend’ ( <i>nd-</i> ) |         | <i>sweostor</i> ‘sister’ ( <i>r-</i> ) |           | <i>frēond</i> ‘friend’ ( <i>nd-</i> ) |          |
|     | sg.                                  | pl.     | sg.                                   | pl.     | sg.                                    | pl.       | sg.                                   | pl.      |
| nom | systir                               | systr   | frændi                                | frændr  | sweostor                               | sweostor  | frēond                                | frēondas |
| acc | systur                               | systr   | frænda                                | frændr  | sweostor                               | sweostor  | frēond                                | frēondas |
| gen | systur                               | systra  | frænda                                | frænda  | sweostor                               | sweostra  | frēondes                              | frēonda  |
| dat | systur                               | systrum | frænda                                | frændum | sweostor                               | sweostrum | frēonde                               | frēondum |

**Table 4.** The *r-* and *nd-*stem paradigms

**Appendix B — The Strong Verbs**

| Old English |      |           |           |           | Old Norse               |           |                    |           |       |
|-------------|------|-----------|-----------|-----------|-------------------------|-----------|--------------------|-----------|-------|
| Class       | Inf. | Pret. sg. | Pret. pl. | Past ptc. | Inf.                    | Pret. sg. | Pret. pl.          | Past ptc. | Class |
| I           | ī    | a         | i         | i         | í                       | ei        | i                  | i         | I     |
| II          | ēo   | ēa        | u         | o         | jú (jó)<br>fronted to ý | au<br>(ó) | u fronted to y     | o         | II    |
| III         | e    | æ         | u         | o         | eCC (iCC)               | aCC       | uCC fronted to yCC | uCC (oCC) | III   |
| IV          | e    | æ         | ǣ         | o         | e                       | a         | á fronted to æ     | o         | IV    |
| V           | e    | æ         | ǣ         | e         | e (i)                   | a (á)     | á fronted to æ     | e         | V     |
| VI          | a    | ō         | ō         | a         | a fronted to e          | ó         | ó fronted to œ     | a (e)     | VI    |

In both languages Class VII constitutes a special case, as it is a rather irregular category. Both in OE and ON the infinitive form can have a number of different vowels, yet the past participle always contains the same vowel as the infinitive, and additionally the singular preterit and the plural preterit also contain the same vowel.

The OE Class III verbs show different gradation depending on the structure of the base form:

| Base              | Inf. | Pret. sg. | Pret. pl. | Past ptc. |
|-------------------|------|-----------|-----------|-----------|
| eCC               | e    | æ         | u         | o         |
| eoCC              | eo   | ea        | u         | o         |
| eIC               | e    | ea        | u         | o         |
| palatal consonant | ie   | ea        | u         | o         |
| nasal             | i    | a         | u         | u         |

## Appendix C — List of Texts from the Old Norse Corpus

|                                       | date                   | word count | section total | grand total    |
|---------------------------------------|------------------------|------------|---------------|----------------|
| <b><i>Landnámabók</i></b>             | 13 <sup>th</sup> c.    |            |               |                |
| I. Fyrsti hluti                       | 13 <sup>th</sup> c.    | 6,117      |               |                |
| II. Annar hluti                       | 13 <sup>th</sup> c.    | 14,602     |               |                |
| III. þriðji hluti                     | 13 <sup>th</sup> c.    | 9,407      |               |                |
| IV. Fjórti hluti                      | 13 <sup>th</sup> c.    | 5,618      |               |                |
| V. Fimmti hluti                       | 13 <sup>th</sup> c.    | 6,492      | <b>42,236</b> | <b>42,236</b>  |
| <b><i>Edda Snorra Sturlusonar</i></b> | c. 1220                |            |               |                |
| I. Prologus                           | c. 1220                | 1,756      |               |                |
| II. Gylfaginning                      | c. 1220                | 17,914     |               |                |
| III. Skáldskaparmál                   | c. 1220                | 21,547     |               |                |
| IV. Háttatal                          | c. 1220                | 7,963      | <b>49,180</b> | <b>91,416</b>  |
| <b><i>Íslendingabók</i></b>           | 12 <sup>th</sup> c.    | 4,260      | <b>4,260</b>  | <b>95,676</b>  |
| <b><i>Sturlunga saga</i></b>          | 12-13 <sup>th</sup>    |            |               |                |
| Geirmundar þáttur heljarskinss        | 12-13 <sup>th</sup>    | 2,076      |               |                |
| Þorgils saga ok Hafliða               | 12-13 <sup>th</sup>    | 13,899     |               |                |
| Ættartölur                            | 12-13 <sup>th</sup>    | 1,505      |               |                |
| Haukdæla þáttur                       | 12-13 <sup>th</sup>    | 2,093      |               |                |
| Svínfellinga saga                     | 12-13 <sup>th</sup>    | 5,683      | <b>25,256</b> | <b>120,932</b> |
| <b><i>Flateyrbók</i></b>              | 1. 14 <sup>th</sup> c. |            |               |                |
| Geisli                                | 1. 14 <sup>th</sup> c. | 2,247      |               |                |
| Ólafs ríma Haraldssonar               | 1. 14 <sup>th</sup> c. | 1,269      |               |                |
| Hyndluljóð                            | 1. 14 <sup>th</sup> c. | 870        |               |                |
| Ór Hamborgar historíu                 | 1. 14 <sup>th</sup> c. | 779        |               |                |
| Þáttur frá Sigurði konungi slefu      | 1. 14 <sup>th</sup> c. | 1,146      |               |                |
| Hversu Noregr byggðist                | 1. 14 <sup>th</sup> c. | 1,110      |               |                |
| Ættartölur                            | 1. 14 <sup>th</sup> c. | 1,715      |               |                |
| Hér hefr upp sögu Eireks víðförla     | 1. 14 <sup>th</sup> c. | 3,126      |               |                |
| Hér hefr upp þátt Eimundar...         | 1. 14 <sup>th</sup> c. | 7,586      |               |                |
| Óðinn kom til Ólafs konungs...        | 1. 14 <sup>th</sup> c. | 600        | <b>20,448</b> | <b>141,380</b> |
| <b><i>Heimskringla</i></b>            | c. 1230                |            |               |                |
| Prologus                              | c. 1230                | 846        |               |                |
| Ynglinga saga                         | c. 1230                | 11,507     |               |                |
| Saga Hálfðanar svarta                 | c. 1230                | 2,069      |               |                |
| Haralds saga hins hárfagra            | c. 1230                | 10,664     |               |                |
| Saga Hákonar góða                     | c. 1230                | 8,427      |               |                |
| Sagan af Haraldi konungi gráfeld...   | c. 1230                | 4,310      |               |                |
| Saga Ólafs Tryggvasonar               | c. 1230                | 30,879     |               |                |
| Supplement to Tryggvason's saga       | c. 1230                | 7,715      |               |                |
| Sagan af Magúsi góða                  | c. 1230                | 9,295      |               |                |
| Saga Ólafs kyrra                      | c. 1230                | 2,116      |               |                |
| Saga Magnús konungs berfœtts          | c. 1230                | 7,679      |               |                |
| Saga Sigurðar jórsalafara...          | c. 1230                | 13,341     |               |                |
| Saga Magnús blinda ok Haralds gilla   | c. 1230                | 6,951      |               |                |
| Saga Inga Haraldssonar...             | c. 1230                | 10,187     |               |                |

|                                   |                     |        |                |                |
|-----------------------------------|---------------------|--------|----------------|----------------|
| Saga af Hákoni herðibreið         | c. 1230             | 7,178  |                |                |
| Saga Magnús konungs Erlingssonar  | c. 1230             | 11,079 | <b>143,703</b> | <b>285,083</b> |
| <b><i>Knytlinga saga</i></b>      | c. 1250             | 50,482 | <b>50,482</b>  | <b>335,565</b> |
| <b><i>Miscellaneous sagas</i></b> |                     |        |                |                |
| Egils saga Skalla-Grímssonar      | 1240                | 66,054 |                |                |
| Eiríks saga rauða                 | 14 <sup>th</sup> c. | 7,853  |                |                |
| Grænlandinga saga                 | 14 <sup>th</sup> c. | 6,615  |                |                |
| Gunnlaugs saga ormstungu          | 13 <sup>th</sup> c. | 10,216 |                |                |
| Hænsa-Þóris saga                  | 13 <sup>th</sup> c. | 9,034  |                |                |
| Þorsteins saga hvíta              | 13 <sup>th</sup> c. | 3,641  |                |                |
| Hrana saga hrings                 | 13-14 <sup>th</sup> | 6,372  |                |                |
| Kristni saga                      | 13 <sup>th</sup> c. | 7,147  |                |                |
| Grænlandinga þáttur               | 14 <sup>th</sup> c. | 4,295  |                |                |
| Skáld-Helga saga                  |                     | 5,964  |                |                |
| Sigurðar þáttur borgfirzka        |                     | 636    |                |                |
| Gísls þáttur Illugasonar          |                     | 2,584  |                |                |
| Einars þáttur Skúlasonar          |                     | 596    |                |                |
| Örvar-Odds saga                   | 13 <sup>th</sup> c. | 33,015 | <b>164,022</b> | <b>499,587</b> |