

FACULTY OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF ENGLISH

2015/2016

Petra Mikolić

Development of strong verbs in English and Swedish

Master's thesis

Supervisor:

Marina Grubišić, PhD

Zagreb, March 2016

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## 1. Introduction

This thesis focuses on strong verbs in Old English compared to strong verbs in Old Norse. More specifically, the verbs are observed from the perspective of the present day languages into their past to see how strong verbs have changed and why. It also discusses mechanisms behind the change and causes that triggered the change or the stagnation of the verbs.

### 1.1. The scope of work

The thesis is focused on the analysis of the Germanic strong verbs in Old English and Old Norse found in the listed primary sources (see 1.2.) by comparing and contrasting them. The work concludes with the state of the strong verbs in Present Day English and Modern Swedish along with the summary of changes in the classification of the originally strong verbs by focusing on the triggers for such change. The analysis in this thesis is focused on common strong verbs, omitting rare dialectal forms as well as prefixed strong verbs.

Strong verbs are particular for Germanic languages and some of the traits found in English and Swedish are characteristic of Northwest Germanic languages, as for example, reduplication<sup>1</sup>, particular sound changes in both languages, etc.

The idea was to investigate into Old Norse and Old English in order to see what was the fluctuation from weak to strong verbs, how and why they changed their class by looking through some texts from Old English, Middle English and comparing them to Old Norse and Middle Swedish.

The verbs seem to fluctuate between the weak and strong classes, depending on the period. The purpose of this thesis is to study these verbs that remain in the Present Day English and Swedish lexicon and to try to identify the factors that contributed to the survival of strong inflection in some verbs but not in others.

### 1.2. Method

The texts used for the analysis are some of the most famous works in Old English and Old Norse, but were nonetheless chosen arbitrarily. The Old Norse texts are taken from the

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<sup>1</sup> Old Norse to *verba pura*, Old English reduplicating strong verbs are all poetic and/or Anglian

published collection *Norrøne Tekster i Utval*, which comprises different types of written texts including poetry, both eddic and skaldic, and prose. Prose texts found in the collection are sagas, religious texts and other literature, namely an eddic poem *Völuspá*, skaldic poem *Haraldskvæði*, an extract from the kings' saga *Óláfs saga ins Helga* from *Heimskringla*, Icelandic saga *Hrafnkels saga Freysgoða* and religious saga *Niðristignar saga*.

The Old English primary sources are also from a published collection of texts *Old and Middle English c.890-c.1450: An Anthology*, namely, *Preface to the Translation of Gregory's Pastoral Care* (by Alfred), translation of Boethius's *Consolation of Philosophy*, *The Vercelli Book: Vercelli Homily X*, *Old English Preface to his First Series of Catholic Homilies* (by Ælfric), *Passion of Saint Edmund*, *The Peterborough Chronicle Annals 1131-1137* and *Ancrene Wisse*. For the purpose of a diachronic analysis, I have used *Corpus of Contemporary American*<sup>2</sup> and *British National Corpus*<sup>3</sup> for Present Day English and *Bosworth-Toller Anglo-Saxon Dictionary*<sup>4</sup> and the electronic *Middle English Dictionary*<sup>5</sup> for Old English and Middle English respectively.

The corpus used for the Old Norse sources was *The Skaldic Poetry Project* which, despite its name, contains a substantial number of prose works, but does not calculate frequencies, and University of Texas *Base Form Dictionary*<sup>6</sup>. I have also used Swedish *Wiktionary*<sup>7</sup> for Modern Swedish reference which was useful for Old Norse reference as well.

The purpose of these additional corpora was to observe the findings and compare them to the small corpus obtained from primary sources in order to test the existing hypotheses and, possibly, refer to frequency levels and show their importance nonetheless.

The approach used is comparative and diachronic. In the analysis, multiple corpora and the working corpus constructed from the listed primary sources consisting of some 70 Old English and 80 verbs in Old Norse available in Appendices 3 and 4 were used. Other sources include different studies on the topic (Lieberman et al. 2007, Bybee and others, Albright and Hayes 2003, Hare and Elman 1995, Krygier 1995). The innovation here is the comparison of the Old Norse strong verbs to those belonging to Old English and their respective changes. Until this point, no similar study or research has been done in this field. The analysis in this thesis does not focus too much on the frequency ratings of Old English

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<sup>2</sup> <http://corpus.byu.edu/coca/>

<sup>3</sup> <http://corpus.byu.edu/bnc/>

<sup>4</sup> <http://www.bosworthtoller.com/>

<sup>5</sup> <http://quod.lib.umich.edu/m/med/>

<sup>6</sup> <http://www.utexas.edu/cola/centers/lrc/eieol/norol-BF-X.html>

<sup>7</sup> [sv.wiktionary.org](http://sv.wiktionary.org)

verbs as there are no proper corpora such as for Present Day English (e.g. COCA) and Middle English (*Linguistic Atlas of Early Middle English - LAEME*), but will rather refer to previous research on English strong verbs' frequencies and the working corpus made for the purposes of this thesis.

### 1.3. Problems occurring in this study and terminology

Some problems discussed here are related to the terminology, others emerged in the process of the verb analysis. During the verb analysis it was difficult to observe change in a more detailed way as there are always dialectal varieties and colloquial use which may differentiate from the standardized language. The same is valid for both Old English and Old Norse as the texts we approach and observe today are mostly normalized texts with regularized orthography, rather than approaching facsimile or diplomatic version which are closer to the original manuscripts. It is also important to mention that the Old Norse scribal culture started only in the 13<sup>th</sup> century and therefore Old English and Old Norse texts can only be compared according to the periods rather than years, decades or centuries.

Other problems occurring were those related to the terminology. For instance, both Present Day English and Modern Swedish group strong verbs together with irregular and anomalous verbs terming them all as *irregular*, which is somewhat of a false term as, basically, all strong verbs have a pattern they follow which makes them particular in their form, yet somewhat regular. They are often grouped together, although an irregular verb does not necessarily need to be a strong verb. Therefore, in this work I will not be analysing *irregular* verbs, but rather *strong verbs*, thus excluding verbs of particular and unique inflectional patterns (such as *to be, go, do*), defective verbs or those with incomplete inflectional pattern (e.g. modal auxiliaries which underwent the process of grammaticalization<sup>8</sup>). This matter will not be discussed further, but had to be mentioned in order to differentiate between the proper strong verbs which follow an ablauting pattern and reduplication in Class VII, and irregular verbs.

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<sup>8</sup> According to Traugott (2002), grammaticalization is a process whereby lexical categories and constructions containing lexical material develop, in specific morphosyntactic contexts, into members of functional categories, including tense and aspect markers.

Other terms used in this work will be Germanic for Common Germanic, of common ancestor of Old Norse and Old English. I will be using the term Old English rather than Old Saxon or any other language variety existing at the time on the British Isles.

The term Old Norse was used rather than Old Icelandic or Old Swedish, as both Old Icelandic and Old Swedish are sometimes defined as dialects and other times as descendants of Old Norse. For some the term *Old Norse* is a broad concept covering language of Denmark, Norway, Sweden and Iceland and other Scandinavian colonies from the Viking Age and the early and high Middle Ages. Others define it as the Old Norwegian of the early and high Middle Ages. For example, E. V. Gordon in *An Introduction to Old Norse*, defines it as “the language spoken by the North Germanic peoples [...] from about 100, until about 1500” (1927: 265). He further discusses that dialects developed in Old Norse in the Viking period with slight differences among them until c. 1000. From then on there was a division between West and East Norse, where West Norse comprised of Old Norwegian and Old Icelandic, and East Norse of Old Swedish and Old Danish. It will be used here to signify the language of Norway and Iceland in the period c. 750 – 1350, or rather West Norse according to Gordon’s classification, as texts named above and used for this analysis do not originate from East Norse areas, i.e. Denmark and Sweden. This variety of Norse came to be spread to Faroe, Greenland and Ireland, but has developed immense scribal culture only in Iceland and Norway.

## 2. Theoretical background

### 2.1. Strong verbs and language change

#### 2.1.1. Internal development and external influences

As strong verbs are purely a Germanic development, there are mainly two explanations for their occurrence. One of the suggestions is that strong verbs are a result of an internal language change, while the other explains them as a product of an external influence through language contact. Internal changes refer to changes that originate in the system of language itself, as the patterns within the language are adjusted and readjusted. In reference to the Germanic strong verb, this would mean that strong verbs emerged as an internally motivated Germanic invention or an archaism as this feature cannot be traced back to Indo-European through comparative or internal reconstruction<sup>9</sup>. By contrast, external influence could explain certain features that are common in Germanic, but not present in Indo-European. A number of authors have therefore suggested that the genesis of strong verbs occurred through language contact, probably a non-Indo-European one. This position is supported by various scholars, such as Braunmüller (2000), Scardigli (1973, 1980<sup>10</sup>), Eggers (1980) and Vennemann (2000). Theo Vennemann proposed a number of etymologies for unexplained Germanic words based on Semitic languages or Basque. He offers an explanation for the occurrence of Germanic strong verbs:

“Ablaut, as every linguist knows, and in particular verbal and deverbal ablaut, is the typological hallmark of Semitic; this includes the oldest attested language, Akkadian, and may therefore safely be inferred for the Atlantic [i.e. Semitic] languages.”  
(Vennemann, 1998: 41)

Robert Mailhammer points out that despite source being defined, i.e. Semitic verbal ablaut system, the process of the proposed development has only been sketched (2007: 11).

The exact number of Germanic strong verbs either possessing or lacking in Indo-European etymology is still unknown, as there is no investigation of the etymological situation of the Germanic strong verbs.

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<sup>9</sup> The view that the internal development is the cause to the unexplained phenomena in Germanic is still around (see Meid, 1984: 104-105). Theo Vennemann calls it “der Blick der romantischen Philologie des 19. Jahrhunderts” (2000: 235).

<sup>10</sup> In his work, Scardigli points out that “a number of Germanic strong verbs have no good Indo-European etymologies” (1980: 385)

Prevailing mechanisms of change in strong verbs are *reanalysis* and *analogy*. Reanalysis is “a mechanism which changes the underlying structure of a syntactic pattern and which does not involve any immediate or intrinsic modification of its surface manifestation” (Harris and Campbell, 1995:61; adapted from Langacker, 1977). It is one of the three mechanisms of syntactic change. Harris and Campbell name certain aspects of grammar affected by reanalysis, those being constituency, hierarchical structure, category labels, grammatical relations and cohesion. Examples of reanalysis in Present Day English include modal verbs which have changed from modal to near auxiliaries, the verb *like*, the preposition *for* changing to complement (*left for dead, ask for advice*) etc. In short, reanalysis is a development of new structures out of the old; it is a covert type of change and innovation along syntagmatic axis. Secondary change in Germanic strong verbs would be analogy which is, unlike reanalysis, a change in paradigmatic organization, surface collocations, and patterns of use. It is often referred to as a preference for regular patterns. For example, if the pattern in these verbs is *swing: swung, sting: stung*, then according to analogy the verb *bring* would be *brung*.

## 2.2. What are strong verbs?

Strong verbs are basically a Proto-Germanic invention. Strong inflection came into being when originally Indo-European vowel alternation became the dominant way of marking past tense on a particular group of verbs<sup>11</sup>. Part of verbs underwent phonological and/or morphological changes, giving them a unique inflectional pattern. The strong verbs belong to a set of characteristic features distinguishing Germanic from the great majority of their Indo-European relatives but also from the reconstructed parent language. Their organization differs typologically from the parent language (i.e. Proto-Indo-European) and all other related languages. Strong verbs are a highly organized system whose mechanism is explainable in details.

Strong verbs can be divided into seven classes, six of which are ablauting classes and one which collects originally reduplicating verbs. Usually an entry for a strong verb contains information, i.e. it consists of four gradation vowels: the infinitive, 1<sup>st</sup> and 3<sup>rd</sup> person singular and plural past, and the past participle in Old English. It is similar in Old Norse where there are also four different gradation vowels: the infinitive, 3<sup>rd</sup> person singular past, plural past

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<sup>11</sup>Maillhammer, Robert (2007:54)

and the past participle. Unlike weak verbs, they experience root vowel change instead of dental suffixation. As already stated, the two morphological devices used in the stem formation of the Germanic strong verb (before Old Norse and Old English) are *ablaut* and *reduplication*. While the significance of reduplication decreases through development of Germanic strong verbs, that of ablaut increases. Therefore, already in Old English and Old Norse we find only remnants of reduplication.

### 2.3. The common vowel alternations within verbs

There are several sound changes at hand in strong verb inflection. One of them is *labial mutation*<sup>12</sup> also known as *rounding*<sup>13</sup>. It is an alternation where the vowel of a stressed syllable adopts one or more of the features of the vowel or semi-vowel of the immediately following unstressed syllable. In Old Norse, vowels such as *u* and *w* impose rounding and cause the vowel *a* to round and change into *ɔ*. In verbs it occurs in 1<sup>st</sup> person plural present and past. In Old Norse, all disyllabic past subjunctive forms with original back root vowels exhibit front mutation. The back : front correspondences that arise (contrasting 3rd pl. indic. with 3rd pl. subj.) are as follows:

*a* — *e* (*valði* (3rd sg.) — *velði* ‘chose’)  
*á* — *æ* (*báru* — *bæri* ‘carried’)  
*ó* — *œ* (*fóru* — *færi* ‘went’)  
*u* — *y* (*brunnu* — *brynni* ‘burnt’)  
*jo* — *y* (*bjoggu* — *byggi* ‘lived’)  
*jó* — *ý* (*hljópu* — *hlýpi* ‘leapt’)

Another vowel alternation occurring in strong verbs is *front mutation*, *i-mutation*<sup>14</sup> or *raising*. This change concerns the adoption by the vowel of a stressed syllable of a feature of the vowel or semi-vowel of the immediately following unstressed syllable. The principal conditioning factors in Old Norse were the front vowel *i* and the front semi-vowel *j*. The so-called ‘palatal *r*’ (or *z*, as in *\*kuz/\*kuR*, which developed to *kýr*), and the combined influence of earlier *-ge*, *-ke* (as in *\*dage*, which became *degi*) — as well as analogical levelling — also played their part in this process. It occurred at a stage of Scandinavian language development

<sup>12</sup> Gordon (1927: 272); further divides it into *u-* and *w-*mutation

<sup>13</sup> Barnes, Michael (2008: 39)

<sup>14</sup> Barnes uses *front mutation* and *raising*, while Gordon uses *front mutation* and *i-mutation*

that preceded Old Norse, and had ceased to be productive some time before the Old Norse period. This has two important consequences for the recognition of inflexions. First, we find an unstressed *i* that does not cause front mutation because it arose after the period when mutation was taking place, e.g. dat. m. sg. *armi* ‘arm’ (< \**arme*). This circumstance makes it impossible to formulate a hard-and-fast rule (like *a* > *o* before *u*, *v*) stating which stressed vowels we can expect to find immediately preceding *i*. Second, the *i*, *j* or other conditioner triggering the fronting may no longer be present (very often it is not — cf. *fætr* and *bækr* above, earlier forms of which were \**fōtiz*, \**bōkiz*). This latter situation is parallel to the loss of *u* in forms such as *ffjoll* ‘mountains’, *hqfn* ‘harbour’.

All strong verbs with original back root vowels exhibit front mutation in the singular present indicative. The back : front correspondences that arise (contrasting 3<sup>rd</sup> pl. with 3<sup>rd</sup> sg.) are as follows:

*a* — *e* (*fara* — *ferr* ‘go’, ‘goes’)  
*á* — *æ* (*gráta* — *grætr* ‘weep’, ‘weeps’)  
*o* — *ø* (*sofa* — *søfr* (> *sefr*) ‘sleep’, ‘sleeps’)  
*ó* — *oe* (*blóta* — *blætr* ‘sacrifice’, ‘sacrifices’)  
*ú* — *ý* (*lúka* — *lýkr* ‘end’, ‘ends’)  
*o* — *ø* (*hoggva* — *høggr* ‘strike’, ‘strikes’)  
*au* — *ey* (*hlaupa* — *hleypr* ‘leap’, ‘leaps’)  
*jó* — *ý* (*skjóta* — *skýtr* ‘shoot’, ‘shoots’)  
*jú* — *ý* (*fljúga* — *flýgr* ‘fly’, ‘flies’)<sup>15</sup>

*I-mutation* generally affected Old English vowels in each of the main dialects. It led to the introduction into Old English of the new sounds such as *y*(:), *ø*(:) (which, in most varieties, soon turned into *e*(:)). This sound change occurs in the second and third person present singular indicative of strong verbs, e.g. *helpan* ‘to help’, *helpe* ‘(I) help’, *hilpst* ‘(you sg.) help’, *hilpp* ‘(he/she) helps’ (cf. archaic “he helpeth”), *helpaþ* ‘(we/you pl./they) help’, *cēose* ‘(I) choose’, *cīest* ‘you sg. choose’, etc.

*Breaking* is also one of the vowel alternations occurring in strong verbs, which is as *front mutation* an older sound change and at the time of both languages is no longer active. In Old Norse, the plural present indicative and the present subjunctive of a small number of

<sup>15</sup> The last two examples illustrate a more complex process than straightforward front mutation: ?\**jó* > \**jæ* > \**jý* > *ý* and \**jú* > \**jý* > *ý*.

common strong verbs have the diphthong *ja*, while the singular present indicative has the original *e* (e.g. *fleir gjalda* ‘they pay’ — *hann geldr* ‘he pays’).

In Old English, two forms of harmonic vowel breaking occurred: breaking and retraction, and back mutation. In prehistoric Old English, these changed the stressed short and long front vowels *i*, *e*, *æ* to short and long diphthongs spelled *io*, *eo*, *ea* when followed by *h* or by *r*, *l* + another consonant (short vowels only), and sometimes *w* (only for certain short vowels) such as in Proto-Germanic \**fallan* > Anglo-Frisian \**fællan* > Old English *feallan* ‘fall’.

The most prominent example of this case is class III Old English strong verbs, with the format vowel plus double consonant (or *-VCC-*). In this class breaking is related to the presence of a syllabic *r* in the stem which results in a diphthong where there was a single vowel. Thus, class III of Old English strong verbs becomes more diverse. Regular basic series can be exemplified by the verb *bregdan* ‘to turn into’ which has the format *-VCC-*. In verbs such as *weorpan* ‘to cast’, breaking occurs before *r+C* thus changing the paradigm of class III *e-æ-u-o* into *eo-ea-u-o*. In class III there is also a limited breaking in verbs such as *helpan* ‘help’ before *l+C* changing the paradigm *e-ea-u-o*<sup>16</sup>.

## 2.4. Ablaut and reduplication in Germanic strong verbs

### 2.4.1. Ablaut

Strong verbs, as already noted, form their past tense by root vowel change. The alternations concerned, known as ‘vowel gradation’ or by the German term *Ablaut*, have nothing to do with mutation or breaking, but are a feature inherited from a pre-Germanic stage of language development. With its origin rooted so far back in linguistic history, the factors that shaped vowel gradation have long since disappeared. The six basic vowel gradation series, which form six strong verb classes, have the following alternations in the present, past sg. indic., and past pl. indic./past subj. (front mutation forms are given in brackets) in Old Norse:

- (1) *í* — *ei* — *i* — *i*
- (2) *jó/jú* (*y*) — *au* — *u* (*y*) — *o*
- (3) *e/i* — *a* — *u* (*y*) — *o*
- (4) *e* — *a* — *á* (*æ*) — *o*
- (5) *e* — *a* — *á* (*æ*) — *o*
- (6) *a* (*e*) — *ó* — *ó* (*æ*) — *a*

<sup>16</sup> *æ* > *ea* before an ‘l’ or ‘r’ consonant cluster, *e* > *eo* and *i* > *io* before ‘l’ followed by ‘c’ or ‘h’, ‘r’ consonant clusters, and ‘h’ alone or followed by a consonant

Old English also consists of six vowel gradation series influenced by ablaut:

- (1)  $i$  —  $\acute{a}$  —  $i$  —  $i$
- (2)  $\acute{e}o/\acute{u}$  —  $\acute{e}a$  —  $u$  —  $o$
- (3)  $e/eo/ie$  —  $ea$  —  $u$  —  $o$   
 $i$  —  $a$  —  $u$  —  $u$
- (4)  $e$  —  $\text{æ}$  —  $\acute{e}$  —  $o$
- (5)  $e$  —  $\text{æ}$  —  $\acute{e}$  —  $e$
- (6)  $a$  —  $\acute{o}$  —  $\acute{o}$  —  $a$ <sup>17</sup>

As Mailhammer (2000:26) put it, ablaut is so to say the expression of grammatical categories based on verbal stems that reflect the dimension of aspect. Verbal root usually forms a present stem and an aorist stem. These stems are formed according to complex morphological rules and determine the combination of the morphological properties used in Indo-European verbal morphology, namely ablaut, affixation, reduplication and word stress, traditionally called *types of stem formation*, rarely can one such property be found by itself. Ablaut cannot be seen as morphologically distinctive or as means to express grammatical category.

It seems to have originated as a result of phonological processes at some stage early in IE and subsequently morphologized. It can be found in other languages, most notably Semitic.

#### 2.4.2. Reduplication

Reduplication is one of the regular ways of forming the Indo-European perfect. As ablaut, it was inherited into the early Germanic as a marker of the preterite in some strong verbs. Jasanoff (2008) reconstructs Proto-Germanic perfect as having reduplicating perfective root in all verbs except *\*woid-/ \*wid-* ‘know’<sup>18</sup>. Although no reduplicated forms are properly attested in any of the Northwest Germanic dialects today, Old English and Old Norse display a number of irregular formations within the seventh class<sup>19</sup> of strong verbs, which have been traditionally considered remnants of earlier reduplication.

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<sup>17</sup> Present day English and Swedish ablauting classes will be described in the chapter 3.

<sup>18</sup> Furthermore, Jasanoff proposes a new idea – the ablaut itself might have developed from reduplication

<sup>19</sup> The Class VII is often further divided into seven subclasses (e.g. Krygier, 1994). These can be regrouped into two classes (Branchaw, 2010) or even three (e.g. Long, 1944.) In Old Norse, Class VII distinguishes five different subclasses. I will use Jasanoff’s five subclass system for both ON and OE

The Old English verbs of the originally reduplicated preterites, frequently referred to as *r*-preterites, are confined to one dialect only (Anglian) and include these irregular forms: *heht*, *leolc*, *speoft*, *beoft*, *leort*, *reord*, *ondreord* (the preterite forms of *hatan* 'command', *lacan* 'leap', *spatan* 'spit', *beatan* 'beat', *laetan* 'let', *raedan* 'advise', *ondraedan* 'dread' respectively). The reduplicating forms in Old Norse are made of *verba pura* (verbs without root-final consonant): *róa* (pret. *rera*), *gróa* (*grera*), *sá* (*sera*), *snúa* (*snera*), *gnúa* (*gnera*)<sup>20</sup>. Other VII class verbs in Old Norse are *hét*, *jók*, *bjó*, *fell*, *lét*, *blét* (preterite of *heita* 'call', *auka* 'increase', *búa* 'inhabit', *falla* 'fell', *láta* 'let', *blóta* 'offer') etc.

Reduplication is no longer a transparent process and it is less synchronically analysable already from the period of Old English and Old Norse.

#### 2.4.3. Verner's law

Verner's Law, another old change long before the occurrence of Old Norse and Old English, refers to the changes in stress. In disyllable or polysyllable words with a voiceless fricative between voiced sounds, or vowels, they became voiced if the stress follows the fricative. This law did cause irregularities in Old English, where stress could sometimes shift from the root syllable to the inflected ending of a strong verb's past tense and past participle form. Therefore, the principal parts for *sníðan* 'cut' are not *sníðan*, *snáþ*, *sníþon*, *sníþen*, but instead *sníðan*, *snáþ*, *snidon*, *sniden*. By contrast, Old Norse has two class V variants, one with e-full grade but with voiced Verner variant, *vega*, and another *viga*.

According to Bammesberger (1986: 49), the loss of reduplication may have occurred when the voiceless Verner variants were restored in the affected words (see also Vennemann 1997:332 fn. 28). It is therefore usually assumed that reduplication was given up wherever possible because it was perceived as redundant, and also because, at least in some cases, the effect of Verner's Law distorted the radical onsets in reduplicated forms. Vennemann (1997: 332 fn. 28) says "that the reason for the abandonment of reduplication in the verbs of classes I–VI was the obfuscating effect of Verner's Law on the preterite forms". From Mailhammer's research, however, it seems doubtful that the effect of Verner's Law provided a reason for the loss of reduplication.

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<sup>20</sup> The verbs *gróa* 'grow' and *gnúa* 'rub', though not originally reduplicated, follow the conjugations of *róa* and *snúa*, respectively.

### 3. Swedish and English strong verbs

Swedish and English consist of seven strong verb classes – six are with an ablauting pattern, while the seventh class is a historically reduplicating class. However, modern grammars define them in a different way. They are usually listed as irregular verbs together with weak and anomalous verbs.

#### 3.1. Swedish strong verb classes

Since Old Norse, Swedish experienced many changes in its verb conjugational patterns and organizational structure. For instance, Present Day Swedish does not recognize person or number in conjugation, and the only morphological information carried by verbs is its tense: the present, the past, and the past participle. Therefore, class I of Swedish strong verbs has a vowel gradation pattern of *i – e – i*, or in an example: *gripa – grep – gripit* ‘to catch, seize’. This class consists of verbs where the ablaut vowel was followed by *-y-* in Proto-Indo-European. This class also includes prefixed and derived verbs (*an-gripa* ‘attack’). Class II includes verbs where the ablaut vowel was followed by *-w-* in Proto-Indo-European. The pattern has small variations: *-ju-/-u-/-y-* for the present tense, *-(j)ö-/-ö-/-ö-* and the past participle *-(j)u-/-u-/-u-*.

Class III comprises of verbs where the ablaut vowel was followed by a sonorant (*m, n, l, r*) and another consonant. The ablaut pattern in those verbs is: *-i-/-e/ä-, -a-, -u-*.

Class IV is rather similar to class III when it comes to pattern and verbs, the only difference being that the ablaut followed by a sonorant is not further followed by another consonant. This changes the vowel length which is determined by the number of consonants following the vowel, e.g. *brinna* ‘to burn’ compared to *bära* ‘to bear, carry’.

Class V encompasses verbs where the ablaut vowel was followed by a consonant other than a sonorant, such as *ge* ‘to give’, *ligga* ‘to lie’. The pattern for class V is *-e/e-, -ä-, -i-* in the present tense, *-a (å)-, -a(å)-, -a(å)-* in the past, and *-e/i-, -ä-, -e-* in the past participle.

Class VI contains verbs with the stem vowel *-a-*, except those where it is followed by a sonorant and another consonant. The PIE origin of this class is uncertain; however, this combination was considered a diphthong in PIE and therefore belonged to class VII, e.g. *dra* ‘to go’, *ta* ‘to take’, *fara* ‘to go, to travel’.

Finally, class VII includes verbs that retained their reduplication in the past tense in Proto-Germanic. The seventh class was originally a collection of verbs from the other six classes

that exhibited reduplication. Class VII has diverged too much in both languages to fit into a single pattern. Consequently, the sound of the present tense can vary but it is always the same as that of the past participle. For example, verbs such as *hålla* ‘to hold’ and *falla* ‘to fall’ have the inflectional patterns of *-å/-a/å-*, *-ä/-ö-*, and *-å/-a/å-*.

### 3.1.2. The peculiar case of the 3<sup>rd</sup> class weak verbs

The third class of Swedish strong verbs includes verbs with monosyllabic stem, with infinitives ending in vowel. This class seems to have emerged as the result of reanalysis and analogy. Their inflectional patterns are:

*bo – bor – bodde – bott* (infinitive – present – past – past participle)

In preterite and participle the ending vowel is shortened. This class includes only monosyllabic verbs that end in a vowel, therefore those verbs might be phonologically conditioned. In Swedish, double consonant imposes shortening of the vowel preceding the cluster. Both Norwegian and Swedish have consonants and vowels that are in this class in complementary distribution (syllable harmony). There are 40 verbs belonging to the 3<sup>rd</sup> class of weak verbs in Present Day Swedish. The 1<sup>st</sup> class of weak verbs is the most productive one with the *-a-* infix. In the 2<sup>nd</sup> class a suffix adapts to the final sound of the root with *-de* after voiced sounds as in *ärvde* and *-te* after voiceless sounds as in *köpte*.

3<sup>rd</sup> class experiences tense exponent and root interactions which results in vowel shortening.

Dammel (2012) discusses similarities between strong verbs and the 3<sup>rd</sup> weak class of Swedish verbs. In strong verbs the stem alternation is most extensive and morphologically conditioned, whereas the tense and root interact bringing to vowel shortening as mentioned above. For instance, strong verbs with short vowels such as *å be* ‘to beg’, in present *ber*, preterite *bad* and *bett* in past participle overlaps with 3<sup>rd</sup> conjugation in the infinitive and present. Most of them adopted at least a 3<sup>rd</sup> conj.-supine in the standard variety of Swedish (Karlsson & Sahlquist, 1975). In colloquial speech and in child language, overgeneralization extends to class III preterite forms such as *bedde* ‘beg’ and *blidde* ‘stay’ instead of *bad* and *ble*. The strong verb *ha* ‘have’ with its 3<sup>rd</sup> conjugation pattern even became standard: *har – hade – haft* which seems to be a strong model for the 3<sup>rd</sup> conjugation preterites of the other strong short verbs. These changes emerged through analogical extension and reanalysis:

2<sup>nd</sup> conjugation stem final *-d*:

a) Mid.Sw.    *tyda* (V:)        *tydde*(Vd:)        *tytt* (Vt:)

b) Mod.Sw.	<i>tyda</i>	<i>tydde</i> (Vd:)	<i>tytt</i> (Vt:)
3 <sup>rd</sup> conjugation, stem final vowel:			
a) Mid.Sw.	<i>fly(a)</i> (V:)	<i>flydha</i> (V:ð)	<i>flytt</i> (Vt:)
b) Mod.Sw.	<i>fly</i>	<i>flydde</i> (Vd:)	<i>flytt</i> (Vt:)

(Adapted from Dammel, 2012)

Dammel further explains that the model which served in creating the 3<sup>rd</sup> conjugation, as can be seen from the example above, is today's 2<sup>nd</sup> conjugation verbs with a stem final *-d* (*tyda*). According to analogy, preterite vocalic verbs (*fly*) adopt double dental suffix including vowel shortening of the verbs with stem final *-d*. After the analogical extension, reanalysis takes place:

{stem-d} - {de}	=>	{stem} - {dde}
tyd-a > ty(d)-a	ALLOWS	tyd-de > ty-dde <sup>21</sup>

In this case, the *-d* in the preterite was interpreted as part of the suffix instead of belonging to the stem.

This class is, however, rather modestly productive. At first it attracted other weak verbs that fit the phonological pattern – long vowels without final stem consonant. Today, new verbs ending in a long vowel that enter Swedish language end up in the first weak class (e.g. *buade – buade – buade* ‘boo’). For strong verbs with monosyllabic infinitives (*dö* ‘die’ or *få* ‘get’) third conjugation pattern is semi-productive. One of the reasons this occurs might lie in the verb frequencies. For instance, Bybee (1995: 119-120) points out that verbs that have become regular over the history of English, tend to be less frequent ones, while those that have remained irregular show a higher frequency of occurrence. The need for this class possibly emerged as high frequency items – compared with the average – tend to be shorter but also to inflect more distinctly for the same grammatical categories. This process seems to still be ongoing in Present Day Swedish (Dammel, 2009:17).

The verbs of this class show peculiarities in all the older Germanic languages, but they differ remarkably in their conjugation from one language to another, so that it is not at all obvious how the Common Germanic paradigm should be reconstructed. Jasanoff goes further into detail regarding the 3<sup>rd</sup> weak class in Germanic (1973). Very little remains of the 3<sup>rd</sup> class as an autonomous category in Old English and 2<sup>nd</sup> class has expanded enormously at

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<sup>21</sup> examples adapted from Dammel, Antje (2009:16)

the expense of the 3<sup>rd</sup>. Only three verbs, *have*, *say* and *live* retain any features of morphological interest.

### 3.2. English strong verbs classes

Strong verbs are less numerous than weak verbs. In Old English there were over 300 strong verbs in seven verb classes. According to Huddleston and Pullum (2002: 1600-09) there are 90 un-compounded Present Day English verbs that form their past tense through vowel change alone. Of these, some 75 are descended from the originally strong verbs. Others, such as *bleed*, *keep* etc. acquired present-preterite vowel alternations not through morphological change, but through a series of regular phonological changes that triggered vowel shortening. Same as in the Old Norse and Present Day Swedish, there were 7 strong verb classes. Many strong verbs have passed to weak conjugation and all new verbs entering the language are inflected as weak. In the period when Old English was developing into what we today call Middle English, the strong verbs experience a levelling of inflections and the weakening of endings in accordance with the general tendency, e.g. *-an* in the Old English infinitive changed into *-en* and later *-e*, as in OE *drīfan* > MidE *driven* > PDE *drive*. In Middle English there were major losses in the strong verb conjugation and some third of originally strong verbs have died out in the Middle English period starting already in the late Old English, which will be seen in the examples from the *Peterborough Chronicle* (see Chapter 4).

The principal parts of classes I-VI are vowel alternations by ablaut pattern.

Class I includes verbs such as *drive*, *ride*, *rise* etc. The Modern English past of these verbs is formed according to the Old English past singular (*rode*), or plural (*bit*). Although the class is still observable, and most of the verbs are descendants from the Old English class I, some verbs do not adhere to the pattern *i-o-i* such as *bite*, *shine*, *strike*.

Class II comprises verbs with alternation *oo-o-o*. This is a more general classification as class II is irregular and includes verbs such as *choose*, *shoot*, *fly*, *freeze* etc. Class III is defined as having *i-a-u* alternation (verbs such as *begin*, *drink*, *spring*), but consists of certain anomalies such as *fight*, *swell* and possible Old Norse loan *fling*. Class IV has *ea-o-o* and includes verbs such as *bear*, *break*, *steal*. Preterites of certain verbs have preserved the Middle English *-a-* in some dialects (*bare*, *brake*). Class V verbs change in *i-a-i*, and these verbs include *bid*, *eat*, *give*, while class VI includes verbs as *shake* and *take* where the ablauting pattern is *o-e-o*. All

classes in Modern English have lost their cohesion which can be possibly best exemplified by the class VII where many verbs cannot be placed in one pattern:

*fall – fell – fallen*

*grow – grew – grown*

*hang – hung – hung*

There are several results for the strong verbs since Old English. Some are still present in the Present Day English, as those mentioned above, certain became weak, which will be further discussed, and others do not exist in Present Day English.

### 3.3. Anomalous and preterite-present verbs

There are also other types of verbs which are also grouped together with strong verbs to form so called *irregular verbs* class in modern grammars. However, they inflect differently from weak and strong verbs. These verbs are high-frequency verbs and are semantically particular. Preterite-present verbs are verbs that use originally preterite form with a present tense meaning, such as *sculan, witan, magan, mótan, cunnan, unnan, þurfan* as found in the texts used for this analysis. They are a combination of strong and weak verbs and some of these were used as modal verbs although modal verbs are a separate category which in certain cases overlaps with preterite-present verbs. In Old Norse they are less numerous and those appearing in the texts are *eiga, muna, and vita*. It appears there is no blending of modal and preterite-present verbs as in Old English.

A small amount of verbs have morphologically unpredictable forms and are neither strong nor weak. For instance, Old English verb *wesan* survives in today's *was, were* paradigm of the verb *be*. Other verbs belonging to this group are *do, go, and will*. Old Norse *valda, vilja* and *vera* are considered as anomalous verbs and all of these appear in the analyzed texts. In the verb *valda* it is observable that in the later Old Norse literature analogical forms appeared, such as *volda*.

However, these verbs are not of concern in this thesis although I find them worthy of mentioning.

#### 4. Changes in the inflectional systems

The demise of the strong verb as a functional category is an observable change where one witnesses the increasing number of strong verbs being lost or shifted to the weak class in the 13<sup>th</sup> and 14<sup>th</sup> centuries, which was accompanied by simultaneous disintegration of the ablaut system. However, already in the late Old English period we notice changes within the system. The *Peterborough Chronicle* (app. 12<sup>th</sup> century) seems to have been the last writing which used preterite strong verbs without the addition of the dental *-t* or *-d*. Changes occur in present, past and participle systems. In the infinitive ending, although the Old English ending *-an* is dominant, there is also a parallel occurrence of different infinitive endings for the same verb, for instance, *cuman – cumen – cumon* or *findan – finden – findon* or in verbs of the same stem but different prefix, as in *beswicon – geswicen – swican*. Despite obvious changes in the present system, my main focus is on the changes in the stem vowels or ablauting and reduplicating patterns of strong verbs. Changes occur in all classes in preterite and they are mostly a result of analogical levelling. For instance, the class I verb 3<sup>rd</sup> person preterite *beteah* was in Old English *betāh*. The form *beteah* seems have been influenced by class II *tēon*. Certain verbs of class II on the other hand have followed class V – *bebæd* instead of *bebēad* as it should have been conjugated. Class V verb *biddan* is now *bed* in 3<sup>rd</sup> person singular preterite instead of *bæd*. These two verbs – *bebēodan* ‘to command’, and *biddan* ‘to request’, ‘to plea’ – have semantically fallen into one and both forms in the same meaning appear in the text. Certain verbs became weak already in the period of Old English (*rædan* ‘to advise’, *sceððan* ‘to injure’). There is a noticeable influence of Old Norse on Old English which is still present even in the Present Day English. The word *niman* was replaced by the Old Norse *tacan* and is still inflected as a strong verb. Similarly, the Old English word *gietan* ‘get’ was influenced by the Old Norse in pronunciation. The original was pronounced with a glide /j/<sup>22</sup>, but was under the Old Norse influence already in the period of *Peterborough Chronicle* pronounced as /g/ (Bergs and Brinton, 2012:25<sup>23</sup>).

Old English texts show consistency in the use of strong verbs and are duly following their ablauting patterns and inflectional endings. Only in the analysis of *Peterborough Chronicle* we come across strong verbs that were in certain forms used as weak (3<sup>rd</sup> preterite plural) such as the class I *onbidedon*, class II *losedan* (*leosan*), class III *brenden*, class VII

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<sup>22</sup> cf. Old Frisian *jeta*

<sup>23</sup> English Historical Linguistics: An International Handbook. (2012). Ed. by Bergs, Alexander / Brinton, Laurel J. De Gruyter Mouton

*henged*, and (3<sup>rd</sup> preterite singular) class III *bærnde/forbærnde*; *funde* (findan: fand), class VII *rædde* (red). But changes are not observable only in the stem vowel but also stem consonant, as in class V *spæcon* (earlier *spræcon*).

Class VII strong verbs with short vowel in the infinitive such as Old English *healdan* – *hēold* – *hēoldon* – *healden* are found in the text in the variety *held*. Old English *hōn* – *hēng* – *hēngon* – *hangen* is found in the weak form *henged*, and *fōn* – *fēng* – *fēngon* – *fangen* is found in the form of *fæng*.

There remain about 70 of the originally Old English strong verbs in the language today plus thirteen verbs that are conjugated in both ways or have kept one strong form. It was rather common that due to the phonetic changes in Middle English verbs in certain inflectional forms were confused with other verbs. In those that had both weak and strong verb, usually the weak form prevailed. The surviving strong verbs did not however come down to the present day in the form that would be expected in the normal development of the verbs. Certain verbs have taken the past participle as the main infinitive form, as is the case with *slay* which is based on the Old English past participle *slægen*. Furthermore, its inflectional pattern has been analogically levelled to verbs such as *blow* and *grow*:

*blow* – *blew* – *blown*

*grow* – *grew* – *grown*

Analogy:

*slay* – *slew* – *slain* (instead of more expected *slough* from OE *slōg*)

This verb also exhibits its weak forms *slay* – *slayed* – *slayed* in Present Day English.

Although in general Old English past tense commonly had a different form in the singular and the plural, in two large classes of verbs the vowel of the plural was also like that of the past participle (e.g. *bindan*—*band*—*bundon*—*bunden*). Consequently, although normally the singular form survived in Modern English, in many cases the vowel of the plural or of the past participle has taken its place. According to the analogy, verbs *cling*, *sting*, *spin*, etc., should have had a past tense *clang*, *stang*, *span* (like *sing*), but these forms have been replaced by *clung*, *stung*, *spun* from the plural and the past participle.

Sometimes a verb has changed from one class to another or switched into weak class. Strong verb classes in Present Day English have also introduced some of the originally weak verbs. Verbs *dig*, *ring*, *spit*, *stick*, *string* and *wear* became members of class I, but originate from Old English *dīcjan*, *hringan*, *spittan*, *sticca*, *streng* (noun), *werian*. The verbs *chide*,

*hide, strive, thrive* were originally weak verbs from Old English *cīdan* and *hȳdan*, Old French *estriver* and Old Norse *þrīfa*. Noun *stafas* turned into class IV strong verb *stave*.

Singular and plural preterite have the same vowel<sup>24</sup> in Present Day English as during Middle English singular and plural fell together. The ablauting pattern of the Present Day English is rather difficult to put into coherent paradigms, as there seem to be over ten different preterite vowel groups, e.g.

OE strong verb class	Present form	Preterite form
I	strike	struck
	bite, slide	bit, slid
II	bide, drive, rise, shine, stride,	bode, drove, rose, shone, strode
	freeze	froze
	choose, shoot	chose, shot
	cleave	clave
III	swing, sting, wring, cling, slink, win	swung, stung, wrung, clung, slunk(slunked), struck, won
	find, grind, wind, bind,	found, ground, wound, bound
IV	swear, tear, shear, bear	swore, tore, shore, bore
	break	broke
	come	came
V	get, see, tread	got, saw, trod
	sit	sat
	eat	ate
VI	draw	drew
	shake, slay, stand, take	shook, slew, stood, took
VII	hang	hung
	fall	fell
	grow, know, throw	grew, knew, threw

Table 1. Present Day English strong verbs according to the internal vowel change

This table shows the division of strong verbs according to the original classes as less coherent and less conservative compared to Swedish which seems to have a better organized structure of division according to internal vowel alternations. As can be seen from Table 1, preterite

<sup>24</sup> except *was - were*

form of the class III verbs *cling*, *slink*, *sting*, *swing*, *sting*, *win*, *wring* show the change from [ɪ] to [ʌ], but so does the class I *strike* which previously had change *strīcan* – *strāc* – *stricon* in Old English, and *striken* – *stroke* in Middle English. Other class III verbs as *bind*, *find*, *grind*, *wind* inflected similarly in Old English and Middle English: *bindan* – *band* – *bundon*, *findan* – *fand* – *fundon*. The verb *strike* was probably analogically levelled according to similar preterite form of these class III verbs.

In Present Day English, the preterites are formed from different Old English forms. The Present Day English preterite corresponds to the Old English preterite in the majority of strong verbs, while the rest is formed from the old participle and preterite plural. Some verbs have changed the class, such as *fly* – *flew* (OE *flēah*) and *slay* – *slew* (OE *slōh*).

Unlike Present Day English, the Swedish strong verbs have in general levelled to that of the preterite singular. Swedish strong verb classes also differ in their degree of stability and productivity. Certain verbs tend to become weak or they develop weak variant forms, regardless of productivity. Some strong verbs in Present Day Swedish have both weak and strong forms, such as *tvinga* – *tvang* / *tvingade* from Old Swedish<sup>25</sup> *þwinga*, *þwang*, and at the same time some strong classes have acquired new members, most often previously weak verbs, such as *skriva* ‘write’ – *skrev* – *skrivat* from Old Swedish *skrīvaðe*. Some verbs show an internal analogy of stem consonants such as glides which are today reanalysed as consonants rather than vowels, as in the class II verb *bjóða* where the glide became part of the consonantal stem:

Old Norse:	<i>bjóða</i>	<i>bauð</i>	<i>buðu</i>	<i>boðið</i>
Old Swedish:	<i>biūða</i>	<i>bøð</i>	<i>buðu</i>	<i>buðin</i>
Present Day Swedish:	<i>bjuda</i>	<i>bjöd</i>	<i>bjudit</i>	

class	OLD NORSE:	OLD SWEDISH	PDSw
I	<i>í</i> — <i>ei</i> — <i>i</i> — <i>i</i>	<i>í</i> — <i>e</i> — <i>i</i> — <i>i</i>	<i>i</i> — <i>e</i> — <i>i</i>
II	<i>jó/jú</i> (ý) — <i>au</i> — <i>u</i> (y) — <i>o</i>	<i>iú</i> (ú) — <i>ö</i> — <i>u</i> — <i>o</i>	<i>ju</i> , <i>u</i> , <i>y</i> — (j) <i>ö</i> , <i>ö</i> , <i>ö</i> — (j) <i>u</i> , <i>u</i> , <i>u</i>
III	<i>e/i</i> — <i>a</i> — <i>u</i> (y) — <i>o</i>	<i>ä/i</i> — <i>a</i> — <i>u</i> — <i>u</i> , <i>o</i>	<i>i</i> , <i>ä/i</i> — <i>a</i> — <i>u</i>
IV	<i>e</i> — <i>a</i> — <i>á</i> (æ) — <i>o</i>	<i>ä</i> , <i>i</i> — <i>a</i> — <i>á</i> — <i>u</i> , <i>o</i>	<i>ä/e</i> — <i>a</i> — <i>u</i>
V	<i>e</i> — <i>a</i> — <i>á</i> (æ) — <i>o</i>	<i>ä</i> , <i>i</i> — <i>a</i> — <i>á</i> — <i>ä</i>	<i>ä</i> , <i>i</i> — <i>a</i> — <i>ä</i>
VI	<i>a</i> (e) — <i>ó</i> — <i>ó</i> (æ) — <i>a</i>	<i>a</i> — <i>ó</i> — <i>ó</i> — <i>a</i>	<i>a</i> — <i>o</i> — <i>a</i>

Table 2. Ablauting patterns and their change over time from Old Norse to Present Day Swedish

<sup>25</sup> Elias Wessen places Old Swedish in the period 1225-1375

Many Old Norse strong verbs have shifted into weak. In some of the cases, verbs have shifted from weak to strong classes. Some are attested only with strong inflection, but they are usually loan verbs. Such is the case with the verb *bliva* ‘to become’ (class I) which is a loan word from Middle Low German, and was therefore not attested in the Old Norse texts, especially not *eddic* and *skaldic* poetry texts. In the Old Swedish period some weak verbs had a strong verb variety, such as afore mentioned *skriva* which today belongs to strong verbs class I. Only the first three classes have acquired new members:

VERB	ON	OSw	PDSw	class
strida, smida, skriva	stríðr, skrifa	striþa/stridde, skrev/skrivaþe	stred, skrev	I
knyta, lyda	knýta, hlyða	knyta, lyþa	knot, löd	II
hinna	hinna	hann	hann	III

Table 3. Change of initially weak verbs inflectional patterns from ON to PDSw

Some verbs shifted between the classes, such as *sitta* which was originally class V verb *sitja* but today belongs to class III verbs.

## 5. Conclusions

The analysis has shown that the strong verb pattern was rather stable in both Old English and Old Norse. There were certain verbs that were inflected as both weak and strong. However, the first instances of inflectional change and deterioration of ablauting patterns started already in the late Old English period, namely, *Peterborough Chronicle*.

Some Old Norse strong verbs had already shifted classes, such as the verb *fela* (\**felhan*), which was originally of third conjugation, while in the Old Norse texts we find it in the form of the fourth conjugation strong verb, probably due to the analogy with *koma*. Certain Old Norse strong verbs had weak present forms, as *biðja*.

There seem to be several causes to the fluctuations and changes in the strong verbs classes and their predictability. Strong verbs are individually on average more frequently used than weak verbs. According to the token frequency<sup>26</sup>, analogical levelling affects low frequency items first, while items of high frequency are more likely to preserve strong inflection. However, token frequency is not a perfect predictor. For instance, the verb *come* can successfully be predicted as remaining strong, while the verb *help*, which is also a high frequency verb, is weak in Present Day English. An infrequent strong verb could also remain strong as is the case with *freeze*. Despite some discrepancies, the token frequency has a significant effect when explaining the loss and survival of irregular inflection (see Appendices 1 and 2<sup>27</sup> of verb frequencies based on COCA corpus<sup>28</sup> and from Swedish Clarin project<sup>29</sup>). The majority of the verbs among the top one hundred lemmas belong to a strong class. According to the study on the impact of frequencies on analogical change by Oscar Strik (2015), type frequency plays an important role, while the influence of token frequency depends on the class. On average, the conclusion can be that higher token frequencies are more stable, but for classes with low average token frequency, lower higher token frequencies are more stable.

In strong verbs the main tendency was the dissolution of smaller classes with verbs belonging to such classes losing their strong inflection.

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<sup>26</sup> ref. Lieberman et al. 2007

<sup>27</sup> the purpose of these tables was to show the frequent occurrence of strong verbs and importance of frequencies

<sup>28</sup> <http://www.wordfrequency.info/>; used with permission

<sup>29</sup> <http://spraakbanken.gu.se/eng/kelly>

The new past tense *dove* for *dive* (in analogy to *drive*<sup>30</sup> – *drove*) appears in American English with the frequency of 3639 in COCA. But unlike *dove*, the new past tense *snuck* from *sneak* has no source analogy in English language. The most logical explanation could be that the internal vowel [ʌ] (fronting<sup>31</sup>) became the past tense marker. In Swedish language that can be related to the preterites in /-u:g/ which corresponds to different present vowels, e.g. *ta*, *dra*, *le*, *dö* and *slå*<sup>32</sup>. Thus, besides frequencies, both phonology and morphology play a role. One of the suggestions is to base a classification system according to the vowel alternation. The *Svenska Akademiens Grammatik*<sup>33</sup> divides strong verb internal vowel changes according to the supine – i.e. whether they have a unique supine, if they have the supine vowel identical to present or infinitive and those that are monosyllabic in their infinitive form. However, even though these vowel alternation patterns are direct descendants of Old Swedish strong classes, they can still be categorized into seven strong verb classes, unlike Present Day English.

Unique sup. stem	No unique sup. stem	Stems ending in long vowels
a) i–a–u (S3)	a) i–e–i (S1)	a) e–a–e (be, ge)
b) ä–a–u (S3/S4)	b) u–ö–u (S2/S3)	b) å–o–å (stå)
c) ä–o–u (svära)	c) a–o–a (S6)	c) e–å–e (se)
d) y–ö–u (S2)	d) å–ä–å (gråta, låta)	d) e–o–e (le)
e) i–å–e (ligga)	e) ä–å–ä (äta)	e) ö–o–ö (dö)
	f) a–ö–a (falla)	f) å–i–å (få, gå)
	g) å–ö–å (hålla)	g) å–o–a (slå)
	h) i–a–i (giva)	h) a–o–a (dra, ta)
	i) e–a–e (bedja)	i) i–e–i (bli)
	j) o–o–o (komma, sova)	
	k) a–a–a (vara)	

Table 3. Division of strong verbs according to SAG

<sup>30</sup> This is a good example is the English of coalescence of the Old English strong verb *dūfan* and the weak verb *dýfan*. The result was a weak verb that recently is becoming partially strong again in varieties of English. Coalescence can also happen when two strong verbs are the source, such as English *bid* from Old English *bēotan* (strong class 2) and *biddan* (strong class 5) already previously discussed.

<sup>31</sup> discussed also by Bybee & Slobin (1982) and Hogg (1988)

<sup>32</sup> Enger, 1998

<sup>33</sup> Teleman et al. (1999)

As can be seen in this table, there are some consistencies in strong verb classes in Present Day Swedish. Alongside are other internal vowel changes which do not fall under a certain category.

To conclude, this analysis has discussed certain key points on strong verb change and deterioration. Change seems to be present already in late Old English (e.g. *Peterborough Chronicle*) and Old Norse (e.g. strong verb *fela* moving from class III to class IV). Frequencies do seem to play a role in the class shift and in moving strong verbs into weak, but it does not seem to be sole influencer. For instance, there seems to be phonologic and morphologic influence on change. One of the assumptions is that verbs which did not have long vowels in their paradigm were more likely to become weak, which is visible in the Germanic 3<sup>rd</sup> weak class. Due to the scope of this thesis it was not possible to go into great detail of all these interpretations. Definitely a more comprehensive study is needed in order to provide more detailed answers about the change and shifts in strong verbs.

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Appendix 1. Table of top 100 word frequencies from COCA

<b>Rank</b>	<b>Word</b>	<b>Part of speech</b>	<b>Frequency</b>	<b>Dispersion</b>
2	be	v	12545825	0.97
8	have	v	4303955	0.97
18	do	v	2573587	0.95
19	say	v	1915138	0.95
35	go	v	1151045	0.93
37	can	v	1022775	0.98
39	get	v	992596	0.94
41	would	v	925515	0.97
45	make	v	857168	0.98
47	know	v	892535	0.93
48	will	v	824568	0.97
56	think	v	772787	0.91
63	take	v	670745	0.97
67	see	v	663645	0.96
70	come	v	628254	0.95
71	could	v	617932	0.96
83	want	v	514972	0.95
85	look	v	491707	0.93
92	use	v	420781	0.96
95	find	v	395203	0.98
98	give	v	384503	0.98

Appendix 2. Table of top 100 word frequencies according to KELLY

<b>Rank</b>	<b>Raw freq</b>	<b>WPM</b>	<b>Source</b>	<b>Verb</b>
<b>2</b>	2624032	23017.26	SweWaC	vara
<b>4</b>	1822142	15983.31	SweWaC	ha
<b>14</b>	1267606	11119.08	SweWaC	kunna
<b>24</b>	633759	5559.15	SweWaC	unna
<b>30</b>	462896	4060.39	SweWaC	få
<b>36</b>	375451	3293.35	SweWaC	bli
<b>37</b>	367629	3224.74	SweWaC	komma
<b>43</b>	342568	3004.91	SweWaC	vilja
<b>45</b>	335401	2942.04	SweWaC	göra
<b>50</b>	281064	2465.41	SweWaC	finna
<b>51</b>	279580	2452.40	SweWaC	ta
<b>53</b>	256885	2253.32	SweWaC	se
<b>58</b>	228135	2001.14	SweWaC	gå
<b>59</b>	227830	1998.46	SweWaC	säga
<b>63</b>	212944	1867.88	SweWaC	äga
<b>65</b>	206541	1811.72	SweWaC	betyda
<b>91</b>	137774	1208.51	SweWaC	ge
<b>96</b>	130114	1141.32	SweWaC	skriva
<b>100</b>	127123	1115.09	SweWaC	te sig

### Appendix 3. List of the Old English strong verbs in texts

**areccean:** translate, render

**a-stígan:** go, come, step, proceed, climb

**awritan:** write

**cweðan:** say

**healdan:** keep, observe, hold, stand firm

**begietan:** get, gain, acquire, lay hold of

**beátan:** beat

**be-lífan:** remain, abide, to be left

**beoran:** bear

**be-sittan:** sit round, surround

**be-smítan:** defile, dirty, pollute

**be-witan:** overlook, watch over

**biddan:** ask, pray

**bindan:** bind, tie

**blówan:** blow, flourish, bloom, blossom

**bringan:** bring, adduce, lead, produce, bear

**brúcan:** use, make use of, to pass, spend, enjoy, have enjoyment of, to eat, bear, discharge

**ceorfan:** cut, cut down, hew, rend, tear

**ceósan:** choose, decide, prove, approve

**cnáwan:** know

**cuman:** come, go, happen

**delfan:** dig, dig out, delve

**findan:** find, meet

**fón:** grasp, catch, seize

**for-gildan:** pay for, repay

**for-gitan:** forget

**fón:** catch, seize

**gitan:** get

**grówan:** grow, increase, spring, sprout

**gyfan:** give

**hátan:** call, name

**healdan:** hold, maintain, preserve

**helpan:** help

**hlífan:** stand out prominently, tower up

**hreósan:** fall down, go to ruin

**hreówan:** rue, make sorry, grieve

**hrínan:** touch, lay hold of, reach, seize,

**leósan:** lose, let go, destroy

**licgan:** lie, lie near

**limpan:** happen, occur, befall, come to pass, take place

**lútan:** lout, bow

**métan:** meet with, come upon, come across, find

**niman:** take, take up, take away, assume, receive, accept, obtain

**oðfæstan:** set (to a task)

**oðfeallan:** fall away, decline

**ofer-wreón:** cover, cover over, veil, hide, conceal, overspread

**rædan:** read  
**recan:** move  
**rīdan:** ride on horseback  
**sacan:** deny, refuse, reject  
**sceótan:** shoot  
**sceppan:** form, create  
**scínan:** shine  
**scrífan:** decree, appoint  
**sincan:** sink  
**singan:** sing, recite, relate musically or in verse  
**sleán:** strike an object, smite  
**slítan:** slit, tear, rend, shiver  
**spowan:** succeed  
**sprecan:** speak; (also *sprecð*)  
**standan:** stand  
**stelan:** steal  
**stígan:** go down, step  
**sweltan:** die  
**swícan:** leave off, desist, stop, cease, rest from, turn from  
**swincan:** labor, work  
**teón:** take, pull, drag  
**wealdan:** wield, rule, command, control, cause  
**weallan:** well  
**wegan:** bear, carry, move, go, proceed  
**weorðan:** become, happen  
**weorpan:** throw, cast  
**wépan:** weep, cry  
**winnan:** labour, toil, work  
**wīpsacan:** forsake, abandon, renounce  
**wrecan:** punish  
**wrítan:** engrave, write  
**wyrcean:** work

#### **Late Old English:**

**bēren:** bear  
**bēren:** carry, bear  
**brēken:** break  
**brennen:** burn  
**bringen:** bring  
**crēpen:** crawl  
**drēpen:** kill  
**durren:** dare  
**fāren:** depart  
**fīnden:** find, supply  
**flēn:** flee  
**gēten:** get  
**hōlden:** take hold of

**hōten:** call, name  
**lēten:** let  
**lien:** lie  
**nimen:** take  
**redden:** read  
**rēven:** rob  
**ringen:** ring  
**rīsen:** rise  
**seien:** say  
**setten:** sit  
**singen:** sing  
**sprēcen:** speak  
**sterven:** die  
**swelten:** die  
**swēren:** make an oath  
**taken:** take  
**tellen:** speak, tell, talk  
**underyēten:** understand, perceive  
**wenden:** wind, turn  
**winnen:** win  
**witen:** know  
**writhen:** twist  
**yēven:** give

### **Middle English:**

**bi-halde(n):** hold, keep, observe  
**bi-swiken:** deceive, cheat, betray  
**cumen:** come  
**drehen:** pulls, tends  
**drinken:** drink  
**ed-fleon:** flee away, escape from  
**eote(n):** eat  
**fallen:** fall  
**finden:** find, discover  
**for-warpe:** throw off, cast off  
**halden:** hold, keep, protect  
**l(e)oten:** let, leave; allow  
**leaven:** leave, abandon, desert, give up  
**leggen:** lay, place, put  
**lihen:** lie, not tell the truth  
**limpe:** befall, happen  
**seggen:** say, speak  
**seo(n):** see, look  
**slean:** strike powerfully; to slay, kill with a blow  
**smitten:** smite, hit, beat  
**speken:** speak, say

**teon:** draw, pull

**tholie(n):** suffer

**waxen:** grow, grow stronger, develop

**wēren:** wear, to dress

**witen:** know, be familiar with

**written:** write

#### Appendix 4. List of Old Norse strong verbs in texts

**aka:** drive  
**auka:** add, increase  
**bad:** beg  
**bera:** bear, carry  
**biða:** wait  
**binda:** bind  
**bíta:** bite  
**bjóða:** invite, bid, offer  
**blanda:** blend  
**blása:** blow  
**brjóta:** break  
**búa:** inhabit, live  
**búa:** reside  
**byggja:** live, inhabit  
**býr:** live  
**draga:** drag  
**drekka:** drink  
**drepa:** kill  
**drýgja:** cause, practice  
**eiga:** possess  
**eta:** to eat  
**fá:** get, receive  
**falla:** fall  
**fara:** travel  
**finna:** to find  
**flýgr:** fly  
**fregna:** ask  
**fulla:** fill  
**ganga:** go  
**gefa:** give  
**gjalda:** pay  
**gráta:** cry  
**gróa:** grow  
**gøra:** do  
**halda:** hold  
**healpa:** run, jump, spring  
**hefja:** have  
**heita:** call, name  
**hjalpa:** help  
**hoggva:** to strike, put to death, cut, hew  
**hyggja:** think, consider  
**kalla:** call  
**kjósa:** choose  
**koma:** come  
**lægir:** lay  
**láta:** allow, let

**liggja:** lie  
**líta:** see, look  
**ljúga:** lie  
**nema:** take  
**njóta:** enjoy  
**ráða:** advise, rule, interpret, decide  
**renna:** run  
**riða:** ride  
**róa:** row  
**sá:** to sow  
**segja:** say  
**setja:** set  
**sitja:** sit  
**sjá:** see  
**skepja:** shape, make  
**skínn:** shine  
**skirdi:** baptize  
**skjálfa:** shiver  
**skjóta:** shoot  
**slá:** hit, slay  
**slíta:** tear  
**snúa:** turn  
**standa:** stand  
**stíga:** step  
**svelta:** starve  
**taka:** take  
**þerrði:** wipe  
**þeygi:** watch over  
**troða:** tread  
**vakti:** wake  
**vaxa:** grow  
**velja:** choose  
**verpa** (both strong and weak):to cast  
**vinna:** win  
**vita:** know