This article discusses the historical form of the gerund in Old English, attested both as -enne and -anne. The former is commonly considered to be the historical form, while the latter is thought to have resulted from analogical levelling on the basis of the infinitive that ended in -an. The primacy of -enne is based on the assumption that i-mutation in unstressed syllables worked to the same extent as in stressed ones, but it is argued that the working of sound laws can be dependent on stress and the quality of the mutation factor. In this paper, I propose that the order should be reversed and that -anne is the historical form, while -enne probably shows phonological reduction in word-internal position.

1. The origin of the West Germanic gerund

Old West Germanic languages have an inflected infinitive, commonly referred to as the gerund (though not identical to the modern English gerund in -ing). The historical gerund was widespread in Middle Dutch and Middle Low and High German, but in modern times it is found only in Frisian, Swiss German, and some traditional varieties of Low Saxon, coastal Dutch and Brazilian Pomeranian. Its origins are outlined by Fulk (2018: 284–285, with footnotes 1–2) as follows:

In WGmc., a suffix *-anja- bearing ja-stem inflections was added to the bare stem to form so-called inflected infinitives (or ‘gerunds’). These are chiefly in the dative case and usually follow the prep. OE tō, OS te, OHG za, zi, expressing, for the most part, purpose, e.g. OE tō berenne, tō beranne,1 OS -ann(i)a,2

1 The form -anne is actually less frequent than etymological -enne in all OE dialects, doubtless by analogy to the uninflected infinitive, which is sometimes found after tō in poetry, rarely in prose. The same influence is probably to be seen in OS. OHG forms in -enne among strong verbs, as well as forms in -anni, seem to attest to derivation of nn from *-nj- (Braune 2004a: § 315 Anm. 1).
2 With variants -anne, -enne, -onn(i)a, -onne.

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In brief: the gerund is based on a *ja*-stem suffix attached to the infinitive. The *j* of this suffix is the source of the gemination of the *n* as well as *i*-mutation on the vowel, hence *-anja* → *-enne*. The forms with *-anne* are thought to be influenced by analogy with the infinitive that ends in *-an*.1

In Old Frisian, the gerund appears as *-ane*, with a few instances in early texts of *-anne*. In eastern dialects (mss. B₁₂ and R₁₂), it is replaced by *-ande*, the ending of the present participle (van Helten 1890:218; Bremmer Jr 2009:84). This replacement may partly be due to syntactic-semantic overlap (Hoekstra 2012:161–166), or possibly there was some kind of phonological reinforcement as a reaction to degemination of consonants in unstressed syllables. Later 15th-century Frisian sources evidence all kinds of reductions to *-ene, -an, -en*.

2. The chronological relation between OE *-enne* and *-anne*

The various handbooks on Old English are fairly explicit about the relation between *-enne* and *-anne* as already illustrated by the quotation from Fulk above. I add another quote here, this time from Hogg & Fulk (2011:216), which touches on the chronology of the attested variants:

(d) the ending of the inflected infinitive should be *-enne*, with *i*-umlaut, and this form does occur. The ending *-anne*, much commoner in EWS than *-enne*, must be explained as analogical, probably to the uninflected infinitive.

Hogg and Fulk observe that the form *-anne* is much more abundantly found in Early West Saxon (EWS) while at the same time maintaining it is the novel form. This strikes me as being counter-intuitive: an unetymological, analogical form is per definition younger and presupposes a pre-stage with the older form *-enne*. Such a pre-stage might be prehistorical, with the younger form being found already in the earliest attestations, but this does not seem to be the case: *-enne* is attested more so in later stages of Old English. More information about the spread of *-anne* and *-enne* can be found elsewhere in the grammar (Hogg & Fulk 2011):

Cosijn (1886: §70) reports that *-anne* is much more frequent than *-enne* in the EWS inflected infinitive, by a proportion of more than 4 : 1, and that the variants *-an, -ane, -onne, -ene* occur. PsGl(A) [= Vespasian Psalter, OE glosses ca. 900] has only *-enne*, but back mutation points to earlier *-anne* in 58.15 to *eotenne*. In other texts there is widespread mixture of forms.

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1. A similar interpretation is given by Campbell (1977:143, §339; 302, §735 (i)).
In the inflected infinitive, Ælfric [= LateWS] generally has -enne, whilst EWS prefers -anne. [...] (p.261)

 [...] i(ġ)anne is the usual form in EWS, and it is used almost exclusively in Angl. [...] (p.280)

Ringe & Taylor (2014: 359) address the distribution of the variants -enne and -anne from a combination of historical and dialectal perspectives:

In the inflected infinitive i-umlaut of the suffix syllable survived in the southern dialects but had been levelled out already in early North., to judge from tō ymb-hyċġgannaċ ‘to consider’ (BDS 3)

Ringe’s formulation suggests that analogical levelling from -enne to -anne was apparently pre-historic in Northumbrian, and hence the Bede’s Death Song from the early 8th century – one of the oldest sources of Old English – already shows the ‘new’ form. The preservation of -enne would consequently be a dialectal phenomenon of the south. From Hogg and Fulk it can be learned that in a relatively early, supposedly Mercian² text with Old English glosses from ca. 900, namely the Vespasian Psalter, the form -enne appears, but that the phonological shape of the root vowel betrays an earlier stage with *-anne.³ This suggests a chronological order from -anne > -enne. The empirical evidence for a preservation of the original form with mutation in the south, as suggested by the quote from Ringe, is not very obvious, either. It is from Hogg and Fulk (quoted above) that we learn that -anne is the common form in Early West Saxon, whereas -enne is the usual form in Late West Saxon.

The accumulative evidence from the sources as described in the above-mentioned literature is thus:

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<th>Early</th>
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<tr>
<td>Anglian</td>
<td>-anne</td>
<td>-anne, -enne</td>
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<tr>
<td>West Saxon</td>
<td>-anne</td>
<td>-enne</td>
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To sum up, there seems no textual evidence for the claim made in the handbooks that -enne is the older form. On the contrary, the empirical evidence indicates that -anne is the older form and -enne a younger development, predominantly in southern varieties of Old English. This chronological evidence seems to be

2. This Mercian Lichfield origin (Kuhn 1943) could well be a misinterpretation (Sisam 1956), Kent/Canterbury being a more likely place of origin; see also: Freeman 2018.
3. An anonymous reviewer pointed out that this single form could also be due to intraparadigmatic analogy. In my argumentation, the form is only a minor support for the main evidence that comes from Early Northumbrian and Early West Saxon.
acknowledged by Hogg & Fulk (2011: 214, 280, 290), who when providing paradigms of various verbs give as examples the gerund form of bidan `await’ (strong) verbs as ‘to bidanne’ with explicit reference to the historical data, and further ‘to lofianne’ (weak class 2) and ‘to habbanne’ (weak class 3), but ‘to fremmenne’ for weak class 1 (p. 261), but again with the remark that the -anne form is the older one. All this goes against their own statements from p. 216, quoted before. That -anne is the older form is also corroborated by the Old Frisian evidence, which has been left out of the equation in previous work.4

3. A new interpretation of the Old English data

The historical-comparative evidence supports the origin of the gerund as deriving from a ja-suffix. If, however, the -enne form is not the original but a later form, it poses the question why i-mutation failed in both Old English and Old Frisian. Van Helten (1890: 63) provides the following explanation for the /a/ instead of mutated /e/ in Old Frisian:

Altes -o- (-a-) vor nd begegnet in der regel als -a- [...] in diesen u. den partici-
palsuffixen, aus -annje, andi [...] erklärt sich das unterbleiben des uml. aus der unbetontheit der silbe [...].

[one encounters old -o- (-a-) before nd as a rule as -a- (...) in this and in the partic-
ticle suffixes from -annje, andi (...) the arrestation of mutation is due to the syl-
lable being unstressed (...)]

Hence Van Helten assumes that i-mutation did not apply in unstressed position. In other words, he thinks there was a stress-dependent implementation of phonological change. Here one might note, however, that the so-called double i-mutation in English (Hogg 2011: 120–121; Ringe & Taylor 2014: 251–254) presupposes mutation of unstressed vowels, such as *u to *y, and Ringe (p. 253) explicitly mentions mutated unstressed *a. The case for double mutation seems, however, not so straightforward as is suggested in the handbooks: the mutated unstressed *a only appears in reconstructed pre-stages, not in any of the attested early Old English examples, and other explanations can be given for various instances of supposed double mutation with *y.5

4. This case could be added to my critical evaluation of some Old English sound changes (Versloot 2021, in particular §§ 1.5 and 1.6).

5. Ringe reconstructs mutation of the second *a in PWGmc *magadīn, but the actually attested form is mægden ‘girl’, with syncopated middle vowel; the same applies to laurice ‘lark’ and hægtis ‘witch’ (p. 254). Note also the Modern Dutch and High German cognates of hægtis: heks
To strengthen Van Helten’s proposal, I therefore want to draw attention to another instance of a differentiated application of a sound law in stressed and unstressed syllables. PGmc *a was nasalised and often rounded before a directly following nasal in stressed position (Ringe & Taylor 2014:142–146), appearing as <o> in many Old English and Old Frisian sources, such as mon alongside man ‘man’. The rounding is particularly evident when the nasal disappeared before a following voiceless fricative, as in gós ‘goose’ or óþer ‘other’, where no instances with <a> are found in either Old English or Old Frisian. The rounding is lacking in exactly the context of *a before a nasal plus voiceless fricative in the plural present indicative verbal ending: Fulk (2018:92) mentions “[…] 3 pl. pres. ind. inflection *-anþ(i) > O E ‑aþ, O Fris. ‑at(h) […]”, but he does not address the lack of rounding of a. Ringe & Taylor (2014:142) are more explicit: “Nasalized low vowels were eventually rounded when stressed.”, implying that they were unrounded in unstressed position. This is in line with the interpretation for Old Frisian, such as described by Bremmer (2009:24): “The change [a > o] did not occur in unaccented syllables […]”.

It can thus be hypothesised that i-mutation of unstressed *a did not apply either. Nasals had a blocking effect on fronting of the *a: while PGmc *a is spontaneously fronted in many phonological contexts, it does not do so before nasals, even when rounding is absent. Finally, note also that in one of the Old Frisian dialects, as represented in manuscript R, one can find a singular mon and plural man (Boutkan 1996:56–61), as if the mutation cancels/outweighs the rounding with a as the outcome. Other manuscripts attest to a plural men < PGmc *manniz (cf. Hoekstra & Tigchelaar 2014).

and Hexe have a front vowel. If the double umlaut interpretation is correct, it should also be reconstructed for Old Frisian, cf. ModWFris. ein ‘duck’ < OFris. *ènde < OE ænid < *anudi-; OFris. evèst ‘envy’ < OE æfest < *abunsti-; OFris. etheling < OE æþeling < *æþulinga-. However, alternative interpretations are available for all three examples. Old Norse (ON) ðand confirms a preform *anud-, but the plural endr attests to the existence of a paradigmatic sideform *anid-, confirmed by Old High German (OHG) anut, enita (Dutch eend) (Philippa et al. 2003: sv. eend). A similar suffix vowel alternation is found in ON pþlingr ~ eþlingr and OHG adalung ~ edaling (Boutkan & Siebinga 2005: sv. etheling). Double umlaut seems irrelevant for the form æfest, a compound of OE æf (although rare, next to frequent of) and ëst < *unsti-, cf. Dutch af­gunst ‘envy’ < PWGmc *ab­unsti- (Philippa et al. 2003: sv. afgunst, gunst). This is an instance of mutation of the stressed root syllable (*unst-) and Anglo-Frisian fronting of *a > æ in æf. A stronger case for double umlaut can be made for words such as æmyrge ‘embers’ (cf. OHG eimurja, Icel. eimyrja or seterndæg ‘Saturday’ from Latin Saturni-), and for more examples see Hogg (2011:120, §5,76). This footnote is not the place to scrutinise all potential instances of Old English double umlaut, but the case for it seems less strong than presented in the handbooks.

6. Such side forms do appear in Old Saxon sources, such as adrum, athrana in Heliand (Tiefenbach 2010: sv. òðtar).
In summary, the Old English form of the gerund in *-enne* is best viewed as a younger form that appears in Late Old English, and its vowel can be understood as an expression of weakening of unstressed vowels, particularly prominent in unstressed middle vowels (Hogg 2011: 242, § 6.64). Such a gradation of reduction of *a* in unstressed position can be found in late Old Frisian too, where reduction or syncope of unstressed *a* appeared earlier in penultimate position than in final position (Versloot 2008: 153–155). Another hypothesis may be to assume analogical influence from the present participle that ended in *-ende*?

4. The present participle in *-ende*

There is a challenging parallel in the history of English, namely the ending of the present participle, commonly found as *-ende*. Here, there is ample evidence from the early Old English glossaries that the mutated vowel represents the primary development. I found 32 present participle forms in the Épinal Glossary (Herren, Porter & Sauer 2024), where the suffix is spelled with the vowels <e> (17x), <ae> (9x), <ę> (5x), and <i> (1x). The difference with the gerund can be accounted for if we acknowledge that the impact of *i*-mutation was gradual, not only by stress position but also by quality and quantity of the mutation factor. Such a gradual impact, where the influence of *i* is less than *j* or *ī*, has been demonstrated by Schulte (2018: 57–58; 1998: 158–173) for North Germanic, Old Frisian (Versloot 2017: 212).

Both the gerund and the present participle carry endings that potentially can cause *i*-mutation. Hogg & Fulk (2011: 215, 262) reconstruct for OE *bidan* ‘await’:

Gerund: \[ \text{WGmc } *\text{bidannjē} \quad < \text{PGmc } *\text{-anjai} \]
Present Participle: \[ \text{WGmc } *\text{bidandi} \quad < \text{PGmc } *\text{-andijaz} \]

The Early Old English data indicate that in this specific case of mutation factors in unstressed syllables, the impact of *ī* may have been more prominent, perhaps in combination with the gemination process that has absorbed the *j* at some point in time. Compare the attested gerund in Bede’s Death Song, *ymbhyccganne*, to the common ending *-(a)endi* in present participles in the Épinal Glossary.

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7. Interaction between these two paradigm forms is obvious in Frisian, where some Old East Frisian dialects adopted the present participle form *-ande* as the gerund form (Bremmer Jr 2009: 84), suggesting a semantic or syntactic nearness in the organisation of the grammar between the two categories. The Modern West Frisian gerund encompasses functions that are originally expressed by a present participle (Hoekstra 2012: 161–165); cf. § 1.

8. Out of 22 instances with a vocalic ending or Ø, there are 14 instances with *i*, four with *ae* and three with Ø. Other instances have strong adjectival endings, such as *-um* and *-nae*. 

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indicates that the *i*-mutating quality was more prominent in the present participle than in the gerund. In combination with the hampering context of *a* before a nasal and the lack of stress, this can explain that the vowel of the gerund did not become distinct from */a/, whereas the present participle was more intensely affected and the vowel was eventually phonologized as */æ/. The gradualness of the whole process is also reflected in the spelling of the present participle suffix vowel in the Épinal Glossary. There is a statistically significant correlation between weak class I verbs and the spelling <end> against <aend> or <ęnd> in other verb classes (Fisher’s Exact, $p = 0.009$, $n = 30$). Fronting of the vowel was apparently not only triggered by regressive assimilation from the following syllable, but also by the directly preceding *j* of the verb class suffix.

The classical Old Frisian sources unanimously attest to -ande as the form of the present participle. Here the balance between the competing forces of fronting (by *-i*) and centralisation (by -n) tipped to the other side. This is paralleled by the developments in stressed syllables, where PGmc *a* before liquids and *i*-mutation often comes out as <a> (Hoekstra & Tigchelaar 2014).

5. **Conclusion**

The chronological primacy of OE -enne above -anne is not supported by the Old English sources, nor by the comparative evidence from Old Frisian. It seems based on the reconstruction with an *i*-mutation factor and the unnecessary axioma that sound laws are uniform and exceptionless across all phonological positions. However, as exemplified in this article, a differentiated application of sound laws according to stress position is phonologically possible and highly plausible, not least because of other parallels in the history of English and Frisian. This gradualness of the whole process of palatalisation of /a/ by *i*-mutation may seem to be in conflict with the concept of exceptionless sound laws which is the foundation of any historical reconstruction. Hermann Paul (1920: 49–63), one of the founding fathers of the Neogrammarian school in linguistics, vehemently stresses the gradualness of sound changes. About the regularity of sound laws he writes (p. 69) that “bei dem Lautwandel […] alle einzelnen Fälle, in denen die Gleichen lautlichen Bedingungen vorliegen, gleichmässig behandelt werden.” Yet he explicitly mentions that such phonological circumstances can differ by “[…] Einwirkung umgebender Läute, Akzente, Silbenstellung u. dgl. […]”. The kind of gradation and selective application of *i*-mutation as suggested in this paper is therefore completely in line with the principles of the Neogrammarians.
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