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REMNANT CASE FORMS AND PATTERNS OF SYNCRETISM IN EARLY WEST GERMANIC

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Abstract

Early stages of the Old West Germanic languages differ from the other two branches, Gothic and Norse, by showing remnants of a fifth case in *a*- and *ō*-stem nouns. The forms in question, which have the ending *-i* or *-u*, are conventionally labelled 'instrumental' and cover a range of functions, such as instrument, means, comitative and locative. Otherwise, Germanic nouns have four major case forms: nominative, accusative, genitive and dative. These early and minor 'instrumental' forms soon merged with the dative. Whereas Old English only shows the ending *-i*, continental West Germanic languages have frequent *-u* alongside rare *-i* (the latter only in locative function). In this paper, I argue for two interacting developments. First, I argue that the source of the rare locative *-i* forms in continental West Germanic is different from that of the instrumental *-i* forms found in Old English. I do this by analysing the morphosemantic domain of each of these minor forms on a language-by-language basis. Second, I argue that the divergence of the instrumental morpheme between Old English (*-i*) and continental West Germanic (*-u*) has a causal link with the equally divergent paradigmatic structure of the feminine *ō*-stems of Old English and continental West Germanic.

1. Introduction

The Old West Germanic (hereafter WGmc) languages show use of minor morphological forms (*-i* and *-u* endings) in the masculine/neuter *a*-stems and feminine *ō*-stems for instrumental and locative functions. The WGmc languages can be divided into two groups according to which functions are found with each ending. In Old English (OE), instrumental and locative functions are found under the ending *-i* (and its phonologically weakened form *-e*). In continental WGmc (i.e. Old Frisian (OF), Old Saxon (OS) and Old High German (OHG)), only locative functions are found in the rare *-i* form, but both instrumental and locative functions are found with the comparatively frequent *-u*. I build on the observations in Versloot (2017) that there was 'confusion' between the function of minor morphological

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forms found under the *-i* and *-u* endings in OF and OS by showing that OHG exhibits similar behaviour. I also demonstrate that OE behaves differently from the other WGmc languages, showing that the insular/continental divide cut across the traditional Ingvæonic/Istvæonic subgroupings, complicating the picture of Germanic grouping. I build on the hypothesis in Ringe & Taylor (2014) that the source and developments of the *-i* in OE are different from those of the *-i* in continental WGmc.

The continental (i.e. OF, OS, OHG) versus insular (i.e. OE) division of WGmc also extends to the different syncretism patterns and distribution of case forms in the feminine *ō*-stems. I propose that there is a link between the semantic groupings of the minor morphological endings and the syncretism patterns found in the feminine *ō*-stems of the respective WGmc languages. More specifically, I propose that the syncretism patterns in the singular endings of the OE *ō*-stems differ from continental WGmc because of two connected phenomena which took place in pre-OE:

i. *-u*, the syncretic marker of both NOM(INATIVE) and INS(TRUMENTAL) in the PWGmc *ō*-stems, was reanalysed as the salient marker of NOM over INS;
ii. the *-i* ending was generalised as INS from the interrogative pronoun **hwī*, as suggested by Ringe & Taylor (2014).

I extend Ringe and Taylor's hypothesis by proposing that the initial locus of innovation of the *-i* ending was in the *ō*-stems, before it spread to other nominals. I propose that continental WGmc did the opposite: The *-u* was analysed as the salient marker of INS in the *ō*-stems (which eventually also generalised to the dative) instead of NOM. This set of processes led to the divergent *ō*-stem syncretism patterns found in the different parts of WGmc.[1]

I outline my findings by first providing an account of the primary syncretism patterns found in the most frequently occurring classes of nouns, the feminine *ō*-stems and the masculine and neuter *a*-stems. I then outline the surviving evidence of the minor forms in *-i* and *-u* and the historical developments which led to syncretism in the *ō*- and *a*-stems on a language-by-language basis.

2. Syncretism and *ō*-stems

2.1. History of the feminine ō-stems

In the old Germanic languages, the *ō*-stems are the most frequently occurring class of feminine noun. The *ō*-stems descend from the PIE eh_2-stems, whose singular paradigm is shown in Table 1; a distinct form is reconstructed for each case.

TABLE 1. Singular Paradigm of PIE eh_2-Stems, Adapted From Ringe (2017: 63)

	Palm (f.)
NOM	*pĺ̥$h_2$mah$_2$
VOC	*pl̥$h_2$ma
ACC	*pl̥h_2mām
GEN	*pl̥$h_2$mah$_2$s
DAT	*pl̥$h_2$mah$_2$ay
INS	*pl̥$h_2$mah$_2$h$_1$
LOC	*pl̥$h_2$mah$_2$(i)

[1] The focus of this paper is on nouns rather than adjectives, since nearly all data for the morphological forms relevant to this topic are in noun form. While a holistic nominal account would be desirable, early adjectival evidence is even more sparse than that of the already fragmentary noun evidence.

By the time of PGmc, after substantial phonological changes, including the loss of laryngeals and vocalic restructuring, distinct exponence remained for most surviving cases, apart from NOM and INS, which became syncretic under *-ō, e.g. PGmc *geb-ō (Table 2).

TABLE 2. Singular Paradigm of PGmc ō-Stems, Adapted From Ringe (2017: 312)[a]

	Gift (f.)
NOM	*geb-ō
ACC	*geb-ǭ
GEN	*geb-ōz
DAT	*geb-ǭ̄i
INS	*geb-ō

[a]The DAT form is less certain: Ringe admits uncertainty around the overlong "ǭ̄i (?)". The PGmc acc.sg contains a nasalised vowel since the PIE source was *-*m*, but this shifted to *-*n* in Gmc, which was then lost and the nasality spread to the vowel.

It is unlikely that the NOM and INS became formally identical for any morphosyntactically motivated reason. Instead, their identity appears to be an 'accidental homophony', a by-product of phonological change.

There have been several approaches to the categorisation of syncretism phenomena in historical linguistics. Some (e.g. Zwicky (1991), Luraghi (2000: 638)) would not consider incidentally homophonous forms to be genuine syncretism. Other approaches, such as Coleman (1976), view syncretism as a gradated phenomenon, ranging from a loss of distinction in a singular form, right through to the entire loss of distinction of categories. More recent work, such as Baerman et al. (2005: 7), has shown that it is not always easy—nor useful—to treat the causes of syncretism as being distinct, namely as to whether it emerges from phonological change, as is the case in the ō-stems, rather than due to morphological motivations. At any rate, there is no evidence to suggest that there was motivation behind the identity of the NOM and INS in the ō-stems, but the fact that the two cases ended up sharing a form appears to be significant in the context of the patterns of syncretism usually found in Germanic nominals.

Baerman et al. (2005: 40) categorise instances of case syncretism morphosyntactically according to whether the syncretism is between 'core' (i.e. NOM/ACC) or 'non-core'/'peripheral' cases. In their tripartite schema, 'type 1' is a core–core syncretism, 'type 2' is core–peripheral and 'type 3' is peripheral–peripheral. The syncretism of NOM/INS in the PGmc ō-stems would fall under 'type 2'. Type 2 is uncommon in the historical Germanic languages; more specifically, syncretism is more uncommon between certain pairs (or sets) of peripheral cases than with others. This phenomenon is dealt with at length in Plank (1991), who identifies that case homonymies across nominals are restricted to certain hierarchical sets, based on OE data. Plank shows that, fundamentally, all OE case homonymies are limited to adjacent cases in the order NOM-ACC-DAT-INS, with GEN being able to fit either after ACC or after INS or before NOM.

In the context of attested Germanic paradigms, there is no evidence to suggest NOM/INS were ever of the same form in any nominal, though, as shown in Table 1 above and throughout this paper, the syncretism is judged to have existed in the reconstructed ō-stems. The infrequency of this syncretism is significant, and this will be returned to throughout this paper.

The reconstructed ō-stem NOM/INS syncretism is reconstructed as PWGmc *geb-u. This sits at odds with Plank's conclusions that such a situation was unstable. Elsewhere in the paradigm, the ACC(USATIVE) and GEN(ITIVE) merge under *-ā, and the DAT(IVE) remains distinct in *-ē. By the earliest attestations of the WGmc daughter languages, however, the original

TABLE 3. Development of Singular *ō*-Stems From PWGmc Into OE (West Saxon), OS and OHG

	Gift (f.)	
	PGmc	PWGmc[a]
NOM	*geb-ō	*geb-u
ACC	*geb-ǭ	*geb-ā
GEN	*geb-ōz	*geb-ā
DAT	*geb-ōi	*geb-ē
INS	*geb-ō	*geb-u

	Pattern 1			Pattern 2			
	Pre-OE[b]	Early OE	Late WS[c]	Runic Frisian	[OF][d]	OS[e]	OHG[f]
NOM	*geƀ-u	ġief-u	gif-u	*jev-æ	[ieve]	geƀ-a	geb-a
ACC	*geƀ-ǣ	ġief-æ	gif-e	*jev-æ	[ieve]	geƀ-a	geb-a
GEN	*geƀ-ǣ	ġief-æ	gif-e	*jev-æ	[ieve]	geƀ-a	geb-a
DAT	*geƀ-ǣ	ġief-æ	gif-e	*jev-u	[ieve]	geƀ-u	geb-u
INS	**?**	(ċæstr-i)[g]	(gif-e)[g]	*jev-u	[(ieve)[g]]	geƀ-u[g]	geb-u[g]

[a]Adapted from Ringe and Taylor (2014: 114), who give the dat.sg form as *-ē*, although Hogg & Fulk (2011) give *-ai* as the pre-OE form.
[b]Adapted from Ringe and Taylor (2014: 114), who reconstruct PWGmc acc.sg as *-ā* and pre-OE *-ǣ* (2014: 152). Evidence of this is further outlined in Dahl (1938: 119–121).
[c]Forms are adapted from Goering (2023 & personal communication).
[d]The Runic Frisian forms are based on the observations found in Versloot (2016a). The OF forms are from Bremmer (2009: 62).
[e]Adapted from Gallée et al. (1993: 203–4), showing the most frequently occurring forms.
[f]Adapted from Braune and Heidermanns (2023: §207).
[g]Form not explicitly provided in paradigm in referenced literature. Usually, the instrumental case is only shown in those paradigms where it was formally distinct, but each old Germanic language variety shows evidence of a functionally distinct instrumental, even if it is not always formally distinct.

ō-stem paradigm has diverged into two distinct patterns. The reconstructed history of the *ō*-stems in the WGmc languages—primarily following Ringe (2017), Ringe & Taylor (2014) and Goering (2023)—can be found in Table 3, using the light-stemmed PGmc **gebō* as a model.

In the oldest forms of each of the Germanic languages, PATTERN 1 is NOM≠ACC=GEN=DAT≠INS, represented solely by OE. PATTERN 2, which is NOM=ACC=GEN≠DAT=INS, is found for each of the continental WGmc languages. A brief explanation of the development of the case forms in each WGmc language variety is provided in the following section, focusing on the case syncretism patterns and the respective developments in NOM and INS. Each language variety will be explored more systematically in §4.

2.2. State of Old English

For background, the OE developments discussed throughout this paper are mostly dialect-neutral, since a lot of the relevant processes take place in pre-OE. The forms used to explain phenomena are primarily West Saxon—the dialect in which most OE material survives—for the purposes of familiarity. Certain instrumental forms are provided in OE paradigms throughout this paper, although not all forms are from West Saxon material.

By pre-OE, the vocalic distinction between ACC, GEN and DAT in the *ō*-stems had been lost. Each becomes formally syncretic by merging under *-ǣ*. In pre-OE, the NOM form **geƀ-u* is reliably reconstructed, but there is no evidence to show that the *-u* ending was maintained in INS, despite having been of the same form in the proto language. For this reason, the INS cell in

the 'Pre-OE' column in Table 3 is tentatively labelled with '*?'. In some early texts, however, an innovative form with an *-i* ending is found, such as *ċæstr-i* on the Franks Casket (contested as Northumbrian or Mercian). Further evidence that speaks to these innovative forms will be returned to in §4.

By late OE, the *ō*-stems have fully syncretised in all oblique cases under **-e*. Only the NOM remains distinct. In the light-stemmed *ō*-stems, such as *gifu*, the ending was *-u*. In heavy stems, such as *lār*, this was endingless.

This morphophonological alternation arises due to a sound change common to all of WGmc, which was the loss of the short high vowels **i* and **u* word-finally after a heavy syllable and after an unstressed syllable preceded by a stressed light syllable (Ringe & Taylor 2014: 284–5, Fulk 2018: 82), commonly known as 'High-Vowel Deletion' (hereafter 'HVD'). In this paper, I refer to the outputs of HVD in terms of 'heavy' versus 'light' stems, since this captures the relevant alternations for the paradigms under discussion. Formally, however, the rule is prosodically conditioned by foot structure (Dresher & Lahiri 1991, 2022), where an unstressed high vowel deletes in the weak branch of a foot.[2]

In summary, by the time of the earliest attested extant OE records:

- The *ō*-stems maintain a distinction in the NOM (*-u*/*-∅*) and ACC (*-æ*);
- The *ō*-stems syncretise in the oblique cases (all under *-æ*) under the effects of regular phonological processes;
- No historical *-u* INS survives, but there is evidence of a later *-i* INS surviving in very early texts.

Syncretism pattern in early OE: NOM≠ACC=GEN=DAT≠INS—PATTERN 1.

2.3. State of Runic Frisian

By the time of most Old Frisian records, all distinctions in the vocalic final syllables had been lost, but evidence from Runic Frisian (hereafter RF) points towards a historic *ō*-stem paradigm which had various case endings. For example, runic material suggests that there was a *-u* ending for INS, the form of which then spread to DAT. The ACC ending is reconstructed as **-æ*, and this must have spread to NOM at a very early stage, since there is very little evidence to show that the historical *-u* form was used in the NOM, but, by contrast, plenty of evidence which shows the maintenance of *-u* in the INS (and subsequently DAT). This evidence will be consulted more closely in §4.2.

Syncretism pattern in early Runic Frisian: NOM=ACC=GEN≠DAT=INS – PATTERN 2.

2.4. State of Old High German and Old Saxon

The pattern in OHG is similar to what is found in RF and differs from OE. The historical developments of the OHG case endings are more transparent since the quality of unstressed vowels remains more diverse in OHG for a longer time. In a very small number of the oldest OHG texts, the occasional nom.sg form is found with *-u*, for example, *ladungu* 'call' (*Benediktinerregel* VII), but the tendency in the oldest sources is that NOM and ACC have already syncretised under *-a* (Braune & Heidermanns 2023: §207.A2). This means that NOM, ACC and GEN each share a syncretic form under *-a*. The DAT ending is *-u*, which had merged under the INS form, as mirroring the developments in RF.

[2] For a valuable reassessment of the balance between phonology and analogy in shaping forms affected by HVD, see Fulk (2010).

The same pattern is found in OS, although a greater variety of weakened forms is found in the GEN and DAT (*-e, -a*). The most frequently occurring forms are those given in Table 3 above, which concord with OHG and RF.

Syncretism pattern in early Old High German and Old Saxon: NOM=ACC=GEN≠DAT=INS—PATTERN 2.

In summary, by the time of the earliest extant continental West Germanic (RF, OHG and OS) records:

- The *ō*-stems syncretise in the NOM and ACC;
- The *ō*-stems are distinct in the oblique cases (ACC and GEN vs. DAT and INS);
- The historical *-u* survives for INS and spreads to DAT.

3. *A*-STEMS

While developments in the *ō*-stems are the primary focus of this paper, the paradigms of the Gmc *a*-stems will be briefly consulted to show how the divergences in syncretism patterns are particular to the *ō*-stems alone.

The *a*-stems are the most frequently occurring class of noun in the old Germanic languages. Unlike the *ō*-stems, all the WGmc *a*-stems share a consistent syncretism pattern, which is inherited from PGmc. The only phonological differences are language-internal (e.g. vocalic developments in OE, Second Consonant Shift in OHG). The difference between the syncretism patterns of the OE and RF/OHG/OS *ō*-stems is brought into sharp focus when comparing with the paradigms of the *a*-stems. The consistency in the *a*-stem paradigms highlights how the developments in the *ō*-stems cannot be motivated by a syntactic merger of cases, as otherwise similar patterns of syncretism would be expected across both (and other) declension classes (Table 4).

The syncretism patterns and case forms are broadly consistent across all of WGmc.[3] The only difference between continental WGmc and OE is the form of the instrumental. RF, OHG and OS have *-u*, for which there is no evidence in OE. Instead, OE has *-i* in a small number of tokens, as in the *ō*-stems. No assumptions are made as to the pre-OE INS form at this stage; hence, '?' is provided in this cell again. The syncretism patterns in each language variety are otherwise the same: NOM=ACC≠GEN≠DAT≠INS.

The fact that the syncretism patterns are consistent across the *a*-stems in WGmc is not intrinsically noteworthy, but it is significant that the OE *a*- and *ō*-stems lose the historical INS *-u* ending in the INS, which is replaced in both instances with an innovative *-i*. This suggests that language-internal developments must have taken place in the OE instrumental which did not affect Frisian, OHG or OS.

[3] The only striking ending is the *-u* in the NOM/ACC of RF. This is because RF appears to retain a vocalic trace of the PGmc **-az*, whereas the other Gmc languages do not (Versloot 2016b: 23). The final consonant **z* in the NOM was lost—as was the case throughout all of WGmc—but the vowel was retained in Frisian and reduced to something that was likely a central vowel, although of a different quality from schwa (Nedoma 2014: 348). Evidence for this NOM/ACC *-u* is found in certain Runic Frisian, e.g. NOM—*Adujislu*, *Skanomodu* (both proper nouns), ACC—*ka[m]bu* 'comb'. For a full historical treatment of this form, see Nedoma (2014).

TABLE 4. Development of Masculine and Neuter Singular *a*-Stems From PGmc Into OE, OF, OS and OHG, Based on Ringe (2017) and Ringe & Taylor (2014) and Goering (2023) Unless Otherwise Stated

Masculine	Day (m.)	
	PGmc[a]	PWGmc[b]
NOM	*dag-az	*dag
ACC	*dag-ą	*dag
GEN	*dag-as	*dag-as
DAT	*dag-ai	*dag-ē
INS	*dag-ō	*dag-u

Neuter	Word (n.)	
NOM	*word-ą	*word
ACC	*word-ą	*word
GEN	*word-as	*word-as
DAT	*word-ai	*word-ē
INS	*word-ō	*word-u

Masculine	Day (m.)			Tree (m.)		Day (m.)	
	Pre-OE	Early OE[c]	Late OE	RF[d]	OF[e]	OS[f]	OHG
NOM	*dæg	dæġ	dæġ	*bām(-u)	bām	dag	tag
ACC	*dæg	dæġ	dæġ	*bām(-u)	bām	dag	tag
GEN	*dæg-æs	dæġ-es	dæġ-es	*bām-es	bām-es	dag-es/as	tag-es
DAT	*dæg-æ	dæġ-æ	dæġ-e	*bām-e	bām-e	dag-e/-a	tag-e
INS	***?**	(uueġ-i)[g]	(dæġ-e)[g]	*bām-u	[*bām(-e)][g]	dag-u	tag-u

Neuter	Word (n.)			Word (n.)		Word (n.)	
NOM	*word	word	word	*word(-u)	word	word	wort
ACC	*word	word	word	*word(-u)	word	word	wort
GEN	*word-æs	word-es	word-es	*word-es	word-es	word-es/as	wort-es
DAT	*word-æ	word-æ	word-e	*word-e	word-e	word-e/a	wort-e
INS	***?**	(spell-i)[g]	(word-e)[g]	*word-u[g]	[word(-e)][g]	word-u	wort-u

[a] Adapted from Ringe (2017: 300).
[b] Adapted from Ringe and Taylor (2014: 114).
[c] The instrumental forms *uueġ-i* (Erfurt Glosses 845) and *spelli* (Corpus Glossary 1720) are Mercian forms and are included as examples of INS *a*-stems.
[d] Adapted from a composition of the material found throughout Versloot (2016a and 2016b).
[e] Adapted from Bremmer (2009: 60). The lexeme *bām* 'tree' is used since OF *dei* 'day' does not show a distinct DAT vowel since the root ends in a vowel.
[f] Adapted from Gallée et al. (1993: 203–4).
[g] Form not provided in paradigm in referenced literature.

4. Developments in the West Germanic Languages

The following section will provide a close examination of the historical phonological and morphological developments in each WGmc language to understand why the syncretism patterns in the NOM/INS of *ō*-stems diverged in the different parts of WGmc. Each subsection will provide a reminder of that language variety's *ō*-stem paradigm from Table 3. The history of the morphosemantic distribution of the minor cases marked with *-i* and *-u* will also be considered for each language variety.

4.1. Old English

4.1.1. ō-stems

TABLE 5. Development of *ō*-Stems From PGmc Into OE (West Saxon), Taken From Table 3

	Gift (f.)				
	PGmc	PWGmc	Pre-OE	Early OE	Late WS
NOM	*geb-ō	*geb-u	*geƀ-u	ġief-u	gif-u
ACC	*geb-ǭ	*geb-ā	*geƀ-ǣ	ġief-æ	gif-e
GEN	*geb-ōz	*geb-ā	*geƀ-ǣ	ġief-æ	gif-e
DAT	*geb-ōi	*geb-ē	*geƀ-ǣ	ġief-æ	gif-e
INS	*geb-ō	*geb-u	***?**	(ċæstr-i)	gif-e

The genesis of the pre-OE *ō*-stem forms from the diverse PGmc endings can be partly explained by phonological processes. Through the effects of WGmc HVD, the short high vowels **i* and **u* were only retained when falling in the strong branch of the foot (Dresher & Lahiri 1991, 2022), the *-u* of which can be seen in the nom.sg of the 'gift' *ō*-stem: PGmc **gebō* > PNWGmc **gebu* > OE *ġiefu* (WS), *ġeofu* (Merc.) (Ringe & Taylor 2014: 288). By contrast, *ō*-stems lost the NOM *-u* when the high vowel fell in the weak branch, leaving endingless forms such as *lār* ('teaching'). This meant that a morphophonological alternation arose between *-u*/-∅ in the nom.sg of *ō*-stem nouns, depending on the noun's foot structure (see Tables 5 and 6).

TABLE 6. High-Vowel Deletion of *ō*-Stems in Pre-OE, Following the 'Germanic Foot' Model of Dresher & Lahiri (2022)—|x| Shows the Head of the Foot

a.	"Gift nom.sg"	b.	"Teaching nom.sg"
	X (|x |) [L L]$_{\omega}$ gi bu		X (|x| .) [H L]$_{\omega}$ lā r~~u~~

It is widely accepted that HVD is sensitive to trochaic footing, even though different interpretations of the foot have been proposed (e.g. the 'Germanic Foot' of Dresher & Lahiri (1991, 2022), the moraic trochee in Bermúdez-Otero (2005) and the strictly bimoraic moraic trochee in Goering (2016)). However, the analysis of *ō*-stems can still be handled by dividing the data using the binary 'heavy' versus 'light' stem schema. As Goering (2023: 56) points out, 'in practical terms, the results of the analysis are virtually the same.' Stem-weight terminology is retained throughout for ease of exposition and to maintain consistency with other well-established work in historical OE, such as Hogg (1992) and Hogg & Fulk (2011), though it should be remembered that foot structure sits at the heart of why HVD does or does not take place.

While the *-u* in the nom.sg survives in light stems, the general reduction of unstressed syllables into Late OE causes the rest of the OE *ō*-stem paradigm to become almost entirely syncretic in the oblique cases, with slightly different phonological pathways that tend towards the same destination: ACC/GEN *-e* < *-ǣ* < PWGmc **-ā*; DAT *-e* < *-ǣ* < PWGmc **-ē* (Ringe & Taylor 2014: 195). As shown in Table 1, prior to OE, the cases of the *ō*-stems were clearly differentiated with distinct vocalism in the endings. The only case for which *-u* ever unambiguously and autonomously marked a form in the *ō*-stems by the time of pre-OE

was in the nom.sg of light-stemmed nouns, so, based on established reconstructions, the original INS form in *-u* had to have been lost before the main effects of vocalic weakening took hold. There is no surviving evidence that shows the use of an INS *-u*, despite having been formally identical with NOM historically. An explanation for the divergence in forms cannot be offered through phonology alone, as otherwise we would expect to find evidence of a *-u* in early light-stemmed instrumentals. Instead, minor evidence of a functional instrumental survives in OE, but the form of the ending (*-i*) does not resemble what is found in the other WGmc languages (*-u*).

This raises an important question: Why did this development happen in OE but not in the other WGmc languages, which do show a feminine instrumental in *-u*?

4.1.2. -i form: *Instrumental & Locative*

Part of the answer appears to lie in the OE innovation of the briefly attested INS ending *-i*, which appears not just in the *ō*-stems but also the *a*-stems.[4] This *-i* is also the source of what becomes the autonomous strong INS inflection of the masculine/neuter adjective (early OE *-i* > OE *-e*) (Ringe & Taylor 2014: 379), distinct from DAT early OE *-ǣ* > OE *-æ*. The ending is only found in nouns in the earliest OE attestations. All these attestations are Anglian, but Ringe and Taylor (2014: 375) state that there is no reason to expect that the change did not happen in other dialects. Some examples of the *-i* ending in *ō*-stems are the following (for further evidence, see Ringe and Taylor (2014: 374) and Hogg and Fulk (2011: 17, 134)):

(1) *apparition-e* — ***ġitīung-i***
preparation-ABL — preparation-INS
'with preparation' (Épinal Glosses, 97)

(2) *affect-ui* — ***megsibb-i***
affection-ABL — affection-INS
'with affection' (Épinal-Erfurt Glosses, 109)

The instrumental function of some of these early OE *-i* forms is confirmed by the fact that each appears to render a Latin ablative of means. Forms with *-i* are also found with locative prepositions:

(3) *in Rom-ae* ***ċæstr-i***
in Rome-GEN city-INS
'in the city of Rome.' (Franks Casket)

(4) *on* ***rod-i***
on cross-INS
'On the cross' (Ruthwell Cross 56)

The same ending is also found in early *a*-stems with the same distribution: either as a bare instrumental or when governed by a semantically locative preposition:[6]

[4] I do not treat here the small and lexically restricted group of OE forms in *-um*, e.g. *hēafdum* 'head', which early scholars claimed as a continuation of a PIE instrumental (see the literature collected in Hogg and Fulk (2011: 17 n4)). More recent accounts (e.g. Boutkan (1999) and Bammesberger (2001)) reject the instrumental interpretation, favouring the dual as the source of the morphology. Given their rarity and unclear prehistory, I treat the OE *-um* forms as isolated relics, distinct from the productive *-i* form found in early OE.

[5] The status of OE *ceaster* as an *ō*-stem is confirmed in Bammesberger (1994: 101 note 21), who rejects the interpretation in Sweet (1876) that it was an *i*-stem.

[6] Examples taken from Pheifer (1974) and Hogg and Fulk (2011: 17).

(5) *ast-u* — ***facn-i***
cunning-ABL — cunning-INS
'with cunning' (Erfurt Glosses, 83)

(6) *oper-e* *plumari-o* — ***bisiuuisid-i*** ***werc-i***
work-ABL sown-ABL — sown-INS work-INS
'with embroidery' (Erfurt Glosses, 699)

(7) *on* ***berg-i***
on hill-INS
'on the hill' (Thornhill Stone 3)

(8) *horn-ō* — *thys* ***ġēr-i***
this_year-ABL — this.INS year-INS
'this year' (Épinal-Erfurt Glosses, 494)

Examples (5) and (6) are bare instrumentals, again rendering Latin ablatives. Example (7) comes from a runic attestation and is prepositional. Example (8) is a rendering of a Latin ablative of time, where the instrumental form is used to denote a specific point in time, that is, a temporal sense. The form in both the *ō*- and *a*-stems is clearly distinct from the dative, even though both cases eventually reduce to *-e* later in OE.

It is of note that, contrary to what might be expected, this *-i* does not trigger umlaut of the preceding vowel. The material presented so far raises four explananda: the source of the ending, the motivations for its emergence, when it emerged, and why it did not interact with the phonology in the expected way.

Little consensus has been reached on where exactly the OE *-i* comes from. The traditional view has been that it represents an old locative, primarily motivated by the semantics of some of the tokens. The explanation put forth in Bammesberger (1994), based on Sievers (1882), is that the *-i* is derived from an old PIE locative ending, which first arose in Germanic in the *a*-stems (e.g. PIE *-*ēy* > PGmc *-*ei* > Pre-OE *-*ī* > OE *-i*, (Bammesberger 1994)) and then spread through analogy to the *ō*-stems. This interpretation and variations thereof (e.g. Bazell (1940)) have long been the established thinking and this approach has continued to be adopted in recent work beyond just the scope of OE, such as in Versloot's (2016a, 2016b, 2017) work on OF.

If one works with the assumption that *-i* is in fact an inherited locative, then a solution for the umlaut peculiarity is offered in Bammesberger (1994: 102), who explains that most OE '*a*-stems did not exhibit *i*-umlaut of the root vowel, and it is therefore quite possible that these locatives in *-i* also adopted the non-umlauted vowel,' with umlaut only being found in the higher frequency forms such as *on mergen* (< *morgen*). The suggestion here is that the lack of mutation in most *a*-stems acts as an analogical template for the absence of umlaut in feminine *ō*-stem forms, to which Bammesberger proposed the ending spread. The problem with this hypothesis is that motivating the absence of a relatively regular mutation on the basis of analogy would be unusual.

The traditional approach is broadly continued in Hogg (1992) and Hogg & Fulk (2011), though Hogg (1992: 244) notes that at least some of the *-i* forms might simply reflect ‹i›/‹e› spelling confusion.

However, Ringe and Taylor (2014: 379) take issue with the traditional locative view and offer an alternative explanation. The traditional theory relies on two different locative endings surviving into Germanic: *-*ēy*, the proposed ancestor to OE *-i*, and PIE *-*oy*, which is securely the ancestor of dative OE *-*ai*. The crux of Ringe and Taylor's interpretation is that two

locative morphemes would not have been expected to survive in a daughter language. This undercuts the validity of the interpretations which rely on the inheritance of PIE *-*ēy*. On this basis, Ringe and Taylor instead hypothesise that the OE *-i* arises through an internal process of analogy, the source of which is the INS form of the interrogative pronoun (OE *hwȳ* < PGmc **hwī*) which was in turn the basis for the INS form of the demonstrative (OE *þȳ*).[7] Ringe and Taylor also propose that this development is paralleled in North Germanic, where the dat.sg demonstrative and interrogative are *því* and *hví*.[8] The ending of the OE interrogative then spreads to the strong masculine and neuter adjectival inflection. This ending survives for longer and, as mentioned, is found in numerous OE sources as the weakened INS form *-e*. A schema of the pathway for the development of the *-i* ending in nouns proposed in Ringe and Taylor (2014: 388), but spelled out with relevant additional processes, is as follows for pre-OE:

SCHEMA 1: Development of *-i* ending in OE, following Ringe and Taylor (2014: *passim*)

1 *-*ī* (from interrogative **hwī*) spreads to demonstrative **þī*.
2 The quantity of *-*ī* reduces to *-*i*.
3 *-*i* spreads to masc/neut strong adjectives, replacing *-*u*.
4 *-*i* spreads to masc/neut *a*-stems, replacing *-*u*.
5 *-*i* spreads to fem *ō*-stems, replacing *-*u*.

The advantage of the Ringe and Taylor theory over the traditional theory is that it offers a solution to three of the four explananda raised above. First, it explains where the ending came from and, second, when. Additionally, one assumption is that the analogical spread of the ending takes place after the primary effects of umlaut and apocope. This accounts for the two phonological problems of why the *-i* does not trigger umlaut and why it survives in heavy-stemmed nouns. A further benefit of this approach compared to the traditional theory is that it is simpler to analogically motivate, since the hypothesis only requires a repurposing of a different formal exponent of the same case from another part of speech rather than a functional repurposing of a locative into an instrumental. Given that a separate autonomous form of the locative is not generally reconstructed for PGmc—let alone two separate forms—the Ringe and Taylor approach appears favourable.

However, the motivations for *why* this development took place in OE are not accounted for by Ringe and Taylor. There is no explanation for what triggered a complete replacement of the INS morpheme *-u*, which had a much longer life in continental WGmc. One scenario might be that the new INS marker emerged because DAT and INS had functionally merged in pre-OE nouns, motivating a total re-innovation of a formally distinct INS marker, since the case was still formally and functionally distinct across other nominals. This would be an example of partial bifurcation, where a single case value emerges as two (Baerman 2008). The limitation to this idea, however, is that there is no evidence that would support or justify the re-emergence of a new INS marker when it had already become syncretic with another case. Innovating a new INS morpheme would also go against the grain of the general trend in Germanic for DAT and INS to merge with one another, which had long been established in other noun classes, such as *i*-stems and consonantal nouns, and throughout the plural of all nominals. There is also no evidence from the other Germanic languages of a moribund case form being reinnovated.

Instead, the solution looks to be morphological, and we should return to the situation in pre-OE to understand how and why. It is important to remember that a stem-weight-based

[7] This can be traced back to the INS form of the PIE interrogative *$k^{w}ih_{1}$ (form based on reconstruction in Ringe (2017: 69–70)).

[8] The subsequent rounding of the vowel to *ȳ* in the OE pronouns *hwȳ* and *þȳ* is suggested by Ringe and Taylor (2014: 379) to be a later development that takes place after the loss of the *-i* in nouns.

morphophonological alternation between *-u*/-∅ arose in the NOM as a result of HVD. The same alternation is also expected to have existed in the INS in pre-OE, given the reconstructed PWGmc INS ending was *-u*. This means that both the NOM and INS of the light stems would have been syncretic under *-*u*, but heavy stems under *-∅. However, the *ō*-stems would not have been the only class of noun to exhibit such a morphophonological alternation. The *a*-stems would have also been affected, except in INS only, since NOM was inflectionless in this declension class. This distribution is summarised in Table 7.

TABLE 7. Proposed NOM and INS Forms in Pre-OE Heavy and Light-Stemmed *ō*- and *a*-Stems After the Effects of HVD[a]

	ō-Stems		*a*-Stems	
	Feather (f.) HEAVY	Gift (f.) LIGHT	Word (n.) HEAVY	Day (m.) LIGHT
NOM	*feþer	*geb-u	*word	*dæg
INS	*feþer	*geb-u	*word	*dæg-u

[a]The masculine and neuter can be considered together for this purpose since their paradigms were identical in the singular.

This situation is important because the HVD-induced stem-based morphophonological alternations in two cases across a whole class of nouns created unstable syncretisms. As discussed earlier in §2.1, other 'type 2' syncretisms are not to be found in historical Germanic, which made this situation fertile ground for morphological renewal in pre-OE. The renewal strategy which arose in OE was to repurpose *-*i* from the interrogative, but, as will be seen in subsequent sections for RF/OHG/OS, the pre-existing *-*u* morphology could have been a valid candidate instead.

A pertinent point in the context of OE is the *-*u* in the feminine nom.sg. This *-u* persists much later in OE than in any other WGmc language. This is highly significant. That *-u* survives as the NOM form, but is lost as the INS form, would suggest that there was a reanalysis of the salience of the *-u* morpheme in the light-stemmed *ō*-stems in pre-OE. If speakers favoured the functional salience of the *-u* ending as NOM over INS in the pre-OE *ō*-stems, this would have been a factor in shaping the nature of the renewal of the instrumental: An innovative INS ending would also have the benefit of formally dissimilating from the nom.sg in the *ō*-stems.

The establishment and spread of the NOM *-u* is supported by developments elsewhere in OE. For example, the *-u* as a nom.sg marker spread to nominals where *-u* had not been before, such as the feminine abstract **īn* stems, where *-u* competed with the original ending *-e* (< *-*i*), and also the abstracts ending in *-Þ* (Ringe & Taylor 2014: 380–1).[9] The only analogical source for this ending can be the light-stem *ō*-stems.

Although it is hard to identify precise cause and effect, there was certainly morphosyntactic competition in the *-u* morpheme in the *ō*-stems, which is a situation which would have motivated and shaped the nature of the renewal with the innovative *-i* ending. There had been two morphosyntactic categories associated with *-*u* (NOM and INS), which was a highly unusual form of syncretism; the generalisation of the *-*i* ending reciprocally reinforces the NOM status of the *-u* and thus halves the number of values associated with *-u* from two to one. These two phenomena play out in a mutually determining manner.

[9] It is worth highlighting that this interpretation is not without controversy, since the notion that *-*u* was lost in such stems comes from Ringe's theory about high-vowel deletion, which is not uniformly accepted. Pairs of words like *frymð* and *frymðo* would be evidence for this, but there is variable analogical loss in long-stem words like *strengð* and *strengðo*. I thank Nelson Goering for this observation.

An important dimension to the morphophonological alternation in the *ō*-stems is the relative frequency of the heavy versus light stems. Frequency can be an important factor in analogical change, and it might have been expected for the dominant alternation to exert pressure on the less frequent alternation. It is possible to estimate the relative frequencies of each stem type by looking at the most common nouns in surviving Germanic data. For example, in OHG and OS, of the 98 most frequent *ō*-stems, 60% (n = 59) were heavy stemmed and 40% (n = 39) were light stemmed.[10] Among 34 of the most frequent OE *ō*-stems, 79% (n = 27) are heavy and 21% (n = 7) are light.[11] Comparable imbalances between heavy and light stems are observable across all the WGmc branches, suggesting that this was not peculiar to OE, but a systemic feature of this declension class. While there is a slight proportional discrepancy between the language varieties, it is consistently the case that the token frequency count is higher among heavy stems, all of which suggests that heavy stems would have been the dominant type in PWGmc.

However, fundamentally, it is not the case that the heavy stem form fully suppressed the light stem form, let alone vice versa. Given that both heavy and light stems went through a stage of having a NOM = INS syncretism (as seen in Table 7 above), neither paradigm alternant was intrinsically stable (cf. Plank (1991)). This suggests that factors beyond frequency were important in the reshaping of the morphology.[12]

The *a*-stems should also be briefly considered, since their reconstructed paradigms help to shed light on the relative chronology of the processes. In PWGmc, *a*-stems were inflectionless in the nom.sg, meaning that the generalisation of an instrumental morpheme, whether that be an innovative *-*i* or the older *-*u* as happens elsewhere in WGmc, would not have been impactful on the paradigm from a syncretism perspective, that is, no new syncretisms would have been created. On this basis, it is worth questioning the assumption implicit in the Ringe and Taylor theory that the innovation first took place in the masculine/neuter before spreading to the feminine. Their proposed pathway relies on the *-*i* ending spreading first to the masculine/neuter demonstrative, then through the strong adjective before finally arriving in nouns. They claim that the generalisation to the feminine was a later development. On the face of it, however, there is no reason why the initial locus of spread was the masculine/neuter rather than the feminine. If anything, some evidence suggests that the first point of spread was the feminine rather than the masculine or neuter. This will be demonstrated through the lens of parallel developments in the OE feminine demonstrative pronoun, in which historical vocalic development point towards innovation caused by the high vowel *-*i*.

4.1.3. Feminine demonstrative pronoun

There is a problem in the current understanding around developments in the vowels of the root of the OE feminine demonstrative. It is accepted that PWGmc /ai/ monophthongises to OE /a:/, which, based on the reconstructed form of the PWGmc demonstrative, raises

[10] Extracted from the *Referenzkorpus Altdeutsch*, the only online corpus of a WGmc language which allows the user to search for nouns based on declension class parameters. It is not possible to search based on declension class in any OE corpus. The search included those nouns attested more than five times.

[11] Extracting the same data for OE is more challenging due to the absence of declension class tagging in the corpora, but a proxy method involved taking the most frequent nouns appearing in the *Introduction to Old English* (Baker 2012). Among the 497-word list containing mixed parts of speech were 42 feminine nouns, of which 34 were identified as being *ō*-stems.

[12] One must only look to the instrumental of the neuter *a*-stems in OHG and OS to see that frequency is not always primary in shaping morphological restructuring. Most neuter *a*-stems (82% of the 100 most common in OHG/OS) are heavy and would have lost -*u* to HVD, yet it is the form of the less frequent light stems which is the template for the analogical restoration.

TABLE 8. Forms of the Feminine Demonstrative From PWGmc to OE, Adapted From Ringe & Taylor (2014)

	PWGmc		OE	
	FEM	MASC/NEUT	FEM	MASC/NEUT
GEN	*þaiza	*þas	þǣre	þæs
DAT	*þaizē	*þammē	þǣre	þǣm
INS	*þaizu	*þan	þǣre	þon/þȳ

questions as to why the root vowel is fronted in OE. This can be seen in Table 8 which shows the different stages of the feminine demonstrative (with masculine and neuter for reference): The expected form in OE for each of the feminine GEN/DAT/INS would be *þāre, where the vowel is not fronted. Two explanations are given in Ringe and Taylor (2014: 390) for the fronted forms. The first is based on the existence of multiple forms of the same pronoun: Ringe and Taylor speculate that the PWGmc feminine gen/dat.sg demonstrative forms listed above were one pair of two variants which existed in this paradigmatic slot. The forms in the table represent the stressed variants which coexisted with the unstressed variants GEN *þēzā and DAT *þēzē. The unstressed forms would have given *þærǣ, which would have developed to the OE forms found when re-stressed (Ringe & Taylor 2014: 390).

The second explanation is based on a hypothesis of paradigmatic levelling. The evidence in support of this is what happens to the other disyllabic feminine demonstrative, the gen.pl. Ringe and Taylor speculate that both the gen.pl form *þāra and gen/dat.sg form *þāræ were shortened to *þara and *þaræ, respectively. The shortening in the gen.pl is accounted for by direct evidence in OE. Ringe and Taylor determine that the gen/dat.sg form was reanalysed as *þæræ due to *a* ~ *æ* alternations found throughout other paradigms, caused by the variable retraction of **æ* to **a* elsewhere in OE.

While both explanations are plausible, there is an alternative solution to the fronting in the feminine demonstrative which also fits into the model offered by Ringe & Taylor (2014) regarding the spread of *-i* from the interrogative pronouns. If step 1 of Ringe and Taylor's SCHEMA 1 (see above) is reconsidered, there is no reason why the **-ī* of **hwī*—which was both the masculine and feminine form of the interrogative—did not spread to the demonstrative of all genders, not just the masculine and neuter. This would then give a pre-OE feminine INS demonstrative of *þārī, which would then develop into *þæri under the effects of umlaut and high vowel shortening. The long-fronted vowel of the INS form could have then levelled throughout the GEN and DAT. A development like this, where INS exerts pressure on the GEN and DAT, is not without parallel: in OHG and OS, the feminine DAT demonstrative *deru*/*dero* and *theru*/*thero* is originally an INS form, which eventually also spreads to become a singular syncretic marker of GEN/DAT/INS (see §4.3 below).

This alternative solution is outlined in Table 9:

TABLE 9. Alternative Solution to the Development of the Feminine Demonstrative in OE

	PWGmc[a]	Pre-OE$_1$	Pre-OE$_2$	Pre-OE$_3$	OE
GEN	*þaiza	*þāre	*þāre	*þǣre	þǣre
DAT	*þaizē	*þārǣ	*þārǣ	*þǣrǣ	þǣre
INS	*þaizu	*þārī	*þæri	*þæri	þǣre

[a]Adapted from Ringe and Taylor (2014: 123).

Pre-OE$_1$ denotes the forms after the effects of monophthongisation, rhotacism and the spread of *-i*. Pre-OE$_2$ represents root vowel mutation caused by the presence of **-i* in INS alone. Pre-OE$_3$ represents the levelling of the fronted root vowel throughout the paradigm.

If this explanation is accepted, it shows that the spread of *-i* took place in the feminine at a very early stage. This would call into question whether the spread of *-i* first took place in the masculine/neuter, as is suggested in the Ringe and Taylor schema. Instead, it is equally plausible that the *-i* spread to the masculine, neuter and feminine at the same time, or even that the *-i* spread to the feminine first. There is also no reason to suggest that the ending first spread via adjectives either, as suggested by Ringe and Taylor (2014: 379).

Applying this to the domain of nouns, it has already been established that the feminine *ō*-stems contained an unstable NOM/INS syncretism with competition in the function of the *-u* morpheme. By contrast, the *a*-stems contained no such paradigmatic imbalance. The establishment of the NOM status of *-u* in the *ō*-stems would have been an additional motivator for the analogical introduction of the INS *-i* ending from the pronominal system to replace the old INS *-u*. Working with the above explanation would account for both the form of the OE demonstrative and show that the spread of **-i* was a general spread of a new instrumental morpheme to the main classes of noun and pronoun, rather than being a development initially particular to the masculine and neuter only.

Moreover, most Germanic *ō*-stems are inanimate. It is expected that inanimate nouns would be more likely to be used in an instrumental function compared to animate nouns. Again, using data from OHG and OS as a model, only 2% of the 98 most frequent *ō*-stems are animate.[13] A similar level of animacy would be expected in the *ō*-stems of the other Germanic languages. The rates of animacy are significantly higher in the *a*-stems: 31% of the most frequent masculines are animate and 9% of the neuters.[14] Given that the relative salience of the NOM/ACC distinction in the mostly inanimate feminines would have been weaker than that of INS, this supports the idea that it was the site of analogical activity.[15] All of this points towards the feminine being an initial rather than secondary locus of innovation for the spread of *-i*.[16]

4.1.4. Summary

The *ō*-stem NOM *-u* is much more salient in OE than any other old Germanic language. Although there are scattered relics of the *-u* in the nom.sg in OHG and OS, as will be shown, these are both very early and infrequent, and the form had effectively merged with the ACC *-a* in even the earliest texts. To argue the same point from an inverse perspective, the non-salience of the *-u* in the nom.sg of the continental WGmc languages is supported by the fact that each syncretises NOM and ACC. In these languages, the *-u* ending had instead seemingly been analysed as a salient marker of instrumentality (and subsequently dativity) rather than nominativity, as will be shown in more detail in §4.2 and §4.3.

The correlation between the prominence of the OE INS *-i* form and the total absence of an INS *-u*, compared with the opposite relationship in the other WGmc languages, appears to be more than just epiphenomenal due to the systematic developments with the historical *-u* morpheme. To understand this further, the syncretism pattern of the *ō*-stems and the development in minor case morphemes will now be considered in the continental WGmc languages, starting with Frisian before moving onto OHG/OS.

[13] For the source of data, see footnote 24.

[14] Based on nouns which appeared at least five times, of which there were 176 masculine and 136 neuter. The differences between (i) the masculine and the feminine and (ii) the neuter and the feminine were statistically significant based on Fisher's exact tests, which resulted in two-tailed *p*-values of <0.00001 and 0.025, respectively. The result is significant at $p < 0.05$.

[15] For further detail on the interaction of case, gender and semantics in Germanic, see Watts (2019).

[16] To integrate this point with the frequency data of the *ō*-stems, as identified earlier, it appears likely that *-i* would have entered the heavy-stem alternant first before spreading to the light-stems.

4.2. *Runic/Old Frisian*

Old Frisian (OF) is a Germanic language that is grouped under Ingvæonic with OE and partly with OS (Stiles 2013: 10). Despite being labelled as 'old', the relative chronology of OF is such that most literary material dates from the late thirteenth-century onwards (Versloot 2017), around the same time as late Middle English/Middle High German, although the language of some extant evidence is thought to be older than the physical material on which it survives (Bremmer 2009: 9). The primary evidence for the early form of Frisian comes from runic material.

Runic Frisian had a similar case system to the other Germanic languages, including evidence of a minor instrumental case. The size of the Frisian corpus is considerably smaller than the other Germanic languages, but enough survives to demonstrate that Frisian had a five-part case system early in its history. For example, Bremmer (2009) accounts for instrumental uses of the dative in OF, a phenomenon seen in the other Germanic languages which show evidence of a historically more widespread and autonomous instrumental case:[17]

(9) *that* *he* *alsa* ***secht-e*** *siak* *were*
that he so **sickness-INS** sick.NOM be.3SG.SUBJ
'... that he might be so sick with sickness' (Old East Frisian Land Laws, I)

Since the age of OF material is relatively late, evidence from runic material—as presented in Versloot (2016a, 2016b, 2017)—will primarily be consulted in this section. It should be noted that the Runic Frisian corpus is very small compared with OE (and OHG/OS), amounting to little more than 20 inscriptions from the sixth to ninth centuries, predating most OF material by at least 300 years. The data must, therefore, be interpreted cautiously, and case values are in some instances disputed. The material is nearer to being contemporaneous with the OE, OHG and OS periods, however, making it an indispensable point of comparison. A small number of tokens offer a glimpse into nominal forms before the effects of final syllable weakening, which obscure former case distinctions.

The same elements will be considered for Frisian as for OE: the form of the *ō*-stem NOM, DAT and INS singular, the morphosemantic domain of ins.sg in the *ō*-/*a*-stems and evidence of a locative-functioning *-*i* in both *ō*-/*a*-stems.

4.2.1. *ō*-stems

TABLE 10. Development of *ō*-Stems From PGmc Into Frisian, Taken From Table 3

	Gift (f.)			
	PGmc	PWGmc	Runic Frisian	OF
NOM	*geb-ō	*geb-u	*jev-æ	ieve
ACC	*geb-ǭ	*geb-ā	*jev-æ	ieve
GEN	*geb-ōz	*geb-ā	*jev-æ	ieve
DAT	*geb-ōi	*geb-ē	*jev-u	ieve
INS	*geb-ō	*geb-u	*jev-u	(ieve)

First, the nom.sg of the Frisian *ō*-stems clearly syncretised with the acc.sg at a very early stage, since Runic Frisian evidence shows a NOM *-a*/*−æ* ending, for example, *jibăda* 'fortune' (*Westeremden B*) (cf. OS *gibada*) and *katæ* 'knuckle' (*Hamwic knucklebone*) (examples taken from Versloot (2016a: 390) and Looijenga (2003: 234)). There is no evidence of *-u* in the

[17] The gloss here is given as INS, although DAT would also be valid in OF, by which point the instrumental case had fully merged with the dative.

nom.sg, which directly contrasts with what is found in OE.[18] Additionally, runic evidence shows that *-u* does survive as the dat.sg and ins.sg form (see below), so the vowel in the nom.sg forms was clearly of a different value (Table 10).

Frisian was also affected by HVD and the effect on its *ō*-stem paradigms would have been the same as in OE (cf. Table 7). If *-u* had survived in the nom.sg, then evidence of the same morphophonological alternation between *-e*/-∅, as discussed for OE in §4.1, would be expected. However, no such alternation is found: The ending in OF is consistently *-e* (< RF *-a*/*-æ*). The conclusion reached by Versloot (2016a: 387) is that NOM and ACC levelled with one another sometime before the year 700. This contrasts with OE, where NOM and ACC remained formally distinct in the *ō*-stems.

4.2.2. -u form: Instrumental & Locative

The primary INS ending in the *ō*-stems in Runic Frisian was **-u*. Runic evidence also shows that the dative merged under this form (Versloot 2016b), a development also shared by OHG and OS (and, if considering all of NWGmc, Old Norse). The DAT ending in *-u* does not phonologically align with the reconstructed PGmc dat.sg **-ai* (unlike OE *-e*, which does). On this basis, an intraparadigmatic extension of the ending must have taken place.[19]

The following examples come from Runic Frisian inscriptions:[20]

(10) *me(þ)* ***jisuh[i]ld-u***
with Gisahild-INS/DAT
'with Gisahild' (Westeremden A)

(11) *aib kobu deda* ***habuk-u***
Aib comb.ACC made Habuke-DAT
'Aib made this comb for Habuke.' (Oostum)

Example (10) shows a noun with a *-u* ending after *me(þ)*, a preposition which frequently, though not exclusively, governs the instrumental case in the Germanic languages where the case was extant. Whether to gloss 'Gisahild' as either INS or DAT is not relevant, since the important point is that this acts as evidence for *-u* forming a part of the historical Frisian *ō*-stem paradigm in a slot where instrumental or dative government is expected. Example (11) shows a dative of beneficiary, where 'Habuke' is understood as a feminine personal name (Looijenga 2003: 304).[23] There is no other direct evidence of the form of the dat/ins.sg in the *ō*-stems. However, the later DAT endings in OF under *-e* can be viewed as weakened forms of *-u*.

The *-u* ending is also found as the instrumental morpheme in the masculine and the neuter. These historical Frisian 'instrumentals' are often found in locative expressions. Again, the main source of evidence is Runic Frisian, such as example (12), which is a masculine *a*-stem governed by the preposition *op*:

[18] The main source of evidence in Versloot (2016b) is the Riostring dialect of OF, which is thought to be the most representative glimpse into pre-OF, since it maintains the richest final-syllable vocalism of any OF dialect.

[19] Versloot (2017: 225) also highlights that the INS form spreads to the dative in several parts of the OF linguistic system, not just in the *ō*-stems. The feminine *u*-stems, the *i*-stems and adjectives all exhibit a merger where DAT is marked by what was historically solely INS morphology.

[20] Despite some contestation around the value of certain case forms in RF, I follow the syntactic and semantic interpretations given in Versloot (2016b).

[21] 'A weaving-slay of yew wood' found in Groningen in 1928 (Looijenga 2003: 311).

[22] 'Two halves of an antler comb' found in Groningen in 1908 (Looijenga 2003: 304).

[23] There are differing interpretations about how this should be translated, but I follow Versloot (2016b). The form in the *a*-stem *kobu* is understood as a vocalic relic representing a schwa-sound, not a back vowel (Schuhmann 2014).

(12) *op* ***häm-u*** *jibăda* *ämluþ* [MASC *A*-STEM]
at homestead-INS Confidence thrives
'Confidence thrives at the homestead.' (Westeremden B)

There is some corroborating evidence from Old Frisian prose sources. Versloot (2017) shows, for instance, that in the Codex Unia, the *u*-stem *frethe* ('peace') surfaces as *fretha* after *to* (dative government) but as *frethe* after *mith*, which elsewhere governs instrumentals, for example, *mith frethe* 'with peace' (Codex Unia). A similar distribution is found with the *a*-stem *āth*/*ēth* 'oath', where forms after *mith* point to an inherited instrumental in *-u* (Versloot 2017: 213).

Moreover, **-u* is evidenced by the endingless heavy-stemmed noun *hond* in Codices Hunsingo & Emsingo 1, where HVD appears to have operated.[25]

(13) *mith sinre* ***hond***
with his hand
'with his hand.' (Codices Hunsingo & Emsingo 1)

This form contrasts with the dat.sg *honda* which is otherwise found after the prepositions *te* and *an*, although the distribution is not perfect, as some *hond* examples are also found in regular dative contexts. Other nouns which reflect a similar endingless distribution are *kampstal* 'fighting ground' and *wald* 'forest' (an *i*-stem). However, Versloot (2017) concludes that the endingless forms can be interpreted as original instrumental forms which then generalised to the dative. This is a common view for similar forms seen in OHG and OS (e.g. Braune & Heidermanns (2023), Gallée et al. (1993)).

In short, there is some important evidence in the historical Frisian corpus—despite its size—which points towards a historical instrumental *-u* morpheme in both the Frisian *a*- and *ō*-stems.

4.2.3. -i form: Locative

Some OF nouns show an *-i* form which, though superficially similar to the OE *-i*, differs in function, phonology and distribution.

Some OF nouns show the use of an *-i* form, which, at first glance, seems formally similar to those found in OE. However, there are three problems. The first is semantic: the functional range of these forms differs from OE; the second is phonological: the OF *-i* causes mutation of the preceding vowel, unlike in OE; and finally, the third is morphological: the *-i* appears to be of a different origin to the one found in OE.

Forms which speak to an underlying historical **-i* are invariably found in locative collocations. In OF sources, the vowel has already reduced to schwa, and hence, the gloss here is given as DAT but effects on preceding consonants appear to confirm the presence of a former high front vowel. Such examples are (quoted from Versloot (2017)):

(14) *a* ***bets-e*** [NEUT *A*-STEM]
on back-DAT
'On the back.'(Emsingo 1)

[24] 'A small yew-wood stick' found in Groningen in 1917 (Looijenga 2003: 312).

[25] OE shows possible parallel evidence of a former **-u* in endingless forms of *hond*/*hand* after *mid*, whereas OE datives are otherwise consistently marked with *-a*/*-e*. This would be the singular piece of evidence which points to the presence of a *-u* ending in the instrumental system of OE; there is no other supporting evidence.

(15) *bi like* ***pend-e*** [NEUT *A*-STEM]
by equal pawn-DAT
'by an equal pawn.' (Ems Old Frisian B)

In example (14), *betse* shows velar mutation (cf. nom.sg *bek*), and in example (15), *pende* shows root vowel mutation (cf. nom.sg *pond*).[26] The traditional explanation for these forms is that they derive from the previously discussed inherited locative, as proposed by Sievers (1882). For example, in Bremmer (2009: 60), it is stated that the locative and instrumental collapse with the dative, although there are scattered remains of a locative-acting *-*i* form which is evidenced by palatalisation effects found in the roots of different case forms of certain lexemes (e.g. *thindze* vs. *thinge*; *Wetsens* vs. *Wetsinge*, and in such terms as shown: *betse* and *lende*).[27]

There is one Runic Frisian example which directly shows an -*i* ending, taken from Versloot (2016a):

(16) ***iw-i*** *ok up duna [a]le* [MASC *A*-STEM]
yew-LOC? also on hill grow?
'May it grow up on the hill near the yew.' (Westeremden B)

As discussed, however, the source of this -*i* presents some challenges. It was mentioned in §4.1.2 that a separate locative case is not reconstructed for PGmc. The crux of the Ringe theory for the origin of the OE -*i* is reliant on the internal analogical spread of *-*ī* from the interrogative. However, the same cannot be concluded for Frisian, because there is no evidence that PGmc **hwī* survived into it. The critical phonological difference in the Frisian forms is the evidence of mutation of vowels and consonants: the palatalisation and umlaut effects instead point to an inherited -*i*. Morphologically, the form is restricted to *a*-stems (Versloot 2017: 201), in contrast to OE where -*i* is attested across several classes. In sum, both languages retain a marginal -*i* case form, but with distinct origins and functions: locative-only in Frisian versus locative and instrumental in OE.

4.2.4. Summary

There was a functional divide between the forms that ended in -*i* and -*u* in Frisian: -*i* forms are found in a small set of phrases with locative semantics only. The -*u* forms are found in both instrumental and locative contexts. However, at the same time, there was a partial semantic overlap in the locative function of the -*i* and -*u* forms. This phenomenon is noted by Versloot (2017: 223), who concludes that this was down to 'confusion between the two endings which are traditionally associated with an instrumental and a locative case,' since both functions are found with whichever minor morphological marker each variety used. There is some merit to this perspective, given the semantic overlap, but the veracity of this claim, in particular the word 'confusion', will be reconsidered after the OHG and OS data have been explored.

Although there is only limited evidence from Frisian, the form and function of the minor morphological forms conveying locative/instrumental functions and the syncretism pattern of the feminine *ō*-stems were clearly different from OE. Additionally, Frisian has a merged

[26] For further examples, see van Helten (1890: 125).

[27] The relevant phonological change for OF palatalisation in this context is also given in Bremmer (2009: 30): MEDIAL *-ng-* > *-ŋg^{j}-* > *-ŋd^{j}-* > *-ndz-* before **j*.

dative/instrumental feminine *ō*-stem form, which is the same situation in the other continental WGmc languages, OHG and OS, as will be shown in the following section.

Finally, Versloot (2016b: 13) highlights that the evidence from Runic Frisian runs contrary to the claim in Stiles (2013) that OHG, OS and Old Low Franconian (and ON, although Stiles' discussion pertains only to West Germanic) sit in one community with the dat.sg *-u* in the *ō*-stems and that OE and OF sit in another with *-e*. The claim in Stiles appears to be based on the phonologically reduced forms seen in later OF, which align with the forms in OE due to the far-reaching effects of syllable weakening. Instead, the oldest evidence from Runic would suggest that OF should instead be viewed as a member of the larger group with OHG/OS, at least with respect to *ō*-stems, leaving OE as a pariah in the morphological distribution.

4.3. Old High German & Old Saxon

The case morphology of OHG and OS nominals very closely resembles that of Frisian. Although the Frisian evidence is much thinner than that for OHG and OS, the patterns observable in the latter two varieties confirm that the processes under discussion were not unique to Frisian nor OE.

OHG and OS are also among the WGmc languages which are linguistically most proximal to one another. Both the morphosemantic distribution of *-i* and *-u* and the syncretism pattern in the *ō*-stems are very similar in both OHG and OS. For these reasons, they will be explored in this section in tandem. The evidence will be consulted in the same order as for OE and Frisian, beginning with the morphological forms of the *ō*-stem NOM, DAT and INS singular; then the morphosemantic domain of ins.sg in the *ō*/*a*-stems; and finally, evidence of a locative-acting **-i* across both *ō*/*a*-stems.

4.3.1. ō-stems

TABLE 11. Development of *ō*-Stems From PGmc Into OHG/OS, Taken From Table 3

	Gift (f.)			
	PGmc	PWGmc	OS	OHG
NOM	*geb-ō	*geb-u	geƀ-a	geb-a
ACC	*geb-ǭ	*geb-ā	geƀ-a	geb-a
GEN	*geb-ōz	*geb-ā	geƀ-a	geb-a
DAT	*geb-ōi	*geb-ē	geƀ-u	geb-u
INS	*geb-ō	*geb-u	geƀ-u	geb-u

OHG and OS, like Frisian and OE, were subject to HVD which would have affected the *ō*-stem paradigm (again, cf. Table 7). In the earliest OHG texts, there are a very small number of nom.sg *ō*-stem forms which reflect the expected HVD *-u*/*-∅* alternation (Braune & Heidermanns 2023: §207, A2). For example, a form with *-o* (< **-u*)[28] is seen in the *Abrogans* (MS Pa 1,8,6): *gamahhido*—Lat. *coniunctio* 'association'.[29] Similarly, a small number of endingless forms are found, for example, Isidor (15,12) *chimeinidh* 'community' (Table 11).

[28] Both OHG and OS undergo a lowering of /u/ to /o/ in final syllables (Braune and Heidermanns (2023: §59), Gallée et al. (1993: §115)). Additionally, there is general orthographic uncertainty between the two graphemes across time in both language varieties.

[29] *uuarido* is only judged to be feminine on this occasion; all other instances reflect masculine or neuter gender. MSS K and Ra show *gamahhida*.

Evidence of this same morphophonological alternation is even patchier in OS. There are secure examples of endingless heavy-stemmed forms, such as *tharf* 'need' (Oxford Vergil Glosses) and *winding* 'bandage'. Occasional forms with a back vowel ending are found, such as *thiudo* (Hêliand C, 5078), although there is some uncertainty around which declension class the noun belongs to (Gallée et al. (1993: §307) suspect this example was probably a 'misspelling').[30] The apocopated tokens are consistent with the distribution which is persistent throughout OE. For the most part, however, this situation is confined to the eighth century and earlier in OHG and barely at all in OS: forms like this are an exception rather than the rule and the distribution is only short lived. The typical pattern is one of syncretism with the accusative: the NOM form is identical with the ACC under the ending *-a* in all but the very earliest texts.[31]

Although the nom.sg *-*u* ending is lost (and only evidenced in tokens with a lowered *-o*), the ins.sg *-u* was widespread in the feminine *ō*-stems in both OHG and OS from the earliest stages. The *-u* survives after both heavy and light stems, which suggests that it was re-generalised as an INS ending after the effects of HVD (Fulk 2018: 82). In a paradigm where the *-u* morpheme occupied two roles, both as a NOM and INS marker, it is clear that the instrumental function was favoured. The loss of nominativity in *-u* is not just a feature of the *ō*-stems. The morphophonological alternation *-u*/-∅ is also found in the nom/acc.pl of the OHG/OS *a*-stems: the zero-alternant is generalised at the expense of *-u*, which can be viewed as a further testament to the salience of *-u* as an instrumental morpheme only across nominal paradigms.

Some examples of the numerous bare *ō*-stem noun phrases conveying instrumental functions to be found in OHG/OS are:

(17) *thia* *mit thiu truhtin* *gisah* ***miltid-u*** *giruorit* [FEM *ō*-STEM]
her.ACC when lord.NOM saw mercy-INS moved
'When the Lord saw her, he was moved by mercy…'
Quam cum vidisset dominus misericordia motus… (Tatian, 48)

(18) ***hofn-u*** *cumda* *Lazarus-es* *farlust* [FEM *ō*-STEM]
groan-INS lamented Lazarus-GEN loss.ACC
'She lamented the loss of Lazarus with groans.' (Hêliand C, 4069-70)

In OHG, the feminine *ō*-stem INS and DAT are syncretic with one another from the earliest texts. The forms in OS are in most instances the same as OHG, but show some variation: forms with *-a* are found in DAT, which later weakens to *-e* (Gallée et al. 1993: 204). This is a testament to the central position OS has between Ingvæonic and High German: it reflects features of both, but mostly High German. Significantly, this means that OF, OHG and OS reflect the same tendency: for the *-u* of the nom.sg to have been lost, but the *-u* of the ins.sg to have survived in light stems, re-generalised to heavy stems after HVD and to have generalised as the dat ending. This directly contrasts with OE where the opposite is true: *-u* in nom.sg is retained (and partly generalises to other noun classes), but *-u* in ins.sg is lost.

[30] Original German: 'Schreibfehler'. MS M 5078 has *thiud*. Gallée et al. (1993) do not give a reason why they suspect an error; however, the noun sits among a four-word phrase, each with a final back vowel, which might have influenced the form: *thiu thiodo so filo*.

[31] Occasionally, endingless ACC forms are found in OS, which are equally attributed to NOM/ACC syncretism (Gallée et al. 1993: §307) (Holthausen 1921: §282.A2).

4.3.2. -u form: Instrumental & Locative

The status of the INS *-u* in the *a*-stems of OHG/OS is not in question. Both OHG and OS have the richest attestations of a distinct instrumental in the masculine and neuter of any old Germanic language. Specific examples of the well-understood and common functions of the instrumental need not be recounted, but pertinent to the discussion, however, are the locative usages of the INS ending *-u*, which are attested across both OHG and OS. The instrumental is found both on its own and after several semantically locative prepositions:

(19) ***ôðr-u*** ***sîð-u*** [MASC *A*-STEM]
another-INS occasion-INS
'On another occasion' (Hêliand M, 1076)

(20) *thuris* ***thritt-en*** ***stab-u*** [MASC *A*-STEM]
thorn third-INS letter-INS
'Thorn, [in the position of] the third letter.' (Abecedarium Nordmannicum)

(21) *te hui [. . .] gifaran* ***an*** ***fodi-u*** [MASC *JA*-STEM]
to what travel on foot-INS
'Why are you travelling on foot?' (Hêliand M, 556)

Examples (19) and (20) are locative in meaning, although somewhat abstractly. The former has a temporal sense which develops out of a compositionally locative expression. The latter is from the *Abecedarium Nordmannicum*, which discusses the ordering of the runes of the futhark. In example (21), the phrase *an fodiu* clearly means 'on foot'.

The examples from OHG are more numerous and even clearer. The following examples (22–23) are from the feminine *i*-stems, which show instrumental *-u*/*-o* morphology, but which are clearly semantically locative. This occurs both synthetically and analytically with the preposition *in*:

(22) ***haoh-ero*** ***stet-eo*** [FEM *I*-STEM]
high-INS place-INS
excelso loco
'in a high place' (Abrogans, *PA*)

(23) *kimartrot* ***in*** ***kiuualt-iu*** *Pilat-es* [FEM *I*-STEM]
suffered in violence-INS Pilate-GEN
passus sub *Pontio Pilato*
'suffered under the violence of Pontius Pilate' (St Gall Credo)

Both examples are very early, dating to the eighth century. Example (22) presents a particular morphosyntactic complexity, since the typical dative form of the strong adjective is used, but the back vowel in the ending of the feminine *i*-stem cannot reflect a dative: it can only be instrumental, and on this basis, the example is glossed using 'INS'.

OHG exhibits a range of locative prepositions with the instrumental. The following examples (24–25) show neuter *ja*-stem *-u* forms after the prepositions *in* and *bi* in the OHG Tatian.

[32] MS C shows the phrase with the dative instead of instrumental: *an fothie*.

(24) *in* *themo* ***sted-u*** [NEUT *JA*-STEM]
on that-INS shore-INS
in litore
'on the shore' (Tatian, 70)

(25) *bi* ***sted-u*** [NEUT *JA*-STEM]
along shore-INS
secus *litus*
'along the shore' (Tatian, 77)

While the instrumental case was primarily used for prototypical instrumental functions, the semantic domain of the case clearly contained locative elements. This distribution resembles that of what is seen in the *-i* forms in OE.

4.3.3. -i form: Locative

Both OHG and OS show evidence of a minor *-i* form with a locative function in the *a*-stems, but, as in Frisian, not in the *ō*-stems. Many of these forms are associated with proper place names. For example, the following are found in OS (examples taken from (Gallée et al. 1993: 89–90)):

(26) *Bôchurst-**i***
Bokhorst-LOC
'in Bokhorst' (Cartularium Werthinense)

(27) *Tuiant-**i***
Drenthe-LOC
'in Drenthe' (Cartularium Werthinense)

The usual nom.sg forms of examples (26) and (27) are *Bochurst* and *Threant*. The *Cartularium Werthinense* was an urbarium, a register of goods and taxes in the local area, meaning that place names were common throughout. The two terms refer to areas in what is modern-day Germany and the Netherlands. The *-i* can only be interpreted as conveying a locative function.

OHG shows similar forms in early texts, the forms of which are distinct from the usual nom.sg, taken from Braune & Heidermanns (2023):

(28) *Chuzinhūs-**i***
Kutzenhausen-LOC
'in Kutzenhausen'

(29) *Uuitreshūs-**i***
Wittersheim-LOC
'in Wittersheim'

While this *-i* is mainly confined to place names, in the very earliest OHG glosses, there is one token seen in the common noun *dorf*, 'village', which renders Latin *per rura*:

(30) *pi* ***dorf-i***
in village-LOC
'in the village' (Gl 2,736,30)

There is also evidence that the historical distribution of *-*i* was found in other common nouns in endingless, apocopated forms. Both OHG and OS show endingless forms of the nouns *hūs, dorf* and *holz* after semantically locative prepositions (Braune & Heidermanns 2023: §193.A8), which otherwise regularly govern the dative case (e.g. *te*/*za, at*/*az*). The endingless forms of these nouns contrast with the usual dative singular inflection: *-e*. Again, these examples point to the presence of former high vowels which have been lost through HVD. Some examples of this are (31) and (32):

(31) *te* ***hūs-∅***
at home-LOC
'at home' (Homilie Bedas)

(32) *than find-is thu gesund at* ***hūs-∅*** *magoiungan man*
then find-2SG you healthy at home-LOC child_young man
'You will find the child-young man healthy at home' (Hêliand M, 2150–1)

In some texts, only the short forms are found. In other texts, these forms appear alongside the usual dative form with an *-e* ending, such as *holz* in Notker.

(33) *tér gánge bedíu chórnlôs-êr* ***ze holz-∅***
he go.SUBJ for_that corn_less-NOM in wood-LOC
'for that reason, he would go to the woods without corn'. (Notker De Cons I)

The form in example (33) appears five times throughout Notker (Braune & Heidermanns 2023: §193.A8) and contrasts with *holze*, which is found elsewhere as the dative form in Notker. Similarly, *hūs* is found as both locative and dative in the Tatian:

(34) *Maria saz* ***in hūs-e***
Maria sat in house-DAT
Maria autem domi sedebat
'Maria was sitting in the house' (Tatian, 135)

(35) *mit iru uuarun* ***in themo hūs-∅*** *inti sia fluobritun*
with her were in that.DAT house-LOC and her.ACC consoled
erant cum illa in domo et consolabantur eam
'They were with her in the house and were consoling her.' (Tatian, 135)

(36) *in thero zit-i mittiu her* ***in hūs-∅*** *uuas*
in that.DAT time-DAT when he in house-LOC was
in illa hora cum domi esset
'At the time when he was at home…' (Tatian, 114)

The endingless form *hūs* is found to render the Latin locative *domi* but also after forms with a possessive in Latin (e.g. *sua* and *tua*). Example (35) is an outlier, since *in domo* is always otherwise rendered with the dative form *in hūse*. The presence of dative tokens is evidence of the direction of travel in which the construction went: the dative case becomes the standard case of governance after locative prepositions.

Considering that the loss of the high vowels **i* and **u* after heavy stems was common to WGmc, the data from OHG and OS present a puzzling picture. Examples (31)–(36) match phonological expectations since each example contains a heavy stem. The place name terms and *dorfi* are more challenging. Since *-i* would not be expected to survive, these can only be

understood as analogical restorations. This requires a consideration of the motivational mechanism for this development and the source of the ending.

The *-*i* would be expected to survive after light root syllables, but not heavy root syllables, making the endingless forms the phonologically expected form but the place name forms deviant. The traditional explanation for this is that the -*i* has been analogically restored in the place names (Gallée et al. 1993: §113). Alternatively, it is plausible that the analogical restoration of the ending from light stems to heavy stems (e.g. place names) did proceed on a syntactically-semantically motivated basis. There might have been a morphosyntactic constraint such that place names in locative expressions did not need to pair with prepositions, whereas a preposition might have been syntactically necessary with a common noun. Similar, though not identical, semantic constraints on the use of a synthetic locative or prepositions are not without precedent in Indo-European, for example, the 'towns, cities, small islands' constraint for the locative in Latin. On this basis, the -*i* would have been analogically restored from light stems to disambiguate the endingless nom.sg form, whereas common nouns—with the specification that comes from prepositional marking—would not have required the ending. In these situations, the locative meaning is marked with the preposition and endingless form.[33]

Unlike the -*i* in OF, the OHG/OS -*i* does not appear to cause umlaut, or, at least, there are no tokens which survive which speak to umlaut. In some senses, this is not surprising: the effects of umlaut took hold earlier in OE and OF than they did in High and Low German. Given that the few -*i* forms which do survive are lost at a very early stage, it is unsurprising that no umlaut effects are found.

In summary, OHG and OS also evidence the use of minor morphological forms to convey old instrumental and locative functions. Their distribution shows that the -*i* was very minor, found on the surface only in place names, but remnants of a wider distribution survive in endingless forms. The instrumental use of the -*u* is clear, but it is also used to express the locative in a frequency and distribution that was greater and wider than the use of -*i*.

5. Synthesis

There are two themes to summarise in this conclusion. The first is the morphosemantic distribution of the minor case endings. Every WGmc language shows evidence of a fifth case: the instrumental, which had instrumental and locative functions. The continental WGmc languages have forms which speak to the existence of a relic case which had a locative function only.

The conclusion which Versloot (2016a) gives, first discussed in §4.2.4, about the -*i* and -*u* forms in the Frisian, OS and OE is that there was 'confusion' in their use. This conclusion should be amended, since Versloot's interpretation stems from considering the continental WGmc -*i* to have been the same as the OE -*i*. This paper has shown that the -*i* in OE was different from that of continental WGmc. Moreover, it is not common practice in historical linguistics to use the word 'confusion' in this way, nor is it helpful for understanding language change due to the way it assumes a certain mindset among speakers. The evidence suggests that there was a genuine historic distinction between the cases associated with -*i* and -*u* which becomes blurred over time. Both locative and instrumental forms had been available: speakers came preferentially to choose one over the other, in a context of syncretism and simplification

[33] While beyond the scope of this paper to discuss at length, in the historical trend from syntheticity to analyticity in Germanic, there is a complex interplay between synthetic case functions and prepositional meaning. For example, in early OHG/OS, there is evidence that the instrumental case could be used to mark comitative relations, but this function is replaced by solely prepositional expressions very early in the lifecycle of both language varieties. This is the topic of a forthcoming paper by the author.

in the case system. Tables 12 and 13 show how the behaviour of the WGmc languages with respect to these endings can be divided into two groups.

TABLE 12. Distribution and Function of *-i* Ending in West Germanic

	a-Stems	*ō*-Stems	Instrumental function	Locative function	Relevant phonological mutations
OE	YES	YES	YES	YES	NO
OF	YES	NO	NO	YES	YES
OS	YES	NO	NO	YES	N/A?
OHG	YES	NO	NO	YES	N/A?

TABLE 13. Distribution and Function of *-u* Ending as Oblique Case Marker in West Germanic

	a-Stems	*ō*-Stems	Instrumental function	Locative function	Generalisation to other nominals
OE	NO	NO	NO	NO	as NOM ending
OF	YES	YES	YES	YES	as DAT ending
OS	YES	YES	YES	YES	as DAT ending
OHG	YES	YES	YES	YES	as DAT ending

It appears difficult to refute that there was a remnant WGmc locative-acting form *-*ī* which led to the locative forms in *-i* in continental WGmc. Although there was not a separate Germanic locative case, it is possible that a very remnant case form in *-*ī* might have survived in a small number of lexical items only. OE, however, must have lost this in most parts of its nominal system, but it renewed and generalised the *-i* ending from the masculine/feminine interrogative as its instrumental case ending across all nominals. The OE instrumental case had both instrumental and locative functions. The source of the OE *-i* is technically of the same origin as the original WGmc *-*ī* (albeit from a later point in time), given that the *-*ī* ending in pre-OE**hw*-*ī* would have been the WGmc *-*ī*.

Versloot's conclusion holds some truth, in so far as there was a semantic overlap between the instrumental case and a locative meaning, but where this requires further alteration is how Versloot implicitly assumes a degree of equivalence between the two cases. If this were true, we would expect the *-i* forms in Frisian, OHG and OS to have instrumental functions too, but this is not the case. This only holds for OE.

The blend of instrumental and locative functions can be put down to the fact that the instrumental must have absorbed functions of the locative, since we see locative expressions under instrumental morphology in every Germanic language which maintains an instrumental. The Germanic instrumental case looks to have absorbed most of the functions of the PIE locative. Such diachronic syncretisms of two peripheral cases—a 'type 3' under Baerman's schema—are not without precedent historically nor are they theoretically unusual. In Indo-European, one only has to look to Latin to see an ablative which absorbed an instrumental and a locative (despite only scattered remnants of the latter's autonomy); the Greek dative presents a similar situation. There is a semantic affinity between the two cases which boils down to their shared peripherality. As Luraghi (1987: 365) puts it: 'both locatival and instrumental relations are taken by actants which are concomitant to the development of the action or the process expressed by a predicate', characterising why the functions were so prone to overlap in Germanic.

It seems certain that the developments in the minor case functions and the syncretism pattern in the *ō*-stems went hand in hand with one another due to the overlapping functions of

the *-u* morpheme. The historical NOM/INS syncretism in the Gmc *ō*-stems was highly unusual and almost certainly unstable in Germanic, as had been shown earlier by Plank (1991). This makes it unsurprising that each WGmc language eventually dissimilated the two. The solution to this in OE was the generalisation of *-i* as an INS marker and *-u* was primarily analysed as a morpheme of nominativity over instrumentality, with both phenomena operating in a mutually determining fashion. The inverse was true in the rest of WGmc. The retention (and proliferation) of the instrumental function of *-u* acted as a suppressing factor in the nominative of the *ō*-stems in continental WGmc, motivating its merging under the accusative.

The evidence for this is the way in which the WGmc languages can be grouped according to what functional evidence they show for the use of their *-i* and *-u* morphology. Those languages which generalise towards instrumental and locative functions in the *-u* morpheme also share a similar syncretism pattern in the *ō*-stems. There is a correlation between those languages that both demonstrate the loss of *-u* in the NOM (which is replaced by a form syncretic with ACC) and a DAT *-u* in the feminine dative (which comes from the historical instrumental). This is summarised as follows (Table 14):

TABLE 14. Distribution of Form and Function of *-u* and *-i* Endings in West Germanic, With Elements Adapted From Versloot (2017: 224)

	NOM *ō*-stem	*-u* DAT *ō*-stem	*-u* form *a*-stem	*-i* form *a*-stem	DEM PRON	INS ADJ
OE	*-u*/-∅	NO	NO	INS, LOC	*þȳ*	*-e* < *-i*
OF	= ACC	YES	INS, LOC	LOC	*thiu*	*-e* < **-u* (?)
OS	= ACC	YES	INS, LOC	LOC	*thiu*	*-u*
OHG	= ACC	YES	INS, LOC	LOC	*thiu*	*-u*

In essence, there was a divergence in the generalisation of the minor morphological forms *-i* and *-u*, which went hand-in-hand with effects on the *ō*-stem paradigm.

To summarise, INS *-u* was lost early in the prehistory of OE. OE generalised its instrumental and locative functions to the innovative *-i* ending. The motivation for this repurposing in OE was the reanalysed significance of *-u* in the nom.sg of the *ō*-stems, at the expense of the historical ins.sg which had been of an identical form. This interpretation also accounts for the fronting of the vowel in the feminine demonstrative, which would suggest that the spread took place across all genders at the same time, rather than first in the masculine and neuter only as has been suggested elsewhere. INS *-i* then generalises to other nominals in OE.

By contrast, Frisian, OHG, and OS retain the use of both *-i* and *-u*. They also generalise locative and instrumental functions under a singular form, but in the opposite direction to OE: These functions were diverted primarily to *-u*, with some remnant locative functions persisting in *-i*. In these language varieties, *-u* was taken as a salient marker of instrumentality over nominativity in the *ō*-stems. The evidence for this is seen in how each of these languages shows syncretism of their dative feminine forms under the historically instrumental ending *-u*. When *-u* became the dominant marker that encoded both minor instrumental and locative functions, this motivated the syncretism in the NOM and ACC of the *ō*-stems under a non-*u* form. This motivates the generalisation of the ACC form (*-a*) to the NOM, the analogical template for which already existed in the *a*-stems.

A final implication of this study is that the data cut across traditional subgroupings. Whereas OE diverges in its behaviour, OS and Frisian pattern instead with OHG. In this domain, the insular–continental divide proves more decisive than the Ingvæonic grouping. This observation does not overturn existing subgrouping models, but it illustrates how individual morphological domains may reveal alignments at odds with the established picture,

and why all components and developments in case morphology must figure in accounts of early West Germanic divergence.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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