THE REMODELLING OF *U*-STEM ADJECTIVES IN WEST GERMANIC

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Abstract

In Proto-Germanic, strong adjectives are declined according to stem type. The minor *u*-stem class of adjectives is only preserved in Gothic, and even there it is under pressure from more frequent classes. In West Germanic, members of this class are redistributed into the common *a-/ō*-stem and *ja-/jō*-stem classes. The present study analysed the reflexes of all Proto-Germanic *u*-stem adjectives in Kroonen (2013) in the different West Germanic languages. It was found that a plurality are transferred into the *ja-/jō*-stem class in all languages. However, a considerable number of them have *a-/ō*-stem reflexes in some languages but *ja-/jō*-stem ones in others, while certain adjectives can show reflexes of both types within one language. Anglo-Frisian has the largest number of *a-/ō*-stem outcomes, and High German the most *ja-/jō*-stem ones, with Dutch and Low German falling somewhere in between. Therefore, the remodelling of *u*-stem adjectives necessarily postdates a period of West Germanic unity.

Keywords: Historical linguistics, Indo-European linguistics, comparative linguistics, historical morphology, paradigmatic levelling, grammatical gender

1. Introduction[1]

In the early Germanic languages, most adjectives could be declined according to two patterns: the so-called "weak" and "strong" declensions, with the former marking definiteness and the latter marking indefiniteness (Fulk, 2018 p 208; Ringe, 2006 p 170). Gothic, and by extension Proto-Germanic, had five types of strong adjectives (Ringe, 2006 p 282). These are typically

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referred to by their Proto-Germanic stem suffixes, which are in turn based on the Proto-Indo-European[2] (PIE) vowel stems, and they are the *a-/ō-*stems, *ja-/jō-*stems, *wa-/wō-*stems, *i-*stems, and *u-*stems, with the *a-/ō-*stems constituting a majority of adjectives (Fulk, 2018 p 208; Ringe, 2006 p 281). For the first three stem types, the variants with Proto-Germanic **-a-* < PIE **-o-* are used with masculine and neuter adjectives, while the variants with **-ō-* < PIE **-eh₂-* are used with feminine ones, and the two types form a single paradigm (Ringe, 2006 p 281). The endings of the weak declension are identical to *n-*stem (or "weak") nouns and thus do not continue the any of the vowel stems (Ringe, 2006 p 283). For the strong declension, at least some endings are taken over from pronouns. McFadden (2004) argues that the endings of all strong adjectives are entirely pronominal in origin, Ringe (2006) argues that this is the case for the *a-/ō-*stem variants, but not necessarily for the *i-* and *u-*stems (pp. 202–203), while Fulk (2018) states that only a subset of the endings of the *a-/ō-*stem variants are pronominal in origin (p. 209). The *i-* and *u-*stem adjectives are only preserved in Gothic, and they are redistributed among the other three classes in both North and West Germanic. The picture is relatively clear for North Germanic: both largely merged into the *a-/ō-*stems, but *u-*stems ending in velar consonants merged into the *wa-/wō-*stems (Fulk, 2018 p 215). In West Germanic, the situation for the *i-*stem adjectives is also quite clear, as they merged into the *ja-/jō-*stems, although a marginal distinction is maintained in a few Old English adjectives (Fulk, 2018 p 215). However, the *u-*stem adjectives in West Germanic present a more mixed picture, and this will be the focus of the present study.

It is largely agreed upon that the *u-*stem adjectives are redistributed between the *a-/ō-*stems and the *ja-/jō-*stems, but the exact distribution remains somewhat unclear. Fulk (2018) states that "[t]he [West Germanic] *u-*stem adjectives are mostly inflected as *a-* and *ō-*stems" (p. 215) and that "[s]ome *u-*stems are inflected as *ja-* and *jō-*stems" (p. 215), and he presents a number of examples but does not elaborate further. Ross (1972) claims that "[t]he fate of the *i-* and *u-*adjectives in North and West Germanic is, essentially, well known" (p. 95) and that "[i]n West Germanic long-stemmed *u-*adjectives both these flexions [i.e. *a-/ō-*stems and *ja-/jō-*stems] are possible" (p. 95). Despite these claims, the exact distribution of the old *u-*stems between the *a-/ō-*stems and *ja-/jō-*stems has never been systematically examined, and I argue that analysing this restructuring can explain variation between the Germanic languages that also persists into the present day. This paper will thus examine the *u-*stem adjectives in Gothic and their developments in West Germanic, it will provide an overview and examination of their West Germanic reflexes, and it will discuss the implications of the observed variation.

2. *U-stems in Gothic*

Already in Gothic, the *u*-stem adjectives are fairly marginal. The *u*-stem paradigm is imperfectly attested, and it shows analogical pressure from the *ja-/jō*-stem paradigm. The attested forms for both paradigms are given in Table 1. When comparing the two, it becomes evident that the *u*-stem endings are only distinct from the *ja-/jō*-stems in the nominative singular and in the neuter accusative singular. Furthermore, Ringe (2006) argues on etymological grounds that the feminine nominative singular *-us* is likely taken over from the masculine, since the expected Proto-Germanic ending here would be $*-w\bar{\iota} <$ PIE $*-\d{u}-ih_2$ (pp. 203–204). This latter ending is derived using the PIE $*-ih_2- \sim *-\d{\iota}eh_2$-suffix that was adapted as a feminine marker in the non-Anatolian Indo-European languages and served as the athematic (i.e. consonant-, *i*-, and *u*-stems) counterpart to $*-eh_2-$ (Kim, 2014 p 121). Wright (2008 p 108) considers it likely that the genitive singular ending for masculines and neuters was $*-áus$[3], based on the adverbial genitive *filáus* of *filu* 'much', which matches the nominal *u*-stem ending. Only a limited number of *u*-stem adjectives are attested in Gothic, and these are listed below in Section 4.

Table 1: the paradigms for u-stem and ja-/jō-stem adjectives in Gothic based on Wright (2008 pp 106–109) with only the attested endings. Endings that match u-stem nouns are marked in boldface.

Gender	Masculine		Neuter		Feminine	
Stem	*u-*	*ja-/jō-*	*u-*	*ja-/jō-*	*u-*	*ja-/jō-*
Nom. Sg.	**-us**	*-jis, -eis*[4]	**-u**, *-jata*	*-i, -jata*	**-us**	*-ja*
Acc. Sg.	*-jana*				*-ja*	
Gen. Sg.	-	*-jis, -eis*[4]	-	*-jis, -*[4]	-	*-jáizōs*
Dat. Sg.	-	*-jamma*	-	*-jamma*	-	*-jái*
Nom. Pl	*-jái*		-	*-ja*	*-jōs*	
Acc. Pl.	*-jans*				*-jōs*	
Gen. Pl	*-jáizē*		*-jáizē*		*-jáizō*	
Dat. Pl.	*-jáim*		*-jáim*		*-jáim*	

3. Adjective types in early West Germanic

As mentioned in Section 1, the *u*-stem adjectives had ceased to be a distinctive class in the West Germanic languages, and its members have been redistributed between the *a-/ō*-stems and *ja-/jō*-stems. To investigate their distribution, it is first necessary to discuss the different types of adjectives in early West Germanic. Old High German, like other older West Germanic languages, possesses three types of strong adjectives: *a-/ō*-stems, *ja-/jō*-stems, and *wa-/wō*-stems (see Braune, 2018 pp 298–308). The first two are relevant here. The main difference between them is that the *a-/ō*-stems have nominal forms ending in a consonant (e.g. *jung* 'young'), while these forms end in the vowel *-i* for the *ja-/jō*-stems (e.g. *mâri*[5] 'famous') (Braune, 2018 p 299). By the Middle High German period, the final *-i* of the *ja-/jō*-stem adjectives is reduced to *-e* (= [ə]), after having caused *i*-mutation (umlaut) of the root vowel, so these adjectives can be distinguished from the *a-/ō*-stems based on these features (e.g. *mâri* becomes *mære*) (Paul, 2007 p 202). Old Saxon and Middle Low German are largely comparable to their respective High German counterparts. Old English on the other hand patterns with Middle High German here, rather than Old High German (Campbell, 1991 pp 267–269), since the front vowels (*-i*, *-e*, *-æ*) are already merged into *-e* in unstressed positions (except in the earliest Northern texts), though the back vowels (*-u*, *-o*, *-a*) are still distinguished (Campbell, 1991 pp 153–157), unlike in Middle High German. Old Frisian is comparable as well, but the final *-e* is often dropped and all vowels that emerge through *i*-mutation of earlier short and long *ŭ*, *ŏ*, and *ă* become *e* and *ê* respectively (Bremmer, 2011 pp 32, 66). Middle Dutch typically does not display *i*-mutation of long vowels, but *ja-/jō*-stem adjectives can often still be distinguished in these cases based on their final *-e*, although this vowel can be dropped as well (van Bree, 2006 p 249).

The reason why *u*-stem adjectives could develop into *a-/ō*-stems in West Germanic, according to Ross (1972), is phonological, since the nominative singular endings *-uz* and *-u* would have been regularly dropped after heavy syllables in West Germanic, which makes the nominative forms identical with the *a-/ō*-stem adjectives (p. 98). The reason why certain *u*-stem adjectives developed into *ja-/jō*-stems is less obvious. Ross argues that they would have been generalised from the dative singular feminine form, which he bases on the dative singular feminine of the Sanskrit *u*-stem adjective *svādvī́* (masculine *svādú*) 'sweet', *svādvyái*, the latter of which would correspond to Proto-Germanic *swōtwjai* > *swōtjai*, dropping *w* before *j* (p. 99). Both dative forms could be derived from PIE *$su̯(e)h_2d$-u-$i̯éh_2$-ei* (Kroonen, 2013, s.v.

swōtu-; Ringe, 2006 p 50), presumably with a secondary full grade in the root in both. The presence of a *-j-* in the paradigm would have apparently been enough to enable the influence from the *ja-/jō-*stems in Gothic and the full replacement in West Germanic (Ross, 1972 p 99). Ringe (2006) also claims that the *ja-/jō-*stem endings in the paradigm were likely backformed from the feminine endings in the oblique cases that had *-jō-* in Proto-Germanic < PIE *-i̯éh₂-*, though he cautions that there is not enough evidence to state to what degree this paradigmatic substitution had already taken place in the Proto-Germanic stage (p. 203). The development of the *u*-stem adjective paradigm from early PIE to a hypothetical nominal paradigm in Proto-Germanic is outlined in the Appendix.

However, this account assumes a direct continuity between the PIE adjective declension and the Germanic strong adjective declension, at least for the *u*-stems. McFadden (2004), who argues that the latter is entirely pronominal in origin, claims that the *u*-stem adjective paradigm would have had highly deviant endings modelled after the *i*-stems, since there were no *u*-stem pronouns in Germanic (p. 134). As such, the seemingly original *u*-stem endings seen in Gothic are taken over from the nominal paradigm, and this would have caused the redistribution of the *u*-stem adjectives into other paradigms in North and West Germanic (p. 135). This could be supported by the fact that the assumption of continuity with the PIE paradigm also requires a substitution of the feminine nominative singular, as was mentioned in Section 2, although Ringe (2006) considers the Gothic masculine and neuter endings in *-us* and *-u* to be preservations of the non-pronominal endings (p. 203). This second account does not provide an explanation as to why they would have been influenced by or moved over into the *ja-/jō-*stems specifically, rather than into the more common *a-/ō-*stems. Ultimately, both accounts are highly speculative, but the first seemingly requires fewer assumptions.

4. Outcomes of the *u*-stem adjectives in the different languages

Table 2 contains a list of all Proto-Germanic *u*-stem adjectives included in Kroonen (2013), along with their reflexes in Gothic and the West Germanic languages. Note that the status of the *u*-stem adjectives that lack a Gothic reflex is considerably more tenuous. In certain cases, a *u*-stem can be reconstructed on the basis of their non-Germanic Indo-European cognates. In the case of Proto-Germanic *wōstu-*, Kroonen reconstructs a *u*-stem on the basis of Latin *vāstus* 'empty, desolate', deriving both from PIE *u̯eh₂s-tu-* (s.v. *wōstu-*) In other cases, he reconstructs a *u*-stem purely on Germanic-internal evidence, which means that a degree of

circularity is present here. For example, he reconstructs a *u*-stem for **lēgu-* 'low' precisely because the West Germanic forms are reflected as *ja-/jō*-stems, and the North Germanic forms (e.g. Old Norse *lágr* 'low') are reflected as plain *a-/ō*-stems (s.v. **lēgu-*). The inclusion of the Gothic reflexes is therefore necessary, since it shows which *u*-stem adjectives are directly attested as such and which ones are inferred. Campbell (1991 p 271), Ross (1972 p 95), and Fulk (2018 p 215) all provide Old English *cwicu* 'alive' and *wlacu* 'tepid' as examples of relics of *u*-stem adjectives having been preserved in a West Germanic language. However, Kroonen reconstructs these as *wa-/wō*-stems instead (s.v. **kwiwa- ~ *kwikwa-*, s.v. **wlakwa-*), and the Gothic cognate to the former, *qius* 'alive', is also inflected as such (Wright, 2008 p 107), so these are excluded from the analysis. Also excluded are Gothic *kaúrus* 'heavy', *manwus* 'ready', and *þlaqus* 'softs' since these appear to have no cognates in West Germanic, and the latter two are not included in Kroonen, as well as Gothic *tulgus*, since its cognates are exclusively attested adverbially (beyond Gothic, it is restricted to Old English and Old Saxon, as *tulge* 'very' and *tulgo* 'id.' respectively).

Table 2: an overview of the Proto-Germanic u-stem adjectives, along with their reflexes in the different languages, a gloss, and the stem type of the West Germanic outcome. Younger languages are included when an older language is unattested or when it differs in formation from the older one.[6]

Proto-Germanic	Gothic	Old English	Old Frisian	Old Saxon	Middle Dutch	Old High German	Gloss	Outcome
*aglu-	*aglus*	*egle*	-	-	-	-	'difficult'	*ja-/jō-*
*angwu-	*aggwus*	*enge*	*enge*	*engi*	*enghe*	*engi*	'narrow'	*ja-/jō-*
*hardu-	*hardus*	*heard*	*herd*	*hard*	*hart*	*herti, hart*	'firm'	Mainly *a-/ō-*
*hnaskwu-	*hnasqus*	*hnesce*	*nesk* (MF)	-	*nesch*	-	'soft'	*ja-/jō-*
*kwerru-	*qaírrus*	-	-	*quēr* (MLG)	-	*kürre* (MHG)	'quiet'	*ja-/jō-*
*sīþu-	*seiþus*	*sîþ*	-	*sîð* (adv.)	*sîde* (adv.)	*sîd* (adv.)	'late'	*a-/ō-?*
*þurzu-	*þaúrsus*	*þyrre*	*thurre*	*dörre* (MLG)	*dorre*	*durri*	'dry'	*ja-/jō-?*
*auþu-	-	*îeðe*	-	*ôði*	*ôde*	*ôdi*	'easy'	*ja-/jō-*

*blauþu-	-	blêaþ	blea (MF)	blôði	blôde	blôdi	'soft'	Mixed
*drōbu-	-	drôf	drôvelike (adv.)	drôþi	droeve	truobi	'troubled'	Mixed
*fastu-	-	fæst	fest	fast	vast	festi	'firm'	Mainly a-/ō-
*funhtu-	-	fûht	-	fûht, MLG: viuhte	vocht, vucht	fûht, fûhti	'humid'	Mixed
*ganhu-	-	-	gâlik	MLG: gâ, gô, gê, gêi	gâ, gauw	gâhi, MHG: gâh gæhe	'fast'	Mixed
*hnawwu-	-	hnêaw	hnau (adv.)	nouwe (MLG)	nauwe	nouwe (MHG)	'tight'	Mainly ja-/jō-
*kōlu-	-	côl	koel (MF)	kô̂l (MLG)	coele	kuoli	'cool'	Mixed
*lēgu-	-	-[7]	lêch	lêch (MLG)	lâghe	læge (MHG)	'low'	ja-/jō-
*merkwu-	-	mierce	-	mirki	-	-	'dark'	ja-/jō-
*murgu-	-	myrge	-	-	merghelike (adv.)	murgʔ, MHG: murc	'short'	Mainly ja-/jō-
*samþu-	-	sêfte	seft	sachte (MLG)	sachte	semfti	'soft'	ja-/jō-
*swōtu-	-	swête, swôt	swête	swôti	soete	suozi	'sweet'	Mainly ja-/jō-
*tanhu-	-	tôh	-	MLG: tâ(ge), taie, tê(ge)	tâi, tâ	zâhi	'tough'	Mixed
*trewwu-	triggws[8]	trîewe	triûwe	triuwi	trouwe	triuwi	'loyal'	ja-/jō-
*þeku-	-	þicce	thikke, MF: tsjok	thikki	dicke	dicki	'thick'	ja-/jō- (deviant)
*þinhtu-	-	-þîht	thicht	dichte (MLG)	dicht	dîhte (MHG)	'tight'	Unclear

þunnu-	-	*þynne*	*tin* (MF)	*thunni*	*dunne*	*dunni*	'thin'	*ja-/jō-*
wōstu-	-	*wêste*	*wêstene, wôstene* (nouns)	*wôsti*	*woeste*	*wuosti*	'waste'	*ja-/jō-*

When examining Table 2, it becomes clear that Fulk's (2018 p 215) claim that most *u*-stem adjectives become *a-/ō*-stems in West Germanic is not supported by the evidence, since the majority of them are inflected as *ja-/jō*-stems (11x), while none are exclusively attested as *a-/ō*-stems in all languages. There is also little to suggest that syllable weight plays a role here, since the only Proto-Germanic lemma with a light syllable is **þeku-*, and it only has *ja-/jō*-stem reflexes, although a labial element may have been preserved there (see below). Adjectives that show unclear or mixed patterns are discussed individually below.

*hardu-: The reflexes of this adjective are *a-/ō*-stems in most languages. The main exception is Old High German, which possesses both an *a-/ō*-stem variant *hart* and a *ja-/jō*-stem variant *herti* (Braune, 2018 p 307). Data from the *Old German Reference Corpus* (Donhauser, Gippert, & Lühr, 2018) suggest that *herti* is the dominant variant with 25 attestations as an adjective against only two for *hart*. Both of the latter come from the Old High German translation of Tatian's *Diatessaron* (9th century East Franconian), a text that also uses *herti* although only once and as a noun (ch. 100). Otfrid (9th century South Rhine Franconian) uses *hart* once adverbially (l. 1.46) but only uses *herti* as an adjective (11x). These data show that the *a-/ō*-stem formation was marginal at best in Old High German, which differs from the other West Germanic languages.

*sīþu-: This lemma has an adjectival reflex in Old English, where it is an *a-/ō*-stem adjective, but only adverbial ones in the other West Germanic languages. This makes it impossible to make definitive claims about its stem type distribution.

*þurzu-: For this lemma, Old English, Middle Low German, and Old High German clearly show *ja-/jō*-stem reflexes. The Old Frisian and Middle Dutch reflexes do not show *i*-mutation, but their final *-e* suggests that they are *ja-/jō*-stems as well.

*blauþu-: The *a-/ō*-stem here are only found in Anglo-Frisian, since neither Old English, nor Modern Frisian display *i*-mutation (compare these to the reflexes of **auþu-*).

*drōbu-: The *a-/ō*-stem variants for this lemma are likewise restricted to Anglo-Frisian. While the adjective is not directly attested for Old Frisian, the derived adverb *drôvelike* 'sadly'

and the noun *drôfhêd* 'sadness' do not display *i*-mutation, which implies that this language likely used the *a*-/*ō*-stem variant as well. This is also supported by Modern Frisian *drôf* 'sad'.

fastu-: For this adjective, the *ja*-/*jō*-stem variant is restricted to High German, which is something that persists into the present day with Modern German *fest* 'firm'. The *-e-* in Old Frisian is due to regular fronting of Proto-Germanic *a > *æ > e (see Bremmer, 2011 pp 29–30).

funhtu-: The Old English variant is an *a*-/*ō*-stem adjective, while the other languages have variants of both types. Modern German *feucht* 'wet' continues the *ja*-/*jō*-stem variant.

ganhu-: Kroonen (2013) reconstructs a *u*-stem here based on the labial element present in (Middle) Dutch *gauw* but absent in Old High German *gâhi* (s.v. *ganhu-*). Middle Low German, Middle Dutch, and Middle High German all show *a*-/*ō*-stem and *ja*-/*jō*-stem variants, in contrast to Old High German, while the Old Frisian form must have been derived from the *a*-/*ō*-stem variant.

hnawwu-: The Old English reflex here is an *a*-/*ō*-stem adjective, while the other adjectival reflexes appear to be *ja*-/*jō*-stems on the basis of the final *-e*.

kōlu-: Similar to *blauþu-* and *drōbu-*, the *a*-/*ō*-stem variants here are restricted to Anglo-Frisian.

murgu-: A number of problems exist with this adjective. Firstly, data from the *Old German Reference Corpus* (Donhauser, Gippert, & Lühr, 2018) show that there is only one attestation of this adjective in Old High German, and it appears in the phrase *múrga uuîla* 'short while' in Notker's translation of Boethius's *De Consolatione Philosophiae* (11th century Alemannic, p. II.73), which is formally ambiguous, because it occurs in the weak declension here. The Middle High German form *murc* 'rotten' looks like an *a*-/*ō*-stem adjective. However, based on data from the *Reference Corpus Middle High German* (Wegera et al., 2016), it occurs with the spelling *mᵉ̆rick* in Gundacker von Judenburg's *Christi Hort* (13th century Bavarian, l. 0a,622), which implies *i*-mutation, so there may have been a *ja*-/*jō*-stem variant as well. This is the only attestation of this lemma in the corpus. Secondly, Kroonen (2013) notes that the connection with Old English *myrge* 'pleasant' (whence Modern English *merry*) and Middle Dutch *merghelike* 'pleasantly' is not completely certain due to their deviating semantics, though he still deems it possible (s.v. *murgu-*).

samþu-: The older languages, Old English and Old High German, both point to a *ja*-/*jō*-stem (only the adverb *sâfto* 'softly' is attested in Old Saxon), while the younger languages, Middle Low German and Middle Dutch, do not show *i*-mutation. Old English also has a secondary form *sôfte* (whence Modern English *soft*), which was backformed from its associated

adverb with the same form (Campbell, 1991 p 275)[9]. The final *-e* in the younger languages makes it likely that a similar process occurred there as well.

swōtu-: The reflexes of this adjective have a peculiar distribution. All West Germanic languages possess the *ja-/jō*-stem variant, but Old English also possesses a variant without *i*-mutation. In fact, both variants continued to coexist throughout the Middle English period. The presence of these two variants leads Kroonen (2013) to conclude that the replacement of the *u*-stem by the *ja-/jō*-stem happened at a relatively late stage for this lemma (s.v. *swōtu-*).

tanhu-: Old English only has an *a-/ō*-stem variant, while Old High German only has a *ja-/jō*-stem variant. Middle Dutch and Middle Low German apparently show both variants, while Middle High German only has *zæhe* 'tough', which continues the Old High German form (cf. *ganhu-*).

þeku-: The older languages all point to a *ja-/jō*-stem, but the Modern West Frisian form *tsjok*, as well Amrum North Frisian *sjok* and Saterland Frisian *tjuk*, warrant examination, since these cannot continue Old Frisian *thikke* 'manifold, multiple', as all Modern forms display labio-velar mutation of **i > *iu*, a Proto-Frisian sound change (see Bremmer, 2011 pp 35–36). Bremmer (2011) compares the former two to the Old Frisian noun *thiukke* 'length, breadth' (p. 36) < Proto-Germanic **þekwīn-* (Kroonen, 2013, s.v. *þeku-*). Kroonen (2013) argues that **þeku-* was remodelled to **þekwja-* in Proto-Northwest Germanic, preserving a labial element (a *u*-stem is reconstructed because of Old Irish *tiug* 'fat', which is a *u*-stem adjective) (s.v. *þeku-*), which would have triggered labio-velar mutation in Frisian. This implies that the Modern Frisian forms are the genuine continuations of the Northwest Germanic form, rather than the Old Frisian one.

5. Conclusion

When examining the variation described in Section 4, a clear pattern can be surmised. It appears to be the case that the remodelling of *u*-stem into *ja-/jō*-stem adjectives is most advanced in High German, since there is not a single example of an adjective that exclusively has an *a-/ō*-stem reflex. Dutch and Low German show exclusive *a-/ō*-stem reflexes for **hardu-* and **fastu-* and mixed reflexes for **tanhu-*. In other secure cases, they agree with High German. Anglo-Frisian shows the highest number of exclusive *a-/ō*-stem reflexes in addition to sharing **hardu-* and **fastu-* with Dutch and Low German. **blauþu-*, **drōbu-*, and **kōlu-* have *a-/ō*-stem outcomes only in English and Frisian, and only English has an exclusive *a-/ō*-stem reflex for

hnawwu-. Furthermore, the Old English reflexes of *funhtu-* and *tanhu-*, as well as possibly the Old Frisian reflex of *ganhu-* based on the derived adjective, are *a-/ō*-stems exclusively, while the other languages have mixed outcomes. Old English also possesses an *a-/ō*-stem reflex of *swōtu-*, next to a *ja-/jō*-stem one. These examples demonstrate that the remodelling of *u*-stem adjectives, by necessity, postdates a period of West Germanic unity, since the outcomes differ in the daughter languages. A mixed paradigm for *u*-stem adjectives, comparable to the one in Gothic, therefore seems plausible for the Proto-West Germanic stage.

Endnotes

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[2] The term "Proto-Indo-European" can be ambiguous to an extent. The earliest stage likely did not have a three-gender system but a two-way distinction based on animacy, and the feminine gender was only innovated after Anatolian branched off (Kim, 2014, pp. 120–121). This paper will continue to use the term, even if not all described formations necessarily go back to the earliest stage. See Olander (2019) for an overview of the nomenclature for the different stages of Indo-European used in the literature and the Appendix for an overview of the diachronic differences in the *u*-stem paradigm between early PIE and late PIE.

[3] This paper uses the traditional romanisation system for Gothic. A number of graphemes warrant clarification: <ái> = [ɛː], <aí> = [ɛ], <áu> = [ɔː], <aú> = [ɔ], <ei> = [iː], and <q> = [kʷ] (see Fulk, 2018, p. 20).

[4] *-jis* after light syllables and vowels, *-eis* after heavy syllables (Wright, 2008, p. 106). The neuter genitive singular is unattested after heavy stems (Fulk, 2018, p. 214; Wright, 2008, p. 107).

[5] For West Germanic, I use circumflexes to represent etymologically long vowels and macrons for long vowels that emerged through later lengthening processes in Middle Germanic.

[6] MF = Modern West Frisian, MLG, Middle Low German, MHG = Middle High German

[7] Modern English *low* < (early) Middle English *lâh* is considered a North Germanic loan (cf. Old Norse *lágr* 'low') (Kroonen, 2013, s.v. *lēgu-*).

[8] *Triggws* (=[trigʷːs]) 'true, faithful' is a *wa-/wō*-stem adjective in Gothic, not a *u*-stem (Wright, 2008, p. 107).

[9] Old English also possesses *êaðe* as a secondary form to *îeðe* 'easy' < Proto-Germanic *auþu-*, which is derived in the same way as *sôfte* (Campbell, 1991, p. 275).

References

Braune, W. (2018). *Althochdeutsche Grammatik I* (16th ed.). Berlin, Boston: De Gruyter.

van Bree, C. (2006). *Historische grammatica van het Nederlands*. Retrieved April 11, 2023 from https://www.dbnl.org/tekst/bree001hist02_01/

Bremmer Jr, R. H. (2011). *An introduction to Old Frisian*: *History, grammar, reader, glossary* (revised ed.). Amsterdam: John Benjamins.

Campbell, A. (1991). *Old English grammar*. Oxford: Oxford University Press. (Original work published 1959)

Donhauser, K., Gippert, J., & Lühr, R. (2018). *Deutsch Diachron Digital – Referenzkorpus Altdeutsch* (Version 1.1). Retrieved April 11, 2023 from http://www.deutschdiachrondigital.de/

Fulk, R. D. (2018). *A comparative grammar of the early Germanic languages*. Amsterdam: John Benjamins.

Kim, R. I. (2014). A tale of two suffixes: **-h₂-, *-ih₂-,* and the evolution of feminine gender in Indo-European. In S. Neri, & R. Schuhmann (Eds.), *Studies on the collective and feminine in Indo-European from a diachronic and typological perspective* (pp. 115-136). Leiden: Brill.

Kloekhorst, A. (2008). *Etymological dictionary of the Hittite inherited lexicon*. Leiden: Brill.

Kortlandt, F. (2010). *Studies in Germanic, Indo-european and Indo-uralic*. Amsterdam: Rodopi.

Kroonen, G. (2013). *Etymological dictionary of Proto-Germanic*. Leiden: Brill.

McFadden, T. (2004). On the pronominal inflection of the Germanic strong adjective. *University of Pennsylvania Working Papers in Linguistics*, *10*(1), 123–136.

Olander, T. (2019). Indo-European cladistic nomenclature. *Indogermanische Forschungen*, *124*(1), 231–244.

Paul, H. (2007). *Mittelhochdeutsche Grammatik* (25th ed.). Berlin, Boston: De Gruyter.

Ringe, D. (2006). *From Proto-Indo-European to Proto-Germanic*. Oxford: Oxford University Press.

Ross, A. S. C. (1972). *I-*and *u-*adjectives in Germanic. *Transactions of the Philological Society*, *71*(1), 94–100.

Wegera, K., Wich-Reif, C., Dipper S., & Klein T. (2016). *Referenzkorpus Mittelhochdeutsch (1050–1350)*, version 1.0. Retrieved September 15, 2023 from

https://www.linguistics.ruhr-uni-bochum.de/rem/

Whitney, W. D. (1896). *A Sanskrit grammar*: *Including both the classical language, and the older dialects, of Veda and Brahmana* (3rd ed.). Leipzig: Breitkopf & Härtel.

Wright, J. (2008). *Grammar of the Gothic language, and the Gospel of St. Mark: Selections from the other Gospels, and the Second Epistle to Timothy, with notes and glossary*. Richmond: Tiger Xenophon. (Original work published 1910)

Appendix

This section presents a potential outline of the development of the *u*-stem adjectives from early PIE to Proto-Germanic to provide context as to how the situation in West Germanic and Gothic may have arisen.

Stage 1: The earlier stage of PIE before Anatolian split off (also referred to as "Indo-Anatolian", "Indo-Hittite"; see Olander, 2019, p. 234). There is no distinction between masculine and feminine at this stage. The PIE paradigm for *u*-stem adjectives here is based on Kloekhorst (2008, pp. 104–105), and it followed the so-called "proterodynamic" accent-ablaut pattern. This paradigm is reflected best in Hittite, and the singular forms are shown in Table 3.

Table 3: the *u*-stem adjective endings in the earlier stage of PIE illustrated with the Hittite adjective *āššuš* 'good' (Kloekhorst, 2008, s.v. *āššu- / āššau̯-*).

Language	Early PIE		Hittite	
Gender	Common	Neuter	Common	Neuter
Nom. Sg.	*-u-s*	*-u*	*āššuš*	*āššu*
Acc. Sg.	*-u-m*		*āššun*	
Gen. Sg.	*-éu̯-s*		*-éu̯-os > āššau̯aš*	
Dat.-Loc. Sg.	*-éu̯-i*		*āššau̯i*	
Abl. Sg.	*-éu̯-(o)ti*		*āššau̯az*	
Instr. Sg.	*-éu-t*		*āššau̯it*	

Stage 2: The later stage of PIE after Anatolian split off (also referred to as "Nuclear Indo-European", "Core Indo-European"; see Olander, 2019 p 234). The *-ih₂- ~ *-i̯eh₂-*suffix is used to mark the feminine (Kim, 2014), while the earlier common gender forms are now reinterpreted as masculine, creating a gender distinction. The PIE paradigm here is based on Ringe (2006 pp 50–51), and it is best illustrated with Sanskrit. However, Sanskrit *u*-stem adjectives show variation as to how the feminine is expressed morphologically (Whitney, 1896 p 123), which is perhaps a product of the late emergence of the feminine gender in PIE. The forms are presented in Table 4.

Table 4: the *u*-stem adjective endings in the later stage of PIE illustrated with the Sanskrit adjective *svādú* 'sweet' (Whitney, 1896 pp 120–122, 135–137).

Language	Late PIE			Sanskrit		
Gender	Masculine	Neuter	Feminine	Masculine	Neuter	Feminine
Nom. Sg.	*-u-s*		*-éṷ-ih₂*	*svādús*	*svādú*	*svādvī́*
Acc. Sg.	*-u-m*	*-u*	*-éṷ-ih₂-ṃ*	*svādúm*		*svādvī́m*
Voc. Sg.	*-u*		*-éṷ-i*	*-eu > svā́do*	*svā́du, -o*	*svā́dvi*
Gen.-Abl. Sg.	*-éu-s*		*u-i̯éh₂-s*	*svādós*		*svādvyā́s*
Dat. Sg.	*-éṷ-ei*		*u-i̯éh₂-ei*	*svādáve*		*svādvyaí*
Loc. Sg.	*-éṷ(-i)*		*u-i̯éh₂(-i)*	*svādaú*		[*svādvyā́m*]
Instr. Sg.	*-u-h₁*[10]		*u-i̯éh₂-(e)h₁*	*-ṷ-éh₁ > svādvā́*		*svādvyā́*

Stage 3: The Proto-Germanic stage if direct continuity with the nominal forms of the later stage of PIE is assumed (Ringe, 2006 pp 203–204; Ross, 1972 pp 98–99). A sample paradigm is given in Table 5 (cf. Table 1). The masculine and neuter forms here are identical to the *u*-stem nouns, and the dative possibly derives from the PIE endingless locative rather that the late PIE dative (Fulk, 2018 pp 163–165). For the feminine forms, the nominative is based on Ringe (2006 pp 203–204), the genitive and dative forms are similar to the *jō*-stem nouns and are based on Fulk (2018 pp 155–157), and the accusative and vocative forms are extrapolated from the later PIE forms shown in Table 4. Note that Ross (1972) gives the dative as *-jai* (p. 99), as mentioned in Section 3.

Table 5: a hypothetical *u*-stem adjective paradigm in Proto-Germanic that continues the later PIE nominal forms illustrated by *swōtu-* 'sweet' (Kroonen, 2013, s.v. *swōtu-*).

Language	Proto-Germanic (nominal)		
Gender	Masculine	Neuter	Feminine
Nom. Sg.	*swōtuz*	*swōtu*	*swōtwī*
Acc. Sg.	*swōtuⁿ*		*swōtwīⁿ*
Voc. Sg.	*swōtu, *-au*	*swōtu, *-au*	*swōtwi*
Gen. Sg.	*swōtauz*		*swōt(w)jôz*
Dat. Sg.	*swōtau*		*swōt(w)jôi*
Instr. Sg.	*swōtū*		*swōt(w)jō*

Reconstructing the possible pronominal forms is challenging because of a lack of *u*-stem pronouns, as was discussed in Section 3, but McFadden (2004) suggests a feminine

nominative singular form in *-ū* analogically modelled after the Proto-Germanic *i*-stem form *-ī* < PIE *-ih₂* (p. 134).

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[10] The discrepancy between the instrumental ending *-t* (as reflected in Hittite) of early PIE and the late PIE ending *-h₁* (as reflected in non-Anatolian) is explained by Kortlandt (2010) as a phonetic development from *t > *d > *h₁* after *-en-* in *n*-stems (p. 40). Note that this explanation assumes alternative phonetic realisations of these phonemes based on the glottalic theory: *t* = [tː], *d* = [tˀ], and *h₁* = [ʔ] (cf. Fulk, 2018, pp. 100–101). Kortlandt also assumes the Anatolian ablative ending *-(o)ti* (whence Hittite *-(a)z*, as shown in Table 3) is a secondary derivation by attaching the locative *-i* to the instrumental *-t* (p. 40).