

The life cycle of High Vowel Deletion in Old English: from prosody to stratification and loss

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In memory of Richard M. Hogg

INTRODUCTION: SETTING THE GOALS

- §1 Old English neuter *a*-stem nouns display an intricate set of alternations created by a prehistoric sound change known as High Vowel Deletion.
Contemporary approaches to these alternations fall into two major camps:
- (i) those which posit a synchronic counterpart of HVD in the synchronic grammar (e.g. Dresher and Lahiri 1991, Idsardi 1994);
 - (ii) those who claim that, by the time of Alfred, HVD has become unproductive and the alternations have become morphologized or lexicalized (e.g. Fulk 2010, Fulk in Hogg & Fulk 2011; Minkova 2011).
- §2 The late Richard Hogg (notably Hogg 2000) was highly critical of both approaches. He pointed out that:
- (i) analyses positing a synchronic rule of HVD generate chimeras (combinations of variants that never cooccur in a single OE variety);
 - (ii) analyses that claim that HVD has been morphologized typically fail to explain why certain alternations survive in West Saxon and others do not.
- §3 Following Richard's lead, I take the following approach:
- (i) It is impossible to be precise about the absolute chronology of morphologization and lexicalization in the absence of controlled psycholinguistic data:
the survival of an old pattern of alternation does not necessarily imply that the phonological rule that created it still survives,
but,
conversely, an innovative form may reflect the restructuring of the underlying representation of a single lexical item (lexical change) rather than the loss of a phonological rule (phonological change).
 - (ii) What is needed, rather, is an analysis that accounts for the relative chronology innovations leading to the eventual loss of HVD alternations.

Developing joint work with Richard (Bermúdez-Otero & Hogg 2003), this paper seeks to show how the relative chronology of innovations in neuter *a*-stem noun inflection can be elucidated in Stratal OT.

- §4 Characteristically, Richard was sceptical about our joint work, and took it with a very large pinch of salt:

Some of the issues that arise in this context are discussed more fully in Bermúdez-Otero and Hogg (forthcoming), which is an attempt to reconsider the evidence for HVD in Late (Ælfrician) West Saxon with a view to presenting an interleaved OT account which also assesses the possible diachronic history of HVD and its eventual loss. Nevertheless, some problems certainly remain, **whether or not that account is plausible**.

(Hogg 2000: 372, emphasis mine)

I suspect that he was prepared to pursue this work, and to put his name to it, not because he believed it provided the right answers, but rather because he hoped it asked the right questions.

PREHISTORIC DEVELOPMENTS

Prehistoric HVD: transparent and purely prosodically conditioned

- §5 Prehistoric paradigms after HVD:

(forms affected by HVD shown in bold)

root	*skip-	*word-	*weruð-	*hauðuð-	*watr-	*tunġl-
nom/acc.sg.	<i>scip</i>	<i>word</i>	<i>werud</i>	<i>hēafud</i>	<i>wætr</i>	<i>tunġl</i>
nom/acc.pl.	<i>scip-u</i>	<i>word-∅</i>	<i>werud-∅</i>	<i>hēafud-u</i>	<i>wætr-∅</i>	<i>tunġl-∅</i>
dat.sg.	<i>scip-ĕ</i>	<i>word-ĕ</i>	<i>werud-ĕ</i>	<i>hēafd-ĕ</i>	<i>wætr-ĕ</i>	<i>tunġl-ĕ</i>
dat.pl.	<i>scip-um</i>	<i>word-um</i>	<i>werud-um</i>	<i>hēafd-um</i>	<i>wætr-um</i>	<i>tunġl-um</i>

- §6 The *lautgesetzlich* outcome of HVD in the nom/acc.pl. of *hēafud* was *hēafud-u*, without syncope.

The only variant found in all relatively old or conservative texts is unsyncopeated *hēafodu* rather than syncopeated *hēafdu*:

	<i>Vespasian Psalter</i>	<i>Rushworth²</i>	Alfred	
<i>hēafodu</i>	✓	✓	✓	
<i>hēafod</i>	✓		(✓) ¹	¹ Or, not CP
<i>hēafdu</i>		✓	✓	

See Fulk (2010) for extensive discussion.

Ringe (e.g. Ringe and Taylor 2014) argues for **hēafd*: for a refutation, see the appendix at the end of this handout (pp. 13-14).

§7 Prehistoric HVD was transparently conditioned by foot structure (Goering 2016):

- Key assumptions:
- Bimoric trochees
 - Iterative left-to-right footing
 - No light-heavy feet, i.e. no [_sǭō̄], except domain-initially.

nom.sg.	[scip]	[word]	[werud]	[hēa][fud]	[wætr]	[tungl]
nom.pl.	[scipu]	[wor]du	[weru]du	[hēa][fudu]	[wæt]ru	[tun]glu
dat.sg	[scipǣ]	[wor][dǣ]	[weru][dǣ]	[hēa]fu[dǣ]	[wæt][rǣ]	[tun][glǣ]
dat.pl.	[scipum]	[wor][dum]	[weru][dum]	[hēa]fu[dum]	[wæt][rum]	[tun][glum]

HVD simply targets short vowels in stray unfooted syllables.

Opacity leads to stratification

§8 The shortening of long vowels in nontonic final syllables makes HVD opaque:

	[hēa][fudu]	>	[hēa][fudu]	>	[hēa][fudu]	
but	[hēa]fu[dǣ]	>	[hēaf][dǣ]	>	[hēaf]de	Why not [hēa][fude]?

Later, vowel reduction goes on to make things worse:

e.g. apocope-prone *-i > -e merges with apocope-resistant *-ǣ > -e

§9 The result:

- Vulnerability to apocope is reanalysed as a stratal property:
neut.nom/acc.pl. endings are reanalysed as stem-level,
oblique endings are word-level.
- decoupling processes of vowel deletion across environments:
final deletion (apocope) is independent from medial deletion (syncope).

This approach has now been generalized to the HVD alternations displayed by adjectives and verbs in work by Penelope Scott: Scott (2005, 2015), Thompson (2011, 2012).

THE SITUATION IN THE HISTORICAL PERIOD

A new survey: Bermúdez-Otero (2005)

§10 Neuter *a*-stem paradigms in Alfred, Ælfric, and *Rushworth2*:

Sources:	<i>Rushworth2</i>	Lindelöf (1897, 1901)
	Alfred (CP H, CP C, Or L)	Cosijn (1888), Dahl (1938)
	Ælfric	Pope (1967), Hogg (1997, 2000)

See <http://www.bermudez-otero.com/lifecycle.htm> for full details.

[Each noun is given in the nom/acc.sg., nom/acc.pl., and gen.pl.]

Owun	Alfred	Ælfric
<i>scip</i> <i>sciopo, -u</i> <i>scipa</i>	<i>scip</i> <i>scipu, -a</i> <i>scipa</i>	<i>scip</i> <i>scipa, -u</i> <i>scipa</i>
<i>word</i> <i>word</i> <i>worda</i>	<i>word</i> <i>word</i> <i>worda</i>	<i>word</i> <i>word</i> <i>worda</i>
<i>wæter</i> <i>wæter</i> <i>wætra; wætera</i>	<i>wæter</i> <i>wætru, -a; wæteru, -a</i> <i>wætra; wætera; wættra</i>	<i>wæter</i> <i>wætera, -u</i> <i>wætera</i>
<i>tungol</i> <i>tungol; tungolo, -u</i> <i>tungla</i>	<i>tungol</i> <i>tungol; tungolu, -a; tunglu, -a</i> <i>tungla</i>	<i>tungol</i> <i>tungla, -u</i> <i>tungla</i>
<i>werod</i> <i>werod</i> <i>weroda</i>	<i>werod</i> [<i>werod</i>] <i>weroda</i>	<i>werod</i> <i>werod</i> <i>weroda</i>
<i>hēofod</i> <i>hēofodo, -u; hēofdo, -u</i> <i>hēofda</i>	<i>hēafod</i> <i>hēafdu, -a; hēafudu, -a; [hēafod]</i> <i>hēafda</i>	<i>hēafod</i> <i>hēafda, -u</i> <i>hēafda</i>
—	<i>nīeten</i>	<i>nȳten</i>
—	<i>nīetenu, -a</i>	<i>nȳtena, -u</i>
—	<i>nīetena</i>	<i>nȳtena</i>

Key innovations with respect to Prehistoric HVD (cf. §5 above)

- §11
- | | | |
|--|---|----------------------------|
| 1. nom/acc.pl. <i>tungol</i> > <i>tungolu</i>
“paradigm extension” from <i>hēafod</i> to <i>tungol</i> | } | Owun and Alfred (variably) |
| 2. nom/acc.pl. <i>hēafodu</i> > <i>hēafdu</i>
“levelling” from the oblique forms to the nom/acc.pl. | | |
| 3. nom/acc.pl. <i>wæter</i> > <i>wætru</i>
“paradigm extension” from innovative <i>tunglu</i> (after 1 and 2) | | Alfred and Ælfric |

The synchronic grammars of Owun, Alfred, and Ælfric are described in §12-§25 below.

The analogical changes that gave rise to these grammars—and, crucially, the order in which those changes took place—are explained in §26-§37.

SYNCHRONIC ANALYSIS

Preview

§12 The inflection of *a*-stem nouns was phonologically stratified:

- neut.nom/acc.pl. → stem level
- other suffixes → word level

§13 In general, vowel deletion avoids unfooted light syllables (i.e. enforces PARSE- σ), but it is necessary to decouple two aspects:

- apocope of final vowels (stem-level only) violates ANCHOR-R
- syncope of medial vowels

§14 Similarly, there are two processes of vowel insertion:

- parasiting (in word-final obs+son clusters): avoids consonantal sonority peaks
i.e. enforces SONPEAK $\rightarrow\sigma$
- anaptyxis (in word-medial obs+son clusters): avoids $\alpha.\beta$ where $\text{son}(\alpha) < \text{son}(\beta)$
i.e. enforces CONTACT

Apocope

§15 WS nom/acc.pl. *scipa* *word* *werod*
 gen.pl. *scipa* *worda* *weroda*

- There is morphological variation in the neut.nom/acc.pl. between /-u/ and /-a/, where the latter is identical with gen.pl. /-a/.
- Neut.nom/acc.pl. /-a/ undergoes apocope in exactly the same environments as /-u/: e.g. neut.nom/acc.pl. ***worda*, ***weroda*. Gen.pl. /-a/ does not.

In Alfred, neut.nom/acc.pl. /-a/ is found occasionally in Or; see Cosijn (1888 vol. 2: 7, 15). In Ælfric, it is prevalent; see Pope (1967: 183). Neut.nom/acc.pl. [-a] cannot be derived through lowering from underlying /-u/, for fem.nom.sg. /-u/ remains unchanged: e.g. *gifu*, ***gifa* ‘gift’; see Hogg (1997a: §4, 2000: §4).

§16 So... • Synchronically, vowel deletion is not sensitive to quality.

- The addition of the neut.nom/acc.pl. suffix and apocope both apply at a higher level than the suffixation of other *a*-stem noun endings.

		<i>nom/acc.pl.</i>	<i>gen.pl.</i>	
	UR	/word-/	/word-/	
	SL <i>morph</i>	word-a	—	
	<i>phon</i>	word	—	(apocope)
	WL <i>morph</i>	—	word-a	(apocope counterfed)

§17 WS *wætru*, *tunglu*

In WS, apocope became blocked where it would otherwise create word-final obs+son clusters (variably in Alfred, obligatorily in Ælfric):

			SONPEAK→σ	PARSE-ǫ
☞	[_ω [_Σ .wæt.].ru.]	[_ω [_Σ .tuŋ.].glu.]		*
	[_ω [_Σ .wæt.].r]	[_ω [_Σ .tuŋg.].l]	*!	

Syncope

§18	Owun, Alfred	<i>nom/acc.pl.</i>	<i>hēafodu</i>	~	<i>hēafdu</i>
		<i>oblique</i>	** <i>hēafoda</i> ,		<i>hēafda</i>

In stems of the *hēafod*-type, the posttonic vowel resists syncope (variably) in the *nom/acc.pl.*, but syncopates systematically in the oblique cases.

§19 So... • In Owun's and Alfred's grammars, syncope may be prevented—at the stem level only—by the creation of a weak foot which violates NONFINALITY:

		PARSE-ǫ	NONFIN
☞	[_ω [_Σ .hæ:a.][_Σ .fo.du.]]		*
	[_ω [_Σ .hæ:af.].du.]	*!	

- At the word level, final weak feet are prohibited (by NONFIN) but stressed input vowels resist deletion:

		<i>nom/acc.pl.</i>	<i>gen.pl.</i>
	UR	/hæ:afod-/	/hæ:afod-/
	SL <i>morph</i>	hæ:afod-u	—
	<i>phon</i>	[_ω [_Σ .hæ:a.][_Σ .fo.du.]]	[_ω [_Σ .hæ:a.].fod.]
	WL <i>morph</i>	—	[_ω [_Σ .hæ:a.].fod.]-a
	<i>phon</i>	[_ω [_Σ .hæ:a.].fo.du.]	[_ω [_Σ .hæ:af.].da.]

§20 Lexical exceptions to syncope in West Saxon:

WGmc stem	* ^l nau ₁ ti:na-	* ^l wix- ₁ βiuða-
<i>nom/acc.sg.</i>	<i>nīeten</i>	<i>wēofod</i>
<i>nom/acc.pl.</i>	<i>nīetenu</i>	<i>wēofodu</i>
<i>gen.pl.</i>	<i>nīetena</i>	<i>wēofoda</i>

- Historically, these medial vowels had been stressed (because long or root-initial).
- Synchronically, they are short; however, their exceptional behaviour can be captured by marking them with a lexical foot-head. This correctly predicts that they resist syncope but undergo destressing at the word level.

Anaptyxis

§21 WS nom/acc.pl. *wæteru*, but *werod*

Anaptyxis must be word-level, since it counterfeeds apocope:

	<i>nom/acc.pl.</i>		
UR	/werod-/	/wætr-/	
SL <i>morph</i>	werod-u	wætr-u	
<i>phon</i>	werod	[apocope blocked]	
WL <i>morph</i>	—	—	
<i>phon</i>	—	wæteru	(apocope counterfed)

§22 Ascription to the word level correctly predicts that oblique endings trigger anaptyxis:
e.g. *wāteres, wātere, wātera, wāterum*

§23 Anaptyxis avoids coda-onset clusters with a rising sonority profile (CONTACT). It is restricted to environments where the epenthetic syllable may be footed:

e.g.	PARSE-ǝ	CONTACT
	[*]	*!
☞ [o[_Σ .wæt.].ra.]	[*]	
☞ [o[_Σ .wæ.te.].ra.]	[*]	
	[*]	*
☞ [o[_Σ .wæ:p.].na.]	[*]	
**[o[_Σ .wæ:~.].pe.na.]	[*]*!	

Parasiting

§24 WS *wæter* vs *wætre* ~ *wætere*

Parasiting applies obligatorily at the word level. It cannot apply at the stem level, as it would incorrectly pre-empt optional anaptyxis in oblique forms.

§25 Parasiting prevents consonants from constituting sonority peaks:

e.g.

$wætr$	\rightarrow	$[\omega[\sigma wæ]][\sigma te]r]$	SONPK $\rightarrow\sigma$	NUC $\rightarrow V$	DEP-V
		$**[\omega[\sigma wæ]][\sigma tr]$		$*!$	$*$
		$**[\omega[\sigma wæt]r]$	$*!$		

ANALOGICAL CHANGE IN THE HISTORICAL PERIOD
Evolution of the stem level

		nom/acc.pl.
§26	<i>System A:</i>	
	apocope permitted after obs+son clusters	PARSE-ǫ » SONPK $\rightarrow\sigma$ <i>wæter</i>
	ω -final weak feet permitted — no syncope	PARSE-ǫ » NONFIN <i>hēafodu</i>
	<i>System B:</i>	
	apocope permitted after obs+son clusters	PARSE-ǫ » SONPK $\rightarrow\sigma$ <i>wæter</i>
	ω -final weak feet banned — syncope	NONFIN » PARSE-ǫ <i>hēafdu</i>
	<i>System C:</i>	
	apocope blocked after obs+son clusters	SONPK $\rightarrow\sigma$ » PARSE-ǫ <i>wæt(e)ru</i>
	ω -final weak feet banned — syncope	NONFIN » PARSE-ǫ <i>hēafdu</i>

← *Conservative**Advanced* →

SYSTEM A	SYSTEM B	SYSTEM C
Prehistoric OE		
Rushworth2		
Alfred		
		Ælfric

§27 The transitions from A to B and from B to C involve the upwards percolation of word-level rankings into the stem-level, in line with the life-cycle of phonological processes (e.g. Bermúdez-Otero & Trousdale 2012, Bermúdez-Otero 2015):

<i>Word-level rankings</i>	<i>Stem level</i>		
	System A	System B	System C
NONFIN » PARSE-ǫ		✓	✓
SONPK→σ » PARSE-ǫ			✓

The role of input optimization

- §28
- Each step in this development is contingent on the restructuring of the input to the word level.
 - Restructuring renders the input either identical with the output or, if the output alternates, identical with the basic output alternant (in OE, the uninflected nom/acc.sg.)
See Lahiri (1982), Lahiri & Dresher (1983-84), Dresher (2000), McMahon (2000).
 - Input restructuring occurs when crucial alternation evidence is not robust.

Restructuring I: from nom/acc.pl. *tungol* to *tungolu*

§29 Paradigms in system A:

UR	/hæ:afod-/	/tuŋgl-/
nom/acc.sg.	<i>hēafod</i>	<i>tungol</i>
nom/acc.pl.	<i>hēafodu</i>	<i>tungol</i>
oblique	<i>hēafda</i>	<i>tungla</i>

- Learner's default hypothesis: stem = nom/acc.sg. = /tuŋgol-/
- Only cue to correct UR: nom/acc.pl. *tungol* (against expected *tungolu*)

§30 The cue is not robust:

- A learner who fails to encounter nom/acc.pl. *tungol* will retain the default hypothesis. As a result, there is a gradual shift of items from the *tungol* to the *hēafod* class.
- Even if the learner encounters the crucial form, she may be led up the garden path and assume that deletion may target syllables which are not adjacent to the main foot:

garden-path analysis:
/tuŋgol-u/ → [tuŋgol], so... /hæ:afod-u/ → [hæ:afod]

E.g. *Vespasian Psalter* nom/acc.pl. *hēafod*, *dīoful*, etc. (Keyser & O'Neil 1985: 144)

§31 *Wæter*, UR /wætr-/, is not vulnerable to reanalysis because there is robust evidence throughout the phonology that oblique *wætra* cannot be derived by syncope:

e.g. *hǣofones; weroda; fremede vs hīerde; etc.*

Restructuring II: from nom/acc.pl. *hēafodu* to *hēafdu*

§32 System-A derivations:

	<i>nom/acc.sg.</i>	<i>oblique</i>	<i>nom/acc.pl.</i>
UR	/hæ:afod-/	/hæ:afod-/	/hæ:afod-/
SL <i>morph</i>	—	—	/hæ:afod-u/
<i>phon</i>	[[.hæ:a.].fod.]	[[.hæ:a.].fod.]	[[.hæ:a.][.fo.du.]]
WL <i>morph</i>	—	[[.hæ:a.].fod.]-e	—
<i>phon</i>	—	[[.hæ:af.].de.]	[[.hæ:a.].fo.du.]
	<i>hēafod</i>	<i>hēafde</i>	<i>hēafodu</i>

- §33
- The learner's default assumption:
stem in input to word level = 'hæ:afod- = nom/acc.sg.
 - The derivation of nom/acc.pl. *hēafodu* departs from the default assumption:
stem in input to word level (nom/acc.pl.) = 'hæ:a₁fod- ≠ nom/acc.sg.
- Cue: only nom/acc.pl. *hēafodu*, *wāpenu*

§34 The cue is nonrobust: cf. *nīeten*

	/hæ:afod-/	* /ni:ytin-/
nom/acc.sg.	<i>hēafod</i>	<i>nīeten</i>
nom/acc.pl.	<i>hēafodu</i>	<i>nīetenu</i>
oblique	<i>hēafda</i>	<i>nīetena</i>

So the learner reverts to the default hypothesis:

- The representation of nom/acc.pl. form in the input to the word level is restructured to ['hæ:afod-u], yielding syncopated *hēafdu*.
- Concomitantly, syncope ceases to be blocked by the nom/acc.pl. suffix and percolates into the stem level.

Restructuring III: from nom/acc.pl. *wæter* to *wætru*

§35 System A/B derivations (ignoring medial epenthesis):

	<i>nom/acc.sg.</i>	<i>oblique</i>	<i>nom/acc.pl.</i>	
UR	/wætr-/	/wætr-/	/wætr-/	
I <i>morph.</i>	—	—	/wætr-o/	
<i>phon.</i>	[[.wæt.]r]	[[.wæt.]r]	[[.wæt.]r]	(violates SONPK→σ)
II <i>morph.</i>	—	[[.wæt.]r]-a	—	
<i>phon.</i>	[[.wæ.te.]r]	[[.wæt.].ra.]	[[.wæ.te.]r]	
	<i>wæter</i>	<i>wætra</i>	<i>wæter</i>	

§36 Consider a learner in the following position:

- Through exposure to forms like *wordu*, *hēafdu*, etc, she knows that neut.nom/acc.pl ↔ /-u/ / *a*-stem ___
- Through exposure to oblique forms like *wætres* she knows that the underlying representation of the stem is /wætr-/

Such a learner successfully constructs the UR /wætr-u/ for the nom/acc.pl.

But, for underlying /wætr-u/ to undergo apocope, the learner must discover the stem-level ranking PARSE-ǝ » SONPK→σ.

However, as a result of restructuring I (nom/acc.pl *tungol* > *tungolu*) and restructuring II (nom/acc.pl. *tungolu* > *tunglu*), the learner's trigger experience is increasingly populated by forms like nom/acc.pl. *tunglu*, *wæpnu*.

Forms like *tunglu* and *wæpnu* violate PARSE-ǝ but respect SONPK→σ. They are therefore countercues inhibiting the acquisition of the ranking PARSE-ǝ » SONPK→σ at the stem level. Hence, their increased occurrence leads to restructuring III.

§37 **In this approach, restructurings I and II are the preconditions for restructuring III.**

The analysis successfully accounts for the relative chronology of innovations in the loss of HVD alternations (see §3 above).

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FIVE ARGUMENTS AGAINST RINGE'S **hēafd*

(1) Nom/acc.pl. <heafd>, <heabd>, <heaft> are completely unattested in the historical record.

(2) Nom/acc.pl. *hēafudu* ~ *hēofodo* is the only form found across several dialects in relatively old or conservative texts:

Mercian:	<i>Ps(A)</i> 67.21, <i>Ps(A)Ca</i> 6.23;
West Saxon:	<i>CP(H)</i> 105.5;
Northumbrian:	<i>LkGl(Ru)</i> 21.28.

(3) Ringe states that, after syncope and after the shortening of word-medial *ī*, apocope was prevented from applying to **nīetinū* (from earlier **nīētīnū*) by foot structure: *[*nīe*][*tinu*] > *nīetenu* (Ringe and Taylor 2014: 301). By parity of reasoning, we must infer that, at the supposedly earlier time of syncope, *[*hēa*][*fidu*] and *[*mē*][*riþu*] were protected by foot structure too. If so, the *lautgesetzlich* outcome of **hēafudu* is *hēafudu*, not unattested ***hēafd*. Ringe cannot get out of this contradiction except by purely *ad hoc* manoeuvres.

First, Ringe could assert that, unlike apocope, supposedly earlier syncope was not controlled by foot structure. However, this would be completely circular, since syncope and apocope show exactly the same prosodic conditioning. Both processes apply in open syllables after a stressed heavy syllable, but not after a stressed light syllable: cf. syncope in dat.pl. *[*hēa*]*fu[dum]* > *hēafdum*, but not in *[*weru*][*dum*] > *werodum*; cf. apocope in nom/acc.pl. *[*wor*]*du* > *word*, but not in *[*scīpu*] > *scīpu*. To appeal to footing in one case (apocope) but not the other (syncope) is to use metrical structure in a purely *ad hoc* way.

Alternatively, Ringe could assert that footing was non-iterative at the time of syncope (whence *[*hēa*]*fidu* > **hēafdū*, later **hēafd* by apocope), whereas it was iterative at the supposedly later time of apocope (whence *[*nīe*][*tinu*] > *nīetenu*). However, this would be purely circular reasoning: there is no independent evidence for this change in stress assignment. In addition, positing an early pattern of non-iterative footing would conflict with the independent evidence for iterative footing in early Germanic: for example, the application of Sievers' Law and WGmc Gemination in PrGmc **li:katjan* > OE *licettan*

shows that in PrGmc the initial heavy syllable [li:] formed a foot by itself and the following substring [katjan] was metrified in the same way as PrGmc *satjan > OE *settan* (Kiparsky 1998: §6).

(4) The behaviour of *-*iþu* in forms like *strengþ* < **streng-iþu* (Ringe and Taylor 2014: 291) can be explained by restructuring, as, prehistorically, the suffix was subject to extraordinarily complex alternations within and across paradigms (Fulk 2010: 140-1). Notably, the nom.sg. alternates between -*iþu* and -*iþ*, and oblique forms like the dat.sg. alternate between -*iþǣ* and -*þǣ*.

	SG		PL
NOM	*[mǣ][riþu]	>	*[mǣ]ri[þǣ]
	*mǣriþu		*mǣrþǣ
DAT	*[mǣ]ri[þǣ]	>	*[mǣ]ri[þum]
	*mǣrþǣ		*mǣrþum
	SG		PL
NOM	*[trymi]þu	>	*[trymi][þǣ]
	*trymiþ		*trymiþǣ
DAT	*[trymi][þǣ]	>	*[trymi][þum]
	*trymiþǣ		*trymiþum

Given this starting point, **mǣriþu* is replaced by *mǣrþu* through the same independently motivated process of levelling that gives West Saxon *bēafdu* from earlier *bēafudu* (see §32-§34 in this paper). In turn, this facilitates the restructuring of the UR of the suffix to /-θu/. Thereafter, learners assume the phonologically transparent derivations /mǣ:r-θu/ > [mǣ:rθ] and /trym-θu/ > [trymθ].

(5) Forms like *eln* < **elinu* ‘ell’ involve a poorly understood process \mathcal{P} whereby unstressed -*i* is lost in adjacency to *l* even after a stressed light syllable (Ringe and Taylor 2014: 275ff). The rise of *eln* is thus perfectly compatible with the *lautgesetzlich* status of *bēafudu*, pace Ringe and Taylor (2014: 291), provided that \mathcal{P} applies later than High Vowel Deletion (Luick 1914-40: 309-10) and that it can target syllables with a single coda consonant of the appropriate sonority level (Walkden p.c.): i.e. *[*eli*]nu >_{HVD} *elin* > _{\mathcal{P}} *eln*. Alternatively, if \mathcal{P} was later than High Vowel Deletion but restricted to open syllables, the replacement of nom/acc.sg. *elin* with *eln* could simply reflect levelling from suffixed forms like *[*eli*][*num*] >_{HVD} *elinum* (no change) > _{\mathcal{P}} *elnum*. Crucially, *elin* is attested in a very early monument (*LdGl* 42), exactly as predicted in the scenario where \mathcal{P} applies late (Walkden p.c.). In contrast, Ringe predicts *elin* to be later than *eln*, since in his account *elin* can only arise through the application of parasiting to earlier *eln* (Ringe and Taylor 2014: 330).

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