

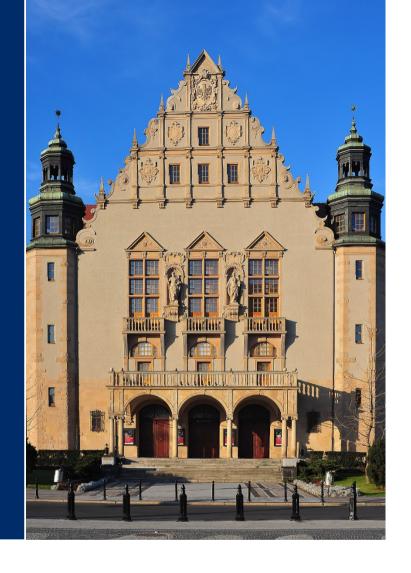
UNIWERSYTET
IM. ADAMA MICKIEWICZA
W POZNANIU

uam.edu.pl

















Revisiting Verner's Law in Gothic: The Distribution of s and z

Ronald I. Kim
UAM w Poznaniu
rkim@amu.edu.pl





Arbeitstagung der Indogermanischen Gesellschaft Univerzita Karlova 17 September 2025

Outline



- 1. Introduction: Verner's Law in Gothic
- 2. Bernhardsson's devoicing rule
- 3. The Gothic continuants of Proto-Germanic *z
- 4. A new sound law in Gothic? (1)
- 5. A new sound law in Gothic? (2)
- 6. Consequences and conclusions



- A notorious problem of Germanic linguistics is the frequent absence of expected outcomes of Verner's Law (VL) in Gothic, including the nearly total elimination of VL alternations ("grammatischer Wechsel") in strong verb inflection.
- The table on the next slide gives a selection of strong verbs in Gothic and, below them in red, the OE cognates, which preserve reflexes of VL (marked in boldface) in the PRT.3PL and PRT.PTCP.



INF PRT.3SG PRT.3PL PRT.PTCP

			-	
1	sneiþan	snaiþ	sni þ un*	sni þ ans
	snīþan	snāþ	sni d on	(ġe)sni d en
П	tiuhan	tauh*	tau h un	tau h ans
	tēon	tēah	tu g on	(ġe)to g en
Ш	wairþan	warþ	waur þ un	waur þ ans
	weorþan	wearþ	wur d on	(ġe)wor d en
V	wisan	was	wē s un	
	wesan	wæs	wæ r on	
VI	slahan	slōh	slō h un	
	slēan	slōh (slō g)	slō g on	(ġe)slæ ġ en



- Many scholars have interpreted this absence in terms of an early divergence of Gothic from the rest of Germanic, i.e. VL was not a Proto-Germanic (PG), but a post-PG innovation that never reached the dialects ancestral to Gothic.
- Others have attributed it to paradigmatic or lexical analogy and/or set up Gothic-specific sound changes.

See Bernhardsson 2001:17-43, Miller 2019:30-2 with refs.



- The early divergence hypothesis has fallen out of favor, mainly because Gothic does attest a few unmistakable traces of VL, e.g.
- the preterite-present verbs parf, 3PL paurbun 'need' and aih, PL aigu- ~ aihu- 'have';
- o fulgins 'hidden', fossilized PRT.PTCP of filhan 'hide';
- frawardjan 'destroy' < PG *frawardijaną, CAUS to frawairþan 'perish' < PG *fra-werþaną (cf. OE (for-) wierdan, forweorþan);
 - Contrast PRT.3SG warb, PRT.3PL waurbun, PRT.PTCP waurbans with leveled -b-.
- or the CI. VII verb skaidan 'separate' (PRT.3SG af-skai-skaid GalB 2.12, PRT.3PL af-skaiskaidun Lk 9.33), with exceptional generalization of the voiced alternant *d. See Bernhardsson 2001:157–60. Ringe 2017:127. OE scādan has also independently generalized PG *d (Seebold 1970:402–4).



- Nevertheless, the nearly complete elimination of VL in the preterite nonsingular and preterite participle of Gothic strong verbs is noteworthy, since VL alternations survive for several more centuries in the other older Germanic languages.
- This raises a question:
- was this purely a matter of leveling, or
- was there a phonologically conditioned starting point, a sound change eliminating VL effects that could have served as a model?



- The most comprehensive study of VL in Gothic to date is the unpublished Cornell University dissertation of Haraldur Bernhardsson (2001).
- Bernhardsson persuasively argues that neither reanalysis of word-final devoicing, nor that of TL reflexes, can account for the full range of facts.
- He furthermore identifies a set of "residual cases" where the absence of the expected VL reflex cannot be plausibly ascribed to analogy (252–3).
- Whereas the "missing" VL reflexes in strong verbs could be due to leveling, these forms appear to require a phonological explanation.



- Analogy "inconceivable":
- ∘ ga-fahrjan* (wk. 1) 'prepare'
- hausjan (wk. 1) 'hear'
- o ga-tarhjan (wk. 1) 'distinguish, note'
- þaħan (wk. 3) 'be silent'
- wasjan* (wk. 1) 'clothe; be clothed'
- Analogy "highly improbable":
- ∘ fa**h**ēþs (i) 'joy'
- o fulla-fahjan (wk. 1) 'satisfy, serve'
- us-gaisjan* (wk. 1) 'frighten'
- us-geisnan* (wk. 4) 'be astonished'
- laisjan (wk. 1) 'teach, instruct'



- Notably, these cases all involve
- s for expected z < PG *z and
- \circ *h* for expected *g* < PG **g*.
- Bernhardsson thus proposes a pre-Gothic dissimilatory change devoicing PG *[z], *[γ] > *[s], *[x] before voiced fricatives (256–9, 279–95).

"In pre-Gothic, [g] and [z] voiced by Verner's Law in Proto-Germanic were — with the exception of *-rz-* only — devoiced (following a vowel stressed under the Germanic accent) before a voiced fricative in the following syllable." (287–8).





- Such voicing dissimilation is crosslinguistically paralleled, not least in Gothic itself by Thurneysen's Law of voicing dissimilation after a voiced consonant.
- The classic example is the abstract suffix -ubni ~
 -ufni:
- n. fastubni* 'fasting', witubni* 'knowledge',
 f. fraistubni* 'temptation' vs.
- on. waldufni 'power', f. wundufni* 'plague'.



 However, it requires the survival into pre-Gothic of the PG distribution of VL alternations in the verbal endings. Thus in the PRS.3SG:

```
PIE *'-e-ti > PG *-idi (most strong presents)

PIE *-éye-ti > PG *-idi (cl. 1 weak causatives)

PIE *-yé-ti > PG *-ibi (cl. 1 weak denominatives)

PIE *-éh<sub>2</sub>-ye-ti > PG *-ōbi (cl. 2 weak)

The exact distribution is unclear, since the individual languages have all generalized
```

one or the other variant, e.g. Go. -ib, $-id-u^*$ (2PL -id-u; underlyingly /-id/) < PG *-idi vs. OE -(e)b < PG *-ibi. See Bernhardsson 2001:259–79, Ringe 2017:207–9.

- · Hence e.g.
- PIE *wos-éye-ti > PG *wazidi → *wasid > Go. wasjib,
- whence generalization of -s- to INF wasjan, PRS.1SG wasja, PRT wasida, etc.



- Furthermore, it runs into difficulties even with this small group of "residual cases".
- The devoicing in *þahan* 'be silent' requires pre-Go. voiced endings (PRS.3SG **þagaidi*), but it is far from certain that the Cl. 3 weak presents go back to forms with root stress.
- Pace Bernhardsson (2001:280), hausjan 'hear' goes back to a denominative and should have developed thus: PIE *h₂k̂-h₂ows-yé-ti > *hausyé-ti > *hauzijiþi > PG *hauzīþi > Go. †hauzeiþ.
- The failure of devoicing in marzjan* 'offend' requires an exception for pre-Go. sequences *-rz- (285–6).





• Finally, if pre-Gothic really had such a powerful rule of voicing dissimilation, one might expect it also to have applied in nouns, since many nominal inflections contained voiced *z in PG.

Cf. a-stem nom.sg *-az (Go. has 'who?', haz-uh), \bar{o} -stem nom.pl *- \bar{o} z (Go. \bar{p} os, \bar{p} oz-uh), and see GG:79 §78c and Ringe 2017:299–313 (esp. the table of paradigms 312–3).

The Gothic continuants of PG *z



- Today I will reexamine the Gothic continuants of the PG voiced sibilant *z, to determine if the appearance of s and z follows any other conditioning patterns.
- PG *z is an ideal starting point for a study of VL because, whereas the voiceless stops *p, *t, *k, *k* underwent a conditioned split **and** merger with the corresponding voiced stops *b, *d, *g, *g*,
- the sibilant *s underwent only phonemic split, yielding to PG *s and *z.

Recall that PIE did not have a phoneme *z, only an allophone *[z] of *s before voiced stops, e.g. *ni-sd-o- 'nest' (OE, OHG nest, OIr. net, Ved. nīḍáḥ), *misdʰó- 'reward' (OE mēd, meord, Gr. μισθός, Ved. mīḍhám; Mayrhofer 1986:119).



LIAM

PIE		PG	Go.	OE
*d	*[4]	* <i>f</i>	4	4
* <i>t</i> /s	*[t]	l l	L	L
*t / Ý	*[0]	* <i>þ</i>	þ	þ [θ] ~ [ð]
*t (VL) *d ^h	*[ð]	*d [d] ~ [ð]	d	<i>d</i> [d]

*s/Ý	*[s]	*S	S	S
*s (VL)	*[z]	* <i>Z</i>	Z	r

The Gothic continuants of PG *z



- It follows that, except for
- the few instances of z before voiced stop, e.g. huzd 'treasure', mizdō 'reward' (< PG *huzdą, *mizdōn-; cf. OE hord, mēd/meord), and
- loanwords, e.g. Zakarias, azwmē 'of unleavened bread' ← Ζαχαρίας, ἀζύμων,
 all instances of Go. z < PG *z result from the operation of VL.

See GG:79 §78a.

The Gothic continuants of PG *z



- What are the reflexes of PG *z in Gothic, then?
- Specifically, where do we find z, and where s?

 Does their distribution follow any patterns that would indicate the operation of sound change?



- A review of the evidence reveals that PG *z is continued as z after short vowels in
- the demonstrative (F.GEN.SG *þizōs*, F.DAT.SG *þizai*, M/N.GEN.PL *þizē*, F.GEN.PL *þizō*) and
- 3SG pronoun (F.GEN.SG izōs, F.DAT.SG izai,
 M/N.GEN.PL izē, F.GEN.PL izō);
- the 2PL pronoun (ACC, DAT *izwis*, GEN *izwara*; POSS *izwar*);
- the comparative suffix -iz- (e.g. batiza* 'better', minniza 'less');



o the neuter a-stems

```
hatiz- 'hate' (DAT.SG, NOM.PL hatiza, GEN.PL hatizē), riqiz- 'darkness' (DAT.SG riqiza, GEN.SG riqizis); cf. NOM/ACC.SG riqis 4 \times \sim riqiz \ 3 \times), which go back to PG z-stems (< PIE s-stems);
```

○ the *a*-stems

```
mimz 'meat',
```

Hapax in 1CorA 8.13 *ni matja mimz aiw* 'I will never eat flesh'. The expected form is *mims** with word-final devoicing, but a stem *mimz*- can be safely assumed, since there are otherwise **no** examples of hypercorrect voiced stem-final consonant in inherited Gothic nouns.

ans*, anz- 'beam' (DAT.SG anza);



- the ō-stem arhuazna* 'arrow' (ACC.PL arhuaznōs);
- the jō-stem aqizi 'ax', which must go back to a pre-PG paradigm with accent alternation;

Arhuazna* is built to OE earh n. (a), Northumbr. arwe f. (n) \leftarrow PG *arx* \bar{o} - \sim ON \bar{o} r (pl. \bar{o} rvar) < PG *arw \bar{o} - (Schaffner 2001:387–8); on the suffix, see below. On aqizi (ON \bar{o} x, \bar{o} x; OE æces, æcs, OS acus, OHG achus) < *ak* \bar{o} izī < PG *ak* \bar{o} is/zī (*akus/zī) \leftarrow *agwésī \sim *aguzj \bar{o} - < post-PIE *agwés- \bar{o} ih2- \sim *agus- \bar{o} - see Mottausch 2011:97, Ringe 2017:301–2, pace Bernhardsson 2001:77–8 (z due to "inner-Gothic voicing"), Casaretto 2004:566–7 (uniform *-us-).

- o the passive 2SG ending -aza (e.g. haitaza 'you are called');
- the preverb tuz- < PIE *dus- in tuz-wērjan* 'doubt';</p>

On the preverb uz-, see below.

ἡ δὲ σπαταλῶσα),



and after short vowels or in consonant clusters in the verbs
 airzjan* 'deceive, lead astray',
 hazjan 'praise',
 marzjan* 'offend',
 riqizjan* 'become dark' (← riqiz- 'dark'),
 talzjan* 'warn, admonish',
 wlizjan* 'strike' (1CorA 9.27 wlizja tr. ὑπωπιάζω),
 hatizōn* 'hate, be angry at',
 wizōn 'live' (1TimAB 5.6 sō wizōndei in azētjam tr.

*min*znan 'diminish' (← *mins* 5×, *minz* 1× 'less').



- In contrast, we find *s* after long vowels and diphthongs in the following of Bernhardsson's "residual cases":
- o hausjan 'hear';
- us-gaisjan* 'frighten', us-geisnan* 'become astonished';
- laisjan 'teach, learn'.



- Obvious exceptions are
- the adjective endings F.GEN.SG -aizōs, M/N.GEN.PL -aizō; and
- the comparative suffix -ōz- (e.g. frōdōza* 'wiser').
- These can have been influenced by respectively 3SG PRON *izōs*, *izē*, *izō* and *-iz-*, the older allomorph of the comparative suffix.
- The irregular comparative *maiza* 'greater, more' (< PG **maizan*-; ON *meiri*, OE *māra*, OS, OHG *mēro*) could also have *z* after comparatives in *-iz-*, *-ōz-*.

On the neuter a-stem aiz 'bronze; money', see below.



- We do find Go. s for PG *z after short vowels in several forms, but these can be explained by TL, i.e. voicing dissimilation after a voiced consonant:
- agis- 'fear' (DAT.SG agisa, GEN.SG agisis);
- rimis- 'quiet' (DAT.SG rimisa 2ThesAB 3.12);
- hlaiwasnōs 'tombs' (pl. tant., cf. hlaiw 'tomb');
- nasjan 'save';
- wasjan 'clothe; be clothed'.

Thus *GG*:82 §79 Anm. 4, citing *agisa*, *rimisa*, *hlaiwasnōs* as examples of TL. Bernhardsson (2001:53–64) concludes that the *s*-stems generalized either the allomorph with devoiced word-final *-*s* or that with *-*z*-, but concedes that "the -*z*-has been generalized precisely in words where the suffix is preceded by a voiceless consonant" (64). Note that *hlaiwasnōs* may be from PG *-*snō*-, in which case *arhuazna** would have -*z*- by TL (64–5); but Ringe (2017:310) reconstructs a *z*-stem **hlaiwaz* ~ **hlaiwiz*-, so the history of this noun may be different from that of other derivatives in *-*sna/ō*-.



- Agis- and rimis- are PG z-stems remodeled as neuter astems. Contrast the retention of *z in hatiz-, riqiz-.
- Of the other reflexes of z-stems in Gothic,
- NOM/ACC.SG sigis is indeterminate, since no inflected forms are attested.
- So also are

 ahs 'ear (of corn)' (DAT.SG, ACC.PL ahsa),
 beihs 'time' (ACC.PL beihsa),
 weihs 'town' (DAT.SG, ACC.PL weihsa, GEN.SG weihsis),
 with syncope from PG *ahaz, *binhaz, *wīhaz.

Differently Schaffner 2001:592–3 (thematic derivatives in *-s- \acute{o} -, cf. Ved. *vatsa*- < **wet-s-o*- to **wét-os* ~ **wét-es*- 'year' [Gr. ἕτος]; but why only to pre-PG s-stems of the shape *-haz?).



- Apparent counterexample: aiz 'bronze; money'
- ACC.SG aiz Mk 6.8;
- aizasmipa 'coppersmith' 2TimA 4.14 tr. χαλκεύς.
 Aiz for expected ais* indicates a stem aiz-, which is confirimed by the compound aizasmipa. See above on the hapax mimz 'meat'.
- PG *aiza (ON eir, OE ār, OHG ēr)
- $\circ \leftarrow (*\bar{a}z \sim) *ajiz < PIE *h_2éyos \sim *h_2éyes (Lat. aes, Ved. áyas 'metal, iron'; Ringe 2017:310, 311) or$
- *h₂aiHs-ó- (Schaffner 2001:593)?



- This account removes the need for analogical explanations of the *s* in *wasjan* or *hausjan*, which were difficult to motivate under any analysis.
- wasjan after wasti* 'clothing'?
- o hausjan after ausō 'ear' (whose s is itself in need of explanation;see below)?
 - Cf. Ringe 2017:124 (*hausjan* "apparently by lexical analogy with 'ear'"; *wasjan* "with -s- by lexical analogy, as in 'hear'").
- The -s- of nasjan 'save' can have been taken over even at a late date from ga-nisan 'be saved', but per above it was regularly devoiced from PG *nazjaną (OE, OS nerian, OHG nerien).



- It also provides a phonologically regular origin for the -s- in ausō 'ear', whose cognates in Germanic all continue PG *z (ON eyra, OE ēare, OS, OHG ōra < PG *auzō).
- The Gothic form therefore does not require positing PG stem variants *ausVn- ~ *auzVn- in a formerly mobile paradigm, as long believed.

Cf. Schaffner 2001:575–84 (influence of *hausjan* 'hear'), Casaretto 2004:228 n. 762 ("nicht befriedigend erklärt…eine analogische Beseitung des Grammatischen Wechsels ist bei einem morphologisch isolierten Wort…gleichfalls unwahrscheinlich"), Mottausch 2011:69–70, Ringe 2017:308. That such variants could survive in Germanic reflexes of *n*-stems is demonstrated by OHG *haso* vs. OE *hara*, OE *heri* < PG **hasVn*- ~ **hazVn*- 'hare' \leftarrow PIE * \hat{k} as-o/en- 'the gray one' (cf. Ved. śaśá- 'hare' < PIE * \hat{k} as-ó-; Schaffner 2001:544–6, Mottausch 2011:69–70 with refs.). For other examples (all masculine) of varying quality, see in detail Schaffner 2001:517–74.



- Several remaining cases cannot be explained in this fashion and pose problems for all accounts of VL:
- bariz-eins 'made of barley' < PG *baraz ~ *bariz- (ON barr, OE bere);
- ubizwa* 'hall' (DAT.SG ubizwai Jh 10.23) < PG *ubés-??
 (cf. ON ups, OHG obisa, obasa 'vestibule', OE efes, yfes 'eaves');
- fairzna 'heel' < PG *fersnō- ~ *ferznō-?? (OS fersna,
 OHG fersana; OE fiersn (i));
- azgō 'ashes' < PG *askōn- ~ *azgōn-?? (ON, OS, OHG aska, OE æsce);
- wizōn* 'live one's life'.

On the first two, see Bernhardsson 2001:62–4, 67–70; on *ubizwa** and *fairzna*, see Casaretto 2004:163–4, 322–3, Mottausch 2011:87–8, 136, Ringe 2017:302, 303; on *azgō*, see Casaretto 2004:217–8, Ringe 2017:308.



- The case of wizōn* 'live one's life' is interesting, as it calls to mind the two lone occurrences of the preverb uz-, namely
- PRT.3SG uzōn 'expired' (Mk 15.37, 15.39 tr. ἐξέψευσεν) and
- O uzēta* 'manger' (DAT.SG uzētin Lk 2.7, 2.12, 2.16). Uz-ōn is to anan* < PIE *h₂enh₁- (Ved. ániti); uz-ēta* is to the root of itan 'eat' (PRT.3PL ētun), cf. MidE orte 'leftover fodder'. See Lehmann 1986:385 §U67, U68, and on the latter also Kroonen 2013:563.</p>
- Pre-Go. *uz- famously assimilates to a following *r, as in ur-reisan 'rise', ur-rinnan 'come out', ur-rūmnan 'be enlarged'.

 See GG:80 §78 Anm. 4.



- All other occurrences of this preverb appear as *us*-, including before voiced stops, e.g.
- o us-agjan 'frighten'
- us-alþan 'become old' (PRT.PTCP.F.GEN.PL usalþanaizō 1TimAB 4.7)
- o us-beidan 'await'
- us-bruknan 'be broken off'
- us-driusan 'fall out', us-drusts* (i) 'rough (way)'
- o us-gaggan 'go out', PRT us-iddja
- o us-giban 'give (out), render, pay, perform'
- o us-laisjan 'teach'
- o us-maitan 'cut down'
- o us-niman 'take away'
- us-wairpan 'cast out', us-waurpa (ō) 'casting away'



- The formal similarity of *wizōn* and the isolated *uz-ōn*, *uzēta** suggests that the retention of *-z-* is phonologically regular.
- Interestingly, -z- in all three forms is preceded by a short vowel and followed by a long vowel, which points to a possible prosodic conditioning.



- I propose with all due reserve that
- the long vowel was stressed in such forms; and
- OPG *z was maintained before a stressed nucleus:

```
*[wi'zo:n], *[u'zo:n], *[u'ze:t-]
```

Note that the retention of -z- in 3SG pronoun *izōs*, *izai*, *izē*, *izō* and dem *þizōs*, *þizai*, *þizē*, *þizō* would be consistent with this interpretation.

 \circ or PG *z > *s was **voiced** in this position, i.e.

```
*wizōn > *[wi'so:n] > *[wi'zo:n],

*uzōn > *[u'so:n] > *[u'zo:n],

*uzēt- > *[u'se:t-] > *[u'ze:t-].
```

 Note under this second option the similarity to the conditioning of VL!



- An advantage of the latter hypothesis is that it explains the voicing of Go. azgō 'ashes' < PG *askōn- (ON, OS, OHG aska, OE æsce).
- The Gothic form is unexpected for two reasons:
- it is the **only** case in which VL was extended to an obstruent cluster; and
- PG feminine *n*-stems arose by suffixing *-*n* to inherited stems in *-ō- (< PIE *-eh₂-) or *-ī- (< PIE *-ih₂-), so one would not expect a stress alternation and hence no VL.

See Casaretto 2004:217–8 with refs., Ringe 2017:308. Lühr (2000:277) derives all the Germanic forms of 'ashes' from PIE $*h_2ezg^h$ - $\bar{o}n$ - > PG *ask- $\sim *askk$ -, with gemination in the weak cases by Kluge's Law (*ask-n- > *askk-).



• But if pre-Go. *askōn- was stressed *[as'ko:n-], not only *s, but the whole cluster could have been voiced, giving *[az'go:n-].



- The voicing rule would also make sense of the z in bariz-eins 'made of barley':
- PG *bariz-īnaz
- > pre-Go. *baris-īn- (TL devoicing: agis-, rimis-)
- > Go. barizeins.



• It would also explain the voicing in PRT.3SG gasaizlēp (Jh 11.11), 3PL gasaizlēpun 'has/have fallen asleep' (1CorA 5.16), which has long been taken as a relic of VL in the reduplicated Class VII preterites.

See Schaffner 2001:243; Ringe 2017:216, 277.

- The -s- of PRT sai**s**lēp (Mt 8.24), anasai**s**lēp (Lk 8.23) would then have to be leveled from the present stem (INF slēpan),
- just as PRT saisō 'sowed' ← PG *sezō (ON sera) < (post-)PIE *se-sóh₁- generalized -s- from the present (INF saian).



- Finally, the rule would explain ubizwa* 'hall' and fairzna 'heel' if it took place when the final vowel was still *ō:
 - *[uβis'wo:], *[fers'no:] > *[uβiz'wo:], *[ferz'no:].
- Alternatively, the voicing could have been generalized from inflected forms with *ō, e.g. GEN.SG, NOM/ACC.PL *[uβisˈwo:s], *[fersˈno:s] > *[uβizˈwo:s], *[ferzˈno:s].

Note that -rsn- is a licit sequence in Gothic, cf. ga-paursnan 'wither away' \leftarrow PG *purz- $n(\bar{o})$ -, itself analogical to ga-pairsan 'wither, dry up' (and paursus 'dry'), so the -z- of paursus must have arisen by sound change.

The INF corresponding to PRT uz- $\bar{o}n$ would presumably have been us- $anan^*$, with the usual shape of the preverb. We cannot know if this verb exceptionally generalized uz- from the PRT, but survival of the alternation us- $\sim uz$ - is highly unlkely.



- If this interpretation is correct, it suggests that the first sound law proposed above might also have a prosodic conditioning.
- How to account for the contrast of
- hazjan, riqiz- with PG *z retained on the one hand,
 and
- ausō, laisjan with devoicing on the other?
- The contrast of hazjan and laisjan in particular seems difficult to motivate. Why would devoicing be associated with length of the preceding vocalic nucleus?



- But if we consider the present stems, a possible explanation emerges.
- If Gothic (or the relevant stage of pre-Gothic)
- assigned primary stress to the first long syllable nucleus and secondary stresses to following long nuclei; and
- in the absence of long nuclei, assigned default primary stress to the first syllable,



these forms would have been realized as

PRS.3SG

*['hazjiθ] PRS.3SG
*['rikwizis] GEN.SG
vs.
*['au, zo:]

*['lai,zi:θ]

- Hypothesis: PG *z was retained when the following nucleus was unstressed, otherwise it was devoiced.
- From forms such as *['auˌso:], *['laiˌsi:θ], the [s] was generalized to GEN.SG *['auˌsins], INF *['laisˌjan].

I assume the pre-Go. diphthongs *[ai], *[au] for this stage; the argument is unaffected if monophthongization to *[ε:], *[ɔ:] had already taken place.



- If this analysis is correct, it follows that the dialects ancestral to Gothic **did** fully participate in VL,...
- but the contrast between *s and *z (the latter probably distinguished in phonetic terms as [spread glottis] rather than [voiced]) was then neutralized after long vowels and in TL environments, thereby significantly reducing its functional load.
- With a few exceptions (just seen), Go. /s/ and /z/ in native words thus contrasted only in the environment *C_[-vd]V
 ___, i.e. following a voiceless consonant and short vowel.



- However, *[s] seems to have become voiced to [z] in pretonic position to judge by *wizōn*, *uz-ōn*, and the hitherto mysterious *azgō*.
- That would imply that Gothic (or at least its prestage) did **not** generalize default initial stress, as has been assumed since the dawn of scientific investigation of the older Germanic languages.
- The devoicing of *z after long vowels could also reflect rules of secondary stress assignment.
- I reserve for a later occasion the implications for the stress pattern of Gothic and its evolution from Proto-Germanic.



- Finally, the present hypothesis offers a
 phonological starting point for the elimination of VL alternations in strong verbs.
- Note that by the sound change proposed here, a Class V verb like wisan 'be, dwell' would have "undone" the effects of VL:

```
INF *wisaną > *wisan

PRT.3SG *was > *was

PRT.3PL *wezun > *wesun (devoicing after *\bar{V})

PRT.PTCP *wizana- > *wisana- (TL dissimilation)
```



 Other verbs that would have leveled the VL alternation *-s- ~ *-z- in this way, with *z > *s after a long vocalic nucleus or by dissimilation to a voiced consonant, are

○ <i>ur-reisan</i> 'rise' (I)	*ur-ri z -	> *ur-ri s -
○ driusan 'fall' (II)	*dru z -	> *dru s -
○ <i>fra-liusan</i> 'lose' (II)	*/u z -	> */u s -
○ <i>lisan</i> 'gather' (V)	*/ē z -	> */ē s -
	*/i z -	> */is-
○ ga-nisan 'be saved' (V)	*nē z -	> *nē s-
	*ni z -	> *ni s -
○ <i>fraisan</i> 'tempt' (VII)	*frai z -	> *frai s -
○ <i>uf-blēsan</i> 'puff up' (VII)	*blēz-	> *blē s





• This group, which includes the very frequent *wisan 'be', could have served as a model for the extension of the stem-final consonant from the INF and PRT.SG to the PRT.PL and PRT.PTCP in other strong verbs.



- PG *z would also have been devoiced in causatives such as
- af-, ga-drau**s**jan 'throw down' < *drau**z**jan
- kausjan 'experience' < *kauzjan</p>
- ur-raisjan 'lift up, raise' < *-raizjan
 to resp. driusan 'fall', kiusan 'test', ur-reisan 'rise',
 just as in the derivationally more isolated hausjan
 'hear', us-gaisjan 'frighten', laisjan 'teach'.
- These would have served as a model for leveling of VL reflexes in other deverbative formations, leaving only isolated relics such as *frawardjan* 'destroy' beside *frawairþan* 'perish'.





- Note finally that the devoicing rules for *z > *s
 posited above must have taken place some time
 before the composition of the Gothic Bible, to
 allow for
- diffusion of stem leveling in the strong verbs;
- the pretonic voicing in wizōn, uzōn, uzēta*, azgō;
 and
- various analogical adjustments (e.g. *izōs* after -aizōs, hausjan after hauseiþ, saisō after saian).



- Questions for future research:
- Are these developments restricted to PG *[z], or did the other voiced fricatives undergo comparable changes?
- What other evidence can be brought to bear on the stress pattern of Bible Gothic?
- What role, if any, did syllable structure play in the changes proposed here?
- Finally, in keeping with the theme of our meeting, is it possible to establish a more precise relative chronology of TL and the proposed changes from Proto-Germanic to Gothic?







References



Bernhardsson, Haraldur. 2001. Verner's Law in Gothic. Ph.D. dissertation, Cornell University.

Casaretto, Antje. 2004. Nominale Wortbildung der gotischen Sprache. Heidelberg: Winter.

GG = Braune, Wilhelm. 2004. *Gotische Grammatik mit Lesestücken und Wörterverzeichnis*. 20. Auflage, neu bearbeitet von Frank Heidermanns. Tübingen: Niemeyer.

Lehmann, Winfred P. 1986. A Gothic Etymological Dictionary. Leiden: Brill.

Lühr, Rosemarie. 2000. Die Gedichte des Skalden Egill. (Jenaer Indogermanistische Textbearbeitungen, 1.) Dettelbach: J.H. Röll.

Mayrhofer, Manfred. 1986. *Indogermanische Grammatik*. Band I, 2. Halbband: *Lautlehre (Segmentale Phonologie des Indogermanischen)*. Heidelberg: Winter.

Miller, D. Gary. 2019. The Oxford Gothic Grammar. Oxford: Oxford University Press.

Mottausch, Karl-Heinz. 2011. *Der Nominalakzent im Frühgermanischen: Konstanten und Neuerungen.*München: (Philologia – Sprachwissenschaftliche Forschungsergebnisse, 159.) Verlag Dr. Kovač.

Ringe, Don. 2017. *A Linguistic History of English*. Vol. I: *From Proto-Indo-European to Proto-Gothic*. 2nd ed. Oxford: Oxford University Press.

Schaffner, Stefan. 2001. Das Vernersche Gesetz und der innerparadigmatische grammatische Wechsel des Urgermanischen im Nominalbereich. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.

Seebold, Elmar. 1970. *Vergleichendes und etymologisches Wörterbuch der germanischen starken Verben*. The Hague: Mouton.