

Examples of Verner's Law (not exhaustive!).

Voiceless fricatives, including the outputs of Grimm's Law, became voiced if they were not word initial and not adjacent to a voiceless sound and the last preceding syllable nucleus was unaccented.

Under those conditions *s > *z; the other outputs merged with the preexisting voiced obstruents, so that *f > *b, *þ > *d, *h > *g, all with both fricative and stop allophones, while *h^w > *g^w > *g ~ *w.

1) Verner's Law as a sound change.

The following morphologically isolated and fossilized examples show that Verner's Law was a regular sound change.

PIE *upér(i) 'over, above' (cf. Skt. *upári*, Gk. ὑπέρ /hupér/) > *ufér, *uféri > PGmc. *uber, *ubiri > OHG *obar*, *ubiri*; OE *ofer* but ON *yfir*;

PIE *h₂wap- 'evil' (cf. Hitt. *huwappas*) suffixed in *h₂upélos > *ufélos > PGmc. *ubilaz 'evil, bad' > Goth. *ubils*, OE *yfel*, OHG *ubil*;

PIE *selp- 'to anoint', attested mostly in derived nouns (cf. Skt. *sarpís* 'ghee', Toch. B *šalype* 'oil, fat'): *sólpos 'ointment', collective *solpéh₂ > *solfā > PGmc. *salbō > OE *sealf*, OHG *salba*; derived verb *salbōnā 'to anoint' > Goth. *salbon*, OE *sealfian*, OHG *salbōn*;

PIE *septm̥ 'seven' (cf. Skt. *saptá*, Lat. *septem*) > *seftún → *seftúnt (by lexical analogy with 'ten') > *sefúnt (by dissimilation) > PGmc. *sebun > Goth., OHG *sibun*, ON *sjau*, OE *seofon*;

PIE *keh₂p- 'grab' (cf. zero-grade *kh₂p- in Lat. *capere* 'to take', Gk. κάπτειν /kápte:n/ 'to gulp down', o-grade *koh₂p- in Gk. κώπη /kó:pe:/ 'handle, oar') → stative *kh₂p-éh₁- 'hold' >→ *haf-ə-yé/ó- > PGmc. *habai- ~ *habja- 'hold, have' >→ Goth. *haban*, ON *hafa*, OE *habban*, OHG *habēn*;

PIE *leyp- 'stick to' → stative *lip-éh₁- (cf. OCS *prilǐpěti* 'to adhere', Toch. B *lipetār* 'is left over') >→ *lif-ə-yé/ó- 'survive' > PGmc. *libai- ~ *libja- 'live' >→ Goth. *liban*, ON *lifa*, OE *libban*, OHG *lebēn*;

PIE *ph₂tér 'father' (cf. Skt. *pitā*, Gk. πατήρ /paté:r/, Lat. *pater*) > *fapér > PGmc. *fadēr > Goth. *fadar*, ON *faðir*, OE *fæder*, OHG *fater*;

PIE *meh₂tér ‘mother’ (cf. Skt. *mātā́*, Lat. *māter*; Gk. μήτηρ /mé:tɛ:r/ has the recessive accent of the vocative) > *māpér > PGmc. *mōdēr > ON *móðir*, OE *mōdor*, OHG *muoter*;

PIE *k^wetwōr ‘four (neut.)’ (cf. Skt. *catvāri*, Lat. *quattuor*) >→ *feþwōr (initial labial probably by lexical analogy with ‘five’) > PGmc. *fedwōr > Goth. *fidwor*, OE *fēower*;

PIE *k_ṛmtóm ‘hundred’ (cf. Skt. *śatám*, Lat. *centum*, Lith. *šim̃tas*) > *hunþón > PGmc. *hunda > OS *hund*; pl. Goth. *hunda*, OHG *hunt*; cpd. OE *hundred* ‘100’, ON *hundrað* ‘120’;

PIE *h₂énh₂t- ‘duck’ (cf. Lat. *anat-*, Lith. *ántis*) > *ánuþ- > PGmc. *anud- > ON *qnd*; i-stem *anudiz > OE *ened*, OHG *anut*;

PIE *tewtéh₂ ‘tribe, people’ (cf. Oscan *touto*, OIr. *túath*, Lith. *tautà*) > *þeupā > PGmc. *þeudō > Goth. *þiuda*, ON *þjóð*, OE *þēod*, OHG *diota*;

PIE *w_ṛh₁tóm ‘said’ (neut.; cf. Lat. *verbum* ‘word’ with different suffix) > *wurþón > PGmc. *wurðą ‘word’ > Goth. *waúrd*, ON *orð*, OE *word*, OHG *wort*;

PIE *ǵ_ṛh₁tós ‘born’ (cf. Skt. *jātás*, Lat. *nātus*, Homeric Gk. κασίγνητος /kasígne:tos/ ‘brother’, lit. ‘co-gnātus’) > PGmc. *kundaz in Goth. *airþakunds* ‘of earthly origin’, OE *godcund* ‘divine’;

so also other fossilized verbal adjectives constructed within the prehistory of Gmc., e.g. *aldaz ‘fully grown’ (*alana ‘to rear (a child)'), *kaldaz ‘cold’ (*kalana ‘to be cold, to freeze’), *daudz ‘dead’ (*dawjana ‘to die’, cf. *daupuz ‘death’);

PIE *stéh₂ti- ~ *sth₂téy- ‘act of standing, place to stand’, → *sth₂tís (cf. Skt. *st^hitís*) > PGmc. *stadiz ‘place’ > Goth. *staps*, ON *staðr*, OE *stede*, OHG *stat*;

PIE *d^héh₁ti- ~ *d^hh₁téy- ‘act of putting’ (cf. Gk. θέσις /t^hésis/; Av. *zraz-dāti* ‘belief’ (lit. ‘putting faith’), Skt. *vásu-d^hiti* ‘bestowal of goods’) >→ *d^hētís > PGmc. *dēdiz ‘deed’ > ON *dáð*, OE *dæd*, OHG *tāt*; Goth. *missadeþs*, *-dedi* ‘misdeed, sin’;

PIE *h₁senti ‘they are’ (enclitic; cf. Skt. *santi*, Gk. εἶσι /e:si/) > *senþi > PGmc. *sindi > Goth., OE *sind*, OHG *sint*;

PIE *b^héront- ‘carrying’ (cf. Gk. φέροντ- /p^héront-/ > *béranþ- > PGmc. *berand- > Goth. *baírands*, ON *berandi*, OE *berende*, OHG *beranti*; so also other present participles;

- (post-)PIE *gnét- ~ *gnt- ‘to press, to squeeze’ (cf. OCS *gnetetŭ* ‘(s)he oppresses’) > *knép- ~ *kund- → PGmc. *knudana ‘to knead’ > Old Swedish *knodha*; → OE *cnedan*, OHG *knetan* (ablaut regularized);
- post-PIE *tritíós ‘third’ (cf. Av. *θritiiō*, Lat. *tertius*, Welsh *trydydd*; Skt. *tr̥t̥iyas* reflects a slightly more archaic formation) >→ PGmc. *þridjō (weak inflection) > Goth. *bridja*, ON *þriði*, OE *þrida*, OHG *dritto*;
- post-PIE *h₂entíos ‘in front’ (cf. Homeric Gk. ἀντίος /antíos/ ‘opposite’; Skt. *ántyas* ‘last’ exhibits an older accentuation) > PGmc. *andijaz ‘end’ > Goth. *andeis*, ON *endir*, OE *ende*, OHG *enti*;
- PIE *swekrúh₂ ‘mother-in-law’ (cf. Skt. *śvaśrūs*) > *swehrū > PGmc. *swegrū? or >→ *swegrō?; in either case, > PWGmc. *swegru > OE *sweġer*, OHG *swigar*;
- PIE *h₂yuHn̥kós ‘young’ (cf. Skt. *yuvaśás*; Lat. *iuvencus* ‘steer’, i.e. ‘young bull’) > *yuhnós > PGmc. *jungaz > Goth. *juggs*, ON *ungr*, OE *iung*, *ġeong*, OHG *jung*;
- post-PIE pres. *wiké/ó- ‘to fight’ (cf. OIr. 3sg. *fichid*) > *wihé/ó- > PGmc. *wigana ‘to fight’ in Goth. *du wigana* ‘to battle’; > ON *vega*, OE *ġewegan* (*Beowulf* 2400), influenced by lexical analogy with *wegana ‘to move’;
- post-PIE stative *tak-éh₁- or *tHk-éh₁- ‘be silent’ (cf. Lat. *tacēre*) >→ *pah-ə-yé/ó- > PGmc. *þagai- ~ *þagja- ‘hold, have’ >→ ON *þegja*, OHG *dagēn*; Goth. *þahan* has introduced unshifted *h* from some unattested related form;
- PIE *sók^wh₂oy- ~ *sk^wh₂i- ‘companion’ (cf. Skt. *sák^hā*, acc. *sák^hāyam*, dat. *sák^hye* with levelled accent and ablaut) → *sok^wyós (with regular loss of laryngeal before *y; cf. Lat. *socius*) > *soh^wyós > *sag^wjaz > PGmc. *sagjaz ‘retainer, warrior’ (with late delabialization of *g before *j) > ON *seggr*, OE *secg*;
- PIE *sek^w- ‘say’ (cf. cpd. *en-sek^w- ~ *en-sk^w- in Homeric Gk. iptv. ἔννεπε /énnepe/ ‘tell!’, pl. ἔσπετε /éspete/, Lat. *inquit* ‘(s)he says’) in post-PIE *sok^w-ə-yé/ó- (? cf. Lith. *sakýti* ‘to say’ with innovative pres. *sāko* ‘says’) > *soh^w-ə-yé/ó- > *sag^wai- ~ *sagja- → PGmc. *sagai- ~ *sagja- >→ ON *segja*, OE *secgan*, OHG *sagēn*;
- PIE *snusós ‘daughter-in-law’ (cf. Gk. νύος /nuós/) → *snuséh₂ (cf. Skt. *snuṣā́*) > PGmc. *snuzō > ON *snør*, *snor*, OE *snoru*, OHG *snura*;
- PIE *h₂k̑-h₂ows-iéti ‘(s)he is sharp-eared’ (cf. Gk. ἀκούειν /akóue:n/ ‘to hear’) > PGmc. *hauzīþi ‘(s)he hears’ > OE *hīerþ*, OHG *hōrit*; ON *heyrir* with ending replaced;

Goth. *hauseiþ* has apparently introduced *s* from *auso* ‘ear’ (see below);

PIE **mém̥s* ~ **mém̥s-* (cf. Skt. *mās̄*, Toch. B pl. *misa*) → **mēm̥sóm* (cf. Skt. *māmsám*)
> PGmc. **mimz̥a* > Goth. *mimz*;

PIE **h₁rég^{wos}* ~ **h₁rég^{wes-}* ‘darkness’ (cf. Skt. *rájas* ‘empty space’, Gk. ἔρεβος
/érebos/ ‘hell’; for the meaning cf. the related formation **h₁r̥g^{wónt-}* in Toch. B
erkemt ‘black (obl. sg. masc.)’) > PGmc. **rek^{waz}* ~ **rik^{wiz-}* >→ Goth. *riqis*, gen.
riqizis, ON *røkk*;

PIE **dus-* ‘bad’ (cf. Skt. *duṣ-*, Gk. δυσ- /dus-/) > PGmc. **tuz-* in Goth. *tuzwerjan* ‘to
doubt’, OE *torbeġēte* ‘hard to get’.

It seems clear that the sound change occurred *after* the loss of word-final nonhigh vowels
(and preceding postconsonantal semivowels), because otherwise ‘us’ could not
have escaped its application. Consider the development of ‘us’ (Joshua Katz,
Topics in Indo-European Personal Pronouns, Harvard dissertation 1998):

PIE **ṛ̥smé* ‘us’ (stressed form; cf. Aiolic Gk. ἄμμε /ámme/; Skt. *asmān* has added a
typical acc. pl. ending) → **ṛ̥swé* (by lexical analogy with **uswé* ‘you (pl. acc.)’)
> **unswé* > **úns*; Verner’s Law must have operated subsequently, and since this
form was not an input, it > PGmc. **uns* > Goth., OHG *uns*, ON *oss*, OE *ūs*.

On the other hand, it appears that some particles were destressed before the sound change
occurred, thereby becoming inputs; cf.:

PIE **éti* ‘in addition’ (cf. Gk. ἔτι /éti/ ‘still, yet’, Lat. *et* ‘and’) > **éþi* > **eþ(i)* > PGmc.
**idi* ~ **ed* > Goth. *iþ* ‘but’ (with word-final fricative devoicing); Goth. *id-*, OE
ed-, OHG *iti-*, all ‘re-, counter-’.

That probably accounts for the voiced labial in two prepositions/preverbs:

PIE **ápo* ‘off, away’ (cf. Skt. *ápa*; Gk. ἀπό /apó/, ἄπο /ápo/ ‘from’, Lat. *ab* ‘from’) >
**af* > PGmc. **ab* > Goth. *af*, *ab-*, OE *of*, OHG *ab*;

PIE **súpo* ‘under, near’ (cf. Toch. B *spe* ‘near’, Lat. *sub* ‘under, near’, Gk. ὑπό /hupó/,
ὑπο /húpo/ ‘under’) → **úpo* (under the influence of ‘over’, see above; cf. Skt.
úpa) > **uf* > PGmc. **ub* > Goth. *uf*, *ub-*.

The sound change produced at least one pair of homonyms:

PIE **ṛ̥ntér* ‘inside’ (cf. Lat. *inter* ‘between’), **ṛ̥nd^hér* ‘under’ (cf. Skt. *ad^hár*; Lat. *īnfrā*
with added case ending) > **unþér*, **undér* > PGmc. **under* ‘under; among’ > OE
under, OHG *untar* (but Goth. *undar*, ON *undir* only ‘under’).

2) Verner's Law as a rule of Proto-Germanic grammar.

After the Verner's Law sound change had run its course and become a rule of the phonology, contrastive accent was lost; all full words were now accented on the initial syllable.

That destroyed the triggering environment for the phonological rule, which therefore became a morphophonological rule with multiple morphological triggers.

Not surprisingly, the rule developed differently in different morphological environments, as follows.

2.1) Inflectional endings.

In the inflectional endings of polysyllabic nominal stems, the word-final alternation $*-s \sim *-z$ had been levelled in favor of $*-z$ by the PGmc. period, evidently because it depended on the lost lexical accent.

Therefore we find nom. sg. $*-az$, $*-iz$, $*-uz$; gen. sg. $*-\bar{o}z$, $*-\bar{i}z$, $*-auz$, $*-iz$; nom. pl. $*-\bar{o}z$, $*-\bar{i}z$, $*-iwiz$, $*-iz$; acc. pl. $*-anz$, $*-\bar{o}z$, $*-inz$, $*-unz$; dat. pl. $*-maz$, inst. pl. $*-miz$.

There are only two apparent exceptions. One is a-stem gen. sg. $*-as$; but that can have spread from monosyllabic $*\bar{p}as$ 'of that' to the strong adjectives, then to a-stem nouns after the levelling of $*-z$. The other is masc. a-stem OE *-as*, OS *-os*, which conflicts with ON *-ar* and (probably) Goth. *-os* < expected $*-\bar{o}z$ (see above). No one has a convincing explanation for this latter case.

In monosyllabic nominal stems too $*-z$ was widely generalized, but some forms (like $*\bar{p}as$) escaped. The details are too complex to pursue here.

In the inflectional endings of the present stems of verbs both Verner's Law alternants survived, evidently because whole classes of present stems had the accent on the root syllable while others had it on the stem vowel.

Therefore we find pres. indic. 2sg. $*-izi$ and $*-isi$, 3sg. $*-idi$ and $*-i\bar{p}i$, 3pl. $*-andi$ and $*-an\bar{p}i$, subj. 2sg. $*-aiz$ and $*-ais$, and so on. The PGmc. distribution of the alternants cannot be recovered in detail, because each daughter language has spread some alternants at the expense of others.

2.2) Strong and preterite-present verb inflection.

So far as we can tell, every strong and preterite-present verb with a root ending in a voiceless fricative participated in the alternation created by the Verner's Law sound change: in some forms the voiceless fricative was replaced by a voiced obstruent. For grammatical purposes this rule is "Verner's Law".

The voiceless fricative always appeared in the past indic. 1, 3 sg.; the voiced obstruent always appeared in the default past stem and past participle. Most present stems exhibited the voiceless fricative, but a few had the voiced obstruent instead.

The original alternations, and their usual reflexes in the daughters, are the following:

PGmc. & Gothic	ON	OE	OF	OS	OHG
f ~ b	f	f	v/f	þ/f	f ~ b
þ ~ d	ð	þ ~ d	th ~ d	đ ~ d	d ~ t
s ~ z	s ~ r	s ~ r	s ~ r	s ~ r	s ~ r
h ~ g	0 ~ g	0/h ~ g	0/ch ~ g	h ~ g	h ~ g
h ^w ~ g ~ w	0 ~ g ~ 0	0/h ~ g ~ w	0/ch ~ g ~ 0	h ~ g ~ w	h ~ g ~ w

Gothic has levelled the alternation in most verbs, usually (though not always) in favor of the underlying voiceless fricative.

In ON and northern West Germanic the labial alternation was largely eliminated by merger of the alternants; in ON that also happened to the dental alternation. In both cases the alternation is still identifiable in a few verbs because of particular conditioned sound changes (see further below).

I list the alternations here with the verbs reconstructable for PGmc. that exhibited them. A verb is "reconstructable for PGmc." if it has (1) a reflex (or derivatives) in Gothic and in at least one other Gmc. language, or (2) a reflex in any Gmc. language and a secure cognate in some other subfamily of Indo-European. Some verbs that entered the languages after the PGmc. period exhibit the alternations, but others do not.

*f ~ *b.

For some of these verbs the alternation does not survive and must be inferred:

*rīfana_ą, *raif, *ribun, *ribanaz 'tear' > ON *rifa*, OF *rīva*, both with the alternation merged, so that it must be inferred for this PGmc. verb;

*heufana_ą, *hauf, *hubun, *hubanaz 'lament': Goth. past *hufun*, levelled; OE past

hēof (?), OS *hioban*, *hōf*, merged; OHG *hiufit*, pres. only; alt. inferred;
 *reufana_ą, *rauf, *rubun, *rubanaz ‘tear’ > ON *rjúfa*, OE ptc. *rofen* ‘broken’, merged;
 alt. inferred;
 *hlefana_ą, *hlaƿ, *hlēbun, *hlebanaz ‘steal’ > Goth. *hlifan*, levelled; alt. inferred;
 *swefana_ą, *swaf, *swēbun, *swebanaz ‘sleep’ > ON *sofa*, OE *swefan*, merged; alt.
 inferred.

However, note the following:

*habjana_ą, *hōf, *hōbun, *habanaz ‘lift’ > Goth. *hafjan*, levelled; ON *hefja*, OF *heva*,
 merged; OE *hebban*, *hōf*, *hōfon*, *hafen*, OS *hebbian*, *hōf*, *hōbun*, *haþan*, with
 distinctively voiced geminate in the pres.; OHG *heffen*, *huob*, *huobun*, *gihaban*,
 with *f* levelled into the present, then *b* levelled through the past (!);

*sabjana_ą, *sōf, *sōbun, *sabanaz ‘perceive’ > OS *afsōf*, *afsōbun* (pres. not securely
 attested); OHG *inseffen*, *insuob*, *insuobun* with development like the preceding;
 (preterite-present:)

*þurbana_ą, *þarf, *þurbun, *þurftē ‘need’ > Goth. *þaúrban, *þarf*, *þaúrbum*, *þaúrfta*; ON
þurfa, *þarf*, *þurfu*, *þurfti*, OE *þurfan*, *þearf*, *þurfon*, *þorfte*, OF *thorf*, *thurvon*,
thorfte, OS **thurþan*, *tharf*, *thurþun*, *thorfsta*, merged; OHG *durfan*, *darf*, *durfun*,
dorfsta, levelled.

***þ ~ *d.**

*līþana_ą, *laiþ, *lidun, *lidanaz ‘go, go away’ > Goth. *galeiþan*, levelled; ON *liða*,
 merged; OE *līþan*, *lāþ*, *lidon*, *liden*; OF *lītha*, pres. only; OS *līdan*, ptc. *farlidan*;
 OHG *līdan*, *leid*, *litun*, *gilitan*;

*mīþana_ą, *maiþ, *midun, *midanaz ‘hide (from), elude, avoid’ > OE *mīþan*, levelled;
 OF *mītha*, pres. only; OS *mīdan*, *mēð*, *midun*; OHG *mīdan*, *meid*, *mitun*, *gimitan*;

*sīþana_ą, *saiþ, *sidun, *sidanaz ‘work magic’ > ON *síða*, merged; alt. inferred;

*snīþana_ą, *snaiþ, *snidun, *snidanaz ‘cut’ > Goth. *sneiþan*, levelled; ON *sníða*, merged;
 OE *snīþan*, *snāþ*, *snidon*, *sniden*; OF *snītha*, levelled; OS *snīdan*, *snidun*; OHG
snīdan, *sneid*, *snitun*, *gisnitan*;

(two NWGmc. additions to this class do not usually exhibit the alternation; their OE
 reflexes are *scrīþan* ‘stride’ and *wriþan* ‘twist’;)

*seuþana_ą, *sauþ, *sudun, *sudanaz ‘boil’ > ON *sjóða*, merged; OE *sēoþan*, *sēaþ*, *sudon*,
soden; OF *siatha*, ptc. *sedon*; OHG *siodan*, *sōd*, *gisotan*;

(an OE addition to this class, *brēoþan* ‘decay’, does not exhibit the alternation;)

*fīnþana, *fanþ, *fundun, *fundanaz ‘find’ > Goth. *fīnþan*, levelled; ON *finna*, *fann*, *fundu*, *fundinn*; OE *findan*, OF *finda*, OS *findan*, levelled (!); OHG *findan*, *fand*, *funtun*, *gifuntan*; the northern WGmc. verb may have been levelled because in that area the sound change outcomes of *fīnþ-, *fanþ were “fīþ-”, “fōþ”;

*hīnþana, *hanþ, *hundun, *hundanz > Goth. *frahinþan* ‘take prisoner’, levelled; alt. inferred;

*werþana, *warþ, *wurdun, *wurdanz ‘become’ > Goth *wairþan*, levelled; ON *verða*, merged; OE *weorþan*, *wearþ*, *wurdon*, *worden*; OF *wertha*, *warth*, *wurdon*, *worden*; OS *werðan*, *ward*, *wurdun*, *giwordan*; OHG *werdan*, *ward*, *wurtun*, *giwortan*;

*hreþana, *hraþ, *hrēdun, *hredanz ‘sift’ > OHG *redan*, *rad*; alt. inferred;

*k^weþana, *k^waþ, *k^wēdun, *k^wedanaz ‘say’ > Goth. *qīþan*, levelled; ON *kveða*, merged; OE *cweþan*, *cwæþ*, *cwēdon*, *cweden*; OF *quetha*, levelled; OS *quedan*, *quad*, *quādun*, *giquedan*; OHG *quedan*, *quad*, *quātun*, *giquetan*;

an irregular verb of this class *knudana ‘to knead’, might have levelled *d through already in the PGmc. period (cf. OSwed. *knodha*; OE *cnedan*, *cnādon*, *cneden*; OS ptc. *giknedan*; OHG *knetan*, *knat*, *giknetan*); there is not enough evidence to determine whether the past indic. sg. was etymologically expected *knaþ or (as OHG suggests) already levelled *knad;

*hlaþana, *hlōþ, *hlōdun, *hladanaz ‘load’ > Goth. ptc. *afhlaþans*, levelled; ON *hlaða*, merged; OF ptc. *hleden*; OE, OS *hladan* with *d levelled through, but OHG *ladan* with *þ levelled through;

*fraþjana (/*fradjana?), *frōþ, *frōdun, *fradanaz ‘understand’ > Goth. *fraþjan*, levelled; alt. inferred;

*skaþjana, *skōþ, *skōdun, *skadanaz ‘hurt’ > Goth. *skapjan*, levelled; OE *sceþþan*, *scōd*, *scōdon*, ptc. (1x) *sceaðen*;

*standana, *stōþ, *stōdun, *stadanaz > Goth. *standan*, *stop*, *stopun*; ON *standa*, *stóð*, *stóðu*, *staðinn*; OE *standan*, *stōd*, *stōdon*, *standen*, with *-d- levelled in the past and *-nd- levelled into the ptc.; so also OF *stonda*, OS *standan*; OHG *stantan*, *stuont*, *stuontun*, *stantan* with *-nd- levelled through;

*skaiþana, *skeskaip, *skeskaidun, *skaidanz ‘separate’ > Goth. *skaidan* with *d

levelled through (!); so also OE *scādan*; but OS *skēðan*, OHG *skeidan* with *þ levelled through;

*falþana, *fefalþ, *fefaldun, *faldanaz ‘fold’ > Goth. *faifalþ* ‘he rolled up (the scroll)’; ON *falda*, OE *fealdan* with *d levelled through, but OHG *faldan* with *þ levelled through.

*s ~ *z.

*rīšana, *rais, *rizun, *rizanaz ‘rise’ > Goth. *reisan*, ON *rīsa*, OE *rīsan*, OF *rīsa*, all levelled; OS *rīsan*, *rēs*; OHG *rīsan*, *reis*, *rirun*, *giriran* ‘fall’ (!);

*dreusana, *draus, *druzun, *druzanaz ‘fall’ > Goth. *driusan*, levelled; OE *drēosan*, *drēas*, *druron*, *droren*; OS *driosan*;

*freusana, *fraus, *fruzun, *fruzanaz ‘freeze’ > ON *frjósa*, *fraus*, *frøru*, *frørin*; OE *frēosan*, *frēas*, *fruron*, *froren*; OHG *friosan*, *frōs*, *gifroran*;

*keusana, *kaus, *kuzun, *kuzanaz ‘test’ > Goth. *kiusan*, levelled; NWGmc. ‘choose’: ON *kjósa*, *kaus*, *kuru*, *korinn*; OE *cēosan*, *cēas*, *curon*, *coren*; OF *kiasa*, *kās*, *keron*, *keren*; OS *kiosan*, *kōs*, *kurun*, *koran*; OHG *kiosan*, *kōs*, *kurun*, *gikoran*;

*fraleusana, *fralaus, *fraluzun, *fraluzanaz ‘lose’ > Goth. *fraliusan*, levelled; OE *forlēosan*, *forlēas*, *forluron*, *forloren*; OF *urliasa*, ptc. *urleren*; OS *farliosan*, ptc. *farloran*; OHG *firliosan*, *firlōs*, *firlurun*, *firloran*;

(an OE addition to this class, *hrēosan* ‘fall’, exhibits the alternation;)

*þinsana, *þans, *þunzun, *þunzanaz ‘pull’ > Goth. *atþinsan*, pres. only; OHG *dinsan*, levelled; alt. inferred;

*þersana, *þars, *þurzun, *þurzanaz ‘dry out’ > Goth. ptc. *gaþaúrsons*, levelled; alt. inferred;

*jesana, *jas, *jēzun, *jezanaz ‘ferment’ > OHG *jesan*, pres. only; alt. inferred;

*lesana, *las, *lēzun, *lezanaz ‘gather’ > Goth. *lisan*, ON, OF *lesa*, OE, OS *lesan*, all levelled; OHG *lesan*, *las*, *lārun*, *gileran*;

*ganesana, *ganas, *ganēzun, *ganezanaz ‘survive, recover’ > Goth. *ganisan*, OE *genesan*, levelled; OS *ginesan*, *ginas*; OHG *ginesan*, *ginas*, *ginārun*, *gineran*;

*wesana, *was, *wēzun, *wezanaz ‘stay, be’ > Goth. *wisan*, levelled; ON *vesa*, *vas*, *vāru*, *verinn*, later with *z levelled through; OE *wesan* *wæs*, *wāron*; OF *wesa*, *was*, *wēron*, *wesen*; OS *wesan*, *was*, *wārun*; OHG *wesan*, *was*, *wārun*, *giweran*;

*fraisana, *fefrais, *fefraizun, *fraizanaz ‘try’ > Goth. *fraisan*, levelled; alt. inferred;

*ausana, *eaus, *eazun, *auzanaz ‘draw (water)’ > ON *ausa*, levelled; alt. inferred;
 *blēšana, *beblēs, *beblēzun, *blēzanaz ‘blow’ > Goth. *blesan*, ON *blása*, OHG *blāsan*,
 all levelled; alt. inferred;

*h^wōšana, *h^weh^wōs, *h^weh^wōzun, *h^wōzanaz ‘cough’ > OE *hwōsan*, *hwēos*; alt.
 inferred;

(preterite-presents:)

*lizana, *lais, *lizun, *listē ‘know’ > Goth. (1x) 1sg. *lais*, only form attested; alt. inferred
 for this verb, but well attested in derivatives (see below);

*durzana, *dars, *durzun, *durstē ‘dare’ > Goth. *gadaúrsan*, levelled; OE **durran*, *dearr*
 (2sg. *dearst*), *durron*, *dorste*, OHG *gitar* (2sg. *gitarst*), *giturrun*, *gitorsta*, both
 with *z levelled through except in the pres. 2sg. and the past; OS *gidar*, *gidorsta*,
 with *z levelled through except in the past (pres. 2sg. not attested); OF pres. 3sg.
dōr, subj. *dūre* (no other forms attested).

***h ~ *g.**

*tīhana, *taih, *tigon, *tiganaz ‘declare’ > Goth. *gateihan* ‘proclaim’, levelled; ON past
té ‘reported’; OE *betēon*, *betēah*, *betugon*, *betigen* / *betogen* ‘accuse’ (largely
 shifted into class II); OF *urtiā* ‘refuse’, OS *aftīhan* ‘deny’, both pres. only; OHG
zīhan, *zēh*, *zigun*, *gizigan* ‘accuse’;

*wrihana, *wriah, *wrigun, *wriganz ‘cover’ > OE *wrēon*, *wrāh*, *wrigon*, *wrigen*; OHG
intrīhan, *intrigun*, *intrigan* ‘uncover’;

(note also the OHG ptc. *gerigan* ‘plaited’ from a lost homonymous verb:)

*wiganā, *waih, *wigan, *wiganaz ‘fight’ > Goth. *weihan*, regularized and levelled, but
 cf. fossilized *du wigana* ‘to battle’; the other lgg. have levelled *g through and
 sometimes altered the root vowel by lexical analogy with *wegana ‘move’: ON
vega, OE *gewegan* (1x, Beowulf 2400), ptc. *forweġen* ‘slain’, agent noun *wīġend*
 ‘warrior’, OHG *wīgant* ‘warrior’, OF *wīgand* ‘son’ (!);

*teuhana, *tauuh, *tugun, *tuganz ‘lead, pull’ > Goth. *tiuhan*, levelled; ON ptc. *toginn*;
 OE *tēon*, *tēah*, *tugon*, *togen*; OF *tiā*, *tāch*, *tegon*, *etein*; OS *tiohan*, *tōh*, *tugun*,
togan; OHG *ziohan*, *zōh*, *zugun*, *gizogan*;

*pleuhana (*fl-?), *plauh, *plugun, *pluganz ‘flee’ > Goth. *pliuhan*, levelled; ON past
fló, *flugu*; OE *flēon*, *flēah*, *flugon*, *flogen*; OF *fliā*, *flāch*, *flegon*, *flain*; OS *fliohan*,
flōh; OHG *fliohan*, levelled (!);

- *þinhanaꝥ, *þanh, *þungun, *þunganaz ‘thrive’ > OE *þēon*, *þāh*, *þungon*, *þungen*, but also (class I) *þigon*, *þigen*, and West Saxon (class II) *þēah*, *þugon*, *þogen*; in the other lgg. the verb has been shifted entirely into class I, because *inh (phonetically *[īh]) merged with *īh: Goth. *þeihan*, levelled; OS *thīhan*, *thigun*, *githigan*; OHG *dīhan*, *dēh*, *digun*, *gidigan*;
- *þrinhanaꝥ, *þranh, *þrungun, *þrunganaz ‘press’ > Goth. *þreihan*, transferred into class I (see above) and levelled; the other languages have levelled *g through the paradigm: ON *þryngva*, OE *þringan*, OF *urthringa* (pres. only), OS *thringan*, OHG *dringan*;
- *felhanaꝥ, *falh, *fulgun, *fulganaz ‘penetrate’ > Goth. *filhan* ‘bury, hide’, levelled, but cf. fossilized ptc. *fulgins* ‘hidden’; ON *fela*, *fal*, *fālu*, *folginn* ‘hide’; OE *fēolan*, *fealh*, *fulgon* (*fælon*), *folen* ‘penetrate’; OF *befela* ‘command’, OS *bifelhan* ‘command’, OHG *felahan* ‘store up’, all levelled;
- *gafehanaꝥ, *gafah, *gafēgun, *gafeganaz ‘be glad’ > OE *gefēon*, *gefēah*, *gefāgon*; OHG *gifehan*, levelled;
- *jehanaꝥ, *jah, *jēgun, *jeganaz ‘assert, state’ > OF *jā*, levelled; OS *gehan*, pres. only; OHG *jehan*, levelled; alt. inferred;
- *gaskehanaꝥ, *gaskah, *gaskēgun, *gaskeganaz ‘happen’ > OF *skiā*, OHG *giskehan*, both levelled; alt. inferred;
- *þigjanaꝥ, *þah, *þēgun, *þeganaz ‘receive’ > ON *þiggja*, *þá*, *þágu*, *þeginn*; OE *þicgan*, *þeah*, *þāgon*;
- *fregnanaꝥ, *frah, *frēgun, *freganaz ‘ask’ > Goth. *fraihnan*, levelled; ON *fregna*, *frá*, *frágu*, *freginn*; OE *frignan*, *frægn*, *frugnon*, *frugnen*, OS past *fragn*, *frugnun* with *gn levelled through from the pres.;
- *flahanaꝥ, *flōh, *flōgun, *flaganaz ‘skin’ > ON *flá*, *fló*, *flógu*, *fleginn*; OE *flēan*, *flōg*, *flōgon*, *flagen*;
- *lahanaꝥ, *lōh, *lōgun, *laganaz ‘blame’ > OE *lēan*, *lōg*, *lōgon*, *lagen*; OS *lahan*, *lōg*; OHG *lahan*, *luog*, *luogun*;
- *slahanaꝥ, *slōh, *slōgun, *slaganaz ‘hit, kill’ > Goth. *slahan*, levelled; ON *slá*, *sló*, *slógu*, *sleginn*; OE *slēan*, *slōg*, *slōgon*, *slægen*; OF *slā*, *slōch*, *slōgon*, *slein*; OS *slahan*, *slōg*, *slōgun*, *slagan*; OHG *slahan*, *sluog*, *sluogun*, *gislagan*;
- *þwahanaꝥ, *þwōh, *þwōgun, *þwagan ‘wash’ > Goth. *þwahan*, levelled; ON *þvá*, *þó*,

þógu, þvegin; OE *þwēan, þwōg, þwōgon, þwægen*; OS *thwahan, thwōg*; OHG *dwahan, dwuog, dwuogun, gidwagan*;

*hlahjana, *hlōh, *hlōgun, *hlaganaz ‘laugh’ > Goth. *hlahjan*, levelled; ON *hlæja, hló, hlógu, hleginn*; OE *hliehhan, hlōg, hlōgon*; OS past *hlōgun, hlagan*;

*fanhana, *fefanh, *fefangun, *fanganaz ‘seize, take’ > Goth. *fāhan*, levelled; ON *fá, fekk, fengu, fenginn*; OE *fōn, fēng, fēngon, fangen*; OF *fā, fing, fingen, fangen*; OS *fāhan, fēng, fēngun, gifangan*; OHG *fāhan, fieng, fiengun, gifangan*;

*hanhana, *hehanh, *hehangun, *hanganaz ‘hang (trans.)’ > Goth. *hāhan* ‘suspend’, levelled; ON *hanga* with *g levelled through; OE *hōn, hēng, hēngon, hangen*; OF *huā, heng, hwendzen*; OS *hāhan* ‘crucify’, ptc. *bihangan* ‘festooned’; OHG *hāhan, hieng, hiengun, gihangan*;

(whether the isolated Goth. pres. *gaplaihan* ‘exhort’ reflects a PGmc. verb is unclear;) (preterite-presents:)

*ganugana, *ganah, *ganugun, *ganuhtē ‘be enough’ > Goth. *ganah* (only 3sg. attested, aside from ptc. *binauhts* ‘allowed’); OE *geneah, genugon, genohte*; OHG *ginah* (only 3sg. attested);

*aigana, *aih, *aigun, *aihtē ‘have, possess’ > Goth. *aih, aigun, aihta* (inf. 1x in *fairaihan* ‘partake’); ON *eiga, á, eigu, átti*; OE *āgan, āh, āgon, āhte*; OF *āch, āghen, āchte*; OS *ēgan, ēgun, ēhta* (pres. 3sg. not attested); OHG *eigun* (only form attested).

***h^w ~ g ~ w.**

*līh^wana, *laih^w, *ligun, *liwanaz ‘lend’ > Goth. *leihuan*, pres. only; ON past *lé*; OE *lēon, lāh, forlīgen*; OS, OHG *līhan, lēh, liwun, giliwan*;

*sīh^wana, *saih^w, *sigun, *siwanaz ‘filter’ > OE *sēon, sāh, siwen*; OF *siā, esīn*; OHG *sīha, sēh, siwan*;

*seh^wana, *sah^w, *sēgun, *sewanaz ‘see’ > Goth. *saihan*, levelled; ON *sjá, sá, sá(g)u, séinn*; OE *sēon, seah, sāwon* (Angl. *sēgun*), *sewen*; OF *siā, sach, sēgon, sien*; OS *sehan, sah, sāwun, sewan*; OHG *sehan, sah, sāhun, gisewan*;

(here also belongs the OHG past *giwuog, giwuogun* ‘mentioned’, if the PGmc. root was *wah^w- < PIE *wok^w- ‘voice’.)

2.3) Derivation from strong verb roots.

Weak class I causatives and intensives formed from strong verbs exhibited the voiced alternant of the root-final fricative and (usually) the root vowel of the past 3sg.

I list examples in the order in which the basic verbs are listed above.

- *raubijaną ‘plunder, rob’ > ON *reyfa*, OE *berīefan* (merged); OHG *roufen* ‘pluck’ (levelled);
- *swabjaną ‘put to sleep’ > ON *svefja* ‘adjust, settle’ (merged); OE *swebban* ‘kill’, OS *answebbian* ‘fall asleep’, OHG *inswebben* ‘put to sleep’;
- *laidijaną ‘lead’ > ON *leiða* ‘accompany’ (merged); OE *lādan*, OF *lēda*, OS *lēdian* ‘bring’, OHG *leiten*;
- *maidijaną ‘exchange’ > Goth. *maidjan* ‘adulterate’, *inmaidjan* ‘transform’; ?ON *meiða* ‘hurt, spoil’ (merged);
- *snaidijaną ‘cut’ > ON *sneiða* (merged); OE *snādan*, OHG *sneiten*;
- *handijaną ‘take, seize’ > ON *henda*, OE *gēhendan* ‘hold’, OF *henda*;
- *(fra)wardijaną ‘ruin, destroy’ > Goth. *frawardjan*, OE (*for*)*wierdan*, OS *awerdian*, OHG (*ar*)*werten*;
- *k^wadjaną ‘greet’ > ON *kveðja* (merged), OS *queddian*, OHG *quetten* ‘call out’;
- *hlōdijaną ‘load down’ > ON *hlæða* (merged);
- *stōdijaną ‘stand (trans.), cause to stand’ > Goth. *anastodjan* ‘begin, undertake’;
- *raizijaną ‘raise, cause to rise’ > Goth. *urraisjan* ‘raise, rouse’ (levelled), ON *reisa* (levelled), OE *rāran*;
- *drauzijaną ‘cause to fall’ > Goth. *gadrausjan* ‘overthrow’ (levelled), ON *dreyra* ‘bleed’, OHG *trōren* ‘rain’;
- *frazijaną ‘cause to freeze’ > OHG *infrōren* ‘cause to thaw’ (‘unfreeze’);
- *kauzijaną ‘taste, test’ > Goth. *kausjan* (levelled), OF *kēra* ‘choose’;
- *fralauzijaną ‘lose utterly’ > OHG *firlōren* ‘destroy’;
- *þarzijaną ‘dry out (trans.)’ > ON *þerra*, OHG *derren*;
- *jōzijaną ‘stir up’ (to *jesaną ‘ferment’, orig. *‘boil’) > ON *æsa* (levelled);
- *nazjaną ‘save’ > Goth. *nasjan* (levelled), OE *nerian*, OF *nera* ‘feed’, OS *nerian*, OHG *nerien* ‘feed, support’;
- *laizijaną ‘teach’ > Goth. *laisjan* (levelled), OE *lāran*, OF *lēra*, OS *lērian*, OHG *lēren*;
- *waigijaną ‘harrass’ > OE *wāgan*, OS *wēgian*, OHG *weigen*;

- *taugijana ‘lead insistently’ > ON *teygja* ‘incite, tempt’;
- *þlaugijana ‘put to flight’ > ON *flæja* ‘flee’ (levelled), OE *āflīegan*, OF *flāgia*, OHG *arflougen*;
- *þangijana ‘cause to thrive’ > OS *athengian* ‘accomplish’;
- *þrangijana ‘press hard’ > ON *þrøngva*;
- *falgijana ‘push into’ > OS *felgian* ‘enjoin’, OHG *felgen* ‘acquire, appropriate’;
- *fagjana ‘make happy’ > Goth. *fullafahjan* ‘satisfy’ (levelled; or is this a denominative?);
- *þagjana ‘receive’ > OE *āþecgan* ‘consume’;
- *hlōgijana ‘cause to laugh’ > Goth. *ufhlohjan* (levelled), ON *hlægja*;
- *hangijana ‘hang (trans.)’ > ON *hengja*, OF *hingia*, OHG (Alemannic) *henchen*;
- *saiwijana ‘filter’ (?) > OHG *seihhen* ‘soften; urinate’ (levelled; or denominative?).

Note also three fossilized causatives:

- *sandijana ‘send’ > Goth. *sandjan*, ON, OF *senda*, OE *sendan*, OS *sendian*, OHG *senten* ‘lead’;
- *tandijana ‘kindle’ > Goth. *tandjan*, ON (1x) *tenda*, OE *ontendan*;
- *wazjana ‘clothe’ > Goth. *wasjan* (levelled, cf. *wasti* ‘garment’), ON *verja*, OE *werian*, OHG *werien*.

Weak class IV fientives had zero-grade roots and voiced alternants. Most survive only in Gothic and/or ON, in which the alternants were usually levelled and/or merged, but the original pattern can still be seen in the following examples:

- *tundnō- ~ *tundna- ‘be kindled’ > Goth. *tundnan* ‘burn’;
- *þurznō- ~ *þurzna- ‘dry out (intr.)’ > Goth. *gapaúrsnan* (levelled), ON *þorna*;
- *liznō- ~ *lizna- ‘learn’ > OE *leornian*, OF *lernia*, OHG *lirnēn*; cf. OS *lernunga* ‘instruction’;
- *tugnō- ~ *tugna- ‘be pulled’ > ON *togna* ‘get longer’;
- *flagnō- ~ *flagna- ‘be skinned’ > ON *flagna* ‘be peeled’.

Some other derivative verb types apparently also exhibited voiced alternants. Two seem important enough to mention; both had *a in the root. Weak class II intensives are fairly numerous:

- *(bi)raubōna ‘rob’ > Goth. *biraubon*; OE *(be)rēafian*, OF *(bi)rāvia*, OS *rōbon* (all merged); OHG *roubōn*; cf. ON *raufa* ‘break up’ (merged), or is that an independent derivative?;

- *snaidōną ‘cut’ > OHG *gesneitōn* ‘cut off’;
- *fandōną ‘go looking for, investigate, find out about’ > OE *fandian*, OF *fandia* ‘visit’, OS *fandon* ‘seek out, lie in wait for’, OHG *fantōn*;
- *skaidōną ‘separate carefully’ > OHG *sceidōn* ‘distinguish’ (levelled);
- *faldōną ‘fold up’ > ON *falda*, OHG *faltōn*;
- *þanzōną ‘stretch’ > OHG *dansōn* ‘drag, haul’ (levelled);
- *nazōną ‘survive (in the long term)’ > ON *nara* ‘live’;
- *wazōną ‘stay (for a long time)’ > OE *warian* ‘dwell’, OS *waron*;
- *fraizōną ‘make an effort’ > OE *frāsian* ‘investigate’, OS *frēson* ‘try’ (both levelled);
- *taigōną ‘proclaim’ > OF *intāja* ‘lament’, OHG *zeigōn* ‘reveal, show’;
- *þrangōną ‘press hard’ > OHG *drangōn* ‘crowd around’;
- *slagōną ‘beat’ > OHG *slagōn* ‘clap’;
- *fangōną ‘grip hard’ > OE *fangian* ‘fasten’, OF *fangia* ‘catch’.

Much less common are weak class III statives:

- *þarbai- ‘be needy’ > Goth. *gaþarban sik* ‘refrain, abstain’, OHG *darbēn* ‘do without’;
- *fagai- ‘be happy’ > OHG *fagēn* ‘cherish’;
- *hangai- ‘hang (intr.)’ > Goth. *hāhan* (levelled), ON *hanga*, OE *hangian*, OF *hangia*, OS *hangon*, OHG *hangēn*.

Many types of derived nominals also exhibit voiced alternants; the following seem worth mentioning.

Masculine i-stem action nouns with zero-grade roots are particularly common:

- *-lidiz ‘going, departure’ > OHG *ablit* ‘death’, *ūzlit* ‘error’;
- *snidiz ‘cut’ > OE *snide*, OF *snid*, OHG *snit* ‘grain harvest’;
- *(-)sudiz ‘boiling’ > OE *syde* ‘decoction’, OHG *salzsuti* ‘saltworks’;
- *fundiz ‘discovery, find’ > ON *fyndr*;
- *k^widiz ‘speech, saying’ > ON *kviðr*, OE *cwide*, OS *quidi*, OHG *quiti*;
- *faldiz ‘fold’ > ON *feldr* ‘cloak’, OE *field*;
- *druziz ‘fall’ > Goth. *drus* (levelled), OE *dryre*;
- *(-)kuziz (‘test’ →) ‘choice’ > OE *cyre*, OF *kere*, OS *selfkuri* ‘whim’, OHG *churi* ‘investigation’;
- *luziz ‘loss’ > OE *lyre*;
- *(-)tugiz ‘leading, pulling’ > OE *oftyge* ‘withholding’, OHG *zug* ‘pulling, movement’;

- *plugiz ‘flight, escape’ > Goth. *plaihs* (levelled), ON *flugr*;
- *slagiz ‘stroke, blow’ > Goth. *slahs* (levelled), ON *slagr*, OE *sleġe*, OF *slei*, OS *slegi*, OHG *slag*;
- *(-)fangiz ‘taking’ > ON *fengr* ‘haul (of fish); booty’, OE *feng* ‘grip, embrace; booty’, OS, OHG *anafang* ‘beginning’.

An important member of this group is instead feminine:

- *wurdiz ‘fate’ > ON *urðr* (merged), OE *wyrd*, OS *wurd*, OHG *wurt*.

Neuter a-stem action nouns with zero-grade roots are also common:

- *(-)haba ‘lifting’ > ON *haf* ‘sea’, *upphaf* ‘beginning’, OE *hæf* ‘sea’ (all merged); OHG *urhab* ‘cause’;
- *lida ‘journey’ > ON *lið* ‘expedition; vessel’ (merged), OE *lid* ‘ship’, OF *lid* ‘company’;
- *snida ‘cut’ > ON *snið* ‘division, piece’ (merged), OE *ġesnid*;
- *suda ‘boiling’ > ON *soð* ‘broth’ (merged), OE *ġesod* ‘dish (of food)’; OF *soth* ‘broth’, OHG *gisod* ‘dish’ (both levelled);
- *hlada ‘load’ > ON *hlað* ‘heap; barn’ (merged), OE *hlæd*;
- *gaskaida ‘separation’ > OE *ġescād* ‘distinction’, OS *giskēd* ‘decision’, OHG *gisceit* ‘division’;
- *fruzā ‘frost’ > ON *frør*, OHG *fror*;
- *kuza (‘test’ →) ‘choice’ > ON *kør*, OE *ġecor* ‘decision’; cf. OF *korbita* ‘consecrated morsel (for the ordeal)’;
- *tuga ‘pulling’ > ON *tog* ‘bridle, rope’, OE *ġetog* ‘contraction, cramp’;
- *slaga ‘stroke, blow’ > ON *slag*;
- *(ga)fangā ‘catch, grasp’ > Goth. *gafāh* (levelled), ON *fang*, OE *fang* ‘booty’, OHG *gifang* ‘clothing’.

A much older type of result noun (with close parallels in Greek) are feminine *ō*-stems with *a in the root:

- *raubō ‘tear, rip’ > ON *rauf* (merged);
- *þarbō ‘need, lack’ > Goth. *þarba* ‘poverty’; ON *þorǫf*, OE *þearf*, OF *therve*, OS *tharf* ‘distress’ (all merged); OHG *darba* ‘fasting’;
- *laidō ‘journey, way’ > ON *leið* (merged), OE *lād*, OF *lēde*, OHG *leita*;
- *-snaidō ‘cutting, section’ > OHG *asneita* ‘shoot, graft’;
- *k^wadō ‘speech’ > ON *kvǫð* ‘claim, debt’ (merged);

- *skadō ‘harm’ > OE *sceaþu* ‘destruction’ (levelled);
- *raizō ‘rising, setting out’ > OHG *reisa* ‘journey’ (levelled; borrowed into OF and ON);
- *(-)nazō ‘rescue’ > OHG *nara* ‘deliverance’; OS *līfnara*, OHG *lībnara*, both ‘livelihood’;
- *-wazō ‘sojourn’ > OE *landwaru* ‘inhabitants, population’;
- *fraizō (‘test’ →) ‘danger’ > OF *frāse*, OS *frēsa* ‘harm’, OHG *freisa* ‘ruin’ (all levelled);
- *taugō ‘cord, rope’ > ON *taug*, OE *tēag*;
- *þrangō ‘press, crowd’ > ON *þrǫng*, OE *þrang*;
- *falgō (‘penetration’ →) ‘appropriation’ > (?) OHG *falga* ‘occasion, opportunity’;
- *(-)slagō ‘stroke, blow’ > OE *morþorslagu* ‘murder’, OS *hōfslaga* ‘hoofprint’, OHG *slaga*;
- *laiwō ‘loan’ >→ ON *leiga* ‘rent, wages’ (the rare labiovelar alternation *h ~ *w has been replaced by the common *h ~ *g, and the noun has become an n-stem).
Masculine n-stem agent nouns, usually compounds with zero-grade roots, are also a fairly common type:
- *-rubō ‘tearer’ > ON *eiðrofi* ‘oathbreaker’ (merged);
- *skadō ‘one who does harm’ > ON *skaði* ‘harm’ (merged); OE *scapa*, OF *skatha* ‘harm’, OS *skado*, OHG *skado* ‘harm’ (all levelled);
- *-rizō ‘riser’ > OHG *bettiriso* ‘bedridden person’ (levelled) (‘one who collapses into bed’; *rīsan* has come to mean ‘fall’ in OHG, see above);
- *-kuzō (‘tester’ →) ‘chooser’ > OE *wīpercora* ‘rebel’ (‘one who chooses (to go) against (his lord)’);
- *-luzō ‘loser’ > OE *hlēowlora* ‘one who has lost a protector’;
- *-tugō ‘leader’ > PWGmc. *haritogō ‘(Roman) field commander, *dux*’ (‘army-leader’) > OE *heretoga*, OF *hertoga*, OS *heritogo*, OHG *herizogo*; in OF and OHG the word already means ‘duke’, and in the OS *Heliand* (a rendering of the Gospel story in heroic verse) it is used of Herod and other rulers;
- *-þlugō ‘one who flees’ > ON *fuðflogi* ‘man who abandons his fiancée’ (*fuð* ‘female genitalia’);
- *-slagō ‘killer’ > PWGmc. *mannslagō ‘murderer’ > OE, OF *manslaga*, OS, OHG *manslago*;
- *-fangō ‘catcher, taker’ > ON *misfangi* ‘mistaken person’ (‘one who takes (something) by error’);

*(-)aigō ‘possessor’ > OE *āga*, OHG *hūseigo* ‘householder’.

Finally, two unusual but common derivatives deserve mention:

*ganōgaz ‘enough’ > Goth. *ganohs* (levelled), ON *gnógr*, OE *genōg*, OF *enōch*, OS *ginōg*, OHG *ginuog*;

*siuniz ‘sight’ (*u = preconsonantal *w, and the preceding *e has been raised to *i by the *i of the suffix) > Goth. *siuns* ‘appearance, face’, ON *sýn*, OE *sīen*, OF *siune*, OS *siun*; cf. OHG *gisiuni*.

2.4) Nominals.

No attested Gmc. language exhibits the Verner’s Law alternation within nominal stems.

However, comparison of the languages shows that some nouns must have exhibited the alternation in PGmc. The more noteworthy relics include the following. Neuter a-stems, probably inherited with an accent alternation between sg. and pl. (the latter originally a derived collective):

PGmc. *blōpa- ~ *blōda- ‘blood’ > Goth. *blōp-* (*p* even before inflectional endings, thus not by word-final devoicing) vs. OE, OF, OS *blōd*, OHG *bluot*; ON *blóð* is ambiguous;

PGmc. *gulpa- ~ *gulda- ‘gold’ > Goth. *gulp-*, ON *gull*, OHG *gold* vs. OE, OF, OS *gold*;

PGmc. *tahra- ~ *tagra- ‘tear’ > ON *tár*, OE *tēar*, OF *tār*, OHG *zahar* vs. Goth. *tagr*;

PGmc. *glasa- ~ *glaza- (‘amber’ → ‘glass’) > OE *glæs*, OF *gles*, OHG *glas* vs. ON *gler*;

PGmc. *kasa- ~ *kaza- ‘container’ > Goth. *kas* vs. ON *ker*, OHG *char*;

PGmc. *basja- ~ *bazja- ‘berry’ > Goth. *weinabasi* ‘grape’ vs. ON *ber*, OE *berie*, OHG *beri*.

Masculine noun with a neuter pl. (orig. a derived collective):

PGmc. *h^weh^wla- ~ *h^weula- ‘wheel’ > OE *hwēol*, ON *hvél* vs. OE *hweowol*, ON *hjól*; the OE forms are masc., the ON forms neut.; cf. Homeric Gk. masc. κύκλος /kúklos/, pl. neut. κύκλα /kúkla/, with levelled accent, and Skt. neut. *cakráṃ*, with levelled gender and the accent levelled the other way.

A further possible example is

PGmc. *ansa- ~ *anza- ‘beam’ > ON *áss* (masc.) vs. Goth. dat. sg. *anza* (gender unknown);

the word has no good etymology, but a collective of ‘beam’ would make sense.

Derived i- and u-stems with inherited accent alternation:

PIE *t_ṛesu- ~ *t_ṛséw- ‘dry’ (cf. Skt. *tṛṣús* ‘greedy, horny’ (!), Av. *taršuš* ‘dry, solid’) >

PGmc. *pursu- (or still *persu-?) ~ *purzu- > Goth. *þaúrsus* vs. ON *þurr*, OE *þyrre*, OHG *durri*;

PIE *p_ṛertu- ~ *p_ṛtéw- ‘crossing’ (cf. Av. *p_ṛətuš*, Welsh *rhyd* ‘ford’; Lat. *portus* ‘port’)

> PGmc. *ferþu- ~ *furdu- > ON *ffjorðr* ‘inlet, fjord’ vs. OE *ford*, OHG *furt*, both; whether the paradigm split had already occurred in PGmc. is not clear;

PGmc. *arþi- ~ *ardi- ‘plowing’ > OE *ierþ* vs. OHG *art*, OF *raeferd* ‘predatory plowing’;

PGmc. *gaburþi- ~ *gaburdi- ‘birth’ > Goth. *gabaurþ-i-* vs. OHG *giburt*, OE *gebyrd* ‘birth, destiny’;

PGmc. *kumþi- ~ *kumdi- ‘coming’ > Goth. *gaqumþ-i-* ‘assembly’ vs. ON *samkund* ‘feast’;

PGmc. *mēþi- ~ *mēdi- ‘mowing’ > OE *māþ* vs. OHG *amāt* ‘second mowing’;

PGmc. *nauþi- ~ *naudi- ‘compulsion, distress’ > Goth. *nauþ-i-* vs. OE *nīed*, OHG *nōt*, and Goth. cpds. *naudibandi* ‘fetter’, etc.;

PGmc. *skulþi- ~ *skuldi- ‘debt’ > OHG *sculd* vs. OE *scyld*, ON *skyld* ‘tax’.

Basic n-stem nouns:

*hasan- ~ *hazan- ‘hare, rabbit’ > OHG *haso* vs. ON *heri*, OE *hara*;

*ausan- ~ *auzan- ‘ear’ > Goth. *auso* vs. ON *eyra*, OE *ēare*, OF *āre*, OS, OHG *āra*.

The alternation was extended bizarrely to an s-plus-stop cluster in:

*askōn- ~ *azgōn- ‘ashes’ > ON, OHG *aska*, OE *asce* vs. Goth. *azgo*.

Finally, mention should be made of an interesting nominal derivation. From PGmc.

*ah^wō ‘river’ (see the Grimm’s Law handout) was derived

PGmc. *aujō ‘island’ > ON *ey*, OE *īeg*, OHG *ouwa*.

The expected development of *k^wy followed by the accent would have been *g^wj > *gj (see ‘companion’ and ‘say’, p. 3 above); the fact that we find (*uj =) *wj instead must reflect a period in which the alternation *h^w ~ *w was the productive Verner’s Law rule for labiovelars.