Studies in Germanic Linguistics 3

Chapter 12: Verbs

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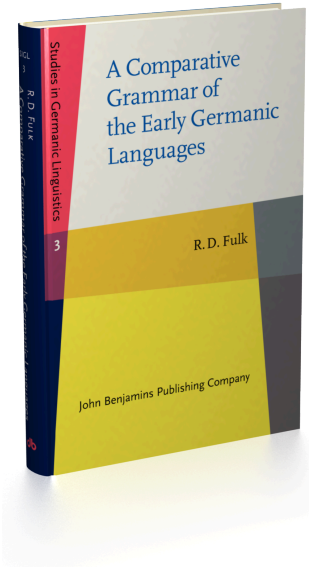

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CHAPTER 12

Verbs

I. The Proto-Indo-European Background of the Germanic Verb

12.1 Categories and aspects of verbs in Proto-Indo-European

Verbs in late PIE apparently were conjugated in two voices (active, middle),[1] four, or possibly five, moods (indicative, subjunctive, optative, imperative, perhaps injunctive),[2] two tenses (present, preterite),[3] and three aspects (as explained below). Verbs were inflected for three persons (first, second, third) in three numbers (singular, dual, plural).[4,5]

PIE verbs may be classified as either athematic or thematic. The terms have the same meaning they have in regard to nouns (§7.1): between the verb stem and the inflection there appeared in a great many verbs (though not in all forms of such) a connecting vowel, referred to as the 'theme vowel' (or 'thematic vowel'), which might be either *e* or its ablaut alternant *o*. For example, **bher-* 'bear' takes the theme vowel *e* in pres. 2 pl. **bher-e-te* > Gk. *φέρετε* but the theme vowel *o* in pres. 3 pl. **bher-o-nti* > Gk. *φέρουςι*. As for athematic verbs, for example, to the stem **h₁es-* 'be' occur the forms pres. 1 sg. **h₁es-mi* > Skt. *ásmi* and 3 sg. **h₁es-ti* > Skt. *ásti*, Gk. *ἐστί*, Lat. *est*, without any theme vowel. The personal inflections in the two types differed only in the first person singular present, where the thematic verbs have **-ō* (from theme vowel *o* plus *h₂*), as in Gk. *φέρω* 'I bear', whereas the athematic verbs have **-mi*, as in Gk. *τίθημι*. For this reason the athematic verbs are sometimes referred to as *mi*-verbs. In thematic verbs the stem was invariant in its root vocalism, whereas in athematic verbs the rule was full grade in the singular and weak grade in the dual and plural of the present indicative, with accent on the inflection. Thus, for example, full-grade **h₁es-* in 3 sg. **h₁és-ti* 'is' (Skt. *ásti*, Gk. *ἐστί*) contrasts with zero-grade **h₁s-* in 2 pl. **h₁s-té* in Skt. *sthá* and 3 pl. **h₁s-ónti* in Skt. *sánti*.

As regards aspect, PIE verbs may be classified as either stative or eventive. When stative, verbs take the form of the perfect, which denotes a state precipitated by past developments of present import. For example, the perfect construction "She has lived in Aarhus ever since" refers to present residence due to a move made formerly, and "I have eaten" refers to an implied present situation ("I am not in need of a meal") due to past action. When eventive, a verb could take the form either of the imperfective, not indicating completion of the process or quality indicated by the verb's semantics, or of the perfective, indicating completion. The basic stem of the imperfective form is the present, whereas the basic stem of the perfective is the aorist. It should be noted that although the aorist denotes completion, it leaves unspecified an event's aspectual qualities (durative, iterative, etc.), whereas event structure is often indicated in present stems by means of affixes (see §12.3). Affixes also characterize the aorist stem, not on an

aspectual but a historical basis. The oldest and simplest aorist stems are the root-stems, which might alternate between full grade in the active singular, elsewhere reduced grade. Alternatively, *-*s*- might be added to the ablauting, athematic stem to form the so-called sigmatic aorist, with lengthened grade in the active singular (probably: see Szemerényi 1996: §9.4.2.1). A third alternative is that a thematized stem, with reduced grade of the root, might be used with or without reduplication to form the aorist stem.

PIE verb morphology and inflection depended to a remarkable extent on semantics (or, more precisely, *Aktionsart*),[6] correlating to whether a verb was fundamentally imperfective (i.e., not expressing completion of an action, hence **atelic**; cf. Gk. *τέλος* 'end') or perfective (i.e., indicating an end, hence **telic**).[7] Atelic verbs are thus those which most commonly express continuous or habitual action, such as *go*, *bear*, and *enjoy*; telic verbs are those which normally express non-continuous action, such as *strike*, *choose*, and *cast*. An atelic verb would appear in its unmarked form as a present stem, whereas a telic verb would appear as an aorist stem—a root-aorist, to be precise, this being the simplest form of the aorist. A fundamentally atelic verb, however, might be used in a punctual sense: for example, *go* is non-continuous (and thus punctual) in the sentence "At midnight she went home." Likewise, a fundamentally punctual verb might be used in a durative or habitual sense, as in the sentence "His music strikes the ear as atonal." In PIE, the verb in its fundamental meaning according to its *Aktionsart* assumed its morphologically simplest form, and forms of the verb expressing a different aspectual meaning would require greater morphological complexity, which might be manifested in one of a number of ways. For example, atelic **leiĝh-* 'lick' appears in simple form in athematic pres. Skt. *lḗḍhi* < **leiĝh-ti*, whereas the aorist (telic) stem is not a simple root-aorist but the morphologically more complex *s*-aorist *alikṣat*. Alternatively, the punctual stem might be formed by the use of a reduplicated aorist: to atelic **bheidh-* in Gk. *πείθω* 'persuade'[8] cf. Homeric aorist *πέπιθον*. Conversely, to form the durative of a punctual (telic) verb, reduplication (sometimes with the vowel *i* rather than *e*)[9] might be employed: to punctual **dheh₁-* 'set, place' in aorist Skt. *ádhām* and Gk. *ἔθηκα*, cf. durative **dhi-dheh₁-* in Gk. *τίθημι*.

Logically, the perfect could have present or preterite tense, but there probably was no pluperfect in PIE: the pluperfect is formed differently in Gk. and Skt. and thus appears to be a post-PIE innovation. Rather, the perfect forms of PIE must have been used for both perfect and pluperfect meanings. Because the meaning of the aorist excludes any reference to event structure, the aorist stem could make no present formation, given that present reference by definition includes information about event structure. A different present stem, however, could be formed to the same root found in an aorist stem. Thus, of the present, aorist, and perfect stems, only the first was inflected for tense, its preterite being the imperfect.[10]

1. It is debated whether verbs inflected in the middle voice could also convey passive meaning. Fortson (2010: 90), for example, accepts the proposition and refers to the PIE middle voice as the mediopassive, whereas Beekes (2011: 252) categorically rules out passive meaning.

2. The injunctive is represented as such solely in Skt., where it occurs only in prohibitions with the negative particle *mā́* and in series of verbs in which a preceding verb bears mood or tense marking. Thus, the injunctive is an unmarked form of the verb as regards tense and mood, as might be expected from its bearing neither an augment nor primary inflections. Historically, then, it is simply a more basic form of the verb, without the later accretions of present stems (with their primary inflections) or imperfect ones (with the augment). There also occur some augmentless imperfects in early Greek. For a succinct account of the injunctive, see Clackson 2007: 130–2.

3. On the possibility of a future tense in PIE, see Szemerényi 1996: §9.4.2.2.

4. The categories listed here are best represented in Sanskrit and Greek, but they must be reconstructed for PIE because of relics found in other languages, e.g. the subjunctive (originally optative) forms *sim* and *velim* in Latin (which has no formal optative): see Szemerényi 1996: §9.1.

5. Reconstruction of the PIE verb system, considered fairly settled by the late nineteenth century, was upended by new information derived in the twentieth from Anatolian and Tocharian: see, e.g., Jasanoff 2003. The challenges to the older reconstruction presented by Anatolian and Tocharian are irrelevant to the Gmc. verb system, which, though simplified considerably from that of late PIE, plainly is to be derived from that system, bearing no marked resemblance to, e.g., the Hittite system: see §1.4. The affinity of the Gmc. system to that of the classical languages is of relevance to those versions of the glottalic theory (§6.2) that regard Gmc. as more archaic in its phonology than the classical languages.

6. For present purposes, *Aktionsart* may be regarded as lexical aspect, i.e. aspectual quality inherent in a verb's semantics (or the semantics of the predicate as a whole) rather than conferred by morphology or syntax (which is termed simply 'aspect'). This is the commonest understanding of the distinction between the two, though there is no general agreement about the matter: see, e.g., Bache 1982. At all events, since PIE drew distinctions on the basis of both aspect and *Aktionsart*, the two terms are not always easy to distinguish in contexts like the present one.

7. Note that the term 'perfective' has nothing to do with the IE perfect.

8. Initial *π*- rather than *φ*- as the reflex of **bh*- is due to Grassmann's law: see Collinge 1985: 47–61.

9. The vowel *i* is regular in reduplicated thematic presents, as with Gk. *γίγνομαι* 'become', whence it must have spread to athematic ones. The original distribution of *i* and *e* in reduplicated syllables is disputed (Beekes 2011: 253).

10. The imperfect is thus technically the preterite of an atelic verb. In the 'southeastern' group of IE languages (Greek, Phrygian, Indo-Iranian, Armenian) the imperfect is formed of the present stem with secondary, rather than primary, inflections (see §12.4) and prefixation of the reflex of *h₁e*-, referred to as the augment, as in Gk. imperfect 1 sg. *ἔγραφον* (< **-om*) beside pres. *γράφω* 'write'. It is debated whether the augment is an innovation of the southeastern group only or whether it is a feature lost from all other IE languages. The augment is sometimes invoked in explanation of certain Gmc. forms (see, e.g., §12.14), but there is no very secure evidence for its use in PGmc.

12.2 Verb tenses and stems in Proto-Indo-European

Technically, just two tenses can be reconstructed with assurance for PIE: the present and the preterite.[1] The preterite, however, may take the form either of the imperfect or of the aorist.[2] The imperfect stem was derived from the present stem by the addition of the augment in those languages in which the augment is found (§12.1 n. 10), with secondary inflections, differentiating the imperfect from the present, which used primary inflections (§12.4). The aorist stem usually took the augment with secondary inflections, as well. Neither the PIE imperfect stem nor the aorist is of indubitable relevance to the Germanic languages, in which the preterite stem derives instead from the PIE perfect, though some aorist inflections were perhaps added to Gmc. preterite stems (§12.25), and the imperfect is sometimes invoked in explanation of some of the peculiarities of OE *dōn* 'do' and its WGmc. cognates (§12.61); see further §12.9 n. 1 for references.

The perfect was not in origin a tense but an aspect of the present, originating probably in a stative construction. It nonetheless had a stem distinct from both the present and the aorist. The singular of the perfect stem was normally formed with *o*-grade of the root vowel and initial reduplication. Examples are **le-loi̯kʷ*- in Gk. *λέλοιπα* 'I have left' (cf. **lei̯kʷ*- in pres. *λείπω*) and **kʷe-kʷor*- in Skt. *cakā́ra* 'I have made' (cf. **kʷer*- in Gk. *τέρας* 'portent'). In the dual and plural of the perfect, however, the root took weak grade, as in Skt. *cakr̥má* 'we have made'. Cf. also 1 sg. **gʷe-gʷóm-h₂e* > Skt. *jagáma* 'I have gone', 2 pl. **gʷe-gʷm-é* > Skt. *jagmá*. When the verbal stem began with

s + stop, the entire cluster was reduplicated, as shown by the divergent reflexes of (non-perfect) **sti-steh₂-* in Skt. *tíṣṭhāmi* and Gk. *ἵστημι* (< **si-stā-mi*); Gothic preserves the original situation in forms like *ga-staí-stald* 'possessed' (cf. inf. *ga-staldan*).[3] That reduplication is not original to the formation of the perfect is probably not to be inferred from its absence from what appears to be the oldest perfect type, **u̯oi̯d-h₂e* > **woida* > Skt. *véda*, Gk. *οἶδα*, Go. *wáit* 'I know': see §12.54.

The three basic verb stems of PIE, from which the rest were derived, were thus the present, the aorist, and the perfect, of which only the first and last are indubitably preserved in Germanic.

1. Although a variety of IE languages have a synthetic future bearing the tense marker *-s-*, marking such forms as desideratives in origin, the suffixes are not uniform across the relevant languages, and they are perhaps best explained as innovations in the daughter languages: see Szemerényi 1996: §9.4.2.2 for concise discussion and references. The issue is of little import for Germanic linguistics, since no synthetic future is found in the early Germanic languages.

2. In addition, the pluperfect is the preterite of the perfect, but at all events the perfect is an aspect rather than a tense, and the supposition of a formal pluperfect in PIE is based more on logic than on the evidence of the daughter languages: the pluperfect is plainly "a much younger creation, but since the perfect—a present tense—is old, its past tense must be at least as old as the imperfect" (Szemerényi 1996: §9.4.4.1). There is no trace of an inherited pluperfect in Germanic (though cf. Kortlandt 1994b).

3. This peculiarity of reduplication is one of the factors that have prompted discussion of the phonemic status of /st, sp, sk/: see Lubbe 1987, Takahashi 1987, Suzuki 1991a, Minkova 2003: 192–237.

12.3 Primary, secondary, and derived verbs in Proto-Indo-European

Many PIE verbs based their present stem directly upon the root, or upon the root plus theme vowel, and these are referred to as **non-derived verbs**. The remainder added one or another productive affix to the present stem to express, originally, some aspectual variety. These latter are referred to as **derived verbs**, and stems created by such affixation were not used outside of the present.[1] Aorist and perfect stems, however, might be derived from the same verb root (rather than stem), and a derived verb might share a non-present stem with a related, non-derived verb, e.g. OS *stōd* 'stood' as preterite to both athematic inf. *stān* and nasal-infixed *standan*.

In addition to the distinction drawn between derived and non-derived verbs, there is that between **primary** and **secondary verbs**. Primary verbs are created directly from verb roots, and so primary verbs may be either derived or non-derived. By contrast, secondary verbs, which are always derived, are created from forms other than roots, such as nouns, verbs, and even phrases, in the manner of Lat. *salutāre* 'greet', based on *salūtem dīcere* 'say a greeting (literally 'health')'. Secondary verbs had no stem other than the present stem in PIE (and are thus referred to as *presentia tantum*), though in the daughter languages, including Gmc., means were devised to provide preterites to such verbs.[2]

One method of affixation in the formation of derived verbs was reduplication with the vowel *i* in both thematic and athematic verbs, as in Skt. *bíbharti* 'bears' < PIE **bhi-bher-ti*. In thematic verbs, at least, the original significance of reduplication in the present stem was probably iteration or intensity of meaning. Germanic verbs showing reduplicated present stems are few, probably only OHG *bibēn*, OE *beofian*, ON *bifa* 'tremble' (cf. Skt. *bi-bhē-ti* 'is afraid') and OHG *zittarōn*, OIcel. *titra* 'tremble, twinkle, wink' (cf. Gk. *ἀπο-δι-δρά-σκ-ω* 'teach not (to do)'). There is also Go. *reiran* 'tremble', with so-called full reduplication, i.e. reduplication of the entire root, used with

intensives and iteratives: cf. Skt. *lēlāyáti* < **reḭ-rēḭ-é-ti*. As remarked by Prokosch (1939: §53b), these reduplicated Germanic presents all have the same meaning, suggesting that reduplication is preserved in them by reason of sound symbolism.

A number of verbs took a nasal infix in the present stem in Proto-Indo-European, usually in opposition to a non-infixed root aorist, e.g. Skt. *yunákti* 'joins' < **i̯u-né-g-ti* to the root **i̯ug-*; cf. the root without the nasal infix in Skt. root aorist *yojat* (unusually, without augment), as well as in Lat. *jugum*, Go. OS *juk* 'yoke'. Infixation was not productive in any of the IE languages, the only preserved examples still showing alternation in Germanic being Go. OS OE *standan*, pret. Go. *stōþ*, OS OE *stōd*, and (with suffixal rather than infixed *n*) Go. *fraíhnan*, OIcel. *fregna*, OE *frignan* 'ask', pret. sg. Go. *frah*, OIcel. *frá* (but OE *frægn*, with extension of *n* to the pret.), pl. Go. *frēhum*, OIcel. *frágum*. To Go. *keinan* 'bud, grow' (OHG *kīnan*) cf. pp. *us-kijanata*.[3] In some other verbs the infix was extended to the preterite in Germanic, e.g. Go. OHG OS *fāhan*, ON *fá*, OE *fōn* 'take' < PGmc. **faŋx-ana*^{n}, pret. Go. *faífāh* (reduplicated **fe-fanx*), OE *fĕng* (cognate with Latin *pangō* 'fix, settle', reduplicated non-nasal perf. *pe-pig-ī*), and probably Go. *windan* 'wind' (cf. Go. *ga-widan* 'bind').[4,5] Frequently an *n*-infix in a verb is detectable only by comparison to related words, in Germanic or elsewhere, from which the infix is missing. An example is OE *murnan* 'mourn', pret. sg. *mearn* (whereas Go. *maúrnan* and OHG *mornēn* are weak), in comparison to PIE **(s)mer-* in Skt. *smárati* 'remembers' and Gk. *μέρμερος* 'causing anxiety'.[6] When the verb root ended in **u̯* or a laryngeal consonant, the infix plus that segment could be reanalyzed as a suffix, as in the fifth (*sunṓti*) and ninth (*krīṇā́ti*) classes of Sanskrit verbs. Such a suffix was added to the root in OE *wæcnan* 'awake', pret. *wōc*; cf. weak Go. *ga-waknan*, OIcel. *vakna*. But the reanalyzed *n*-suffix could also be used to form verbs of the fourth weak class in Germanic (§§12.48–50).[7]

The present stem might be formed with reduced grade of the root and corresponding accent on the theme vowel. Such are called *tudáti*-presents, after the verb (meaning 'thrusts') for which the type in Sanskrit is named; cf. full-grade PIE **(s)toud-* in Go. *stáutan*, OHG *stōzan*, OS *stōtan* 'push, shove'. Germanic examples of the *tudáti* type are the so-called aorist presents (§12.18), e.g. OE *būgan* 'bend' (cf. the Skt. *tudáti*-type *bhujáti* 'bends'< **bhug-é-ti*) from **bhugh-ó-*.[8] The *tudáti* type expressed punctual (aorist) aspect, and hence the type might coöccur with the normal thematic type of non-punctual aspect in the present: to punctual **gu̯rbh-ó-* in Gk. *γράφω* 'write' compare durative **gérbh-o-* in OE *ceorfan* 'carve'. When such alternative forms coexisted, one or the other was generalized in Germanic, with elimination of the punctual/durative distinction.

Most commonly, derived verbs were formed by the addition of a suffix. One such suffix frequently reflected in the IE languages is **-sḱé/ó-*, as in Lat. *pascō* 'feed' < **pās-sḱó-* (cf. *pastor* 'shepherd') and **pu̯ḱ-sḱé-* 'ask' in Skt. *pṛcchá́ti*, Lat. *poscit* 'asks', OHG *forscōn* 'investigate'.[9] It forms denominal verbs. Germanic examples include OHG *wunscen*, OE *wȳscan* 'wish' < PGmc. **wun-sk-jan-a*^{n} < **u̯n̥-sḱ-* (cf. OE *wēn* 'expectation') and Go. *þriskan*, OHG *drescan*, OE *þerscan* 'thresh' (cf. OE *þrāwan* 'twist, rack'). The original meaning of the suffix **-sḱé/ó-* cannot be determined with assurance: in Latin, for example, it lends inceptive aspect to verbs, whereas in Anatolian it indicates iterative or consuetudinal action, as perhaps also in Germanic—the sense that Szemerényi (1996: §9.4.1.4) ascribes to the original suffix.

Among derived verbs, the commonest suffix was **-i̯e/o-*, which was used to form denominal and deverbal present stems. Frequently it has no discernible meaning, as with the Gmc. strong verbs with weak presents (§12.19), but with reduced grade of the

root and suffix accent it formed intransitive verbs, as with PIE **mn̥-i̯é-* in Gk. *μαίνεται* 'raves' (cf. **-mon-* in Skt. *mányatē* 'thinks', OIrish *do·moiniur* 'I believe'). With suffix accent it could also form denominal verbs, often transitive, with full grade of the root, as with PIE **hₙneh₃mn-i̯é/ó-* in Hittite *lamn-iya-zzi*, Gk. *ὀνομαίνω*, Go. *namnjan* 'name'. Such verbs could be formed from nouns of all stem classes, e.g. Skt. *namas-yáti* 'reveres' (cf. *namas-* 'reverence', *s*-stem) and *śatru-yáti* 'acts as an enemy' (cf. *śatru-* 'enemy', *u*-stem). As the latter example shows, *u*-stems (and *i*-stems) show the stem suffix in the weak grade. In Gmc., however, the relation between noun or adj. stem and verb is generally obscured, e.g. Go. *kaúrjan* 'weigh down' (not **kaúrujan*; cf. *u*-stem *kaúrus* 'heavy'). Note that Go. *hráinjan* 'clean' < **xrain(i)-j-an-* (cf. *i*-stem *hráins* 'clean') and *matjan* 'feed' < **mat(i)-j-an-* (cf. *i*-stem *mats* 'food') are ambiguous, due to the effects of Sievers' law (§5.8).

This same suffix **-i̯e/o-* could be added to other suffixes to express particular aspectual qualities in the present tense of verbs. From the perspective of Germanic linguistics, the most important such construction was that in which the verb root appeared in *o*-grade, with accent on suffixal **-e-* (in origin the thematic vowel) followed by **-i̯e/o-* to form causative or factitive verbs from both noun (adjective) and verb stems. Examples are Gk. *δωρέομαι* 'give' < **dōr-éi̯o-* (cf. *δωρον* 'gift') and Lat. *moneō* 'remind, warn' < **mon-éi̯o-* (cf. ON OE *man* 'remember'). In Greek such verbs are iterative in meaning, and so the type is commonly referred to as 'causative-iterative'. Germanic examples are Go. *nasjan* 'save' < PIE **nos-éi̯o-* (cf. OE *nesan* 'escape') and OE *cemban* 'comb' < PGmc. **kamb-jan-* (cf. *camb* noun 'comb'). This is the chief source of verbs of the Germanic first weak class (§§12.34–9). Since PIE **-ei̯-* and **-i̯-* fell together as **-(i)j-* in Germanic verb suffixes (§§12.34, 12.38 n. 5), this type coalesced with the *namnjan* type (above). In NWGmc. such verbs could be formed from parts of speech other than nomina (nominals, i.e. nouns and adjectives) and verbs.

The suffix **-i̯e/o-* might also be added to a suffix **-eh₂-* which was in turn added to adjectives, in order to form so-called factitive verbs with the meaning 'cause to have the quality of the adjective'. An example is Hittite *new-aḫḫ-*, Lat. *renovāre* 'make new' (cf. PIE **neu̯-o-s* in Gk. *νέος*). The same construction produced primary verbs from verb roots, e.g. Lat. *vorāre* 'devour' < **gʷor-eh₂-i̯-* (cf. Skt. *giráti* 'devours'); probably deverbal also is Lat. *domāre* = OHG *zamōn* 'tame' (cf. OHG *zam* adj. 'tame').[10] This is the original source of Germanic verbs of the second weak class (§§12.40–3).

Present stems in which **-i̯e/o-* was added to the suffix **-eh₁-* (> **-ē-*) to form so-called stative verbs are commonest in Balto-Slavic, but the type is well represented also in Latin and Germanic, which show some striking similarities, e.g. Lat. *tacēre* = Go. *þahan*, OHG *dagēn* 'be silent' and Lat. *silēre* = Go. *ana-silan* 'be quiet'. This is one source of Germanic verbs of the third weak class (§12.44–7).

Likewise incorporating PIE **-i̯e/o-*, the Gmc. suffix **-atja-* was used to form denominal verbs, e.g. Go. *láuhatjan*, OHG *lougazzen* 'lighten' (cf. OE *līeg* 'fire' and *līeget* 'lightning') and Go. *swōgatjan* 'sigh' (cf. OE *swēg* 'sound'). Such verbs are common in Old English and Old High German.[11] The same suffix, from PIE **-ad-i̯o-*, serves to form verbs from *ā*-stem nouns in Greek, e.g. *ἁρπάζω* 'bear off' (cf. *ἅρπη* 'sickle, harpy').[12]

Some other suffixes forming present stems in PIE were much less productive and show only scattered reflexes in the daughter languages, including Germanic. For example, the suffix **-s-* appears in PIE **ten-s-*, reflected in Skt. *taṁsayati* 'draws back and forth', Go. *at-þinsan* 'attract', OHG *dinsan*, *thinsan* 'drag'; cf. **ten-* without the *s* in Gk. *τείνω* 'stretch' < **ten-i̯ō*. A present suffix **-t-* appears in PIE **pleĥ-t-*, reflected in

Lat. *plectō* = OHG *flehtan* ‘braid, interweave’; cf. unsuffixed **pleĥ-* in Gk. *πλέκω*, Lat. *plicō* ‘fold’. A present suffix **-dh-* appears in PIE **ghren-dh-*, reflected in OE *grindan* ‘grind’; cf. **ghrn̥-i̯o-* in Gk. *χραίνω* ‘touch lightly’. For further examples, see Brugmann & Delbrück 1897–1916: II, 3.1.336–50, 362–79.

Although some IE present stems are reflected only in suffixed form, unsuffixed and suffixed forms to the same root could coöccur, as could forms with different suffixes attached to the same root. For example, beside normal thematic Gk. *φέβομαι* ‘be put to flight’ there is the type with suffix **-éi̯o-* in *φοβέω* ‘frighten’, and the double affixation of Gk. *γιγνώσκω* ‘perceive’, with both reduplication and suffix **-sĥko-*, points to an amalgam of two other stems, *γίγνομαι* ‘become’ and **γνώσκω* (cf. Old Lat. *gnōscō* > *nōscō* ‘become acquainted with’).

1. The present stem, however, was also used to form the imperfect, although the evidence for imperfect formations in Gmc. is disputed (see §12.61). Derived verbs are mistakenly opposed to primary verbs in Fortson 2010: 88, leading to some confusion.

2. As the focus here is chiefly on derived vs. non-derived verbs, it may be useful to summarize separately the derivational patterns of secondary verbs (which, again, have only present stems in PIE). Among the deverbal stems (those derived from pre-existing verbs) are causatives (with *o*-grade of the root plus **-éi̯-e/o-*), as in Go. *satjan* < PIE **sod-éi̯-o-*; cf. root **sed-* ‘sit’); iteratives (likewise with *o*-grade of the root plus **-éi̯-e/o-*), as in Gk. *φορέω* ‘carry habitually’, hence ‘wear’ < PIE **bhor-éi̯-o-*; cf. root **bher-* ‘carry’); and desideratives, which add **-(h₁)se-* to the verb stem, with or without reduplication, as in Lat. *vīsō* ‘seek’ (orig. ‘wish to see’) < **u̯ei̯d-so-*, and reduplicated Skt. *dídr̥kṣati* ‘wishes to see’ < **di-dr̥ĥ-se-*. Among the denominal stems (including deadjectival ones) are true denominals, derived from noun stems, as in Skt. *vasnayáti* ‘buys’ (earlier **vasnāyáti*), derived from *vasná-* ‘price’ (cf. Gk. *ὠνέομαι* ‘buy’ beside Homeric *ὤνος* ‘price’). Deadjectival stems include statives, in which **-éh₁-* replaces the adj. suffix **-ro-* in the weak grade of stems formed under Caland’s law (on which see Szemerényi 1996: §7.8.2), as in Lat. *rubeō* ‘be red’ < PIE **h₁rudh-eh₁-* (cf. *ruber* ‘red’ < **h₁rudh-ro-*); factitives in **-(o-)i̯é-*, as in Skt. *prīyatē* ‘loves’ < **prih₂-i̯é-* (cf. *priyá-* ‘dear’ < **prih₂-o-*); and factitives in unaccented **-eh₂-*, as in Lat. *renovāre* ‘renew’ (cf. *novus* ‘new’).

3. Another possible example is Go. *weihan* ‘fight’, if from PGmc. **winxana*^{n} (cf. Lat. *vincō* ‘conquer’, perf. *vīci*), though this could instead be a normal verb of the first strong class, from PIE **u̯ei̯k-* (Hirt 1931–4: II, 164). The latter is the simpler explanation, since the root was not accented in PIE verbs with nasal infix (though full grade, but also voicing under Verner’s law, is to be found in many exceptional forms in Germanic, e.g. OE *swingan* ‘beat’ < PIE **su̯e-n-k-* and *clingan* ‘cling’ < PIE **gle-n-k-* (Pokorny 1959–69: I, 1047, 357)); cf. voicing under Verner’s law in OE *wīgan*, OHG part. *wīgant*.

4. Another likely example is OHG *klimban*, OE *climban* ‘climb’; cf. PIE **glēbh-* in Lith. *glẽbiu*, *glẽbti* ‘embrace’. PGmc. **þiŋx-* in Go. *þeihan*, OS *thīhan*, OHG *dīhan*, OE *þēon* ‘thrive’ perhaps also contains a nasal infix (but without the expected voicing under Verner’s law), though the *n* is regarded as part of the root by Pokorny (1959–69: I, 1068); Seebold (1970: 512–14) is uncertain; cf. Bammesberger 1986a: 40–1, who also points out that although the etymon of Go. *leihwan*, ON *ljá*, OHG *līhan*, OE *lēon* ‘lend’ is probably **li-ŋ-x*^{w}- (cf. Lat. *linquō* ‘leave’ and Gk. *λείπω* ‘*idem*’, with and without infix, respectively), PIE **leik*^{w}- is also possible.

5. Belonging to this group are also verbs in which the infix appears to have been assimilated to a preceding stop consonant, as in OE *liccian*, OS *likkon*, OHG *lecchōn* ‘lick’ (cf. Gk. *λιχνεύω* ‘lick’) and OE *hoppian* ‘hop’ < PGmc. **xup-nō-jan-* (so Hirt 1931–4: II, §130; see §6.9 *supra* on Kluge’s law). Likewise, Germanic verbs containing **-nw-* (cf. the Skt. type *kr̥ṇṓti* < **k*^{w}*r̥-né-u̯-ti*) will show *-nn-* as the reflex of this (§6.8). Examples are Go. *rinnan* ‘run’ and related forms (cf. Skt. *r̥ṇṓti* ‘moves’, Gk. *ὄρνῡμι* ‘stir’) and Go. *winnan* ‘struggle’ and related forms (cf. Skt. *vanṓti* ‘obtains’).

6. Further examples: OE *spurnan* (pret. *spearn*) and related forms (cf. Skt. *sphuráti* ‘kicks away’); OE *hleonian* ‘lean’ and related forms (cf. Lat. *clīnō* ‘lean’, but Skt. *śráyati* ‘leans’); OE *gīnan* (strong), *geonian* (weak) ‘gape’ and related forms (cf. Lat. *hiō* ‘gape’); OS *thwingan*, OHG *dwingan*, OIcel. *þvinga* ‘compel’ (cf. Gk. *τύκος* ‘hammer’, Latvian *tukstêt* ‘beat’); OE *wringan* ‘wring’ (and related forms; cf. Lith. *veržiù*, *veržti* ‘confine, press’); OIcel. *springa*, OE OS OHG *springan* ‘leap’ (cf. Gk. *σπέρχω* ‘drive, cause to hurry’); OE *swingan* ‘beat’, OS OHG *swingan* ‘rush’ (cf. Skt. *svájatē* ‘clasps’); Go. *skeinan*, OIcel. *skína*, OE *scīnan* shine’ (cf. Go. *skeima*, OE *scīma* ‘light, brightness’). Others that probably ought to be included here are OE *be-clenc(e)an* ‘hold fast’, *ā-cwenc(e)an* ‘extinguish’, *ā-timplian* ‘provide with spikes’, (perhaps) *on-ginnan*

'begin', and their Germanic cognates, along with a great many other verbs with stems ending in a nasal consonant plus a stop. See further Raith 1931.

7. For an exhaustive survey of nasal-infixed and -suffixed verbs in Gmc., see Scheungraber 2014.

8. On the lengthening of the root vowel, see §12.18. Bammesberger (1984) views the *tudáti* type as an innovation in Indic and Germanic; Mailhammer (2006: 8–13; 2007: 117–38), to the contrary, believes the type was rather commoner in Proto-Germanic than in the attested languages. The latter view is in accordance with the remarks of Streitberg 1896: §200, who observes that verbs of this type must have been quite a bit commoner in PGmc., as otherwise it is difficult to explain why there is no voicing of *-þ* (reflecting PIE **-ti*) in the ind. pres. pl. of verbs in OE and OS; 2 sg. *-s* (: ON *-r* < *-z*) in West Germanic may be subject to the same explanation (§12.24). The *tudáti* type is discussed extensively by Mottausch (2013: 80–123), though with some weaknesses remarked by R.I. Kim (2015).

9. The last denominal, according to Bammesberger (1986a: 39–40), who also envisages a denominal derivation for PGmc. **aiskōjana*^{n} > OE *āscian* 'ask'; so also Ringe 2017: 186. He furthermore entertains the possibility of derivation of PGmc. **waskana*^{n} (> OE *wæscan* 'wash') from PIE **u̯od-sk̂-* (presumably he means with **o* from schwa secundum, since verbs with **-sk̂é/ó-* should have had reduced grade in the root); cf. **h₂u̯od-* in Go. *watō*, ON *vatn*, OE *wæter* 'water'.

10. On the deverbal status of this form, see Szemerényi 1996: §9.4.1.5, with references.

11. For OE, see Hogg & Fulk 2011: §6.93; for OHG, see Riecke 1996: 214–50.

12. See Richter 1909: 135; Schwyzer 1977: 734.

12.4 Personal inflections of verbs in Proto-Indo-European

As noted above, the present-tense active endings of thematic and athematic verbs in PIE were identical except in the 1 sg., where the former had **-ō* < **-o-h₂* and the latter had **-mi*. The reconstruction of the inflections in the singular and in the 3 plural are not in doubt:[1]

	athematic	thematic
1 sg.	*-mi	*-ō < *-o-h$_2$
2 sg.	*-si	*-e-si
3 sg.	*-ti	*-e-ti
3 pl.	*-nti	*-o-nti

These inflections are referred to, somewhat confusingly, as **primary endings**.[2] By contrast, the **secondary endings**, which are used in the imperfect and the aorist, as well as the optative, lack the final **-i*, hence 1 sg. **-m*, 2 sg. **-s*, etc.

The daughter languages are in less agreement about how the remaining present inflections should be reconstructed, but a fairly conservative reconstruction of all the present primary and secondary endings in the singular, dual, and plural is as follows:[3]

	athematic	thematic	secondary
1 sg.	*-mi	*-ō < *-o-h$_2$	*-(o-)m
2 sg.	*-si	*-e-si	*-(e-)s
3 sg.	*-ti	*-e-ti	*-(e-)t
1 du.	*-u̯es/u̯os	*-o-u̯es/u̯os	*-(o-)u̯e/u̯ē
2 du.	*-tes	*-e-tes	*-(e-)tom
3 du.	*-tes	*-e-tes	*-(e-)tām < *-teh$_2$m
1 pl.	*-mes	*-o-mes	*-(o-)me/mē
2 pl.	*-te(s)	*-e-te(s)	*-(e-)te
3 pl.	*-nti	*-o-nti	*-(o-)nt

It is evident that the present endings in Germanic must reflect the PIE primary rather than the secondary endings. For example, Go. 3 sg. *-þ* must reflect primary **-ti*, as secondary PIE **-t* would have been lost altogether (§6.11).

The personal endings of the perfect cannot all be reconstructed with assurance, but the endings in the singular, at least, are secure:[4]

	singular	**dual**	**plural**
1	*-h_2e (> *-a)	*-u̯é	*-mé
2	*-th_2e	?	*-(h_1)é ?
3	*-e	?	*-r/ér ?

The non-singular forms, in particular, have undergone extensive refashioning in the various IE branches, including Germanic.

1. The thematic inflections are here given with the preceding thematic vowel in order to show where they took *e*-grade and where *o*-grade.

2. The terminology is confusing because it should be obvious that the secondary endings are more basic, and the primary are derived from them by the addition of the *hic et nunc* particle **-i*, here associated with present tense; the endings without *-i* are thus associated with non-present functions. The terminology of course is predicated on the idea that the simple present tense is more basic than the imperfect or the aorist, even though the considerable majority of present stems are not basic but are derived by means of the kinds of affixation described in §12.3.

3. See Szemerényi 1996: §§9.2.1.1–2. The 1 sg. secondary ending **-m* is used for both thematic and athematic stems. When the thematic vowel appears before the secondary 1 sg. ending **-m* it is of the *o*-grade: cf. aorist PIE **h_1e-lik^w-o-m* 'I left' reflected in Gk. *ἔλιπον*, Skt. *áricam* (pres. *riṇákti*).

4. See, e.g., Szemerényi 1996: §9.2.3, Clackson 2007: 128, Fortson 2010: 103–4, and Beekes 2011: §18.4.2 for differing views on the reconstruction of the perfect endings..

12.5 The middle voice in Proto-Indo-European

The usual function of the middle voice in the IE languages is to express reflexive or reciprocal action, e.g. OIcel. *verjask* 'defend oneself' (cf. active *verja* 'defend') and *berjask* 'fight (each other)' (cf. *berja* 'strike').[1] In accordance with the reflexive function, it may also turn a transitive into an intransitive verb, as with OIcel. *sýnask* 'seem' (cf. *sýna* 'show'). The PIE middle voice may in addition have encompassed passive meaning (see §12.1 n. 1), in a manner analogous to OIcel. middle *eyðask* 'be depopulated' (cf. active *eyða* 'lay waste'). In some cases, however, IE verbs inflected for middle voice have only active meaning, and the reason for middle inflection is obscure, just as with so many deponent verbs in the classical languages, e.g. Lat. *cōnor* 'attempt' and *sortior* 'cast lots'.

The oldest middle inflections appear to have resembled those of the perfect, and common origin of the two can be explained on the basis of similar functions, the middle denoting reflexivity, out of which passive meanings commonly develop, and the perfect is probably stative in origin, denoting states of passivity (see Clackson 2007: 149–50). Over the course of time, the corresponding active inflections exerted analogical influence upon the middle ones, restructuring them so that the resemblance to the perfect inflections is difficult to discern in any single IE language, with wide differences among languages in this respect. The Germanic languages group with Indo-Iranian, Greek, and Albanian in showing mostly forms with final **-i*, apparently reformed by the addition of this element of the primary active endings to middle secondary endings. The relevant

endings for these languages are perhaps to be reconstructed thus (following, for the most part, Szemerényi 1996: §9.2.2.1):

	primary	**secondary**
1 sg.	*-ai/mai	*-ā/mā < *-(m)eh$_2$
2 sg.	*-soi	*-so
3 sg.	*-toi	*-to
1 pl.	*-medha	*-medha
2 pl.	*-dhu̯e	*-dhu̯e
3 pl.	*-ntoi	*-nto

The dual forms in this paradigm are too uncertain to be reconstructed. No dual forms of the middle voice are reflected in Germanic.

1. Note, however, that the ON middle voice is a NGmc. innovation (see §12.29) unrelated etymologically to the PIE middle voice.

12.6 The moods of Proto-Indo-European

The indicative mood was used in PIE for factual statements and, in effect, all modalities other than commands, wishes, and counterfactuals. All the inflections examined so far have been indicative.

The imperative mood was used to express commands in both the second and third persons. The most relevant PIE imperative inflections are reconstructed as follows, where *-Ø in the 2 sg. of the athematic type indicates that the bare stem is used with no inflection, and *-*e* in the 2 sg. thematic type represents the thematic vowel itself (and so, like the athematic type, this one is technically inflectionless):

	athematic	**thematic**
2 sg.	*-Ø, *-dhi	*-e(-Ø)
3 sg.	*-t(u)	*-e-t(u)
2 pl.	*-te	*-e-te
3 pl.	*-ent(u)	*-o-nt(u)

The imperative stem is generally the same as the present stem, with few exceptions. PIE also had middle imperatives (see, e.g., Szemerényi 1996: §9.2.5), but they are of no demonstrable relevance to Germanic. On injunctives, see §12.1 n. 2, and on the so-called future imperative in *-*tōd*, see §12.28.

The optative mood is used chiefly in independent clauses to express wishes and related volitional modalities. On the standard view, the optative was formed by the addition of the ablauting suffix *-*i̯eh$_1$/i̯h$_1$/ih$_1$*- to each of the three basic verb stems, the present, the aorist, and the perfect (§12.1). In athematic verbs the root was generally in the weak grade, whereas the optative suffix was in the *e*-grade in the singular, elsewhere in the weak grade with accent on the inflection. By contrast, in thematic stems the root was the same throughout the paradigm (as usual), the thematic vowel was consistently *-*o*-, and the optative suffix was in zero grade throughout. Both types, athematic and thematic, added secondary endings to the optative suffix. The pattern may be illustrated by reconstructed paradigms of the present active of athematic **h$_1$es*- 'be' and thematic **bhér*- 'bear' (after Fortson 2010: 107):

	athematic	thematic
1 sg.	*h_1s-i̯eh_1-m	*bhér-o-i̯h_1-m
2 sg.	*h_1s-i̯eh_1-s	*bhér-o-i̯h_1-s
3 sg.	*h_1s-i̯eh_1-t	*bhér-o-i̯h_1-t
1 pl.	*h_1s-ih_1-mé-	*bhér-o-i̯h_1-me-
2 pl.	*h_1s-ih_1-té-	*bhér-o-i̯h_1-te-
3 pl.	*h_1s-ih_1-ént	*bhér-o-i̯h_1-ent

The standard view accounts well for the athematic optative. The assumption, however, that the thematic optative was formed of the theme vowel *-*o*- plus optative suffix -*i̯h_1*- plus inflection faces some notable difficulties, as pointed out by Sihler (1995: §539.2). One is that appearance of the theme vowel **o* throughout the paradigm is unparalleled. In derived forms, in fact, the theme vowel should be **e* throughout, as in Gk. *φοβέω* 'frighten', derived from *φόβος* 'terror'. Another is that *-*o-i̯h_1*- should be expected to be realized as *-*oi̯h_1*- before an obstruent beginning the inflection, and yet there is no evidence for such a realization in the language families where the evidence should be plainest, Hellenic and Indo-Iranian. Yet Streitberg (1896: §221) is right to invoke the acute accent (rather than circumflex) on Greek pres. optatives like 2, 3 sg. *λείποις*, *λείποι* as evidence that the suffix was not simply PIE *-*oi̯*- but must be regarded as, in Gmc. terms, trimoric (**o* + *ī* in his notation).[1] Perhaps Clackson (2007: 136–7) is right that the postvocalic laryngeal was lost early, with compensatory lengthening, in forms like athematic 1 pl. **h_1s-ih_1-mé* > **sīmé* '(we) are', and *ī* was then extended analogically to thematic stems, e.g. **bhér-o-ī-me*. Certainly, PIE *-*oi̯h_1m̥* accounts admirably for Go. 1 sg. pres. *-áu* (§12.26). It is reflected as well in Skt. *bhar-ēy-am* 'I would bear' (which, however, has *ē* by analogy to the rest of the paradigm) and Arcadian Gk. *ἐξελαυνοια* 'I would drive out'.

The subjunctive mood, as its name implies, is used in subordinate clauses. In the few daughter languages in which the PIE subjunctive is reflected, it largely has future meaning, but presumably in PIE it also expressed any contrary-to-fact condition, a function assumed by the etymological optative in many IE languages. In PIE the subjunctive was formed by the addition of the ablauting thematic vowel to the present or aorist stem regardless of whether it was already thematic; whether the inflections added to this were primary or secondary, or a combination of the two, is a matter of dispute (see Szemerényi 1996: §9.3.1.1 for references). Thus, to athematic ind. 3 sg. **$h_1$és-ti* 'is' cf. subjunctive **$h_1$es-e-t(i)*, yielding Skt. *ásti* and *ásat(i)*, respectively, and to thematic ind. 3 sg. **bhér-e-ti* 'bears' cf. sj. **bhér-e-e-t(i)*, yielding Skt. *bhárati* and *bhárāt(i)*, respectively. The PIE subjunctive was lost entirely in Germanic, its functions assumed for the most part by the original optative.

1. Streitberg's observation raises a difficulty for the assumption that the laryngeal was lost in PIE in the anteconsonantal sequence *-*oi̯h_1*-: see Beekes 1969: 238–42, 254–5 (with references), Ringe 2017: 16–17, 43.

12.7 Non-finite verb forms

The non-finite verb forms to be considered are infinitives and participles, the latter either active or passive, corresponding to so-called present and past participles.

Infinitives are verbal nouns, which correspond in meaning to English infinitives (e.g. *to swim*) and gerunds, i.e. (in English) words in *-ing* serving as nouns rather than adjectives (e.g. *swimming*). In PIE there were several different ways to form verbal

nouns from verb stems, and many of these formations are reflected in Germanic as nouns rather than infinitives. PIE verbal nouns could be formed by the addition of a suffix *-*ti*- to a verb root or stem, as with OCS *da-ti* 'to give', Lith. *bū̃-ti* 'to be', and PIE **dheh$_1$-ti-* > PGmc. **dē-ðí-* in Go. *ga-dēþ-s*, ON *dáð*, OHG *tāt*, OS *dād*, OE *dǣd* > PDE *deed*; also PIE **ĝus-ti-* in Go. *ga-kust-s* 'test', OE *cyst* 'choice' (cf. OE *cēosan* 'choose' < PIE **ĝeu̯s-*). Another suffix was **-tu-*, as in Skt. *dā́-tu-m* 'to give' and PGmc. **flō-ðú-* > Go. *flodus*, OIcel. *flóð*, OHG *fluot*, OE *flōd* 'flood' (cf. OE *flōwan* '(over)flow' and Gk. *πλωτός* 'flotation'). Various suffixes in **-n-* were also used to form verbal nouns, e.g. **-men/mon-* in Skt. *vid-mán-ē* 'to find' (= Homeric Gk. *ἴδμεναι*) and in OIcel. *tíma* 'time' (< PGmc. **tī-mon-*; cf. Skt. *dyáti* 'separates, divides', Gk. *δαίομαι* 'divide, allot') beside *tíð*, OE *tīd* NHG *Zeit* 'time' (< PGmc. **tī-ðá-*). True Germanic infinitives are neuters formed with the PIE suffix **-no-* (added to the thematized stem, unlike in PIE), as in Go. *baíran*, ON *bera*, OE OS OHG *beran* 'to bear' < PGmc. **berana^n* = Skt. *bharaṇam*. See further §12.30.

First (active, present) participles are deverbal adjectives expressing active voice. PIE originally had separate suffixes of this kind for present and perfect verb stems, as well as a separate middle suffix, but only the suffix *-nt-*, attached to present stems, is reflected as a participial suffix in Germanic. It is in fact reflected in all the IE languages, though not always as a productive means of adjectival formation. In both athematic and thematic verbs the suffix alternated between **-ont-* and **-n̥t-* within the paradigm by strong and weak case (see §7.4):[1] to full grade Skt. acc. sg. masc. *adántam* 'eating' (< **h$_1$ed-ont-m̥*) compare gen. sg. *adatáḥ* (< **h$_1$ed-n̥t-os*).

From their semantics it is plain that second (passive or past) participles in **-tó-* and **-nó-* (with weak grade of the root and no very obvious distinction in meaning)[2] are not participial in origin;[3] hence, they are commonly said to form verbal adjectives rather than participles. The distinction has been eliminated in most IE languages, though in Greek such verbal adjectives generally maintain their original meaning, e.g. *στατός* 'stationary' : Skt. *sthitáḥ*, Lat. *status* 'having stood'. The two suffixes are differentiated in some IE branches, including Germanic, in which they form passive participles to weak and strong verbs, respectively: see §12.30. Examples are PIE **k̂lu-tó-s* in Skt. *śrutá-* 'heard', Gk. *κλυτός* 'famous' (cf. Gk. *κλύω* 'hear', *κλέω* 'extol' < *k̂leu̯ō*) and Skt. *bhinná-* 'split' < **bhid-nó-* (cf. *bhinádmi* 'split').

1. Full-grade **-ont-* must not be analyzed as containing the thematic vowel, as the vowel disappears in the weak cases, which is not a characteristic of the thematic vowel.

2. In Skt. the reflex of **-nó-* is used only with a limited set of common verb roots ending in a vowel or a non-labial stop: see Whitney 1889: §957. In Skt. grammar these are called past passive participles, to distinguish them from participles formed to present passive stems.

3. Likewise, true participles were formed by the addition of the participial suffix to a tense stem, whereas the verbal adjectives were formed from the verb root (Brugmann & Delbrück 1897–1916: II, 3.2.968). One semantic indication that they are not participial in origin is that their reflexes are alternately active and passive in meaning, e.g. Skt. *sthitá-* 'having stood' : *hatá-* 'having been struck'.

12.8 Particles and the Proto-Indo-European verb

Many PIE verbs bore clitic prefixes, usually derived from prepositions and particles. An example is PIE **prŏ̄* prep. 'forward, for, before' plus **bhéreti* 'bears' in Skt. *prabhárati*, Gk. *προ-φέρει*, Lat. *prō-fert* 'produces, offers'. An example of a prefixed particle is **ne* 'not' in Lat. *ne-sciō* 'do not know' and Lith. *ne-seĩ-nyti* 'fail to attain'.

Some such clitic formations are to be found in Germanic, e.g. PIE **pro-* in Go. *fra-itan*, OE *fretan*, OHG *frezzan* 'devour' and **ne* in Go. *nist* < *ni ist* 'is not'. However, most Germanic verb prefixes are later innovations without directly parallel uses in the other IE languages, e.g. Go. *faúra-gaggan*, OE *fore-gangan* 'precede' and Go. *faúr-gaggan*, OE *for-gangan* 'pass by, overlook'. The two types are often difficult to distinguish. See especially Buckso 2011 on developments in Gothic; Schulte (2007: 8–10) offers an inventory of Gmc. preverbs.

II. Germanic Verb Morphology

12.9 The general nature of the restructuring of the Germanic verb system

The rather complex verb system of PIE, with its morphologically distinct aspects, tenses, and moods, was considerably simplified in Proto-Germanic. As in most other IE branches, the distinction between aspect and tense was eliminated; in Germanic, aspect was replaced by tense through the elimination of imperfect and aorist stems, the IE perfect coming to play the role of the preterite.[1] A few Gmc. preterites can plausibly be related to an original, stative perfect meaning, e.g. PGmc. **laih*^{w} 'has left behind' > OE *lāh* 'lent', but most either are resultative perfects with no obvious derivation from stative meaning or are aorist in meaning and are thus innovations, e.g. Go. *haíhald* 'held, has held' and *laíláik* 'leapt'. The collapse of aorist and perfect meanings is particularly evident in verbs like Go. *sat* 'sat down, was sitting'. In the present system, too, aspect to a great extent grew irrelevant with the loss of productiveness in most suffixes used to form present stems. A small number of present suffixes retained their productivity, and although two of them retained their aspectual significance—causative and inchoative, employed in the first and fourth weak classes of Germanic—the more important function of the remaining productive present suffixes continued to be to provide a means of forming new verbs. Thus, a few of the most productive present suffixes of PIE continued in use, resulting in four distinct classes of so-called weak verbs. The suffixes that formed such verbs in PIE were used only to produce present stems, and thus a particular need in Germanic was a means of bringing such new formations into line with older, so-called strong verbs in respect to tense alternations. The reduction of the IE tense and aspectual systems to a binary opposition between present and preterite stems afforded an opportunity to satisfy that need, and a new method of forming the preterite for such verbs arose, by the addition of a dental suffix. The strong verbs at the same time grew more uniform in their morphological expression, for example adopting a single present stem for each verb, eliminating competitions like that between suffixed and unsuffixed stems, or between regular thematic and *tudáti*-type present stems (§12.18). Certainly, some archaic formations were retained, especially among verbs of high frequency, but for the most part, morphological alternatives without any obvious retained significance were replaced by a single standard: for example, although a small number of athematic verbs are still recognizable as such in Germanic, nearly all verbs adopted the morphology of thematic formations, e.g. Go. *ga-teiha* 'I tell, show' < PIE **-deiḱ-* plus thematic **-ō* rather than athematic **-mi* (cf. athematic Skt. *dí-deṣ-ṭi* 'shows', Gk. *δείκ-νῡ-μι*), but athematic Go. *im* 'am' < **$h_1$és-mi* and OHG *tuom* '(I) do'.[2]

The four moods of PIE were reduced to three in Gmc. when the formal optative assumed the functions of the original subjunctive. A few formal aorist subjunctives

survive in pres. ind. use, as may be determined by the loss of certain pres. ind. stems with PIE suffix *-*sk̂e/o-* (e.g. *g^{w}*m̥sk̂éti* 'walks' > Skt. *gácchati*, Gk. *βάσκει*, but aorist sj. *g^{w}*ém-e/o-* in Go. *qiman* 'come') or *n*-infix (e.g. 3 pl. pres. ind. **bhindénti* > Skt. *bhindánti* 'split', but aorist sj. **bhéi̯d-e/o-* in Go. *beitan* 'bite'): see Ringe 2017: 185–6.

Although the middle voice of PIE is reflected in the Gothic passive, it was almost entirely lost elsewhere in Germanic.[3]

1. Aorist forms must have continued in use into the WGmc. period if the WGmc. 2 sg. pret. ending **-i* is to be derived from the aorist inflection (though this is dubitable: see §12.25). The extent to which Gmc. preserves traces of the aorist is a matter of controversy: see, e.g., Dimler 1974, Mottausch 2013, and see, e.g., §§12.14, 12.39, 12.59, 12.61, 12.63 *infra*.

2. In the older IE languages, finite verb forms require no explicit pronominal subject, e.g. Lat. *paratus sum* 'I am prepared'. The same is true of Gothic, but in the other Gmc. languages an explicit subject is required; hence *tuom* '(I) do'. On null subjects in the early Gmc. languages see, e.g., Harbert 2007: 221–3.

3. Austefjord (1984) discusses the simplification of the Gmc. verb system on the basis of leveling from the preterite to the present and the reverse. Hewson (2001) explores the conversion of aspect to tense in Gmc.

12.10 Morphological restructuring of root, stem, and inflection in Proto-Germanic

As explained in §7.1, the distinction between stem and inflection was obscured in some noun forms already by the end of the PIE period, with the result that some suffixes became unrecognizable as such and were instead analyzed as part of the inflection. This process was greatly accelerated during the PGmc. period. Among the verbs a comparable development is observable. A simple example is the incorporation of the reflex of the theme vowel into the personal endings attached to it, for instance the development of PIE 3 sg. pres. ind. **-e-ti* and pl. **-o-nti* to Go. *-iþ* and *-and*, with the result that the reanalyzed endings were generalized, extended to most verbs that had never contained a theme vowel, essentially turning what had been athematic verbs into thematic ones.[1] But suffixes besides the theme vowel could also become part of the inflection. A plain example is observable in the reanalysis of verbs of the second weak class in Ingvaeonic, whereby, e.g., PIE 3 pl. pres. ind. **-éi̯-o-nti* developed to **-ija^{n}þ* in heavy-stemmed weak verbs of the first class, and from this was abstracted **-ja^{n}þ*, which was extended to stems of the second weak class (§12.43). With the phonological reduction of unstressed syllables, then, the suffix as a morphological category intermediate between root and inflection became, to a great extent, unrecognizable as such, and the morphology of most verbs was reduced to a matter of roots (formerly stems) and inflections.

1. For specific examples of thematization, see Bammesberger 1982a.

III. Strong Verbs

A. Stem formation

12.11 The general nature of strong verbs

Strong verbs are those in which the present and the preterite are distinguished by root-internal vowel alternations derivable from ablaut alternations in Proto-Indo-European,

conforming, with minor deviations, to discrete patterns of alternation that are the basis for identifying seven classes of strong verbs. The one exception to the rule of ablaut alternations between present and preterite is that the majority of verbs of the seventh class in Gothic have the same root vowel in both tenses, and the two stems are instead distinguished by the addition of reduplication in the preterite: see §12.16. Most of the distinctions among the classes, however, are due not to ablaut differences in PIE but to specifically Germanic developments of the PIE vowels.

The relevant vowel alternations are observable in the oppositions among four stems: (1) the present stem, including the indicative, the imperative, the present subjunctive (< optative), the infinitive, the active participle, and, in Gothic, the passive; (2) the preterite singular (but not, in WGmc., the 2 sg.); (3) all remaining preterite forms, including the plural, the subjunctive, and, in WGmc., the 2 sg.; and (4) the past/passive participle. The alternations in the stems of Germanic strong verbs are thus conventionally represented by four principal parts: (1) infinitive, (2) pret. 1/3 singular, (3) pret. 3 plural (as here, though instead very commonly 1 pl. in handbooks), and (4) second participle, nominative singular masculine (as here) or neuter.[1] In these principal parts are observable ablaut alternations in the first six classes derivable from the following in Proto-Germanic:

	(1)	(2)	(3)	(4)
Class I	*ī	*ai	*i	*i
Class II	*eu/ū	*au	*u	*o
Class III	*e/i	*a	*u	*o/u
Class IV	*e	*a	*$\bar{e}_1$	*o
Class V	*e	*a	*$\bar{e}_1$	*e
Class VI	*a	*ō	*ō	*a

1. The pp. of many verbs in OIcel. occurs only in neuter form (e.g. *verit* 'been'), though for consistency's sake only what would be the nom. sg. masc. form is usually given in this book (e.g. *veriðr*). In OHG, the citation form of the past/passive participle, given as principal part (4) of strong verbs and (3) of weak (§12.33) is simply uninflected, whereas the nom. sg. masc. ends in *-ēr*, the neuter in *-az* (§9.2).

12.12 Productivity

In general, the strong verbs represent a closed, unproductive category in the attested Gmc. languages, with few additions over time. There do occur some innovations, but they often betray their status as neologisms by incomplete assimilation to strong patterns, e.g. PDE pp. *shown* and *proven* beside pret. *showed*, *proved*; and, conversely, in North American English, pret. *dove* beside pp. *dived*. Rather, in the course of the later Middle Ages strong verbs in all the Gmc. languages were extensively refashioned as weak ones or passed out of use altogether.[1] The situation in the prehistoric period quite possibly was different, as there are numerous Gmc. strong verbs with no convincing IE etymology, so that they may be suspected of being additions to the strong verb inventory, perhaps from substrate languages.[2] It appears that strong verbs could be added even as late as the WGmc. period, e.g. OE *scrīfan*, OFris. *skrīva*, OS *skrīban*, OHG *skrīban* 'write' (class I, OE pret. *scrāf*, etc.), borrowed from Lat. *scrībō* 'write'.[3]

1. Thus, for example, Krygier (1994: 59–65, 246) finds that of 367 strong verbs identified in OE, 61 are commonly inflected weak, and nearly a quarter have no reflexes after the OE period. In general, the complete

conversion of any strong verb to a weak is infrequently attested in the early Gmc. languages before ca. 1200, and after ca. 1600 there are about as many instances of conversion of weak to strong verbs as there are of the opposite development. For discussion and references, see Fertig 2009, 2016; also van Haeringen 1940.

2. See Mailhammer 2006. For example, a group of verb stems in *gr-* (e.g. OHG *grīnan* 'whimper', Go. *grētan* 'weep', OE *grēotan* 'weep') has no convincing IE etymology and may be derived from a substrate, if the origin is not simply onomatopoeic (Seebold 1970: 237, 241).

3. It is perhaps likelier, though, that the other WGmc. languages have borrowed the word from OE, due to Anglo-Saxon missionary efforts. Certainly, OIcel. *skrifa* is the result of missions to Scandinavia. That the WGmc. word is a borrowing rather than native is disputed: see, e.g., Orel 2003: 344, but cf. Seebold 1970: 420.

12.13 Derivation of Proto-Germanic ablaut patterns: classes I–III

To a considerable extent, the alternations tabulated in §12.11 are derivable from a familiar PIE pattern whereby **e* is the ablaut alternant in the present stem (at least in most thematic stems and in the singular of athematic ones), **o* in the perfect singular, weak grade in the perfect dual and plural, and weak grade in the verbal adjective in **-nó-*. Classes I–III are almost perfectly regular in this respect. In class I, PIE **e*$\underset{\frown}{i}$ > PGmc. **ī* and PIE **o*$\underset{\frown}{i}$ > PGmc. **ai* (§3.4), and the vocalization of PIE *$\underset{\frown}{i}$ under reduced grade is **i*, preserved as such in PGmc. In class II, PIE **e*$\underset{\frown}{u}$ > PGmc. **eu* and PIE **o*$\underset{\frown}{u}$ > PGmc. **au* (§3.4); and the vocalization of *$\underset{\frown}{u}$ under reduced grade is **u*, preserved as such in PGmc, except that at least in NWGmc., in the passive participle it is lowered to **o* before **a* in the next syllable (§4.3). (On the alternative vowel **ū* in the present stem of class II, see §12.18.) In class III, PIE **eR* (where *R* = /r, l, m, n/) > PGmc. **eR* except when *R* is a tautosyllabic nasal consonant, in which event it becomes **iR* (§4.4); PIE **oR* > PGmc. **aR* (§3.2); and PIE **R* under reduced grade is vocalized to *$\underset{\circ}{R}$, producing PGmc. **uR*, except that at least in NWGmc., **uR* becomes **oR* before **a* in the next syllable when *R* is not a nasal consonant and no *j* intervenes (§3.2). The remaining strong classes show varying degrees of deviation from the ablaut patterns of the PIE perfect to be expected on the basis of the comparative IE evidence.

12.14 Derivation of Proto-Germanic ablaut patterns: classes IV–V

In classes IV and V the preterite plural shows PGmc. **ē*$_1$ for expected reduced grade, and there is no consensus as to why this is so. That **ē* is an analogical replacement for vowels reflecting original reduced grade may be inferred from the preterite-present verbs of the corresponding class types: cf. Go. pres. 1 pl. *munum* 'remember' and *magum* 'can', corresponding morphologically to preterite plurals of classes IV and V (§12.54), with the root-vowels *u* and *a* reflecting the expected schwa secundum (§§3.1–2). The commonest explanation is that the perfect stem in the preterite plural of classes IV–V has been replaced by the sigmatic aorist stem (minus the *s* suffix) with lengthened grade of the root vowel.[1] That lengthened grade in the aorist is a PIE feature rather than an innovation in individual branches of the IE family is disputed, though Szemerényi (1996: §§9.4.2.1(*c*), 6.2.8 Addendum 1) offers cogent reasons to regard it as of PIE origin.[2] Perhaps the most serious objection to this analysis is that it is not plain what should have motivated the replacement of the perfect stem by the aorist in the preterite plural only. Accordingly, some prefer the view that **ē* originates in the verb reflected as

Go. *etan* ‘eat’ (class V), where the Gmc. preterite would have been formed by reduplication (3 sg. **e-at*) or by the augment (**e- < *h_1e-*) found in the PIE imperfect (though there is no other secure evidence for a PIE augment in Gmc.: see §12.61).[3] This explanation furnishes a plausible source for the analogical change, but it leaves unanswered the question why the change did not take place in the singular, as well as the question what in the system motivated the complete loss of the original preterite plural reduced-grade vocalism and replacement by *ē*. A more recent suggestion is that the vowel may be due to the influence of gerundives in **-i-/ja-*, e.g. the source of OE *-bǣre* (as in OE *wæstmbǣre* ‘fruit-bearing’ and *hornbǣre* ‘horn-bearing’): so Heidermanns 1999. On the other hand, it has been argued, as well, that *ē* in the plural originated in the verb ‘sit’, with **sēt-* as the regular phonological development of reduplicated perf. pl. **se-st-*, and the long vowel spread analogically (Bammesberger 1994a, and see n. 3 *infra*). For discussion and references, see Laker 2001.

1. So, e.g., Brugmann 1913: 143–8 (and in Brugmann & Delbrück 1897–1916: II, 3.433–5, 489–90), Guchmann 1966: 314–15.

2. Szemerényi’s idea that the long vowel results from compensatory lengthening upon loss of tense-marker **s* (under Szemerényi’s law) renders it easier to believe that the sigmatic aorist should have been the source, given that **s* appears nowhere in these Gmc. preterite plurals. That there was a lengthened-grade aorist in PIE is rejected by many, e.g. Cowgill 1960: 492 n. 25, who nonetheless draws a distinction between this and long vowels of other origin in the aorist (1957: 46–52). Matzel (1970) and Meid (1971: 48–54), on the other hand, envisage PIE perfects with lengthened grade.

3. So, e.g., Mottausch 2000 and Mailhammer 2007: 67–86, both with extensive references. Some other explanations (for which they provide further bibliographical references) are the following: (1) the cause is compensatory lengthening upon loss of the root-initial consonant originating in reduplicated, zero-grade perfect plurals, e.g. PIE **bhe-bhr-* > PGmc. **bēr-* (so, e.g., Sihler 1995: §525.6a), PIE **se-zd-* > **sēd-* ‘sat’ (as in Lat. *sēdimus*; so esp. Streitberg 1896: §96; cf. the telling objections of Prokosch 1939: §57); (2) as proposed by Kuryłowicz (1956: 310–12, Kuryłowicz *et al*. 1968–2015: II, 290–1), the vowel length is analogical to the length in preterites of class VI. This of course leaves unexplained why the preterite singular retained a short vowel.

12.15 Derivation of Proto-Germanic ablaut patterns: class VI

The ablaut pattern in class VI is unlike patterns normally reconstructed for PIE verbs. Accounting for how it could have arisen in Gmc., however, is a matter of considerable difficulty, not least because analogical developments should be expected to have produced a pattern resembling one already found in the language rather than an entirely new one. The irregularities stem, moreover, not just from the vowel qualities and quantities, but also from a different distribution of variants under Verner’s law, as discussed below (§12.17). An added difficulty is that because the ablaut pattern appears not to derive from PIE, identifying the source of the vowel *a* in the present and in the second participle, and of *ō* throughout the preterite, is subject to many uncertainties. Thus, for example, *a* in the present may derive from PIE (1) *o*, (2) *a*, (3) *H*, (4) *h_2e*, or (5) *h_3e* (§§3.1–2). Nearly all of these sources in fact appear to have been involved, though etymologies are not uniformly certain:[1] (1) Go. *faran* ‘go’ and cognates < PIE **por-* (cf. Gk. *περάω* ‘drive through’); (2) Go. *skaban* ‘scrape’ and cognates < PIE **skabh-* (cf. Lat. *scabō* ‘scratch’); (3) OE *bacan* ‘bake’ < PIE **bhag-* < **bh$ḫ_3$g-* (cf. Gk. *φώγω* ‘roast’ < **bheh$_3$g-*); (4) OIcel. *aka* ‘drive’ < PIE **ag̑-* < **$h_2$eg̑-* (cf. Gk. *ἄγω* ‘lead’); (5) no known example of root vowel *a* < PIE **o* < **h_3e* in class VI. Likewise, PGmc. *ō* in the preterite may derive from PIE *ā* or *ō* (§3.3), and both appear to be actual sources in attested verbs, e.g. OE *wōd* (*wadan* ‘advance’; cf. Lat. *vādō* ‘wander’) and *scōp*

(*scieppan* ‘create, form’; cf. Lat. *scōpa* ‘twig’). Yet PGmc. **ō* is found in some preterites that cannot derive from PIE forms with either *ā* or *ō*, e.g. Go. *fōr* (to *faran*, cf. Gk. *περάω* above): a lengthened *o*-grade to this root is not found in any other IE branch. Whether substrate influence might have played a role is unknowable.

Despite the uncertainties involved, certain probabilities can be established. Since the vowel *a* in the present is polygenetic, it is probably most preterites, rather than presents, that are analogical formations. The lack of a distinction between singular and plural stem in the preterite accords with this assumption: if the need to create new preterites led to the proliferation of stems in *ō*, distinguishing between singular and plural in the preterite would have been less urgent a requirement than distinguishing between present and preterite, and presumably the model for the analogical change, whatever it was, afforded no distinction between singular and plural stems. The assumption that most preterites of class VI are of analogical origin would also explain the distribution of voicing under Verner’s law in these verbs (§12.17). Some of the views of Prokosch (1939: §60) accord well with these probabilities. He argues that at least some of the present stems contained *ə* (i.e. *H̥*) and were aorist in their *Aktionsart*, and hence of the *tudáti* type (§12.18 *infra*). He supports this idea by reference to pairs of verbs in Latin with *a* in the root and distinguishing perfective and imperfective action by the opposition reduced grade : full grade. Thus, compare Lat. *lăbō* ‘waver’ : *lābor* ‘glide’, and *vădō* ‘pass through’ : *vādo* ‘wander’.[2] (Many verbs of class VI would have been derived verbs—many, for instance bear a *j*-suffix—and so they would not originally have had preterites (§12.3), thus requiring new preterites to be formed for them in Germanic.) Although long-vowel perfects in Latin are polygenetic, and a great many of them analogical in origin (see, e.g., Sihler 1995: §525), some, at least, have their long vowel by regular phonological development (e.g. *fēcī* < **dheh₁-k-*, to *faciō* ‘make’). Although the precise analogical model cannot be identified with assurance, it may have been similar constructions in Germanic that gave rise to the alternations in class VI. It may be tempting to assume that a very common verb such as ‘stand’ (PIE **steh₂-* : **sth̥₂-* > **sta-* : *stā-*, hence OE *standan* : *stōd*) played a significant role (so, e.g., Austefjord 1987), but models such as this are dubitable because they should originally have distinguished singular and plural in both the perfect and the athematic aorist by means of ablaut. For a discussion of alternative views, with references, see Mailhammer 2007: 89–103,[3] whose own solution is to suppose that the model was verbs with a root-initial laryngeal (similarly others, e.g. Schumacher 2005: 597–8), since these would have developed in Gmc. a long vowel in the reflexes of both the perfect singular and the plural, e.g. PIE perfect sg. **h₂e-h₂óĝ-* : pl. **h₂e-h₂ĝ-* > PGmc. **ōk-* : **ōk-*, pret. to **akana*^{n} ‘drive’.[4]

1. The following are merely examples. They are drawn from the survey of etymologies of the 46 verbs in this class provided by Mailhammer (2007: 92–7, 223–4), without cavil as to his derivations. The etymological uncertainties are considerable, as Mailhammer himself notes (2007: 93 n. 105).

2. Prokosch argues further that the aspectual distinction between perfective (reduced grade) and imperfective (full grade) was converted, by default, to a tense distinction in Germanic.

3. Mottausch (1996) and Jasanoff (2003: 66–77) also summarize the prior literature. Their views, which begin from the unusual assumption that present stems could be formed with either primary endings (**-mi*, etc.) or stative/perfect ones, as suggested by Hittite evidence, are critiqued by Mailhammer (2007: 98–103).

4. Cowgill (1960: 489–90) had earlier rejected explanations like Mailhammer’s starting from verbs with vocalic initials, preferring the idea that the long-vowel preterites were formed by analogy to those of classes IV and V.

12.16 Derivation of Proto-Germanic ablaut patterns: class VII

The defining characteristic of this class is that the verbs all differentiate preterite from present and participial stems by the device of initial reduplication in the former in Gothic, e.g. *falþan*, *faifalþ*, *faifalþun*, *falþans* 'fold'.[1] Given that the most direct source of the Gmc. preterite is the PIE perfect, it should be expected that reduplication was originally a feature of all PGmc. strong preterites, and it has been lost in all classes but this. The obvious explanation is that most of the verbs in class VII in Gothic show no ablaut difference between the present and the preterite stem, whereas the two are plainly differentiated in classes I–VI: reduplication was thus preserved in class VII as a tense marker that could not be dispensed with, as it could in the other classes. There are six exceptional verbs, showing an ablaut difference between present and preterite: Go. *grētan* 'weep', *lētan* 'let', *ga-rēdan* 'reflect upon', *tēkan* 'touch', *saian* 'sow', *waian* blow' (pret. sg. *gaígrōt*, *laílōt*, *ga-raírōþ*, *taítōk*, *saísō*, pl. *waíwōun*). In the infinitives of the last two verbs, *ai* is from PIE *ē* before a vowel (§4.5), and so the ablaut pattern is underlyingly pres. *ē* : pret. *ō*. It is not plain why the ablaut difference did not suffice to allow loss of reduplication in these six verbs, though of course if reduplication had been abandoned in these, they would not conform to the ablaut pattern of any of the first six classes.

It is a notable feature of the verbs of class VII that although they preserve an archaic feature of IE verb morphology, reduplication, the ablaut patterns they evince seem innovative, since they are difficult to derive directly from PIE. Aside from the six Gothic verbs with *ē* : *ō* ablaut alternation, there are five root vowels encountered in this class in Gothic: *a* (e.g. *falþan* 'fold', pret. *faifalþ*),[2] *ái* (e.g. *háitan* 'call', pret. *haíháit*), *áu* (e.g. *áukan* 'add', pret. *aíáuk*), *ē* (e.g. *slēpan* 'sleep', pret. *saíslēp* or *ga-saízlēp*),[3] and *ō* (e.g. *hʋōpan*, pret. *hʋaíhʋōp*). As in class VI, the individual vowels may be the result of polygenesis: e.g., *haldan* must reflect the PIE *o*-grade (Brugmann 1913: 181), whereas *a* in **faŋxana*^{n} (> *fāhan*) appears to be original, if not due to a laryngeal consonant (cf. Lat. *pangō* 'fasten', Gk. *πάγος* 'frost', etc.). Unlike in class VI, however, all but a few of the roots containing PGmc. *a*, *ai*, or *au* derive from PIE roots without either *a* or a laryngeal consonant, and thus they present the appearance of being derived from *o*-grade ablaut variants. It is possible, then, that in a fashion complementary to that which appears likeliest in class VI, the preterites are the more original forms in class VII, and the presents formed by analogy—perhaps a likely development if the original present stems were derived and thus different from the preterite in terms of more than just ablaut (§12.3).[4] The evidence of OE relic reduplicated preterites like *reordon* 'advised', discussed immediately below, suggests, however, that Gothic has generalized *ō* in the preterite *raírōþ* (and similarly in other verbs of this class), and there must originally have been alternation between full and reduced grades, since OE *reordon* cannot plausibly be derived phonologically from **re-rōð-*. Rather, vowel alternations in the preterite in PGmc. appear to be a necessary assumption: see immediately below on Bammesberger 1986a: 62–3.

Reduplication as a mark of the preterite in class VII has generally been given up in NWGmc., for reasons detailed in §12.20, where support is lent the view that a new method of distinguishing present and preterite stems was devised. With the rise of this new method, however, the older, reduplicated forms, grown exceptionally opaque, passed slowly out of use, so that only a few relics survive. These are commonest in OE, where they occur exclusively in texts of Anglian origin (including poetry, nearly all of which appears to have been composed originally in Anglian, though it is recorded

almost entirely in Late West Saxon). The following preterites have been regarded as examples of such:

ondreord to *ondrǣdan* 'dread' (derivative of *rǣdan* 'advise', though it alliterates on *d*: Hogg & Fulk 2011: §6.71 n. 1) beside WS *ondrēd*
hĕht to *hātan* 'command' beside WS *hēt*
leolc to *lācan* 'toss' beside WS *lēc*
leort to *lǣtan* 'let' beside WS *lēt*
reord to *rǣdan* 'advise' beside WS *rēd*, but much more commonly WS weak *rǣdde*

Further possible examples are Northumbrian *speoft*, *speaft* (if to *spātan* 'spit'), pl. *beafton*, *beoftun* (if to *bēatan* 'beat'), and *blefla* (if to *blāwan* 'blow').[5] The resemblance between these preterites and the reduplicated forms of Gothic is unmistakable, but the precise changes involved in their development are not obvious. Most straightforward are *reord* and *leolc*, though if these result from normal phonological developments it must be assumed (as proposed by Bammesberger 1986a: 62–3,[6] supported by Mottausch 1998b: 55) that in this class Gothic has analogically extended the long vowel in the preterite, eliminating an original alternation between PGmc. sg. **re-rōþ-* < **re-róH-t-* and pl. **re-rŏ-* < **re-rH̥-t-'* (since the reflex of PIE *H̥* is probably lost in all unstressed syllables in Gmc., §5.5) like that found in classes I–III. Some recourse to analogy or *ad hoc* phonological developments is required to explain most of the remainder, e.g. *leort* for expected **leolt*.

A few forms that appear to be reduplicated are also preserved in Old Icelandic: *gnera* to *gnúa* 'rub', *grera* to *gróa* 'grow', *rera* to *róa* 'row', *sera* to *sá* 'sow', *snera* to *snúa* 'turn'. Some of these may represent regular phonological developments, e.g. *rera* < **re-rô* and *sera* < **se-zô*, whereas *gnera* can contain *r* only by analogy. These preterites all end in *-era*, and analogical developments must have played a role in the formation of some. See the studies cited in §12.20 for discussion and references.

OHG forms with medial *-r-* (e.g. *biruun* to *būan* 'dwell') are usually grouped with these relic reduplicated forms, but see §12.20.

1. On Gmc. reduplication, see Suzuki 1982, Fullerton 1991.

2. The verbs *fāhan* 'seize' and *hāhan* 'hang' had *a* in the root in PGmc. before this was lengthened upon loss of the nasal consonant in **faŋxana*^{n} and **xaŋxana*^{n}, respectively (§4.1).

3. Given the voicing of *s* to *z* in *ga-saízlēp*, it is assumed that in at least some pret. forms of this class the reduplicative syllable was unaccented in PGmc., allowing Verner's law to apply. In other forms there is no voicing (*faífalþ*, *haíhald*, *ƕaíhvōp*, *saísō*, etc.). Some assume that the reduplicative syllable remained unstressed in Gothic: for references to the controversy, see Mottausch 1994: 134 n. 29.

4. Thus, for example, Brugmann (1913) argues that many Gmc. verbs of both classes VI and VII with *a* in the root have that vowel as an innovation. This would account for the unexpected vowel in *faran* (§12.15).

5. For references to the literature on these, see Hogg & Fulk 2011: §6.71.

6. Jasanoff (2007: 264 n. 50) objects to crediting Bammesberger with first offering this insight but cites no prior published authority.

12.17 Verner's law in strong verbs

It is usually assumed that voicing under Verner's law is to be expected only in the preterite plural and the passive participle of strong verbs, an expectation raised by the variable position of the accent in Sanskrit verbs (§6.6), and that departures from this pattern

are the result of analogical change: so, e.g., Adamczyk 2004, and most handbooks of the early Gmc. languages. However, Prokosch (1939: §63) shows effectively that such a pattern, though impressively regular in the first three classes, is almost never what is to be found in classes V–VII (class IV being irrelevant, since the stem ends only in a sonorant consonant or, exceptionally, a stop). Prokosch's idea is that voicing of a stem-final fricative should not be expected in any form containing a full- or lengthened-grade vowel, since this must have borne the accent, and he finds that the attested alternations in classes V–VII support this assumption, with voicing in class V only in the passive participle, in class VI only in the infinitive and the passive participle, and in class VII on an irregular basis, since the class represents a mixture of accentual types. On the basis of a survey of Germanic forms he concludes that this is indeed the general pattern. The evidence, however, is difficult to reconcile with this conclusion.

He points to Go. *standan*, *stōþ*, *stōþum*, **sta(n)dans* 'stand' in support of the posited pattern in class VI. It is true that *þ* in the preterite is unlikely to be due to devoicing of *ð* (§6.12), in view of forms like 3 pl. *stōþun*, 1 pl. *afstōþum*, 2 pl. *gastōþuþ*, 3 sg. sj. *afstōþi*. But there is no reason to assume on the basis of this model that the voicing in the infinitive is to be expected in the present stem of other verbs of this class, since PIE verbs with nasal infix bore suffixal accent in the dual and plural. The stem *stand-* plainly derives from a form with suffixal accent (PIE root **sth_2-*; cf. full grade in Lat. *stāre*), whereas some verbs of class VI appear to derive from roots with full-grade *a* or *h_2e*, as noted above (§12.15). Moreoever, in Old English there is to be found a consistent pattern almost precisely the opposite of the Gothic one, in **scieþþan* (LWS *sceþþan*), *sc(e)ōd*, *sc(e)ōdon*, *sceaðen* 'injure', and in contracted verbs (those with original root-final *x*, §12.1), where *g*, which is regular in the preterite plural (e.g. *slōgon*), is also predominant in the preterite singular *slōg*. Beside *slōg* there does occur *slōh* (which may be due to final devoicing, §6.17), but the voiced variant is the usual one in early texts (Hogg & Fulk 2011: §§6.65–6). Despite Prokosch to the contrary, *g* is also the rule in both the preterite singular and the plural in OHG, with few exceptions: see Braune 2004a: §346 Anm. 2, in agreement with Prokosch that *g* in the singular must have been extended analogically from the plural. Prokosch reasons that this extension is motivated by the need to distinguish the preterite from the present, but since the ablaut difference between the preterite stem and the present was plainly sufficient to differentiate the two in classes I–III, it is difficult to see why such a change should have taken place in this class but not those. There is the added difficulty that whereas Prokosch's analysis predicts a voiceless fricative in the passive participle in class VI, instead a voiced one is consistently to be found in both North and West Germanic, and this must be quite an old situation: cf. Runic **slaginaʀ** (Möjbro stone, ca. 450).[1] Voicing in the last three principal parts but not the first appears also to have been the original rule for at least some verbs in class VII, to judge by OE *fōn*, *fĕng*, *fĕngon*, *fangen* 'take' (= OIcel. *fá*, *fekk*, *fengu*, *fenginn*) and *hōn*, *hĕng*, *hĕngon*, *hangen* 'hang' and NWGmc. cognates. Yet no single pattern will explain all the verbs of class VII: for example, OE has a voiceless fricative in both pres. *hwōsað* 'cough' and pret. *hwēos*, whereas, like Gothic, it reflects only a voiced fricative in *scādan* 'distinguish' (Go. *skáidan*), in contradistinction to OS and OHG, where the reflexes of voiceless fricatives are commonest (OS *skēđan*, OHG *skeidan*). Similarly, OHG shows a mixture of forms in *faldan* beside *faltan* 'fold'.

Patterns in class V are not much more supportive of the proposed distribution of alternants under Verner's law. In Old English, for example, the preterite plural consistently reflects a voiced fricative where Prokosch predicts a voiceless (*cwǣdon* 'said',

wǣron 'were', *gefǣgon* 'rejoiced'). It is true, nonetheless, that the passive participle reflects a voiced one, as predicted, in *cweden* 'said' and *sewen*, *gesawen* 'seen'. The passive participle of *wesan* 'be' is unattested in any of the earliest WGmc. languages; the later forms OFris. *wes(s)en* and MHG *gewesen*, with a voiceless fricative, are most likely analogical creations.[2]

Whereas it is uncertain whether there was voicing under Verner's law originally in the passive participle in class V, the considerable preponderance of the evidence thus suggests that with that one possible exception, the pattern in this class was like that in classes I–III, whereas in class VI the commonest pattern was voicing in the preterite (sg. and pl.) and the pass. participle, and that this was also the pattern for the most secure examples of class VII. These patterns plainly have little to do with PIE vowel gradation, which thus furnishes no very good explanation for the alternants under Verner's law in classes V–VII.[3]

1. As Prokosch rightly observes, OIcel. pret. sg. *sló* (to *slá* 'strike') is ambiguous as to whether it reflects **slōʒ* or **slōh* (see above, §6.14).

2. In OIcel., *r* has been extended throughout the paradigm, even to inf. *vera*, imp. *ver(ið)*, and pp. *verit* (neut.).

3. For this reason the argument of Ringe that only the pret. sg. in class VI retained a voiceless fricative in PGmc. must be regarded as inconclusive. He reasons that since OHG *heffen* 'lift' is a weak present with weak grade of the root, PGmc. **xaƀjan-* should be expected (as in OE *hebban*, OS *hebbian*), and OHG can have acquired the voiceless fricative reflected throughout the pres. only by analogy to the pret. singular (Ringe & Taylor 2014: 100). Yet even if there were a plain correlation in class VI between assumed ablaut grade and voicing under Verner's law, it need not be the case that this verb, cognate with Lat. *capiō* 'take', shows weak grade of the root. Rather, this appears to be one of those instances in which full-grade *a* must be reconstructed for PIE (§3.1): so, e.g., Pokorny 1959–69: I, 527–8. There is, after all, the problem that PGmc. *a* in the pres. of class VI appears to have multiple sources (§12.15), and very few other verbs of this class reflect voiced fricatives in the pres. in WGmc. Polygenesis of the ablaut in this class renders it inadvisable to reconstruct a single pattern of alternants under Verner's law for PGmc. The PGmc. facts appear to be irrecoverable.

12.18 Aorist presents

Reflexes of the PIE *tudáti*-type present stem, with weak grade in the root rather than *e* (§12.3), are securely attested only in Indic and in Germanic, in regard to the latter of which they are most commonly referred to as aorist presents. In Greek, for example, the opposition between full and weak grades is regularly used to distinguish the present stem, and forms based on it, from the aorist stem, as with pres. inf. *φεύγειν* 'flee' and imperfect *ἔφευγον* in opposition to aorist inf. *φυγεῖν* and aorist *ἔφυγον*.[1] For that reason the existence of the *tudáti* type in PIE has been doubted, though there is no consensus (see §12.3 n. 8). The following, whether they are inherited or post-PIE innovations,[2] are commonly regarded as verbs of this type in Germanic:

Class I: Go. *digandin* 'made of clay' (beside full-grade inf. *deigan*); OIcel. *vega* 'fight, kill' (OHG *ubar-wehan* 'overcome', OE *gewegan*, pp. *forwegen*; cf. full-grade Go. *weihan*, OE *wīgan*; the verb corresponds to OIr. *fichid*); also class V Go. *bidjan* 'request' and cognates (see §12.19 *infra*), if this has been transferred from class I (so Osthoff 1882; cf. Seebold 1970: 92–3, Pokorny 1959–69: I, 114).[3]

Class II:[4] Go. *ga-lūkan* 'shut' (OIcel. *lúka*, OE *lūcan*, OFris. *lūka*, OS *bi-lūkan*, OHG *bi-lūhhan*); OIcel. *lúta* 'bow' (OE *lūtan*); OIcel. *súga* 'suck' (OE *sūgan*, *sūcan*, OS OHG *sūgan*); OIcel. *súpa* 'sip' (OE *sūpan*, OFris. *sūpa*, MLG *sūpen*, OHG *sūfan*); OE *brūcan* 'use' (OFris. *brūka*, OS *brūkan*, OHG *brūhhan*; cf. Go. weak

brūkjan); OE *būgan* 'bend' (OS *būgan*; cf. full-grade Go. *biugan*, OHG *biogan*); OE *dūfan* 'dive' (MLG *be-duven* 'be covered'; ON *dúfa* is weak); OE *hrūtan* 'snore, make a noise' (OFris. *hrūta*, OS *hrūtan*, OHG *rūzan*; cf. full-grade ON *hrjóta*); OE *scūfan* 'shove' (OFris. *skūva*, MLG *schuven*; cf. full-grade Go. *af-skiuban* 'reject', OSwed. *skiuva* 'shove'; there also occurs OE *scēofan*); OE *slūpan* 'glide' (Fris. *slūpe*, MLG *slūpen*; cf. full-grade Go. *sliupan*, OHG *ir-sliofan* 'come (out)'); OE *smūgan* 'creep' (cf. full-grade OIcel. *smjúga*, MHG *smiugen*); OE *strūdan* 'plunder' (MLG *stroden*, OHG *strutten*); OE *þūtan* 'howl' (cf. full-grade OE *þēotan*, OIcel. *þjóta*, OHG *diozan*); OE **crūdan* 'hasten' (only 3 sg. pres. *crȳdeþ*); OE **sprūtan* 'sprout' (past part. *ā-sprotene*, ME inf. *sprouten*); OHG **tūhhan* 'plunge' (pp. *betochen*); and possibly OE **scūdan* 'hurry' (?) (only pres. part. *scūdende*, but perhaps to the second weak class because poetic/Anglian: see Hogg & Fulk 2011: §6.112).

Class III: OIcel. *horfa* 'be turned' (weak; cf. strong *hverfa*); OIcel. *molka* 'milk' (weak; cf. strong OHG *melchan*, Skt. *mā́rṣṭi* 'wipes'); OE *spurnan* 'kick' (OFris. *spurna* (may be weak), OS *bi-spurnan* (strong?), OHG *fir-spurnan*; weak OIcel. *sporna*, *spyrna*); OE *murnan* 'mourn' (weak Go. *maúrnan*, OS *mornian*, OHG *mornēn*).

Class IV: ON *koma* (OE *cuman*, OFris. *kuma*, OS *kuman*; cf. the originally imperfective stem in Go. *qiman*, OHG *queman*) < **g*$^{w}{}_{e}$*m*-;[5] Go. *trudan* 'tread' (OIcel. *troða*);[6] Go. *wulan* 'seethe, rage' (no pret. attested; cf. OE *weallan*, OHG *biwellan* 'seethe' < **u̯el-n*-?); also PGmc. **knuðana*^{n} in weak ON *knoða* 'knead'; cf. full-grade strong OE *cnedan*, OHG *knetan*.

Class V: There are no aorist presents to this class, but none would be detectable, as the root vowel in an aorist stem would have been schwa secundum, which would have been reflected as a full-grade vowel (§§3.1–2). An exception is OIcel. *sofa* 'sleep', which could reflect either **sweƀ*- or **suƀ*- (see Heusler 1967: §87.2), whereas OE *swefan* is unambiguous.

Class VI: A great many of the verbs of this class are best analyzed as showing in the present the weak grade of a root containing a laryngeal consonant (see §12.15). Examples are Go. *sakan* 'dispute' (cf. Gk. *ἡγέομαι* 'guide, lead', Lat. *sāgiō* 'perceive quickly, feel keenly'); Go. *skaban* 'shave' (cf. Lith. *skóbti* 'gouge' and Latvian *skābs* 'sour', from *'sharp, cutting'); and Go. *ga-daban* 'beseem' (cf. Go. *ga-dōfs* 'becoming, fit').

There is no certain example in Class VII, where etymologies are generally insecure.[7]

1. But there are exceptions. For example, Gk. *γράφω* 'write' reflects **gr̥bh-óh*$_2$, whereas OE *ceorfan* 'carve' shows the full grade of the root. The former, perfective stem used in the present would originally have expressed punctual action, the latter stem durative (§12.1); one or the other stem was then generalized in the individual IE branches.

2. Bammesberger (1986a: §3.3.5) outlines a process by which forms with reduced grade of the root could have been created analogically in Gmc.

3. Seebold (1970: 467–8) would add **stikana*^{n} 'stick', refashioned as a verb of class V (e.g. OS *stekan*), though derivatives show it to have been originally a verb of class I. Some further possibilities in English are discounted by Seebold (1966b).

4. Aorist presents of the second class have *ū* for expected *u* in the present stem. The commonest explanation (see, e.g., Prokosch 1939: §55) is that the vowel was lengthened by analogy to the long vowel in the present stem of the first class (and the long diphthong in the non-aorist presents of the second?). Cf. A. Campbell (1977: §736(b)), suggesting an analogical proportion of present and preterite singular vocalism in PGmc. *ī* ~ *ai* (class I) : *ū* ~ *au* (class II). Because *ū* is found also in related words, Perridon (2001,with references) argues

for a curtailed sound change *eu* > *ū*. There is the further consideration to be taken into account that short *u* in a form like **lukan* should be expected to have been lowered to *o* (§4.3), creating irregularities in the paradigm. For a list of aorist presents of class II, distinguishing inherited from innovative forms, see Ringe & Taylor 2014: 39–40.

5. Ringe (Ringe & Taylor 2014: 141–2), rather, posits a NWGmc. change **kweman* > **kwiman* (cf. **niman* 'take') > **kuman*.

6. WGmc. forms (OE *tredan*, OHG *tretan*) must be innovations by analogy to verbs of the fifth class (though it belongs to the fourth in Go. and OIcel.) if the PIE stem is **dreu̯-*, as in Skt. *drávati* 'runs' (so Osthoff 1901: 372–3); but **dr̥-t-ó-* is also possible, though unattested outside of Germanic. See Seebold 1970: 506.

7. A possible example is Go. *skáidan* 'distinguish': see Pokorny 1959–69: I, 921.

12.19 Strong verbs with so-called weak presents

As noted in §12.3, the suffix **-i̯e/o-* served as one marker of present stems in PIE.[1] A number of Gmc. strong verbs are formed this way, with the consequence that morphologically they are nearly identical to weak verbs of the first class in the present (§12.34), for example showing (outside of Gothic) umlaut throughout the present paradigm and (in WGmc.) gemination in originally light stems. Unlike weak verbs, however, they are not causative or iterative in meaning, and the suffix exerts no perceptible influence on the semantics of the verb.[2] Moreover, the root vowel of the present stem derives from the grade normal to strong presents (i.e., *e* in classes I–V) rather than the *o* characteristic of the oldest stratum of causatives. Such verbs are very commonly referred to as strong verbs with weak presents, though they are sometimes called strong verbs with *j*-presents. Though the latter term is more accurate, the former, which is of long standing, is used here for the convenience of referring to other types, by contrast, simply as strong presents. The relevant verbs are these:

Class I: OIcel. *blík(j)a* 'gleam' (cf. suffixless OS *blīkan*);[3] possibly OIcel. *svíkja* beside *svíkva* 'betray' (cf. strong pres. OS *swīkan*); similarly OIcel. *víkja* beside *víkva* 'turn'; possibly OHG **in-trīhhen* 'expose'.[4]

Class II: Possibly OIcel. *flýja* 'flee' (pret. *fló*, Noreen 1970: §488, but usually weak; cf. suffixless OE *flēon* < **flēohan*, and cognates);[5] possibly OIcel. *spýja* 'vomit' (pret. *spjó*, Noreen 1970: §488, though also with a weak pret.; but suffixless Go. *speiwan*, OE *spīwan*, etc., belong to the first class).[4]

Class III: Probably OE **gierran* 'chatter, make a noise' (see Hogg & Fulk 2011: §6.55).

Class IV: No known examples.

Class V: Go. *bidjan* 'request' (OIcel. *biðja*, OE *biddan*, OFris. *bidda*, OS *biddian*, OHG *bitten*; but cf. suffixless Go. *us-bidan*); OIcel. *liggja* 'lie' (OE *licgan*, OFris. *lidza*, OS *liggian*, OHG *liggen*, *lickan*; but cf. suffixless Go. *ligan*); OIcel. *sitja* 'sit' (OE *sittan*, OFris. *sitta*, OS *sittian*, OHG *sizzen*; but cf. suffixless Go. *sitan*); OIcel. *þiggja* 'receive' (OE *þicgan*); OE *fricgan* 'ask' (cf. Go. *fraíhnan* and cognates); possibly OE **ā-ficgan* 'fry' (see Hogg & Fulk 2011: §6.63).

Class VI: Go. *fraþjan* 'understand'; Go. *hafjan* 'lift' (OIcel. *hefja*, OE *hebban*, OFris. *heva*, OS *hebbian*, OHG *heffen*); Go. *hlahjan* 'laugh' (ON *hlæja*, OE *hlihhan* < **hliehhan*); Go. *ga-raþjan* 'count'; Go. *ga-skapjan* 'create' (OIcel. *skepja*, OE *scieppan*, OFris. *skeppa*, OS *skeppian*, OHG *skepfen*); Go. *skaþjan* 'harm' (OIcel. *skeðja*, OE *sceþþan* beside suffixless *sceaðan* (see Hogg & Fulk 2011: §6.67 n. 5); Go. *wahsjan* 'grow' (cf. suffixless OIcel. *vaxa*, OE *weaxan*, etc.);

OIcel. *deyja* 'die' (OS *dōian*, OHG *touwen*; cf. Go. **diwan* in pp. *diwans*); OIcel. *geyja* 'bark'; OIcel. *k(v)eſja* 'dip, put into water' (in part weak; cf. suffixless OHG *ir-queban* 'suffocate'); OIcel. *sverja* (OE OS *swerian*, OFris. *swera*, OHG *swerren*, but cf. suffixless Go. *swaran*); OE *stæppan*, *steppan* 'step'[6] (OFris. *steppa*); OS *af-seffian* 'perceive' (OHG *in-sebben*); OHG *erien* 'plow'.[7]

Class VII: OE *wēpan* 'weep' (OFris. *wēpa*, OS *wōpian*, OHG *wuofan*); perhaps also OIcel. *spýja* (under class II above).

1. Perhaps some of these verbs bore instead the suffix **-e$_1$e/o-*, or even **-ē$_1$e/o-* (from **-eh$_1$-i̯e/o-*): to OIcel. *sitja* cf. Lat. *sedēre* < *sed-ē$_1$-*. The types coalesced in Gmc.: see §12.34.

2. This is a matter fraught with etymological uncertainties. For example, Mailhammer (2007: 92) offers reasons to reject the usual view that **waxsja-* 'grow', **dauja-* 'die', and **swarja-* 'swear' are causative or iterative in origin.

3. WGmc. forms other than those of OS are inconclusive in this class, due to loss of **-j-* after heavy syllables (§6.15) and failure of umlaut to affect *ī*.

4. 3 sg. *intrīhhit*, the vowel seemingly originally short (Braune 2004a: §331 Anm. 4; cf. Seebold 1970: 565).

5. Likelier is that *flýja* and *spýja* are formed by analogy to suffixless present forms (e.g. 3 sg. *flýr*, *spýr*). The latter verb is perhaps better regarded as conforming to the pattern of class VII.

6. The form *stæppan* (rather than the less common *steppan*) is generally regarded by the handbooks as more original, prompting, for example, the implausible reconstruction PGmc. **stappana*^{n} (so Orel 2003: 372). Rather, *æ* in the root is due to analogical substitution of *a* for *æ* prior to umlaut, a change that is particularly frequent in verbs of class VI (§4.7; Hogg & Fulk 2011: §6.65).

7. The verb follows class VII in OHG, but it must originally have belonged to class VI (Braune 2004a: §350 Anm. 5, with references).

12.20 Preterites of class VII in Northwest Germanic

As remarked above (§12.16), Gothic verbs of class VII form their preterite stem with the addition of initial reduplication, and certain preterite forms in OIcel. and by-forms in OE (e.g. *leort* 'let') appear to be reduplicative in origin. The usual preterites in North and West Germanic, however, show no trace of reduplication. Compare the following principal parts of a verb meaning 'let':

Go.	lētan	laílōt	laílōtun	lētans
OIcel.	láta	lét	létu	látinn
OE	lǣtan	lēt	lēton	lǣten
OS	lātan	lēt	lētun	gilētan
OHG	lāzan	liaz	liazun	gilāzan

The NWGmc. preterites thus reflect *ē* in the root (so-called *ē$_2$*, §3.5), and this is true of roughly half the verbs in this class, whereas nearly all the remainder reflect *ēo*, as in a verb meaning 'leap' or 'run':

Go.	hláupan	haíhláup	haíhláupun	hláupans
OIcel.	hlaupa	hljóp	hljópu	hlaupinn
OE	hlēapan	hlēop	hlēopon	hlēapen
OS	hlōpan	hliop	hliopun	gihlōpan
OHG	hloufan	hliof	hliofun	gihloufan

For the purpose of the present discussion, preterites like OE *lēt* and *hlēop* will be referred to as type 2 preterites (as opposed to originally reduplicated forms like OE *leort*,

a type 1 preterite). How to explain the origin of the NWGmc. preterite stems of type 2, as well as the coexistence of relic reduplicated forms in OE, has been a matter of some controversy. Approaches to the problem have taken one of four forms:[1]

(1) Until recently, the usual explanation, first proposed by Grimm (1822–37: I, 898–9), has been that a reduplicated form like PGmc. **xexait-* (> Go. *haíháit*) is the etymon of both type 1 and type 2 preterites. Thus, it is assumed that in type 2 preterites there has occurred loss of a root-initial consonant (e.g. **xe-xait-* > **xe-ait* > OE *hēt*), or even a consonant cluster (e.g. **ste-stald-* > **ste-ald-* > OE *stēold* 'possessed', inf. *stealdan*), and explaining how a form such as **xe-xlaup-* can have developed to OE *hlēop* requires some complication of the process of change.

(2) Following the lead of Brugmann 1895 and Wood 1895, some have analyzed the verbs of classes VI–VII as reflecting so-called heavy bases, in opposition to the light bases of classes I–V,[2] and their preterites have been seen as counterparts to Latin perfects like *fēcī* 'did' and aorists like Gk. *ἔβην* 'went'. Obstacles to this analysis became apparent with the acceptance of the laryngeal hypothesis (§3.1), when it could be seen that although many heavy bases must have contained laryngeals in PIE, not all did (e.g. the etymon of Go. *faran*, §12.15), and some of those that did could not be fitted to the Brugmann-Wood scheme, e.g. **$h_2e\underline{u}g$-* in OIcel. *auka* 'add', but **$h_2\underline{u}oh_3g$-* > **wōg-* in pret. *jók* (however the *j-* is to be derived on this analysis). This approach now lacks currency; Ringe (in Ringe & Taylor 2014: 91 n. 29) calls it "wildly implausible."

(3) Under a hypothesis developed by van Coetsem (1956: 37–41 and many subsequent studies, including van Coetsem 1990, 1994, 1997), $\bar{e}_2$ in type 2 preterites results from a split of PIE *ei* into *ee* and *ei* > *ii* parallel to the split of *eu* into *eo* and *eu* > *iu*. This hypothesis has met with much criticism and appears no longer to have any proponents.

(4) Under the most recent analysis, type 2 preterites were formed in NWGmc. by the insertion of *e* into the present stem immediately before the root vowel. Thus, e.g., OE *rēd* 'advised', *stēold*, *hēt*, and *hrēop* 'howl' reflect, respectively, NWGmc. **r-e-ǣd*, **st-e-ald*, **x-e-ait*, and **xr-e-ōp*. That is to say, the inserted *e* combined with a front vowel or a front diphthong to produce OE *ē*, but with a back vowel or a back diphthong to produce *ēo*, with comparable results in the other NWGmc. languages. The model for the analogical change was verbs without an initial consonant, e.g. **aukan*, hence pret. **e-auk* > OIcel. *jók*. The motive for the change was that due to Verner's law and some other changes, the structural relation between many present and preterite stems had grown opaque: thus, for example, since the reduplicative syllable was unaccented in PIE, the reduplicated preterite stem of PGmc. **xaitan-* should have been **xeʒait-*, and of **flōkan-* 'clap', **feƀlōk-*, not to speak of the vowel alternations posited by Bammesberger (§12.16). In Gothic the fricatives voiced in this fashion have for the most part been replaced by voiceless ones, but *z* remains in *ga-saízlēp* 'slept' (beside *saíslēp*); cf. also OIcel. *sera* 'sowed' < **se-zô*.

Explanation (4) has been fairly widely credited (references in Hogg & Fulk 2011: §6.70 n. 2), though some studies still adhere to explanation (1), either on a purely phonological basis[3] or a largely analogical one.[4] Explanation (4) offers several advantages, one of which is that in nearly every instance it accurately predicts on the basis of the present stem whether the preterite stem will contain OE *ē* or *ēo* (with comparable results in the other NWGmc. languages).[5] Another advantage is that it accounts for the coöccurrence of parallel forms like *heht* and *hēt* in Old English, the former being the inherited type, the later the innovative. A third is that it accounts for the appearance of $\bar{e}_2$ in NWGmc. preterites, though why it should have occurred in such an environment

has long remained an unsolved problem (§3.5). A fourth advantage is that it provides a plausible explanation not just for the stem formation of preterites to class VII in NWGmc. but for several puzzling irregularities in NWGmc., as well (on which see Fulk 1987):

(a) The diphthong derived from PIE *eu̯* regularly develops to OIcel. *jó* before dental consonants, as well as *x* and *m* when a non-high vowel followed in the next syllable; otherwise it is reflected as *jú* (Heusler 1967: §49). Yet in preterites of class VII, *jó* appears before any consonant, as in *hljóp* 'ran, leapt'. This is explicable if the reflex of PIE *eu̯* was distinct from that of the sequence created by the insertion of *e* before *au* found in NWGmc. **xl-e-aup* > *hljóp* at the time when the reflexes of PIE *eu̯* became differentiated.

(b) The situation is similar in OHG, where, for instance, in class II, the reflex of PIE *eu̯* is *iu* in the present stem before labial and velar consonants (other than *h*) even when a non-high vowel followed in the next syllable; otherwise it is *eo* or *io*. Yet in the preterite of verbs of class VII the diphthong is *eo*, later *io* (*ia*, *ie*), even before labial and velar consonants, as in *leof*, *liof* 'ran', and even when a high vowel follows in the next syllable, as in every preterite form in OHG except for the 1 and 3 sg. indicative, which is endingless. Explaining (a) and (b) as independent analogical developments in OIcel. and OHG is methodologically suspect.

(c) In Old West Frisian the reflex of PGmc. *eu* is regularly *iā* or *iē*, whereas in preterites of class VII verbs of the type with PGmc. *au* or *ō* in the present the result instead is *iō* (van Helten 1896: 446). Once again, the diphthong in the preterite of this class appears not to derive from PGmc. *eu*.

(d) It is usually assumed that PGmc. $\bar{e}_2$ (§3.5) is still preserved and spelt ⟨e⟩ or ⟨ee⟩ in the earliest OHG records (eighth century), though already there it coöccurs with ⟨ea⟩, which changes to ⟨ia⟩ and ⟨ie⟩ in the ninth century (so, e.g., Braune 2004a: §35). The assumption is thus that ⟨ea⟩ is an intermediate stage in the development of $\bar{e}_2$ to *ia* and *ie*. Although this assumption matches the evidence of manuscript spellings for a word like *hēr*, *hier* 'here', it derives little support from the evidence of preterites of class VII, and the spellings of the preterites of *fāhan* 'take' and *gangan* 'go', in particular, suggest that in this class instead *ea* is the older value—as should be expected if it derives from inserted *e* plus the root vowel *a*.[6]

(e) A small number of preterites to verbs of class VII in OHG contain ⟨r⟩ of mysterious origin, which appears only on an irregular basis, and only in early texts. Thus, for example, *ana-stōzan* 'strike' has the preterite *ana-steroz* beside *ana-stiez*. These *r*-preterites have long been connected with the problem of the loss of reduplication in NWGmc., but any analysis along the lines of explanation (1) above must assume that the *r* originates in the verb *scrōtan* 'cut', with preterite *ki-screrot*, which is somehow to be explained as developing from NWGmc. **ske-skraud-*, and then *r* was extended analogically to the preterites of *bluozan* 'sacrifice', *stōzan* 'strike', and *būan* 'dwell', no matter how ill motivated such analogical change may seem. The chief difficulty, however, is that the intrusive *r* appears in the middle of what is usually assumed to be a diphthong: *-steroz*, for example, is thought to derive from **steut-*, though this requires the injection of *r* into the middle of the diphthong *eu*. Rather, if it is assumed that *-steroz* derives from a NWGmc. form with *e* infixed before the root diphthong (**st-e-aut*), it may be assumed that the facultative use of ⟨r⟩ in such forms is an *ad hoc* means of representing the hiatus between *e* and the root diphthong. This also explains why the forms with ⟨r⟩ are found only in the earliest texts, before contraction and loss of hiatus.

(f) A number of verbs with originally vocalic stems (*verba pura*) have developed a stem-final *w* of perplexing origin, especially in OE, e.g. *grōwan* 'grow', *sāwan* 'sow' (cf. OE *grēne* < **ɣrō-n-iz* and *sǣd* 'seed' < **sē-ð-aⁿ*). Under explanation (4) the *-w-* may be explained as originating in some preterites of this type (Fulk 1993: 247–8): see §12.22 for details.

Jasanoff (2007: 250–2) rejects explanation (4) chiefly on the basis of the supposition that relevant verbs with a vocalic initial would have been too few in NWGmc. to serve as an adequate model for the analogical change that resulted in the insertion of *e* before the root vowel in preterites of class VII. It is true that in some kinds of analogical change the pattern to be copied must be rather common to serve as a plausible model. Under normal circumstances we should not, for instance, expect a noun stem found only in the genitive singular to have been extended throughout a paradigm. But the present instance is of a different sort, since the motive for the analogical change was the problem that the morphology of the original, reduplicated preterite stems had grown too opaque (a point with which Jasanoff concurs, 2007: 260), as remarked above in regard to expected alternations under Verner's law, but as is more directly observable in the way relic reduplicated forms in Old English bear little resemblance to the predicted forms. The pressure to simplify preterite-formation in this class must have been great, and no matter how many or how few may have been verbs with vocalic initials in NWGmc., they were doubtless some of the few, if not the only, reduplicated verbs of this class with preterites that were still generated by regular rule. It is thus not the number of relevant verbs that is of paramount importance but the transparency of the relevant rule that made the model attractive. And it must be remembered that the reduplicating verbs are limited in number—Gothic attests to reduplicated preterites to just 14 verbs—so that a few preterites formed in regular fashion could exert outsize analogical influence on the rest.[7] Comparison may be drawn to the origin of the vowel *ē* in the pret. pl. of verbs of classes IV and V, which is now usually attributed to the analogical influence of originally reduplicated verbs with vocalic initials (§12.14)—an origin which, e.g., Ringe (2017: 210, 273) accepts, though he points out that there is just one verb with the requisite structure to provide the model, the verb 'eat'. Regarding the plausibility of the conversion of reduplication to infixation, the argument of Garrett 2001 about a comparable change in Yurok may be noted.

Explanation (4) thus provides solutions for a range of problems in NWGmc. phonology and morphology, whereas the competing explanations are limited in their explanatory power to preterites of class VII alone. The disadvantages to any explanation of type (1) along phonological lines should be obvious, since *ad hoc* phonological rules without application outside of class VII are required. Yet even chiefly morphological solutions in accordance with (1) have their drawbacks, not least of which is that they are necessarily far more complicated. For example, Jasanoff (2007: 262) argues that although stems beginning with *s* + stop involve the entire culster in reduplication in Gothic (and, it should be added, apparently in PIE: §12.2), as in Go. *ga-staí-stald*, in NWGmc. the pattern was instead that seen in OIcel. *snera* < **sne-z-*, with involvement of the stop in the reduplicative syllable but loss of it in the root onset. What motivated the change in NWGmc., however, is not explained, and the counterevidence (OE *speoft* rather than **spest*) has to be explained as analogical (to *beoft*, itself with an analogically induced diphthong). This different sort of reduplication would have resulted in a pret. pl. **xeɣlð-* (to **xalðanaⁿ* 'hold'), which, because of its anomalous structure, would have been altered to **held-*, though this amounts to a novel sort of change regardless of whether it is regarded as a phonological or a morphological development. Many further

analogical adjustments are required to produce the attested forms, and in no instance is such change as plainly motivated and based on as obvious an analogical model as is the unified analogical change assumed in explanation (4).

1. For bibliographical references, see Fulk 1987, esp. 159–60. For the most part, the present discussion provides references only to more recent studies.

2. Prokosch (1939: §46) defines bases as "syllables subject to gradation. A base may be a root syllable, a prefix, a suffix, an ending, or an independent particle. If under conditions of ordinary stress, its vowel is short we speak of a *Light Base*, if, under like conditions, it is long, we speak of a *Heavy Base*."

3. So Vennemann 1994b, 1997, though whether this approach can accurately be called purely phonological is rightly disputed: see D'Alquen 1997, as well as Jasanoff 2007: 252–60.

4. So Jasanoff 2007 and, in part, Ringe & Taylor 2014: 88–92.

5. The one certain exception is OIcel. *blét* 'sacrificed' (for **bljót*, inf. *blóta*); possibly also OE *fĕng* 'took' and *hĕng* 'hung, hanged' (and cognates), on which see Fulk 1987: 165, 172. However, the rule might with equal justice be formulated to prescribe that the preterite is formed by inserting *e* not into the present stem but into the stem of the passive participle, in which event these last two verbs would not be exceptions. It is naturally to be expected that analogy should have obscured some of the original regularities, and that the OE verbs should reflect a fairly conservative state of affairs: on the discrepancies between OE and OFris. and ON verbs like the reflexes of PGmc. *xalðana*^{n} 'hold', see Fulk 1987: 167–9. To the assertion of Ringe & Taylor (2014: 91) that the only possible explanation for pret. *gang* 'went' in *Beowulf* is loss of the reduplicative syllable, cf. Fulk, Bjork, & Niles 2014: cxlvii f.—though, to be sure, loss of the reduplicative syllable in **gegang* is the likeliest explanation. Note that *gang* is unlikely to be a scribal substitution for **gegang* at *Beowulf* 1316a, as the metrical type would then normally require double alliteration (see Bliss 1967: 40–3).

6. Jasanoff (2007: 251) sets aside the mass of evidence supporting this conclusion, crediting instead only the seeming counterevidence of preterites of *gangan*, *fāhan*, and *hāhan* in the OHG *Isidor* with ⟨e⟩ instead of ⟨ea⟩, which hardly seems probative.

7. About thirty such verbs can be reconstructed for PGmc., according to Ringe (2017: 279), who also rejects Jasanoff's objection and observes that all the subclasses in class 7 are small (Ringe & Taylor 2014: 89 n. 28). This would contribute to the impression of irregularity in the other subclasses and highlight the regularity in the vowel-initial type.

12.21 Contracted verbs

After the loss of /x/ between voiced sounds in ON, OE, and OFris. (§§6.14, 6.18, 6.19) there resulted contraction of vowels rendered adjacent by this loss. In strong verbs the consequence was some notable irregularities in the present tense, where Verner's law had not voiced *x* to *ɣ*.[1] Thus, for example, OIcel. class V *sjá* 'see' (< **sex*^{w}*an-*) has the stem *sjá-* in the pres. ind. 1 and 3 pl., elsewhere in the pres. *sé-* (pret. *sá-*), whereas class VI *slá* 'strike' (< **slaxan-*) has the stem *slæ-* in the pres. ind. sg. and *slá-* elsewhere in the pres. (pret. ind. sg. *sló*, *slótt*, *sló*, pl. *slóg-*. sj. *slœg-*). Common patterns in the present stem in Early West Saxon (and, in part, Kentish: see §2.24) are like those in the verbs *flēon* 'flee', *slēan* 'strike', and *fōn* 'take': 1 sg. *flēo*, *slēa*, *fō*, 2 *flīehst*, *sliehst*, *fēhst*, 3 *flīehþ*, *sliehþ*, *fēhþ*, pl. *flēoþ*, *slēaþ*, *fōþ*. In the Anglian dialects, on the other hand, forms like 2, 3 sg. *slēs*, *slēð* are normal, without *h* (which was lost between vowels, followed by contraction: see §4.13), though many analogical developments are to be found, e.g. analogical re-addition of the ending in 3 pl. *on-fōað*: see, e.g., Hogg & Fulk 2011: §6.66. In OFris. are found contracted forms analogous to the WS forms of OE, e.g. 3 sg. pres. *tiucht*, *sleith/slaith* < **sleɣþ/slaɣþ* (Old West Fris. *slacht*), to *tiā* 'draw' (class II) and *slā* 'strike' (class VI).

In ON, nearly all such verbs have acquired weak preterites, e.g. pret. *tjáða* to *tjá* 'show' < **tīxan-* (class I), though strong preterites and/or passive participles to these are

sometimes preserved in old and poetic texts, e.g. pret. *fló* to *flýja* 'flee', more commonly weak pret. *flóða*, *flóða*, or *flýða*.[2] A number of these, like *flýja* (for **fljóa*: cf. Go. *þliuhan*), have developed weak presents by the addition of *-j-* to the stem of the umlauted singular. Contracted verbs that generally retain strong preterites include, from class V, *sjá* 'see'; from class VI, *flá* 'flay', *hlœja* 'laugh', *klá* 'scratch' (but originally **kleyja*), *slá* 'strike', *þvá* 'wash'; and, from class VII, *fá* 'take'. Contraction also occurred in ON after loss of **w* in 2 sg. *spýr* 'vomit' (cf. Go. *speiwis*), with reformation of inf. **spýa* to weak *spýja*. Compare also 2 sg. *snýr* and *gnýr* to *snúa* and *gnúa* (< **snōw-*, **bnōw-*, §3.4 n. 5; to the latter verb, cf. Go. *bnauan*). There is contraction as well in the pres. ind. sg. of *verba pura* (§12.22), e.g. 3 sg. *sær* to *sá* 'sow' (and similarly *gróa* 'grow', *róa* 'row', *sóa* 'sacrifice').

In OE, contracted verbs retain their strong preterites. Contracted verbs of classes I and II have the same vocalism in the first principal part, and as a consequence, there is some shifting of such verbs between the two classes: for example, *wrēon* 'cover' of class I forms its pret. 3 sg. as *wrāh* (class I), but more commonly as *wrēah* (class II). Contracted verbs in OE include the following: class I: *lēon* 'grant', *ā-sēon* 'sift', *tēon* 'accuse', *wrēon* 'cover'; class II: *flēon* 'flee', *tēon* 'draw, lead'; class III: *þēon* 'prosper';[3] class V: *ge-fēon* 'rejoice', *plēon* 'risk', *sēon* 'see';[4] class VI: *flēan* 'flay', *lēan* 'blame', *slēan* 'strike', *þwēan* 'wash'; class VII: *fōn* 'take', *hōn* 'hang'. Contraction upon loss of /w/, with the original, uncontracted values confirmed by poetic meter despite contracted spellings, is also attested in forms of *rōwan* 'row' and *strēgan* (Anglian) 'strew' (see Fulk 1992: §§119–20). Contraction upon loss of /j/, again with a few instances of non-contracted scansion in verse, is to be found in some forms of *bēon* 'be' (< WGmc. **bij-an-*, though pres. sj. *sie(n)* 'be' < **si-ǣ(n)* is formed without /j/ by the analogical extension of **-i-* throughout the paradigm from the singular, e.g. original WGmc. 1 sg. **sijǣ^{n}* (see Hogg & Fulk 2011: §6.148, and see §12.57 *infra*).

Contracted verbs in OFris. due to loss of **h* include *fā* 'catch', *fliā* 'fly', *hwā* 'hang' (< **hōhan*; cf. *dwā* 'do' < **dō-an* or **do-an*, §12.61), *iān* 'confess', *siā* 'see', *skīa(n)* 'happen', *slā* 'strike', and *tiā* 'draw'.

1. Although Verner's law caused no voicing in the preterite singular of at least classes I–V, in none of the pret. sg. forms of OE would the voiceless fricative have appeared between voiced sounds and thus undergone deletion, whereas **h* in the syllable coda was lost in ON, as in pret. 2 sg. *sátt* 'saw' < **saht* and 3 sg. *sá* < **sah*.

2. ON verbs that have lost /x/ and gained weak preterites include these: class I: *tjá* 'show', *ljá* 'lend'; class II: *flýja* 'flee', **fúa* 'rot' (pp. *fúinn*; cf. wk. inf. *fúna*), *lýja* 'beat' (pp. *lúinn*), *tjóa* 'avail' (pp. *toginn* 'drawn', Noreen 1970: §488 Anm. 4); class VI: *þrá* 'yearn' (strong pp. in name *Þráinn*).

3. From **þīxan* < **þiŋxan-* (§4.1), with pret. sg. *þāh* < **þaŋx*, pl. *þungon*.

4. From WGmc. **sexwan*, hence WS pret. pl. *sāwon* < **sǣ(ʒ)wun*, but Anglian *sēgon* < **sēʒ(w)un* (§§6.4 *ad fin.*, 6.6).

12.22 The *verba pura*

A number of verbs originally inflected according to class VII have the appearance of not bearing any stem-final consonant, due to loss of a PIE laryngeal consonant. Examples are Go. *saian* 'sow', OIcel. *sá*, OE *sāwan*, OS *sāian* (cf. Lith. *sėju*, *sėti* 'sow', OCS *sějǫ*, *sěti*, and cf. OE *sǣd* 'seed' < PGmc. **sē-ð-a^{n}*, Lat. *sē-men*) and Go. *waian* 'blow', OE *wāwan*, OFris. *waja* (cf. Skt. *vāti* 'blows', beside *i̯*-present *vā́yati*, etc.). Lindeman (1968) offers a list of 23 verbs of this type, to which Matzel (1987) adds a number of

roots on the basis of what he takes to be substantivized deverbal adjectives, e.g. **mō-* 'exert oneself' on the basis of Go. *mōþs* 'anger' (cf. Go. pp. *af-mauidái* 'fatigued' (weak class 1), etc.). With the exception of OE, WGmc. has almost entirely reformed these verbs to inflect according to weak class 1, and that tendency is evident in all the Gmc. languages, even in Gothic, as *af-mauidái* demonstrates. It is commonly assumed that such verbs acquired a stem-final **-j-* in the pres. already in PGmc.,[1] but certain facts tell against that assumption. Particularly discordant with that view are OE verbs of this type, which have *-w-* rather than **-j-*, e.g. *grōwan* 'grow', *sāwan* 'sow' (cf. OFris. *grōja*, OS *sāian*); but also elsewhere in WGmc., *j*-presents are hardly uniform in these verbs, e.g. OHG *sāian*, *sāan*, *sāwen*, *sāhen*,[2] casting doubt on the antiquity of the stems in **j*. Moreover, for verbs in *ō* most grammars reconstruct for ON forms with stem-final **w*, e.g. *flóa* < **flōwan* = OE *flōwan* 'flow'.[3] The evidence of both ON and Gothic is inconclusive.[4] The *-w-* in OE verbs like *flōwan* is of particularly obscure origin; it is sometimes explained by reference to perfect forms like Skt. *jajñáu* and Lat. *nōvī* 'knew' (cf. OE *cnē(o)w* to *cnāwan* 'know'), but Bammesberger (1980: 17) has shown how implausible that supposition is. The account of the reformation of the reduplicating class offered above (§12.20) is compatible with an alternative way to account for this *w*: it may be assumed that it developed between *ō* and *u* in preterites like 3 pl. **ʒr-e-ō-un* > OE *grēowon* and was then generalized as part of the stem in both the pret. and the pres., whence it was extended also to the similar verbs in OE **ǣ* (> *ā* before *w*), e.g. **sǣ-* → *sāw-*.[5] On preterites to the *verba pura*, see Matzel 1988, Bammesberger 1991d.

1. So, e.g., Kluge 1910 and others cited by Lindeman (1968: 48 n. 1). It may be that a few such verbs originally had weak presents, and that the *j*-suffix was extended to the rest by analogy, as Lindeman argues. But Guðrún Þórhallsdóttir (1993), who finds that intervocalic *j* was lost in PGmc. even after stressed vowels, argues persuasively that all such instances of WGmc. semivowels are innovations.

2. The treatment of intervocalic *j* in OHG is not plain, but that four forms such as these could all reflect WGmc. **sǣjan*, as is not uncommonly assumed, seems dubitable, especially given that forms without ⟨i⟩ are the norm in earlier OHG, and it is only in late OHG and MHG that ⟨i⟩ comes to predominate (Braune 2004a: §117 Anm. 1). Note, however, that OHG *-en* may derive from **-jan* (§12.38).

3. So, e.g., Noreen 1970: §235d, Iversen 1973: §124.6; see also the references in Lindeman 1968: 50 n. 7; cf. also Seebold 1970: 204, reconstructing **flōwan* for OE but **flō-ē-* for ON, though the latter could only be an analogical formation.

4. For the reasons, see Fulk 1993a: 249–51, anticipated in part by Kluge 1910: 108. The most careful treatments of this question are in fact tentative about how such forms are to be reconstructed, e.g. Streitberg 1896: §§91–2.

5. Thus Fulk 1993a: 245–6. Guðrún Þórhallsdóttir (1993: 114–37) points out that the same change could have occurred before the pres. ind. 1 sg. ending **-u*.

B. Inflection

12.23 A comparative paradigm of strong verb inflection

A typical strong verb, Go. *-biudan* 'bid' (in *ana-biudan* 'bid', *faúr-biudan* 'forbid'), with cognates in the other earliest Germanic languages, is inflected as follows:

		Go.	OIcel.	OE	OS	OHG
Pres. Ind.	**1 sg.**	-biuda	býð	bēode	biudu	biutu
	2 sg.	-biudis	býðr	bīetst	biudis	biutis
	3 sg.	-biudiþ	býðr	bīet(t)	biudiđ	biutit
	1 du.	-biudōs				
	2 du.	-biudats				
	1 pl.	-biudam	bjóðum	bēodaþ	biodađ	biodemēs
	2 pl.	-biudiþ	bjóðið	bēodaþ	biodađ	biodet
	3 pl.	-biudand	bjóða	bēodaþ	biodađ	biodent
Pres. Sj.	**1 sg.**	-biudáu	bjóða	bēode	biode	biote
	2 sg.	-biudáis	bjóðir	bēode	biodes	biotēs
	3 sg.	-biudái	bjóði	bēode	biode	biote
	1 du.	-biudáiwa				
	2 du.	-biudáits				
	1 pl.	-biudáima	bjóðim	bēoden	bioden	biotemēs
	2 pl.	-biudáiþ	bjóðið	bēoden	bioden	biotēt
	3 pl.	-biudáina	bjóði	bēoden	bioden	biotēn
Imp.	**2 sg.**	-biud	bjóð	bēod	biod, biud	biut
	3 sg.	-biudadáu				
	2 du.	-biudats				
	1 pl.	-biudam	bjóðum			biotemēs
	2 pl.	-biudiþ	bjóðið	bēodaþ	biodad	biodet
	3 pl.	-biudandáu				
Pret. Ind.	**1 sg.**	-báuþ	bauð	bēad	bōd	bōt
	2 sg.	-báust	bautt	bude	budi	buti
	3 sg.	-báuþ	bauð	bēad	bōd	bōt
	1 du.	-budu				
	2 du.	-buduts				
	1 pl.	-budum	buðum	budon	budun	butumēs
	2 pl.	-buduþ	buðuð	budon	budun	butut
	3 pl.	-budun	buðu	budon	budun	butun
Pret. Sj.	**1 sg.**	-budjáu	byða	bude	budi	buti
	2 sg.	-budeis	byðir	bude	budis	butīs
	3 sg.	-budi	byði	bude	budi	buti
	1 du.	-budeiwa				
	2 du.	-budeits				
	1 pl.	-budeima	byðim	buden	budin	butīmēs
	2 pl.	-budeiþ	byðið	buden	budin	butīt
	3 pl.	-budeina	byði	buden	budin	butīn
Inf.		-biudan	bjóða	bēodan	biodan	biotan
Pres. Part.		-biudands	bjóðandi	bēodende	biodandi	biotenti
Pass. Part.		-budans	boðinn	boden	gibodan	gibotan

Outside of Gothic, the plural endings are used with both plural and dual subjects. In addition, inflected infinitives (also called gerunds) occur in WGmc. (§12.30). Only in Gothic are verbs regularly inflected in the passive voice, and only in the present tense: see §12.29.

12.24 Inflection of the present indicative active in Proto-Germanic

The Germanic endings of the present indicative active developed from the PIE primary thematic endings identified in §12.4, with the exceptions noted below. On verbs preserving athematic inflections, see §12.55. The endings attested in the earliest Germanic languages, with possible PGmc. antecedents (assuming unconditioned change of *e* to *i* in unstressed syllables, §5.5), are these:

	Go.	OIcel.	OE	OS	OHG	PGmc.
1 sg.	-a	-Ø	-e	-u	-u	*-ō
2 sg.	-is	-r	-st	-is	-is(t)	*-is(i), *-iz(i)
3 sg.	-iþ	-r	-þ	-id, -it, -iđ	-it	*-iþ(i), *-ið(i)
1 du.	-ōs					
2 du.	-ats					
1 pl.	-am	-um	-aþ	-ad, -at, -að	-umēs, -amēs, -emēs	*-om(i)z
2 pl.	-iþ	-ið	-aþ	-ad, -at, -að	-et, -at	*-iþ(i), *-ið(i)
3 pl.	-and	-a	-aþ	-ad, -at, -að	-ant	*-anþ(i), *-anð(i)

Outside of Gothic, there is umlaut of the root vowel in the second and third persons singular, e.g. 3 sg. OIcel. *ferr*, OE *ferð* (beside *færð*, §12.63 & n. 4), OS *feriđ*, OHG *ferit* to OIcel. *fara* ‘go’, etc. Umlaut should also have occurred originally in the second person plural, but analogical developments have eliminated it everywhere, though it remains in a few forms in OHG in the early Monsee Fragments (Braune 2004a: §308 Anm. 1). In Old Icelandic, umlaut is extended analogically to the 1 sg.;[1] conversely, the PGmc. raising of *e* before *i* (§4.4) has been eliminated in strong classes III–V, e.g. 3 sg. *berr* ‘bears’. In OS and OHG, 1 sg. *-u* causes raising of *e* in the root to *i*, e.g. *biru* ‘(I) bear’ to *beran* (§4.4). In the endings reconstructed for PGmc., a vowel in parentheses indicates one that was lost without leaving a trace in early Germanic.

1 sg. PGmc. *-*ō* developed regularly to *-a* in Gothic and to *-*u* in NWGmc., where it should have been lost in OIcel. (but preserved in Runic **writu** ‘I carve’ on the Eikeland brooch, ca. 600, and in the OIcel. middle voice, e.g. *gefumk* ‘give’ < *gefu* + *m(i)k*). It should also have been lost after heavy syllables in OE, but analogy has obscured the original distribution, with restoration of *-u* (frequently becoming *-o*) after heavy stems in the Anglian dialects, and, in WS, replacement by *-e*, perhaps from the subjunctive; for references, see Hogg & Fulk 2011: §6.11 n. 2, and cf. Holthausen 1925, A. Campbell 1977: §731(a), Suzuki 1988. Introduction of the sj. ending may have taken its initial impetus from the verb *willan*, the pres. ind. of which was in PGmc. formally a pret. sj. (§12.59).

2 sg. The alternation between PGmc. *-*is* and *-*iz* is a result of Verner’s law (§6.6). The Gothic desinence may reflect either variant, whereas OIcel. *-r* reflects the latter and the WGmc. endings the former.[2] In OE, *-st* is usually said to result from resegmentation of the construction in which enclitic *þu* followed, i.e. *-s þu* > *-stu* > *-st*, though it has also been argued (e.g. by Sihler 1986) that the preëxisting ending *-st* found in *bist* ‘(you) are’ and a few pret.-pres. verbs (§12.52) must have played a role. The earliest texts in OHG likewise have *-is*, later *-ist*, the two coöccurring in Tatian. For a thorough discussion of the competing analyses, with full bibliography, see Fertig forthcoming, where it is argued persuasively (*contra* Ringe in Ringe & Taylor 2014:353–5, who rejects enclisis entirely as an explanation and attributes the change solely to analogy) that the mechanisms leading to the standardization of *-st* are essentially phonological in nature. Spellings like Anglian OE *-esð*, it may be noted, suggest at least the

perception of *-t* as derived from *þu*. The syncopated form *-st* is regular in WS after heavy stems and variable after light, occurring least frequently after stems ending in a sonorant consonant. In the Anglian dialects of OE the ending is regularly *-est*, *-esð*, or *-es*, except that syncope appears to be the norm when the pronoun is enclitic, though examples are few, as with Mercian *acers ðu* 'you turn away' (= EWS **ā-cierst þū*); syncope is variable in Kentish (see Ringe & Taylor 2014: §7.1.2 for the details of Kentish). The most plausible explanation for this distribution is that syncope originated in the construction with enclitic pronoun; WS then generalized the syncopated ending, Anglian the unsyncopated.[3] The addition of *-st* to the bare stem in OE could lead to various adjustments to some of the resulting consonant clusters, in the form of devoicing (e.g., *-g-st* > *-hst*, i.e. /ɣ/ + /st/ > /xst/) and assimilation (e.g. *-þ-st* > *-sst* > *-st*). For details, see Hogg & Fulk 2011: §6.13.

3 sg. PGmc. **-þ(i)* should have alternated with **-ið(i)* under Verner's law, although the only secure evidence for this is OHG *-it* < **-id* < **-ið*,[4] whereas Go. is ambiguous (§6.12), and the other Gmc. evidence demands PGmc. **-iþ*; cf. the 2 pl. ending, below. ON *-r* is usually regarded as analogical to the 2 sg. ending;[5] original *-iþ* is still to be found in Runic **bᴬrutiþ** 'breaks' (Tveito stone, Norway, ca. 625, beside **bᴬrutʀ**, Björketorp stone, Sweden, roughly contemporary). The introduction of the 2 sg. ending into the 3 sg. was probably the result of the syncope of *i* in the 3 sg. inflection, leading to unwieldy final consonant clusters, as in OE (H.F. Nielsen 2000: 263). In OE, syncope is distributed the same way as in the 2 sg., and once again there could be adjustments to some consonant clusters formed when *-þ* was added directly to the stem, including devoicing (e.g. *-ng-þ* > *-ncþ*), assimilation (e.g. *-d-þ* > *-tt*), and dissimilation (e.g. *-s-þ* > *-st*). For details, see Hogg & Fulk 2011: §6.13.

1 du. Go. *-ōs* possibly reflects the etymological PIE thematic ending **-o-u̯es*, hence PGmc. **-awiz*, but with analogical replacement of **-a-* by 1 sg. *-ō*, producing PGmc. **-ō(w)iz* (Wright 1954: §287), though it has not been proved that *w* should have been lost between an unstressed vowel and *i* (so Ringe 2006a: 136; cf. Ringe 2017: 161, reconstructing PIE **-o-u̯os*); possibly there was the change **-ōwiz* > **-ōwz* > *-ōs* (A.W. Jones 1979: 351). Rather, Bammesberger (1983b: 174) explains *-ōs* as created on the analogical proportion 1 sg. pres. *-am* : pret. *-um* = 1 du. pres. *x* : pret. *-ū*, hence *x* = **-ō*, with subsequent addition of *-s* from the 2 dual.

2 du. In Go. *-ats*, the final cluster *-ts* is plainly derivable from the PIE ending **-tes*, though why the result is *-ts* rather than **-þs* is disputed.[6] Neither is it known for certain why the PIE thematic vowel **-e-*, which should have developed to **-i-* in Germanic, was replaced by Gmc. **-a-*, though this seems likeliest to be a paradigm regularization, with replacement of the reflex of PIE thematic **-e-* by that of its alternant **-o-*.

1 pl. The Go. and OIcel. endings represent regular developments.[7] In OHG, the form *-umēs* appears to be oldest, though there is mixture of endings from an early date. Final *-ēs* in this form is difficult to explain.[8] In Ingvaeonic, the 3 pl. ending has been extended throughout the plural.

2 pl. The Go. and OIcel. endings represent regular developments if it is assumed that PIE *e* became PGmc. *i* in unstressed syllables except before *r* (§5.5); the PIE thematic ending was **-e-te*. That the final consonant in PGmc. was at least sometimes voiced by Verner's law is shown by forms with an attached enclitic in Go., e.g. *qiþid-uh* 'and you say'. OHG *-at* seems to show the same substitution as in the Go. 2 du., whereas the origin of *-et* is much disputed: see the references in Braune 2004a: §308 Anm. 1b and in Boutkan 1995b: 317–18. Beside the latter appears the expected *-it* in the early Monsee fragments, which is formally identical to the 3 sg., likewise causing umlaut,

and this suggests that PIE *-*ete* did indeed yield PGmc. *-*iþ/-ið*. In Ingvaeonic the 3 pl. ending has been extended throughout the plural. Possibly this was aided by a prior refashioning of *-*iþ* to *-*aþ* (as with OHG -*at* < *-*að*; so Krahe & Meid 1969: II, §69), but the vowel of 3 pl. -*aþ* (as explained below) must have remained long for some time.

3 pl. The PIE ending *-*o-nti* would normally develop to PGmc. *-*anð(i)*, yielding *-*and*, reflected in Go. -*and*, OHG -*ant*. But there must have been an alternant PGmc. *-*anþ(i)* not subject to Verner's law because of stress on the inflection, as in the 2 and 3 sg. This is reflected in OIcel., showing the development *-*anþ(i)* > *-*ann* > -*a* (see Heusler 1967: §§158.2, 152),[9] and in Ingvaeonic, where the development is *-*anþ* > *-*ãⁿþ* > -*aþ* (§6.17, and see n. 4 *infra*). OS -*ad*, -*at* would seem to reflect PGmc. *-*anþ(i)* rather than *-*andi*, as *n* would not have been lost in the latter in NSGmc. OS -*at*, however, appears to be the final fortition of -*ad*, discouraging the idea that the former is merely a spelling variant of -*að*, and final fortition tells against a development *-*þ* > *-*ð* > *-*d* (cf. Ringe & Taylor 2014: 160). Holthausen (1921: §405) may thus be right that the OS pl. inflections represent a mixture of the original 2 and 3 pl. endings.

1. If it is supposed that umlaut by lost *i* did not originally affect light syllables in ON (§4.7), it must be assumed that it was extended to the 2 and 3 sg. of verbs with light stems. But almost certainly umlaut did originally apply to light syllables.

2. It is generally assumed that the unvoiced alternant was preserved in verbs of the *tudáti* type, i.e. the Germanic aorist presents (§12.3); see also below on the 3 pl. ending. But -*s*- would also have remained unvoiced in *verba pura* such as PGmc. **dō-s(i)* 'do', **ʒē-s(i)* 'go' and **stē-s(i)*. Fullerton (1975, with refs.) supports the view that *-*z* was devoiced by the voiceless initial of an enclitic pronoun. See Ringe 2017: 207–9 for an accounting of the original distribution of the variants by verb type.

3. This analysis originates with Walde (1900: 125 n. 1); see also Lõfvenberg 1949: 17–23 and Fulk 1992: §§318–21. Ringe (in Ringe & Taylor 2014: §7.1.2) adheres to the earlier view that only the Anglian endings are analogical, in support of his hypothesis that OE syncope occurred in more environments than has heretofore been allowed (see §5.2 n. 4 *supra*).

4. OS -*id*, -*it* may represent borrowings from OHG: so Prokosch 1939: §72a. However, since there was devoicing of final obstruents in OS (§6.20), these could both represent the alternant *-*d* < *-*ð* under Verner's law (so Holthausen 1921: §404 Anm. 1). It is plain that voiced and voicless alternants coöccurred in Proto-WGmc., since leveling has taken opposite directions in OHG and OE.

5. Holland (1980, with discussion of alternative analyses) argues instead that 3 sg. -*r* reflects an enclitic 3 sg. pronoun **eʀ*. Some others envisage a phonological change *ð* > *ʀ*: see Brøndum Nielsen 1950–7: VIII, §782.1.

6. Since the Skt. ending is -*a-thaḥ*, possibly the PIE ending was *-*o-tHes*, and the laryngeal consonant prevented Grimm's law from applying to **t* in PGmc. (Krause 1968: §258, in agreement with Stang 1949). For alternative views, see Krahe & Meid 1969: II, §69, Wright 1954: §287 (the latter arguing that the *t* is analogical to the *t* in forms like Go. OIcel. 2 pl. pret. *namt* 'took'), K.M. Schmidt 1974, and Bammesberger 1983b, the last arguing (171–2) that *t* in the suffix remained unshifted in a few athematic verbs ending in a consonant which, in contact with *t*, normally prevented the application of Grimm's law, e.g. **es*- 'be' and **ʒeb*- 'give', with subsequent generalization of *t*, as in the 2 sg. pret. Rather, Ringe (2017: 264) assumes a regular change of *-*þs* to -*ts* that, he reasons, is unattested elsewhere because of paradigm regularization.

7. A comparable development is seen in the dat. plural of Gmc. *a*-stem nouns (§7.8 *ad fin.*). That is, the PIE verb ending *-*o-mes* gives -*am* in Gothic but -*um* in NWGmc. (§5.5).

8. Krahe 1958 argues that *s* remained unvoiced in the reflex of PIE *-*o-mes* due to suffixal accent originating in athematic verbs (cf. Skt. 1 pl. *imáḥ* < **hᵢi-més* 'go'), and *i* was then replaced by *ē* by analogy to the 1 pl. opt. ending *-*mē* (> Go. sj. -*ma*). Bech (1962) raises weighty objections, but no more convincing is his notion of the addition of the OHG 2 sg. sj. ending -*ēs* to the normal 1 pl. ind. in -*um*. The commonest assumption is that -*umēs* shows the incorporation of a following pronoun into the inflection: for discussion and references, see Boutkan 1995b: 313–17.

9. The idea of Boutkan (1995b: 318) that the OIcel. inflection reflects *-*anði* rather than *-*anþi* faces the objection that *-*nð*- should have become *-*nd*- in PGmc. (§6.5), but loss of final *d* after *n* could not be called

improbable. The argument of Fullerton (1974) that NSGmc. *-*anþ* results from devoicing in *-*anð*, however, cannot be reconciled with the assumption that *nd* arose already in PGmc.

12.25 Inflection of the preterite indicative in Proto-Germanic

The Germanic endings of the preterite indicative active developed from the PIE perfect endings identified in §12.4, with the exceptions noted below. The endings attested in the earliest Germanic languages are these:

	Go.	OIcel.	OE	OS	OHG	PGmc.
1 sg.	-Ø	-Ø	-Ø	-Ø	-Ø	*-(a) (§5.2)
2 sg.	-t	-t	-e	-i	-i	*-þ(a)
3 sg.	-Ø	-Ø	-Ø	-Ø	-Ø	*-(e)
1 du.	-u					*-w(e) > *-u (§5.2)
2 du.	-uts					
1 pl.	-um	-um	-on	-un	-um	*-m(e) > *-m̥ > *-um (§§5.2, 3.2)
2 pl.	-uþ	-uð	-on	-un	-ut	
3 pl.	-un	-u	-on	-un	-un	*-un(þ)

Outside of Gothic, the plural endings are used with both plural and dual subjects. In the desinences reconstructed for PGmc., a segment in parentheses indicates one lost without leaving a trace in early Germanic. The following inflections merit discussion:

2 sg. Gothic and OIcel. *-t* reflect the PIE perfect ending *-*th₂e* seen in Skt. *-tha* and Gk. *-θα* (as in *οἶσθα* 'you know'; cf. also Hitt. *sak-ti* 'you know', *sak-ta* 'you knew', and Lat. *vīd-is-tī* 'you saw'). PIE *-*th₂e* is commonly assumed to have produced PGmc. *-*þ*, which, however, is nowhere found, except perhaps in OE (Anglian) *(e)arð* (§§12.56–7). Rather, after a fricative consonant PIE *-*t* would remain unshifted under Grimm's law (§6.5), as in Go. *sahʊt* 'you saw' and *gaft* 'you gave',[1] and presumably this rather common variant was generalized in East and North Gmc., if not in PGmc. (the latter possibility discounted by Heidermanns 2007: 59). This ending is found also in WGmc. in the preterite-present verbs (§12.52), but the normal WGmc. preterite endings must reflect either *-*i* (etymological after light stems, analogical after heavy) or *-*ī*. This is now usually explained as derived from PGmc. *-*iz* (with loss of final *z* after the unstressed vowel in WGmc., §6.16), reflecting the thematic vowel *-*e*- plus the secondary ending *-*s* used in the PIE imperfect and aorist.[2] The substitution of the aorist ending for the perfect one would have been well motivated, given the awkward final consonant clusters that would have resulted in some instances from the addition of final *-*þ* to a stem that already ended in a consonant cluster, and given the alternation between *-*þ* and *-*t* already mentioned (if this was not eliminated already in PGmc.), as well as further irregularities like that mentioned in n. 1. A difficulty facing derivation of the WGmc. ending from an aorist is that in order to explain, e.g., WGmc. **tuʒi(z)*, it is necessary to derive it from PIE **h₁é-duk-e-s* (cf., e.g. Skt. *ásicaḥ* 'you poured' (root *sic*-), Gk. *ἔλιπες* 'you left'), as suffix accent, though it would explain the voicing of the root-final consonant under Verner's law, would produce final *-*s* rather than *-*z*; and yet there is no secure evidence for a verbal augment anywhere in Germanic (see §12.61). If, instead, WGmc. **tuʒi* is derived from an augmentless thematic aorist **duk-é-s* (cf. Gk. *λιπεῖν*, etc.), it must be assumed that final *-*s* was lost in WGmc. regardless of whether or not it was voiced under Verner's law, or that final *-*s* developed to *-*z* in WGmc. (and was thus lost) regardless of the original place of the accent (see §6.16).

Grønvik (1998b: 103–11, at 104–5) raises a number of other telling objections.[3] Most alternative explanations rely upon the assumption that the WGmc. ending is optative in origin.[4] In PGmc. the pret. subjunctive (< optative) ending was *-*ī-s* or *-*ī-z* (see §12.27); if the former, it must be assumed, once again, that final *-*s* was simply lost in WGmc. In either event, the remaining *-*ī* would have been shortened, but not early enough to undergo apocope after heavy stems: cf., for instance, OHG 1 and 3 sg. pret. sj. -*i* (see §12.23). This explanation thus does not require the extensive appeal to analogy required by derivation from an aorist form.[5] Derivation of the 2 sg. ending from either the aorist or the perfect subjunctive will explain why the stem is in the reduced grade in WGmc. Kortlandt (1994b) derives the ending from a posited PGmc. pluperfect.

1 du. Bammesberger (1983b: 173) regards the inflectional vowel as long, composed of 'thematic' *u* plus *w* < PIE *-*u̯e*. If it is short, it must reflect *-*u̯e* alone.

2 du. Go. -*uts* has its vowel by analogy to the 1 dual and the plural endings. See Bammesberger 1983b: 172–3.

1 pl. The usual assumption (first offered by Sievers 1877–8: 5.119–21; cf. Marchand 1957b: 107–8) is that in a form like PGmc. **bið-m(e)*, upon loss of the final vowel the remaining postconsonantal *-*m* was syllabified and fell together with the reflex of PIE *-*m̥* as *-*um*.[6] Since this cannot be proved, Bammesberger (1986a: 96) argues instead that PGmc. *-*um* has its vowel by analogy to the 3 pl. ending *-*un*. In OE and OS, the 3 pl. ending has been extended throughout the plural.

2 pl. The endings (outside of Ingvaeonic, where the 3 pl. ending has been substituted) must derive from PGmc. *-*uþ*, though this cannot reflect the PIE perfect ending, whatever it was (*-*(hₗ)é* ?).[7] This *-*uþ* most likely has its vowel by analogy to the 1 and 3 pl. inflections, and perhaps its consonant derives from the pres. ind. inflection. Alternatively, this consonant could be derived from the PIE aorist inflection *-*(e-)te*, a possibility mentioned by Krahe & Meid 1969: II, §73. PGmc. *-*uþ* is also reflected in the present of athematic and preterite-present verbs.

3 pl. The PGmc. ending must have been *-*un(þ)* (with loss of the final consonant already in PGmc.), to be derived from PIE *-*n̥t*, which is not a perfect ending.[8] Rather, *-*n̥t* is an athematic secondary ending, and so used with the imperfect and the sigmatic aorist (Cowgill 1957: 48–9).[9]

None of these endings proves conclusively that the PIE aorist was still an inflectional category at the time the PGmc. preterite was formed, but the 3 pl. ending renders that conclusion highly probable.[10] Likewise, an aorist model, insecure as it is, seems the likeliest explanation offered to date for the 2 sg. ending in WGmc.,[11] and it is a possible explanation, in part, for the 2 pl. ending.

1. Final -*t* would also have resulted when *-*þ* was added to a dental consonant, producing final -*st*, as in Go. 2 sg. pret. *ana-báust* to *ana-biudan* 'bid'. There is also, however, the possibility that the First Consonant Shift preceded the loss of the laryngeal, which prevented *t* from shifting (so, e.g., Sihler 1986: 201): cf. §12.24 on the pres. 2 dual inflection. Ringe (2017: 124) is probably right that laryngeals were lost before the First Sound Shift, but it does not appear to be possible to prove that anteconsonantal and postconsonantal laryngeals were lost at the same time. OE dialectal 2 sg. pres. *earð*, *arð* 'are' would appear to be the only Gmc. forms showing the shifted consonant, but it is by no means certain that -*ð* reflects the original perfect ending: see §12.57.

2. This idea originates with von Fierlinger 1885, supported by Loewe 1907: 267, Sverdrup 1927, 1929: 48–50, Hirt 1931–4: II, §122, Prokosch 1939: §56b, Krahe & Meid 1969: II, §73, A. Campbell 1977: §731, Brunner 1965: §364, Hogg & Fulk 2011: §6.21, and very many others.

3. As Grønvik points out, the assumption that 3 pl. *-*un(þ)* is an aorist ending demands the supposition that the perfect and aorist melded in PGmc., so that the assumption of an intact aorist surviving into WGmc. makes no sense. Moreover, such a posited aorist has left no trace in North Germanic. In addition, the ending

*-*i* (OE -*e*) would be etymological only in strong classes 1 and 2, as the sj. stem in all other classes would have been heavy, causing apocope of the final vowel. And although OHG *ni curi* 'do not' has sometimes been identified as an aorist form (so, e.g., Streitberg 1896: §214), it is more plausibly analyzed as a pret. sj. (§12.27).

4. So, e.g., Bammesberger 1986a: 47–8; refs. in H.F. Nielsen 2000: 245. This idea was proposed already by Jacob Grimm: see Flasdieck (1934: 118–19), who discounts the idea and remarks that derivation from the aorist has in its favor that the aorist ending could not be added to the preterite-presents, since they are present in meaning. See also Meid 1971: 13–14. Bech (1969) argues that *-*iz* was taken into the pret. from the pres., and M.R. Barnes (1975) offers some refinements to this analysis, with discussion of the problem of WGmc. *-*z/s*.

5. Advocates of variants upon this explanation include van Helten (1893: 554; 1902: 545), Schröder (1921), Polomé (1964), Bammesberger (1986a: 47–8), Grønvik (1998b: 103–11), Euler 2013: 138–40, and Ringe & Taylor 2014: 67–9. For a syntactic justification for the origin of the use of the pret. sj. for the ind., see Grønvik 1998b: 105–11, with references. Yet surely the original ind. inflection would not have been lost entirely had it not created paradigm irregularities, as remarked above.

6. So, e.g., Krahe & Meid 1969: II, §73, though their idea that *-u-* in this ending might in some instances reflect *ə* (i.e. *H*) is not to be credited: see §5.5 *ad fin*.

7. If the PIE inflection really was *-*h*₁*e*, with loss of the laryngeal it would have fallen together with the 3 sg. ending, and this may have prompted the refashioning of the inflection (Boutkan 1995b: 336).

8. The PIE perfect ending almost certainly contained *r* (§12.4), though the original ending has been replaced analogically in the majority of IE branches.

9. Tops (1974: 26), building on ideas set forth by Polomé (1964) and Meid (1971), argues that the presumed PIE 3 pl. perf. inflection in *r* was replaced by *-nt* in the PIE period itself, and therefore the source of the Gmc. perf. ending could be the present ending. One assumes that he means by this either that the replacement did not take place in all verbs (since the *r* ending is reflected in Hittite, Tocharian B, Sanskrit, and Latin) or that the replacement took place only in some dialects of PIE. In either event, he must mean that because the replacement took place so early, PIE phonological patterns would still have applied, and hence /nt/ would have been realized as *-*n̥t*. But the problem of the survival of the *r* inflection in some IE languages tells against replacement at such an early date, and at all events, if the replacement took place so early, the distinction between primary and secondary endings would still have been observed, rendering the secondary form of the Gmc. ending difficult to explain.

10. Rather, Ringe (2017: 182–5) derives the Gmc. inflection solely from the form **dēðun* 'did', which he derives from an imperfect: see §12.61 on 'do'.

11. Assuming that the 2 sg. ending in WGmc. is aorist in origin demands that the aorist have remained in use up to the time of the separation of WGmc. from NGmc, though there is no other reason to suppose that it was preserved so late. It would indeed be surprising if it persisted so long without leaving a trace in Gothic and NGmc. that is not found also in WGmc. Considerable uncertainty thus remains.

12.26 Inflection of the present subjunctive active in Proto-Germanic

The Germanic endings of the present subjunctive active developed from the PIE present optative desinences. It was the PIE thematic optative that was generalized in the present tense in Gmc., which, according to the standard view (§12.6), comprised the theme vowel *-*o*- plus the weak-grade optative suffix *-*i̯h*₁- plus inflection, with accent on the root throughout.[1] In the present tense in Gmc., of the PIE athematic optative only a few relic forms are to be found.[2] The normal endings attested in the earliest Germanic languages are these:

	Go.	OIcel.	OE	OS	OHG	PGmc.
1 sg.	-áu	-a	-e	-e	-e	*-a(j)u(n) < PIE *-oi̯h₁m̥
2 sg.	-áis	-ir	-e	-es	-ēs	*-aiz
3 sg.	-ái	-i	-e	-e	-e	*-ai(ð)

1 du.	-áiwa					*-aiwē
2 du.	-áits					
1 pl.	-áima	-im	-en	-en	-ēm, -emēs	*-aimĕ̄(-)
2 pl.	-áiþ	-ið	-en	-en	-ēt	*-aið(e)
3 pl.	-áina	-i	-en	-en	-ēn	*-ain(ð) < *-a(j)inð < PIE *-oi̯h$_1$-ent

The following endings merit comment:

1 sg. PIE *-oi̯h$_1$m̥ (§12.4, in line with the explanation of Paul 1877: 378) accounts admirably for Go. *-áu*, since the resulting PGmc. *-*ajum* would have lost **j* between unstressed vowels (§6.11 *ad fin.*), and final *-*m* (> *-*n*) would have been lost, as well (§6.11). There is thus no need to suppose that the emphasizing particle *-*u* that appears to underlie the 3 sg. and pl. imp. endings in Gothic (§12.28) is required to explain this opt. ending (so Prokosch 1939: §72c). PGmc. *-*au* will also explain OIcel. *-a* (cf. *átta* '8' < PIE *okt͡ōu̯), whereas the WGmc. endings appear to reflect *-*aim* > *-*ai(n)*, an early analogical formation with *-*ai-* derived from the remainder of the paradigm rather than an original alternant.[3]

2 sg. The Go., OIcel., and OE endings develop regularly. The OS and OHG endings have *-s* on an analogical basis, under the influence, not least of all, of the athematic optative (§12.6), a change perhaps motivated by the utility of re-differentiating the 2 and 3 sg. (Boutkan 1995b: 323); cf. Flasdieck 1934: 115, arguing that Anglo-Frisian has innovated.

1 du. PGmc. *-*aiwē* is reconstructed by comparison to, e.g., OCS *ved-ě-vě* 'let us lead' < PIE *u̯edh-o-i̯h$_1$-u̯ē (with final -*ē* from -*e-h$_1$*?). Cf. Ringe 2017: 264–5.

2 du. The ending is the same as in the indicative (on the origin of which, see §12.24) but attached to the PGmc. thematic optative suffix *-*ai-*.

1 pl. Go. *-aima* agrees with, e.g., Lith. *-o-mė-s* in reflecting an inflection with a long vowel (and cf. the 1 dual ending, above). By contrast, the OIcel. and OHG endings presuppose an ending with a short vowel, PGmc. *-*ai-mĕ*, in agreement with Skt. *-ē-ma* and Gk. *-οι-μεν*. In NSGmc. the ending of the third person has been extended throughout the plural, as in the indicative.

2 pl. Only the Ingvaeonic endings do not result regularly, being due to extension of the 3 pl. ending throughout the plural.

3 pl. Only the Gothic ending is altered analogically, with extension of *-a* to match the 1 du. and pl. endings. Because he does not reconstruct a laryngeal consonant, Hreinn Benediktsson (1983: 33) regards PGmc. *-*ain(ð)* as an analogical formation, but since **j* between unstressed vowels appears to have been lost in PGmc. (§6.11 *ad fin.*), *-*ain(ð)* may result phonologically from *-*a(j)inð* < PIE *-oi̯h$_1$-ent.

1. According to the earlier view, before the discovery of laryngeal consonants (see, e.g., Streitberg 1896: §221), the thematic optative desinence is made up of thematic **o* plus the **ī* found in the dual and plural of athematic optatives, producing PGmc. **oi*. This requires the assumption of morphological change in some of the Gothic endings. But once a laryngeal consonant is assumed in PIE, resort to analogy is unnecessary, as nearly all the Go. endings can be derived on a phonological basis, the one exception being that Go. 3 pl. *-aina* must be assumed to have final *-a* by analogy, an assumption that is necessary under any analysis. See §12.6 on problems in the analysis of the PIE thematic pres. optative.

2. On the present subjunctive (PIE optative) in athematic verbs, see §12.6. Very likely the OE umlauted present subjunctives *cyme*, *cymen* reflect a PGmc. athematic optative, hence with suffix *-*ī-*: see Bammesberger 1982b, with references. Euler 2013: 139 regards them as aorist in origin, i.e. with punctual meaning.

3. Krahe & Meid (1969: II, §77) justify *-*ai(m)* as an original alternant by comparison to Lat. *s-im* 'I be', but when the presence of a laryngeal is acknowledged it should be plain that there should have been no thematic desinence *-*oim* inherited from PIE. For discussion and references to alternative proposals, see A.W.

Jones 1979: 354–9, and esp. Hreinn Benediktsson 1987. Ringe plausibly argues that because the 1 and 3 sg. pret. ind. were undifferentiated, that pattern spread to the pret. sj., and thence to the pres. sj. (Ringe & Taylor 2014: 75–6).

12.27 Inflection of the preterite subjunctive in Proto-Germanic

The Germanic endings of the preterite subjunctive developed from the PIE perfect (hence athematic) optative desinences (§12.6), except that the reflex of weak-grade PIE *-i̯h_I- of the dual and plural was extended to the singular, replacing PIE athematic *-i̯eh_I-, with the possible exception of the 1 sg. The endings attested in the earliest Germanic languages are these:

	Go.	OIcel.	OE	OS	OHG	PGmc.
1 sg.	-jáu	-a	-e	-i	-i	*-jêu < *-je-u(n) < PIE *-i̯eh_1m̥
2 sg.	-eis	-ir	-e	-is	-īs	*-īz *or* *-īs
3 sg.	-i	-i	-e	-i	-i	*-ī(ð)
1 du.	-eiwa					*-īwē
2 du.	-eits					
1 pl.	-eima	-im	-en	-in	-īm, -īmēs	*-īmĕ(-)
2 pl.	-eiþ	-ið	-en	-in	-īt	*-īð(e)
3 pl.	-eina	-i	-en	-in	-īn	*-în(ð) < *-i-inð < *-ih_1-ent

In OIcel. the stem shows umlaut throughout; a few possible examples with umlaut are found in OE (see Bammesberger 1982b: 414–15). The Gmc. singular endings, with the possible exception noted below, reflect analogical PGmc. *-ī- plus the secondary endings, as in the present. The dual forms, attested in Gothic only, reflect this PGmc. *-ī- plus the usual dual inflections. As usual in NSGmc., the 3 pl. inflection has been extended throughout the plural. Otherwise, only the following endings require comment:

1 sg. It is usually explained that Go. *-jáu* reflects the optative sign *-ī- extended from the dual and plural with the analogical addition of *-áu* on the model of the present optative (so, e.g., Krahe & Meid 1969: II, §78). But the ending may etymologically reflect PGmc. *-*jêu* < *-*je-u(n)* < PIE *-i̯eh_Im̥ if it is assumed that PGmc. *-*êu* would develop to Go. *-áu*. This development cannot be proved, but cf. the development of Go. *-áu* from PIE *-*ēu* in the locative singular of *u*-stem nouns (§7.25). Perhaps *-*jêu* would also yield OIcel. *-a*, as **j* would have been lost after the heavy syllable (§6.14) found in the stem of the pret. sj. of strong verbs other than those in classes I–II (where the syllable would have been light), though *-a* is perhaps likelier to be analogical to the present inflection, as every other pret. sj. ending in OIcel. is identical to the corresponding present ending. Certainly, the WGmc. 1 sg. endings reflect extension of *-ī- from the other persons, but it is notable that 1 sg. pres. ind. OE (Anglian) *willo*, OS *williu*, OHG *willu* 'will' all correspond to Go. *wiljáu*, bearing a pret. sj. inflection on a pres. stem (§12.59), and thus supporting the assumption of PGmc. *-*jêu*.

2 sg. Final *-*s* would have remained voiceless in the PGmc. reflex of PIE *-i̯éh_I-*s*. Perhaps when the reflex of *-i̯eh_I- was replaced by *-ī- in PGmc., the original voiceless *-*s* remained (in which event OE *-e* for *-*es* would appear to be analogical). This would help to explain why the analogical pressure of athematic inflection was sufficient to induce extension of *-s* to the corresponding present ending in OS and OHG (§12.26). Otherwise it would have to be assumed that this *preterite* ending in OS and OHG is analogical to the *present* ending of a small number of athematic verbs. But it is

perhaps likelier that to analogical PGmc. *-*ī*- was added -*z* (rather than -*s*), as in the pres. subjunctive. This would explain the curious imp. OHG *ni curi* 'do not' (beside later, analogically restored *ni churīs*, to *kiosan* 'choose'), which appears to be an early form of the 2 sg. pret. sj.: see, e.g., Bammesberger 1986c: 676, Euler 2013: 138.

3 pl. As in the present, the Go. ending shows extension of -*a* from the 1 pl. inflection. Also as in the present, loss of PGmc. **j* between unstressed vowels adequately explains the development of PIE *-*ih*$_1$*-ent* to PGmc. *-*în(ð)*, without recourse to analogy (cf. Hreinn Benediktsson 1983: 33).

12.28 Inflection of the imperative in Proto-Germanic

The endings attested in the earliest Germanic languages are these:

	Go.	OIcel.	OE	OS	OHG	PGmc.
2 sg.	-Ø	-Ø	-Ø	-Ø	-Ø	*-(e) (§5.2)
3 sg.	-adáu					
2 du.	-ats					
1 pl.	-am	-um	-on	-a	-amēs, -emēs, -ēm	
2 pl.	-iþ	-ið	-að	-að	-et	*-iþ
3 pl.	-andáu					

Only the 2 sg. and 2 pl. endings bear a relation to the PIE endings (§12.6) transparent enough to allow reconstruction of the PGmc. endings with sufficient confidence.

2 sg. The PGmc. inflection *-*e*, which would have been lost consistently, reflects the PIE theme vowel with null inflection. On the imp. in athematic verbs, see §12.6.

3 sg. Go. -*adáu* derives not from the PIE 3 sg. imp. *-*t(u)* but from what is sometimes called the future imperative (so, e.g., Szemerényi 1996: §9.2.5), which bears a suffix in PIE *-*tōd*, as in OLat. *estōd* 'let him be' (= Gk. *ἔστω*); the Skt. reflex is -*tāt*. With root accent of the verb it thus would have produced PGmc. *-*ðō*, to which (according to the standard view) has been added an emphasizing particle, probably the same seen in Skt. pres. imp. *astu*, *santu* 'let it/them be', to produce (thematic) PGmc. *-*a-ðōu* > Go. -*adáu*. Cf. Go. *ahtáu* 'eight' < PIE *o*ḱ*tṓu*, but see below in regard to the 3 pl. ending for some difficulties and an alternative analysis. The theme vowel *a* in this form, however (for expected *e*), is by analogy to the 3 pl. imp. ending (Krause 1968: §217.4).

2 du. Go. -*ats* is the same ending found in the pres. ind. 2 dual, just as the 2 pl. endings are identical in the indicative and the imperative.

1 pl. The Gmc. inflections are apparently an innovation; no 1 pl. imp. ending is reconstructible for PIE. Outside of Ingvaeonic, the 1 pl. imp. ending is identical to the ind. ending, just as the 2 pl. ind. and imp. endings are identical. In OE and OS the sj. plural is the normal form used for injunctions, but OS *wita*[1] and OE *(w)uton*, *(w)utan*, *uten* (also Northumbrian *wutum* 3×) 'let us', apparently derived from forms of OS, OE *wītan* 'go', suggest a separate original imp. ending even in Ingvaeonic. Possibly in these languages, too, the 1 pl. imp. ending was originally the same as the indicative, but the attested forms require the assumption of exceptional developments under low stress (see Hogg & Fulk 2011: §§6.6, 6.46 n. 1), and so the original form of the Ingvaeonic ending cannot be determined.

2 pl. Just as in PIE, all the 2 pl. imp. inflections are identical to the indicative ones, on the development of which see §12.24. Thus, in NSGmc. the inflection of what was originally the 3 pl. ind. is employed, since the 3 pl. ind. inflection replaced the 2 pl.

in Ingvaeonic. The PIE 2 pl. imp. may be in origin an injunctive (so Krahe & Meid 1969: II, §79), on which see §12.1 n. 2.

3 pl. The relation between Go. 3 pl. *-andáu* and 3 sg. *-adáu* has been compared to that between Skt. 3 pl. *-antu* < **-o-nt-u* and 3 sg. *-atu* < **-e-t-u*. Go. *-andáu* is commonly thought to reflect PIE **-ontōd*, as in Doric Gk. *φερόντω* (but with accent on the root) with the addition of the same emphasizing particle **-u* seen in the 3 sg. (so, e.g., Wright 1954: §289). This demands the assumption that **-u* was not added until after the loss of the final consonant in the PGmc. reflex of PIE **-ontōd*. The same must be assumed for the 3 sg. ending, and so it is not plain what the analogical model for the addition of **-u* could have been, given this analysis. Accordingly, Markey (1972, with refs. and discussion of alterative views) argues that, here and in the 3 sg. imp., to prevent neutralization of the distinction between the imp. and the pass. ind., *-áu* was added, borrowed from the pass. sj., given the semantic connections between the imperative and the subjunctive, as demonstrated, e.g., by the pret.-pres. verbs, which have no formal imperative, for which the sj. instead serves. Yet Suzuki (1984) counters that *-u* in the pass. sj. is equally mysterious in origin, and he proposes that *-u* is identical to the Go. interrogative suffix *-u* (so earlier Wright 1954: §297). For discussion and references, see A.W. Jones 1979: 364–71.

On OHG *ni curi*, pl. *ni curīt*, *curet* see §12.27; on Go. *ni ōgs þus*, §12.53.

1. Holthausen (1921: §408 Anm. 3) assumes a long vowel, but a short seems likelier, given that OE *wuton* requires a short vowel to explain the development of the root vowel to *u* under combinative back mutation (Hogg 1992: §5.109.1).

12.29 The passive and middle inflections

Only in Gothic are verbs regularly inflected in the passive voice, and only in the present tense:

	Pres. Ind.				Pres. Sj.		
1 sg.	-biudada	**pl.**	-biudanda	**sg.**	-biudáidáu	**pl.**	-biudáindáu
2 sg.	-biudaza	**pl.**	-biudanda	**sg.**	-biudáizáu	**pl.**	-biudáindáu
3 sg.	-biudada	**pl.**	-biudanda	**sg.**	-biudáidáu	**pl.**	-biudáindáu

The category reflects the PIE middle voice, but verbs inflected this way in Gothic are purely passive in meaning. That there is no synthetic pret. passive is a consequence of there having been no perfect passive in PIE, seeing as the Gmc. preterite reflects the PIE perfect. 3 pl. *-anda* directly reflects PIE **-o-ntoi* (§12.5), which ending has been extended throughout the ind. plural. Its connecting vowel *a* has been extended to the 2 and 3 sg. endings (Lühr 1978: 110), which otherwise reflect PIE **-e-soi* and **-e-toi*, respectively. The 1 sg. is analogical to the 3 sg.; the original ending was PIE **-ai*, which is reflected in Runic **haite** 'I am called'.[1] For a very different account, beginning with dissimilar PIE endings, see Boutkan 1995b: 327–30.

The subjunctive has the same connecting vocalism *-ái-* as in the pres. act. subjunctive. Otherwise the endings are the same as those in the ind. passive, except for final *-áu*, which is perhaps borrowed from the 1 sg. pres. ind. active; but see the discussion of the 3 sg. & pl. imperative above (§12.28).

Aside from these Gothic forms and Runic **haite**, the PIE middle is formally reflected in Gmc. only in OE 1 & 3 sg. *hātte* 'am/is called, was called' = Go. *háitada*,

with both present and past meaning.[2] Elsewhere in Gmc. the passive meaning in this verb has been assumed by active forms.

A new middle voice, used with both reflexive and passive meaning, arose in NGmc. by the addition of reflexive pronouns to verbs, e.g. 1 sg. pres. ind. **ɣraƀō + mik > grǫfumk* (to *grafa* 'delve'), 2 sg. **ɣraƀiz + sik > greſsk*, 3 pl. **ɣraƀa(n) + sik > grafask*, 2 sg. pret. **grōſt + sik > grófzk*. The paradigm is as follows:

		Indicative		Subjunctive	
		sg.	**pl.**	**sg.**	**pl.**
Pres.	**1**	grǫfumk	grǫfumk	grǫfumk	grafimk
	2	grefsk	grafizk	grafisk	grafizk
	3	grefsk	grafask	grafisk	grafisk
Pret.	**1**	grófumk	grófumk	grœfumk	grœfimk
	2	grófzk	grófuzk	grœfisk	grœfizk
	3	grófsk	grófusk	grœfisk	grœfisk

On the development of the NGmc. middle voice, see Faarlund 2005.

1. The form is a reconstruction on the basis of two imperfect inscriptions: see Krause 1971: §103. In the sense 'am called' the OIcel. verb takes the form *heite* > *heiti*; the other persons and numbers are inflected according to the pattern of heavy stems of the first weak class.

2. OE 3 sg. *hǣtte*, in one of the so-called metrical charms, is more likely a scribal error than a reflex of **xaitiðai*, i.e. the PGmc. form without substitution of the connecting vowel, as in Gothic. OE pl. *hātton* is analogical, possibly to weak verbs of the first class (Euler 2013: 136), but perhaps more likely to preterite-present verbs, since it may have pres. meaning but a pret. inflection.

12.30 Formation and inflection of non-finite strong verb forms

Of the various means of forming verbal nouns in PIE (§12.7), addition of the suffix **-no-* (> PGmc. **-na-*) to the thematic stem ending in **-o-* used in the present was the exclusive method adopted in PGmc. for the formation of infinitives. These bore the nom./acc. sg. neuter *o*-stem inflections. Hence, PIE **bher-o-no-m* produces PGmc. **berana*^{n} > Go. *baíran*, ON *bera*, OE OS OHG *beran* 'to bear'.[1] In WGmc., a suffix **-anja-* bearing *ja*-stem inflections was added to the bare stem to form so-called inflected infinitives (or 'gerunds').[2] These are chiefly in the dative case and usually follow the prep. OE *tō*, OS *te*, OHG *za*, *zi*, expressing, for the most part, purpose, e.g. OE *tō berenne*, *tō beranne*,[3] OS *-ann(i)a*,[4] OHG *-anne*. In OS and OHG there is also, though less frequently, an inflected inf. in the genitive, without a preposition, ending in OS *-annias*, OHG *-annes*. OHG has also instr. sg. forms in *-annu* (*et sim.*), whereas dat. pl. forms in *-annum* are by analogy to Latin constructions. In ON there occur some innovative pret. infinitives, formed by the addition of *-u* to the pret. stem, e.g. *stóðu* 'to have stood', *mæltu* 'to have said', *knáttu* 'to have known'. These originate in the preterite-present verbs (see §12.53 n. 2).

The active (or present, or first) participle is formed by the addition of PIE **-nt-* to the thematic stem ending in **-o-* used in the present, with the addition of adjective inflections (§9.9). With accent on the root, PIE **-nt-* yields PGmc. **-nð-* > **-nd-* under Verner's law (§6.6), as in Go. *baírands*, OIcel. *berandi*, OE *berende*, OS *berandi*, OHG *beranti* 'bearing'. Except in ON, these take both strong and weak inflections; in ON they bear a uniform set of inflections identical to those borne by adjectives in the comparative degree (see §9.9 for details). In West Gmc. the strong forms bear *ja*- and *jō*-

stem inflections. That the inflections found on such participles differ in the three main branches of Gmc. is no doubt a consequence of original consonant-stem inflection, as in Gk. nsm. *φέρων* 'bearing' < **bheronts*, asm. *φέροντα* < **bherontm̥*. The irregularities in the suffix produced by such inflection would naturally have motivated morphological change.

The passive (or past, or second) participle of strong verbs is formed by the addition of thematized **-an-* (in alternation with much rarer **-in-*)[5] to the PGmc. unaccented verb stem reflecting the PIE weak grade, e.g. Go. *baúrans* < **buranaz* < **bhₑr-ón-o-s*. Such participles take normal strong and weak adjective inflections.

1. PGmc. **berana*^{n} is commonly compared to Skt. *bharaṇam*. Hirt (1931–4: II, §158) concedes that this is a possibility, but that the Skt. form could derive instead from **bherm̥nom*, making it more directly comparable to Gk. infinitives in *-μεναι*. Indeed, under most formulations of Brugmann's law we should expect **bheronom* to produce Skt. †*bharāṇam*, though the law is too insecure for this to prove the point: see Collinge 1985: 13–21. Hirt's idea that **-mn-* would explain **-nn-* in the WGmc. inflected infinitives discussed below does not simplify matters, since **-nn-* is already explained by the *ja*-stem inflection of these infinitives. The PIE suffix **-men-* appears to be reflected in PGmc. **ermen-/ermun-* 'immense, high' (in Latinized Go. *Ermeni-rīcus* (name), OIcel. *jǫrmun-*, OE *eormen-*, OHG *irmin-*): cf. Gk. part. *ὄρμενος* to *ὄρνῡμι* 'stir up' (so Müllenhoff 1879).

2. Commonly this **-anja-* is regarded as formed by the addition of **-ja-* to the inf. in **-an-*, though the basis for such a development is not easy to account for. Grønvik (1998b: 112–14) ventures a possible explanation. More commonly now the formation is regarded as unrelated to the stem of the uninflected inf.: see Los 2005, with references.

3. The form *-anne* is actually less frequent than etymological *-enne* in all OE dialects, doubtless by analogy to the uninflected infinitive, which is sometimes found after *tō* in poetry, rarely in prose. The same influence is probably to be seen in OS. OHG forms in *-enne* among strong verbs, as well as forms in *-anni*, seem to attest to derivation of *-nn-* from **-nj-* (Braune 2004a: §315 Anm. 1).

4. With variants *-anne*, *-enne*, *-onn(i)a*, *-onne*.

5. Examples reflecting **-in-* are Runic **haitinaʀ** 'called' and early (Mercian) OE *binumini* 'deprived' and *forleginum* 'fornicated'. The alternation is paralleled in Slavic (Hirt 1931–4: II, §157). For discussion of **-an-* ~ **-in-*, see Mottausch 2013: 22–6, and cf. Ringe & Taylor 2014: 18–20.

12.31 Characteristics of the seven strong classes in the individual early Germanic languages

Phonological and morphological changes resulted in some distinctive features of verbs in various of the seven classes in some of the early languages. Representative paradigms are offered below for strong verbs in Go., OIcel., OE, OFris., OS, and OHG. Not all of the principal parts offered below are attested as such, but the forms are not in doubt, given that the ablaut patterns are well attested. On various departures from these patterns, including consonant alternations under Verner's law, aorist presents, weak presents, and contracted verbs, see §§12.17–19.

Class I, PGmc. (1) *ī*, (2) *ai*, (3) *i*, (4) *i*: The root contains the reflex of PIE /i/, which in full grade is preceded by the root vowel. In part (1), PIE *eḭ* > PGmc. *ī*, and in part (2), PIE *oḭ* > PGmc. *ai* (§3.4) In NWGmc. there most likely should have been lowering of *i* to *e* in passive participles, due to *a* in the following syllable, e.g. **riðanaz* 'ridden' > **reðanaz*, but the evidence for such a change is slender: see §4.4. If it took place, it has been almost completely reversed on the basis of analogy, perhaps to the preterite plural. It might seem odd that analogy should have removed the effect of lowering in the passive participle in class I but not class II, but it should be remembered that *o* in the class II participle was not a phoneme in NWGmc. but an allophone of /u/

and thus, though perhaps not immune to analogical effects (see, e.g., Steriade 2000), less disposed to them, whereas *e* in class I would have been a phoneme. Taking into account language- or subfamily-specific sound changes, the following principal parts to Go. *beitan* 'bite' and cognates are representative of the ablaut patterns in the individual languages:

	(1)	(2)	(3)	(4)
Go.	beitan	báit	bitun	bitans
OIcel.	bíta	beit	bitu	bitinn
OE	bītan	bāt	biton	biten
OFris.	bīta	bēt	biten	biten
OS	bītan	bēt	bitun	gibitan
OHG	bīzan	beiz	bizun	gibizan

OHG verbs with stem-final *h* or *w* have *ē* rather than *ei* in the pret. sg. (§4.17), e.g. *zīhan* 'accuse', *zēh*, *zigun*, *gizigan*.

Class II, PGmc. (1) *eu*, (2) *au*, (3) *u*, (4) *u*: The root contains the reflex of PIE /u/, which in full grade is preceded by the root vowel. In part (2), PIE *ou̯* > PGmc. *au*. Outside of Gothic, Gmc. *u* was lowered to *o* before *a* in the next syllable. In OFris., on the other hand, **-in-* (in alternation with much commoner **-an-*: §12.30) was generalized in the pp., with resulting umlaut, e.g. WGmc. **budin-* > *beden*, with analogical extension of *e* to the pret. pl. (Bremmer 2009: §132). The following principal parts to Go. *-biudan* (in *ana-biudan* 'command' and *faúr-biudan* 'forbid') and cognates are representative of the ablaut patterns in this class:

	(1)	(2)	(3)	(4)
Go.	-biudan	-báuþ	-budun	-budans
OIcel.	bjóða	bauð	buðu	boðinn
OE	bēodan	bēad	budon	boden
OFris.	biāda	bād	beden	beden
OS	biodan	bōd	budun	gibodan
OHG	beotan	bōt	butun	gibotan

The chief variant of this ablaut pattern is represented by the aorist presents (§12.18), which have *ū* in the present stem, e.g. Go. *ga-lūkan* 'shut', *-láuk*, *-lukun*, *-lukans*. OIcel. *jó* in the present stem occurs only before dental consonants, otherwise *jú*, as in *fljúga* 'fly', to which the pret. sg. is *fló* (§4.9).[1] In OS the original diphthong **eu* of the present stem is preserved before *w*, as in *hreuwan* 'rue'. OHG has in part (2) *ō* only before dental consonants and *h*, otherwise *ou* (§4.17), e.g. *liogan* 'lie', *loug*, *lugun*, *gilogan*.

Class III, PGmc. (1) *e*, (2) *a*, (3) *u*, (4) *u*: The stem ends in a consonant cluster, usually consisting of a sonorant plus another consonant, which may effect changes upon the preceding vowel. Typical is the paradigm of Go. *hilpan* 'help' and cognates:

	(1)	(2)	(3)	(4)
Go.	hilpan	halp	hulpun	hulpans
OIcel.	hjálpa	halp	hulpu	holpinn
OE	helpan	healp	hulpon	holpen
OFris.	helpa	halp	hulpen	hulpen
OS	helpan	halp	hulpun	giholpan
OHG	helfan	half	hulfun	giholfan

OIcel. *hjálpa* shows fracture followed by stress shift and lengthening (§§4.8–9); the pret. sg. may also be *hjálp*, by analogy. In OE *healp* there is breaking (§4.13), and

breaking also occurs in part (1) before /r/ or /x/, as in *beorgan* ‘protect’ and *feohtan* ‘fight’, though not in *berstan* ‘burst’ and *þerscan* ‘thresh’, in which there is metathesis of *r* with the root vowel. Verbs with initial *g-* or *sc-* show WS diphthongization by initial palatal consonant if breaking did not antecede it, thus *gieldan* ‘pay’, *giellan* ‘yell’, *gielpan* ‘boast’, **sciellan* ‘resound’; compare the palatalization in part (1) of OFris. *ielda* ‘pay’, *gald*, *gulden*, *gulden*. The vowel *u/o* is probably analogical (i.e. not developed in, e.g., *ru* < **ṛ*: see n. 3 *infra*) in the pret. and pp. of OIcel. *bregðа* ‘brandish’, OE *frignan* ‘ask’, *stregdan* ‘strew’, OS *flehtan* ‘braid’, and certainly of OE *feohtan* ‘fight’, and cognates. Another ablaut pattern in class III looks rather different, due to the effect of a nasal consonant on the root vowel (§4.4), as demonstrated by the principal parts of Go. *bindan* ‘bind’ and cognates:

	(1)	(2)	(3)	(4)
Go.	bindan	band	bundun	bundans
OIcel.	binda	batt	bundu	bundinn
OE	bindan	band	bundon	bunden
OFris.	binda	band	bunden	bunden
OS	bindan	band	bundun	gibundan
OHG	bintan	bant	buntun	gibuntan

OIcel. *batt* develops from **bant* < **band* (§6.14). OE *birnan* ‘burn’ and *irnan* ‘run’ adhere to this pattern because they show metathesis of *r* with the root vowel.

Class IV, PGmc. (1) *e*, (2) *a*, (3) $\bar{e}_1$, (4) *u*: Verbs of this class generally have a single, sonorant stem-final consonant, and in those few instances in which the consonant is not a sonorant, a sonorant appears before the root vowel, thus explaining *u/o* in the pass. part. as, probably, analogical (see n. 3 *infra*). Such exceptional verbs usually have a stem ending in PGmc. *k*, e.g. OHG *brechan* ‘break’, *rechan* ‘avenge’,[2] *sprechan* ‘speak’, *stechan* ‘pierce’, *trechan* ‘draw’, *treffan* ‘strike’.[3] Normally, the vowel of the pp. should have been *u* (reflecting PIE schwa secundum: §§3.1–2), lowered to *o* outside of Gothic before *a* in the next syllable.[4] OFris. *e* in the pp. is due to umlaut (see the explanation under class II above). On Gmc. $\bar{e}_1$ in the pret. pl., see §12.14. The normal ablaut pattern may be illustrated by the principal parts of Go. *baíran* ‘bear’ and its cognates:

	(1)	(2)	(3)	(4)
Go.	baíran	bar	bērun	baúrans
OIcel.	bera	bar	báru	borinn
OE	beran	bær	bǣron	boren
OFris.	bera	ber	bēren	beren
OS	beran	bar	bārun	giboran
OHG	beran	bar	bārun	giboran

One verb shows the effect of a nasal consonant upon the root vowel similar to that observable in verbs like *bindan* in class III. The principal parts of Go. *niman* ‘take’ and cognates are these:

	(1)	(2)	(3)	(4)
Go.	niman	nam	nēmun	numans
OIcel.	nema	nam	námu	numinn
OE	niman	nam	nōmon	numen
OFris.	nima	nom	nōmen	nimen
OS	niman	nam	nāmun	ginoman
OHG	neman	nam	nāmun	ginoman

OIcel. *e* in the present stem is etymologically correct; PGmc. *e* is, as usual, raised to *i* in Go. (§4.5). In WGmc., the pres. stem *nem-* occurs in a considerable minority of forms in OS, whereas OFris. *nem-* is found only in the Rüstring manuscripts, where lowering of *i* (and *u*) in open syllables before *a* is the norm (Bremmer 2009: §134). Conversely, OS pp. *ginuman* occurs rarely. Accordingly, it is possible to explain the raising in Ingvaeonic *nim-* as due to analogy to verbs like *bindan* of class III (so Gough 1973), and the consideration that it is only in this verb that raising takes place before a heterosyllabic nasal consonant would seem to support this position. It should be noted, though, that in the instance of the corresponding back vowel, the effect of a heterosyllabic nasal consonant upon a preceding *u/o* is well documented, as in OE *fruma* 'beginning' and *guma* 'man': see §4.3.

The very common verb 'come' belonging to this class is somewhat anomalous:

	(1)	(2)	(3)	(4)
Go.	qiman	qam	qēmun	qumans
OIcel.	koma	kom/kvam	kómu/kvámu	kominn
OE	cuman	cōm	cōmon	cumen
OFris.	kuma	kom	kōmen	kemen
OS	kuman	quam	quāmun	gikuman, kumen
OHG	queman	quam	quāmun	queman

Go. *qiman* and OHG *queman* represent the normal type PGmc. **k^{w}em-*, whereas the remaining present stems reflect an aorist present **k^{w}_{e}m-* > **kum-*. The difference is between the action of coming (durative, full-grade) and the result of coming (aorist, weak grade: see §12.1). One or the other stem was generalized in the early languages, taking on both meanings. OIcel. inf. and pp. stem *kom-* is from *kum-* (the latter frequent in Old Norwegian) by *a*-mutation (§4.8). Pret. sg. *kvam* is the more original form; *kom* shows the development of *wa* to *o*, presumably under low stress (Heusler 1967: §87.2); and *kvámu* (*kv̨́mu*) is the older form of the pret. pl., with development of *v̨́* to *ó* before retained *u* (Noreen 1970: §77.11). In OE, *cōm* and *cōmon* correspond to more original Anglian *cwōm*, *cwōmon*; there is no consensus about the origin of the long vowel in the singular, though *niman* similarly has sometimes pret. sg. *nōm* for *nam* (see Hogg & Fulk 2011: §§6.59 n. 4, 6.58 and n. 3, with references). Umlauted forms of the pres. sj. occur in some OE texts, and this may be because *cuman* reflects an aorist stem, to which an optative in PIE **-ih$_{I}$-* (rather than thematic full-grade **-o-i̯h$_{I}$-*) is to be expected: see Sievers 1882: 81–3 and see above, §12.26 n. 2. OFris. *kemen* shows umlaut (from **kumin-*: see under class II above). OHG pp. *queman* is analogical to the inf.; on the several variants of the OHG forms, see Braune 2004a: §340 Anm. 3.

Class V, PGmc. (1) *e*, (2) *a*, (3) *ē$_{I}$*, (4) *e*: Verbs of this class are like those of class IV, except that the stem ends in an obstruent. This explains *e* (from schwa secundum, §§3.1–2) in the passive part. The normal ablaut pattern is illustrated by the principal parts of Go. *mitan* 'measure' and cognates:

	(1)	(2)	(3)	(4)
Go.	mitan	mat	mētun	mitans
OIcel.	meta	mat	mátu	metinn
OE	metan	mæt	mǣton	meten
OFris.	meta	met	mēten	meten
OS	metan	mat	mātun	gimetan
OHG	mezzan	maz	māzun	gimezzan

An irregularity is that the pret. sg. of PGmc. **etana*^{n} 'eat' is **ē₁t* (and so also **fra-ēt* to **fra-etana*^{n} 'devour'), which, like Lat. perf. *ēdī*, is subject to various interpretations.[5] The cognates of Go. *giban* 'give' show a number of variants: in OE there is diphthongization by initial palatal consonant in EWS *giefan* (so also in *be-gietan* 'acquire', *on-gietan* 'perceive'), whereas some forms in other dialects may show back mutation, hence *geofan*; Old West Frisian shows a variety of phonological and analogical developments (see Bremmer 2009: §135); and *giþan* appears beside *geþan* in OS.

Class VI, PGmc. (1) *a*, (2) *ō*, (3) *ō*, (4) *a*: On the origin of the ablaut pattern in this class, see §12.15. The present stem ends in a single consonant unless the verb reflects a PIE derived stem (§12.3), as with OE *standan* 'stand', *wæcnan* 'awake', *wæscan* 'wash', *hebban* 'raise', etc. The ablaut pattern may be illustrated by the principal parts of Go. *faran* 'go' and cognates:

	(1)	(2)	(3)	(4)
Go.	faran	fōr	fōrun	farans
OIcel.	fara	fór	fóru	farinn
OE	faran	fōr	fōron	faren
OFris.	fara	fōr	fōren	faren, ferin
OS	faran	fōr, fuor	fōrun, fuorun	gifaran
OHG	faran	fuor	fuorun	gifaran

Weak presents are numerous in this class.[6] Go. *standan* 'stand' and cognates have the *n*-infix only in the present stem (see §12.3), and similarly, OE *wæcnan* 'awake' loses the *n*-suffix in pret. *wōc*, *wōcon* (no strong pp. attested). In OIcel., verbs with a stem-final velar (palatal) consonant have palatal mutation in the pp. (§4.7), e.g. *tekinn* < **takinaz*, to *taka* 'take'. Also in OIcel., *vaða* has pret. *óð*, *óðu* (§6.14, later *vóð*, *vóðu* by analogy to the rest of the paradigm); similarly *vaxa* 'grow'. OE *weaxan* 'grow' has usually the ablaut pattern of a verb of class VII, but the Gmc. cognates (Go. *wahsjan*, OIcel. *vaxa*, etc.) belong to class VI (see Flasdieck 1936: 343). The pp. in OFris. may or may not show umlaut. On *ō/uo* in the OS pret., see §4.15.

Class VII shows various ablaut patterns in Gmc., but as in class VI, the vocalism of parts (2) and (3) is the same, as is that of parts (1) and (4). In Gothic verbs with no ablaut difference between present and preterite the root vowel may be *a*,[7] *ē*, *ō*, *ái*, or *áu*. The only ablaut alternation is *ē* : *ō*, though the former also develops to *ai* before a vowel, as in *saian* 'sow' (pret. *saísō*), *waian* 'blow'. In NWGmc. the following alternations (A–E) are attested:

type	parts	OIcel.	OE	OFris.	OS	OHG
A	(1, 4)	á	ǣ[8]	ē	ā	ā
	(2, 3)	é	ē	ē[9]	ē	ia[10]
B	(1, 4)	ó	ō	ō	ō, uo	uo
	(2, 3)	é[11]	ēo		io	io
C	(1, 4)	ei	ā	ē	ē	ei
	(2, 3)	é	ē	ē[9]	ē	ia[10]
D	(1, 4)	au[12]	ēa	ā	ō	ou[13]
	(2, 3)	jó	ēo	ē, iō[14]	eo, io, ia	eo, io, ia, ie

Verbs with PGmc. **a* in the root show a considerable variety of ablaut patterns, as illustrated by some representative verbs, OS *haldan* 'hold', *fallan* 'fall', *blandan* 'mix', *spannan* 'link', *fāhan* 'catch' (< PGmc. **faŋxana*^{n}) and cognates:

type	part	OIcel.	OE	OFris.	OS	OHG
E1	(1)	halda	healdan	halda	haldan	haltan
	(2)	helt	hēold	hēld/hīld	held	hialt
E2	(1)	falla	feallan	falla	fallan	fallan
	(2)	fell	fēol(l)	fōl	fell	fial
E3	(1)	blanda	blandan		blandan	blantan
	(2)	blett	blēnd		blend	bliant
E4	(1)		spannan	(bonna)[15]	spannan	spannan
	(2)		spēon(n)	(bēn)	spenn	spian
E5	(1)	ganga	gangan	gunga[16]	gangan	gangan
	(2)	gekk	gēong	gēng (ī, o)	geng	giang
E6	(1)	fá	fōn	fā(n)	fāhan	fāhan
	(2)	fekk	fĕng	fēng/fīng	feng	fiang

The most striking irregularity is that whereas OE and OHG consistently (or almost so in the former case) show a long vowel or a diphthong in the pret., OIcel. and OS seem to contradict this pattern. OFris. appears to agree with OE and OHG, but the quantity of its preterite vowels is not universally agreed upon; spellings like ⟨hild⟩, ⟨ging⟩, and ⟨fing⟩ must result from an etymological long vowel. In OIcel. there is shortening of vowels in closed syllables (§4.9); in OS there is likewise shortening before geminates, and probably before other consonant clusters (Holthausen 1921: §108 Anm. 1). Thus, there is no obstacle to assuming original long vowels in the preterites of type E1–6, whereas the assumption of an original short vowel requires much analogical intervention to produce the attested forms of OE, OFris., and OHG.[17]

1. This verb acquired a weak pret. early, but similar preterites were reformed by analogy to other verbs of this class, e.g. analogical *laug* 'lied' beside earlier *ló*.

2. OHG pp. *girohhan* is an innovation: Go. *wrikans*, OIcel. *rekinn*, OE *wrecen* plainly belong to class V.

3. To OHG pp. *gitroffan* cf. OIcel. *drepinn*, whereas OE has both *drepen* and *dropen*. A verb such as Go. *brikan* (*brak*, *brēkun*, *brukans*) 'break' should be expected originally to have shown the alternation $e \sim o \sim \text{ṛ} >$ PGmc. $e \sim a \sim ur$ (i.e., with pp. **burkanaz*), and doubtless Ringe (2017: 102–3) is right that *ur* was changed to *ru* because in all other forms in the paradigm the vowel followed rather than preceded *r*. There is sometimes assumed instead a stem **bhr$_e$ĝ-* (so Pokorny 1959–69: I, 165) to account for, e.g., the equivalence of PGmc. **bruk-* and Lat. *frag-* (as in *fragilis*), but **bhr$_e$ĝ-* is not a plausible PIE form, since there is no reasonable way to explain why it is not **bhr̥ĝ-*. Rather, Latin has innovated the same way Gmc. has (note that *ṛ* gives *or* in Lat.), on the basis of *frangō* 'break' and related forms.

4. Go. *aú* in the pp. in the given paradigm is due to lowering of *u* before *r* (§4.5); the normal vowel of the pp. is *u*, as in *trudans* 'trodden'.

5. The long vowel in Latin could be due to reduplication in the perfect **h$_1$e-h$_1$od-* (in alternation with **h$_1$e-h$_1$d-*; see Szemerényi 1996: §9.4.3*b*) to the root *h$_1$ed-*, or it could have arisen by analogy to long-vowel perfects like *vēnī* (Sihler 1995: §487). Another possibility is that it results from a stem with augment, i.e. **h$_1$e-h$_1$ed-*, though the augment is otherwise unattested, or not securely attested, in either Latin or Germanic. Analogy to the plural (so Prokosch 1939: §59b n. 6), or to the long-vowel preterites of class VI, is also a possibility, although the motivation seems weak.

6. Cf. Lat. *capiō*, *faciō*, and see §12.19.

7. Also *ā* in *-āh-* < PGmc. **-aŋx-* (§4.1), as in *fāhan* 'seize' and *hāhan* 'hang'.

8. Non-WS *ē* (§4.6), as in *lētan* 'let', *rēdan* 'advise'.

9. But *ī* in the Rüstring texts (§1.17). The situation in OFris. is thus normally like that in non-WS OE, with no contrast between pres. and pret. vocalism in verbs with *ē* in the present.

10. Also ⟨e, ea, ie⟩. See §3.5.

11. For expected *jó*: see §12.20. The only attested example is the verb *blóta* 'sacrifice'.

12. To this pattern belongs also *hǫggva* 'hew' < **hawwan-* (with Verschärfung, §6.10), pret. sg. *hjó*, pl. *hjoggu*. (So also OFris. *hāwa*, pret. unattested.) A more regular example is *hlaupa* 'leap, run', *hljóp*, *hljópu*, *hlaupinn*.

13. But *ō* before *h* or a dental consonant (§4.17), as in *stōzan* 'thrust'.

14. So Bremmer 2009: §137. Steller (1928: §97) has rather *ē* beside *ī*, as in types A and C. Van Helten (1890 §275) indentifies the vocoid as *ia* but says that the preterite of such verbs is unattested in Old East Frisian.

15. OFris. *bonna* 'summon' is given here because there is no cognate of OS *spannan* attested in OFris.

16. But pp. *gangen*, *gengen*, *genzen*, *ginzen*, the latter two with affrication of /g/.

17. For discussion and references, see Fulk 1987: 167–73, with pertinent remarks on the earliest OHG spellings of $\bar{e}_2$. See also §12.20 *supra*.

IV. Weak Verbs

12.32 The nature of weak verbs

Weak verbs are distinguished from strong in that the preterite stem is differentiated from the present not by ablaut alternation but by the addition of a dental suffix, a characteristic they share with preterite-present verbs, the verb 'will' (Go. *wiljan*), and a few isolated verbs. They originate in certain derived verb types of PIE, of which many (the secondary verbs) originally had no discrete preterite stem (§12.3), and thus the rise of a unified method of forming preterites to these disparate derived types should hardly be surprising. This is especially so because of the high productivity of the weak types, their constantly growing numbers reinforcing the utility of a single method of preterite-formation. Although it seems likely that the strong classes were productive in PGmc. (see §12.12), it is also likely that this productivity ceased at a relatively early date, after the initial accommodation of a number of non-IE verbs to the emerging Gmc. strong types. After that time the simpler method of suffixation used to form weak verbs assumed the burden of permitting the addition of new verbs, usually derived secondarily from strong verbs or other parts of speech. Some weak types remained productive in the historical period: thus, for example, Go. *sildaleikjan* 'wonder at' is plainly derived from the adj. *sildaleiks* 'wonderful', and Go. *ga-frisahtnan* 'become an example' is derived from *frisahts* 'example', with no parallel to either verb outside of Gothic. Certain classes, however, ceased to be productive in NWGmc. In OE, for example, new verbs were not generally added to class 1 once the morphology of the class lost transparency with the deletion of the suffix **-j-* and the resultant morphologization of umlaut and gemination. It was in fact only class 2 that remained productive in WGmc., as shown by such neologisms as OE *hūslian* 'administer the Eucharist' and OHG *managfaltōn* 'multiply' (cf. *managfalt* 'numerous'). Such developments, however, were not inevitable. For example, despite the loss of phonological conditioning for some alternations in class 1, verbs continued to be added in ON, e.g. OIcel. *hógværa* 'appease' (cf. *hógværr* 'gentle') and *prýða* 'adorn' (cf. *prúðr* 'magnificent', from OE *prūd*, from Old French). And strong verbs could acquire weak preterites in all the NWGmc. languages.

For weak verbs just three principal parts are required to illustrate variation in the stem: (1) infinitive, (2) 3 sg. pret., and (3) pass. participle, nom. sg. masc. (as here) or neuter, or, in the case of OHG, simply uninflected (see §12.11 n. 1).

12.33 Origin of the dental suffix

How the dental suffix of the weak preterite arose is far from plain.[1] The most widely credited explanations derive the dental element either from (1) PIE *dh* or from (2) PIE *t* > *þ*, which may become *ð* under Verner's law (§6.6):

(1) Nearly all studies that derive the dental suffix from PIE *dh* assume that the suffix is a form of the PGmc. verb that becomes PDE *do* (the so-called composition theory).[2] Thus, for example, a PGmc. noun **salƀō* 'ointment' in the instr. case (PIE **solpā́*) plus a root aorist **dē(þ)* (PIE **dhēt*), literally 'did with ointment', could be expected to have been grammaticalized as **salƀōðē(þ)* (with *ð* rather than *d* because of PGmc. phonotactics), producing Go. *salbōda* 'annointed', a verb of weak class 2. The grammaticalized *ð*-element was then extended to the other weak classes, since it represented a transparent method of forming preterites to verbs without a preterite stem (Lühr 1984: 43–4). This approach to the problem has several advantages. It is a development with obvious parallels in other IE languages, e.g. the rise of the Latin imperfect in *-bā-*, which represents a grammaticalization of an old form (*ā*-preterite?) to the verb 'be', with similar periphrases in other languages.[3] It also offers a convenient way to explain the double appearance of a dental element in the indicative dual and plural and in all forms of the subjunctive in the preterite of weak verbs in Gothic, e.g. pret. ind. 3 pl. *nasidēdun* 'saved' (see the paradigm in §12.35). In such forms, *-dēd-* may be derived from PGmc. pret. forms of 'do' best reflected in OS and OHG, e.g. 3 pl. ind. OS *dēdun*, *dādun* and OHG *tātun*.[4] That 'do' came to play such an important morphological role as this may explain why such an apparently basic verb was lost in East and North Gmc., its functions taken over by *táujan* and *gørva* (originally 'prepare'), respectively.

Several difficulties confront explanation (1). The most important of these is that the dental preterite of preterite-present verbs (§12.54) and of certain weak verbs lacking PGmc. **-i-* in the preterite (§12.37) cannot have been formed this way: see explanation (2) below. In addition, although equating the Go. suffix *-dēdun* with the OS verb *dēdun* seems advantageous, the equation raises questions about how a Go. inflection like *-da* in 1 & 3 sg. pret. *nasida* 'saved' can be equated with 1 & 3 sg. OS *deda*, OHG *teta* 'did'; more important still, it raises questions about how Go. *-dēdun* can be considered equivalent to OIcel. *-ðu*, OE *-don*, OS *-dum*, OHG *-tun*.[5] Such posited relations seem to demand either *ad hoc* phonological developments or analogical restructuring in NWGmc., leading some to suppose rather that the Go. inflections may be innovations in East Gmc. (so, e.g., Jasanoff 1978b: 92 n. 76, Stiles 2010).[6] Likewise, if the 3 sg. pret. ending is to be reconstructed as **-ðē(þ)* < PIE **dheh$_1$t*, Go. *-da* is an unexpected result, since *ē$_1$* does not yield Go. *a* except in absolute finality: cf. PIE *-ēd* > PGmc. **-ē(t)* in Go. *hidrē* 'hither' (but see §11.2).[7]

(2) Studies arguing for the derivation of the dental preterite suffix from PIE *t* are more varied in nature, identifying numerous possible sources, including PIE inflections peculiar to particular persons and numbers (such as the 2 sg. perf. **-th$_2$e* , the perf. middle 3 sg. **-tai*, and the aorist middle 2 sg. **-th$_1$ēs*) or to particular tense stems (esp. PIE **-t-* in forms like Lat. *plectō*, OHG *flehtan* 'plait'; cf. Lat. *plicō*, Gk. *πλέκω* 'fold'). But the most widely credited approaches involve the PIE verbal adj. suffix **-to-* (> PGmc. **-þa-/-ða-*), as in Lat. *datus* 'given' and *nātus* 'born'. It is certainly possible that when this suffix came to mark the past participle in Gmc., its association with past action should have prompted analogical extension to the preterite. This seems the least complicated explanation for certain weak preterites which cannot derive their dental element from PIE *dh*. Most preterite-present verbs are of this sort. Thus, PGmc. **-þ-* is

reflected in OE *cūðe* 'knew how' and *ūðe* 'granted'[8] < PGmc. **kunþ-*, **unþ-*, and by dissimilation it becomes *t* (or, more plausibly, was never shifted under Grimm's law) in *þorfte* 'needed', *dorste* 'dared', etc. Likewise, a number of irregular weak verbs (i.e., those of the first class with no connecting vowel in PGmc. between the root and the dental suffix, §12.37) suggest a suffix PGmc. **-þ- > t*, e.g. Go. *baúhta* 'bought', *þūhta* 'seemed' (cf. infs. *bugjan*, *þugkjan*), as the preterite, if formed from the reflex of PIE *dh*, would instead be †*bugda*, †*brangda*.

Explanation (2) is anything but straightforward even for the forms it seems best to explain. If the source of the dental suffix is PIE **-tó-*, the dental consonant should have developed to Gmc. *ð* under Verner's law, since the root vowel was unaccented in the verbal adjectives that this suffix formed. There are indeed preterite-present verbs with preterites in PGmc. *ð* rather than *þ*: cf. Go. *munda* 'thought' and *skulda* 'should' (3 sg. pres. *man*, *skal*), showing the expected voicing. But in most preterite-present verbs the dental suffix is voiceless, and that would be difficult to explain if the suffix originated in the past part. It is chiefly this consideration that has prompted hypotheses about derivation of the dental suffix from finite verb inflections and suffixes such as those mentioned above. Thus, for example, it is conceivable that the dental suffix in these verbs should have originated in the PIE 2 pl. aorist inflection **-te* (so, e.g., Bammesberger 1986a: 75), but the motive for extension of that particular inflection is not plain. It may be instead that the accent shifted in most of the preterite-present verbs before the application of Verner's law: so Prokosch (1939: §65d), who offers the contrast between Skt. *ríkta-* 'empty' (adj.) and *riktá-* 'emptied' (part.) in evidence of accent shift when *tó*-participles are used in non-participial function. And it is indeed true that a morphological contrast arose outside of Gothic to differentiate participles from adjectives derived therefrom: thus, for example, in ON most such participles have been reformed according to the second weak class (e.g., to pp. *kunaðr* cf. adj. *kuðr*, *kunnr* 'known' = Go. pp. *kunþs*, but cf. ON pp. *áttr* 'owned'), and in OE they have been reformed as strong participles (e.g., to pp. *witen* cf. adj. *gewiss* 'certain' < **-wit-t-*, §6.8; = Go. *-wiss* in *un-wiss* 'unknown'). Analogical extension of the dental suffix from the part. to the pret. would thus have to have taken place at a time when no distinction other than placement of the accent was drawn between otherwise formally identical participles and adjectives. The preterite-present verbs are an archaic category (see §12.54), certainly much older than the preterites and past participles of weak verbs, and so even the most archaic of weak verbs may be supposed to have borrowed the dental suffix from the preterite-present verbs, thus explaining the voicelessness of the dental suffix in preterites to primary verbs like Go. *þāhta*, OE *þōhte* 'thought' (§12.37). If this is so, however, the voiced dental suffix in all other weak verbs is hard to explain as derived from the same source.

Accordingly, most approaches to the problem of the origin of the dental preterite now favor the assumption of polygenesis, with both PIE *dh* and *t* playing a role. Since Go. *munda* and *skulda* show that some preterite-present verbs did have a dental suffix voiced under Verner's law, as should be expected if the suffix originated in the passive part., it may be that folk etymology led to association of that variety of the suffix with forms of 'do'.

1. For surveys of the earlier literature on the topic, see Collitz 1912 and Tops 1974. Subsequent studies include Rauch 1973, Kuryłowicz 1977, G. Schmidt 1977, Tops 1978, Shields 1982, 1988, 1997, Bammesberger 1984, 1987, 1988c, Mańczak 1984a, Birkmann 1987, Fullerton 1989, Kortlandt 1989, Pohl 1989, Rasmussen 1996, West 2001, and Hill 2004.

2. This analysis was first proposed by Diederich von Stade no later than 1718: see Ball 1968: 163.

3. Bammesberger (1986a: 68) gives the example of Skt. *gamayā́m cakára* 'I have brought' (literally 'I have made a causing to go'), an innovative perfect (on which see Whitney 1889: §§1070–1), though he also illustrates synthetic formations by the example of *σ*-aorists and *κ*-perfects to derived verbs in Greek, e.g. *ἐπαίδευσα* and *πεπαίδευκα* to *παιδεύω* 'educate'.

4. Note, however, that the origin of these forms is disputed, and the WGmc forms cannot easily be reconciled with the assumption of a root aorist: see §12.61.

5. Hill (2010) argues that the pres. of PGmc. 'do' reflected a Pre-Gmc. aorist sj. reinterpreted as a pres. ind. unaugmented imperfect, forms of which served to form the weak preterite. Since imperfects did not have optative forms of their own, such had to be created for the new weak preterites. In Go. the opt. of the strong pret of 'do' (PGmc. 3 pl. **dēðī-nt*) served this function, and the pret. opt. stem was extended to the ind. pl., since the pret. opt. and the ind. pl. stems are identical in strong verbs. In NWGmc., by contrast, the weak pret. opt. reflects the ind. stem in **-ðē-* plus the pret. opt. sign **-ī-* plus inflection. There is much of worth in this analysis, though it is necessarily speculative. Cf. the analysis of Stiles (2010), whereby the Go. pl. forms with *-dē-* are said to reflect the original 3 sg. employed as a stem, plus the original weak pl. inflections. On the idea of Kiparsky (2009) that weak preterites in OHG were still morphologically compounds, see §5.6 n. 10.

6. It should be noted in defense of such *ad hoc* phonological changes, however, that the Gmc. languages do have a tendency to avoid the repetition of identical sounds in proximity to each other, especially in unstressed syllables, and that the means of avoiding the repetition are commonly dissimilatory, haplological, or otherwise unlike instances of regular sound change. Examples are WGmc. /v/ for /m/ in proximity to /n/, as in OS *heban* 'heaven' (cf. OS, OHG *himel*); the change of /j/ to /ɣ/ in OE *hergian* 'harry < PGmc. **xarjōjana*^{n} (Hogg & Fulk 2011: §118 n. 2); the change of OE *-odon* to *-edon* (§5.6); and the Modern Icelandic dat. pl. inflection plus definite article *-u-num* [ɔːnʏm] for expected [ʏːnʏm]. Parallels closer to the question at hand are OHG *swibogo* 'arched vault' < **swibi-bogo*, Old Franconian *unsēr*, *unsero* (= UG *unserēr*, *unserero*: see §8.5 n. 1), PDE *England* < OE *Engla land*, NHG *Zauberin* 'sorceress' for *Zaubererin*, and PDE *morphonology* for *morphophonology*. Lūhr (1984: 44) explicitly attributes the change in weak preterites to haplology, as does Ringe (Ringe & Taylor 2014: 516–17; 2017: 192–3); for further references, see Hill 2010: 417–20, with counterarguments; also Stiles 2010: 350. On irregular sound change in Gmc. and frequency of incidence, see Mańczak 1987a, and cf. Shaterian 1990, as well as Markey 1979. On haplology in particular, see Fertig 1998, 2000: 136–40.

7. The verb ending appears to have been **-ðǣ* in Proto-Norse, spelt **-da** in Runic. This explains OIcel. *-ðe*, later *-ði*.

8. The pass. part. of this verb, however, is *geunnen*, as if the verb were strong.

A. Weak verbs of class 1

12.34 Stem formation

Aside from primary verbs lacking connecting PGmc. **-i-* in the preterite (§12.37), the earliest verbs of weak class 1 were denominal (including deadjectival) verbs in PIE **-i̯é/ó-* and causative-iterative verbs in **-é-i̯e/o-* (§12.3), which two types fell together, the suffix developing to PGmc. **-ji-* and **-ja-* or the variants **-iji-* and **-ija-* after heavy syllables under Sievers' law (§5.8).[1] When deadjectival, such verbs are generally factitive in nature (i.e., with the meaning 'cause to have the quality of the adjective'), e.g. Gk. *φιλέω* 'love' (cf. *φίλος* 'dear'), Go. *ga-tamjan* 'tame' (cf. ON adj. *tamr* 'tame') and *natjan* 'dampen' (cf. NHG *naβ*). The causative-iterative type, which was originally chiefly deverbal, was the more productive of the two, and in it the root vowel was usually Gmc. *a* < PIE *o*, with accent on what was originally the theme vowel preceding the *j*-suffix, thus distinguishing verb roots in these stems from those of the primary verbs from which they were derived, which naturally had PIE *e* in the present stem.[2]

The causative type is very frequent, e.g. Go. *ga-dráusjan* 'cast down' (cf. *driusan* 'fall), OIcel. *setja* 'set' (cf. *sitja* 'sit' < **setjana*^{n}), and OE *cwellan* 'kill' < **kwaljana*^{n} (cf. *cwelan* 'die'), though many exceptions to the pattern will be found.[3] Examples of the iterative (or intensive-iterative) type are Go. *wagjan* 'shake' (cf. *ga-wigan* 'move') and *wrakjan* 'persecute' (cf. *wrikan*, with the same meaning). Gothic verbs of the first weak class are based on noun/adjective and verb stems only, reflecting the original situation, but in the NWGmc. languages causative-factitive verbs could be formed from adverbs, as well, as in ON *yppa* 'lift', OE *yppan* 'disclose' (cf. ON *upp* 'up'). It is plain that by the time preterites were formed to these verbs by the addition of the dental suffix, the suffixal element **-j-* originally proper to the present stem was viewed as integral, since it was carried over to the preterite stem, where it appears as **-i-* between consonants. The exception is the verbs lacking PGmc. **-i-* in the preterite (§12.37), which represent the earliest stratum in this class.

1. Cf. Kortlandt 1986, arguing that the distinction between the two types was maintained after light roots until a relatively late date.

2. Late formations aside, the exceptions with a long vowel in the root are usually otherwise explicable as regular, e.g. Go. *uf-hlōhjan* 'cause to laugh', with PIE **-oH-* in the root, as opposed to *hlahjan* 'laugh', with **-H̥-*. Weak grade in the root is also not uncommon, e.g. OIcel. *bylja* 'roar' (cf. *bylr* 'squall, gust of wind'). It is nonetheless true that in some instances PGmc. *ō* in the root must be explained as a product of the perception that the causative stem is that of the preterite sg. of a strong verb (since both contained PIE *o* > PGmc. *a*), and thus the pret. sg. stem of other strong types was adopted for the causative. The plainest instance is PGmc. **fōrijana*^{n} 'lead' > OIcel. *færa*, OS *fōrian*, OHG *fuoren*: cf. OIcel. pret. sg. *fór* to *fara* 'go' (Ringe 2017: 258).

3. There is a wealth of relevant types cited in Riecke 1996. Otherwise, grammars of the individual languages should be consulted.

12.35 Inflection

In summarizing the inflection of weak verbs of class 1 it is necessary to distinguish etymologically light stems from heavy. The patterns may be illustrated by the paradigms of Go. *satjan* 'set' and ON *fremja*, OHG *fremmen* 'promote' (light stems) and Go. *dáiljan*, OIcel. *deila*, OHG *teilen* 'deal out' (heavy stems), with OHG illustrating the general WGmc. pattern:

		Go.	Go.	OIcel.	OIcel.	OHG	OHG
Pres. Ind.	**1 sg.**	satja	dáilja	frem	deili	fremmu	teilu
	2 sg.	satjis	dáileis	fremr	deilir	fremis	teilis
	3 sg.	satjiþ	dáileiþ	fremr	deilir	fremit	teilit
	1 du.	satjōs	dáiljōs				
	2 du.	satjats	dáiljats				
	1 pl.	satjam	dáiljam	fremjum	deilum	fremmemēs	teilemēs
	2 pl.	satjiþ	dáileiþ	fremið	deilið	fremmet	teilet
	3 pl.	satjand	dáiljand	fremja	deila	fremment	teilent
Pres. Sj.	**1 sg.**	satjáu	dáiljáu	fremja	deila	fremme	teile
	2 sg.	satjáis	dáiljáis	fremir	deilir	fremmēs(t)	teilēs(t)
	3 sg.	satjái	dáiljái	fremi	deili	fremme	teile
	1 du.	satjáiwa	dáiljáiwa				
	2 du.	satjáits	dáiljáits				
	1 pl.	satjáima	dáiljáima	fremim	deilim	fremmēm	teilēm
	2 pl.	satjáiþ	dáiljáiþ	fremið	deilið	fremmēt	teilēt
	3 pl.	satjáina	dáiljáina	fremi	deili	fremmēn	teilēn

		Go.	Go.	OIcel.	OIcel.	OHG	OHG
Imp.	**2 sg.**	satei	dáilei	frem	deil	fremi	teili
	3 sg.	satjadáu	dáiljadáu				
	2 du.	satjats	dáiljats				
	1 pl.	satjam	dáiljam	fremjum	deilum	fremmemēs	teilemēs
	2 pl.	satjiþ	dáileiþ	fremið	deilið	fremmet	teilet
	3 pl.	satjandáu	dáilandáu				
Pret. Ind.	**1 sg.**	satida	dáilida	framða	deilda[1]	fremita	teilta
	2 sg.	satidēs	dáilidēs	framðir	deildir	fremitōs(t)	teiltōs(t)
	3 sg.	satida	dáilida	framði	deildi	fremita	teilta
	1 du.	satidēdu	dáildēdu				
	2 du.	satidēduts	dáilidēduts				
	1 pl.	satidēdum	dáilidēdum	frǫmðum	deildum	fremitum	teiltum
	2 pl.	satidēduþ	dáilidēduþ	frǫmðuð	deilduð	fremitut	teiltut
	3 pl.	satidēdun	dáildēdun	frǫmðu	deildu	fremitun	teiltun
Pret. Sj.	**1 sg.**	satidējáu	dáilidējáu	fremða	deilda	fremiti	teilti
	2 sg.	satidēdeis	dáilidēdeis	fremðir	deildir	fremitīs(t)	teiltīs(t)
	3 sg.	satidēdi	dáilidēdi	fremði	deildi	fremiti	teilti
	1 du.	satidēdeiwa	dáilidēdeiwa				
	2 du.	satidēdeits	dáildēdeits				
	1 pl.	satidēdeima	dáilidēdeima	fremðim	deildim	fremitīm	teiltīm
	2 pl.	satidēdeiþ	dáilidēdeiþ	fremðið	deildið	fremitīt	teiltīt
	3 pl.	satidēdeina	dáildēdeina	fremði	deildi	fremitīn	teiltīn
Inf.		satjan	dáiljan	fremja	deila	fremmen	teilen
Pres. Part.		satjands	dáiljands	fremjandi	deilandi	fremmenti	teilenti
Pass. Part.		satiþs	dáiliþs	fram(i)ðr	deildr	gifremit	teilit

Outside of Gothic, the plural endings are used with both plural and dual subjects. In addition, inflected infinitives (also called gerunds) occur in WGmc. (§12.30). In the pres. ind. and sj., Go. verbs may be inflected in the passive voice, with the same endings as in §12.29, e.g. 1 sg. pres. ind. *satjada*, *dáiljada*, etc. In Alemannic the inflectional vowel is *ō* throughout the pret. ind. pl., hence *teiltōm*, *teiltōt*, *teiltōn*.

1. Earlier *deilða*, etc.: see §6.14.

12.36 Variation in the stem

Due to various phonological and analogical developments, the paradigms of these and other verbs of this class evince some irregularities. These may be discussed in respect to the individual Gmc. branches and languages, as follows:

Gothic. The only notable irregularity in the given paradigms is that whereas the present stem of *satjan* is consistently *satj-* (with the exception only of the 2 sg. imperative: see §12.28), that of *dáiljan* is *dáil-*, rather than *dáilj-*, in those forms of the pres. ind. in which the corresponding inflection of the light stems has the vowel *i*; in those forms the heavy stems have instead an inflection in *ei*. Thus, for example, 3 sg. *-eiþ* in the heavy stems (corresponding to *-j-iþ* in the light stems) may be derived from PGmc. **-ij-iþ(i)* (with **-j-* realized as **-ij-* after the heavy stem under Sievers' law, §5.8), undergoing the development **-i(j)iþ* > **-iiþ* > *-īþ*, spelt *-eiþ* (§12.38). Aside from the verbs lacking *-i-* in the preterite (§12.37), the only other variation in this class in Gothic is in verbs with stem-final *ō*, *iu*, or *au* in the present, since these vocoids appear as such

before *-j-* in the present, but they undergo change before *-i-* in the preterite (§4.5): to infs. *stōjan* 'judge', *ana-niujan* 'renew', and *táujan* 'do' cf. pret. 3 sg. ind. *stauida*, *ananiwida*, *tawida*.

Old Icelandic. In the present, the light stems have *-j-* before an inflection beginning with a back vowel (as in the *ja*-stem nouns, §7.11; everywhere else the *-j-* has been lost), and the heavy stems bear an inflection beginning with *-i-* wherever the light stems do not bear an inflection beginning with a vowel. In the 2 and 3 sg. ind. this *-i-* reflects **ī*, of the same origin as ⟨ei⟩ in the Go. 2 & 3 sg.; the vowel is then extended to the 1 sg., to make the sg. paradigm analogous to that of strong verbs, such that *deil-i-Ø*, *deil-i-r* is parallel to *bíð-Ø*, *bíð-r*. In the preterite, all the indicative endings were of sufficient weight to induce syncope of *-i-*, though earlier after heavy stems than light, resulting in phonemicization of umlaut in heavy stems, e.g. *dœmði* 'judged', but not light, e.g. *framði* (§4.7).[1] Both heavy and light stems show *u*-mutation in the pret. ind. plural (§4.8). In the pass. part. of light stems, *-ið-* should originally have alternated with *-ð-*, due to the conditions outlined in §5.6, producing, e.g., nom. sg. masc. *framiðr*, fem. *framið*, neut. *framit* : masc. acc. sg. *framðan*, dat. *frǫmðum*, etc., but from the 12th century the original distribution is much disrupted by analogy; likewise, where *-i-* was not syncopated it should have caused *i*-umlaut, but this has been eliminated within the paradigm. In stems ending in *ð* or *t*, syncope of *i* is carried through, e.g. *gladdr* 'gladdened', *fluttr* 'conveyed' < **glaðið-*, **flutið-*.

Regarding patterns not observable from the paradigms in §12.35, in those present forms in which *-j-* remained, *g* and *k* were geminated at the close of a light syllable, but the resulting paradigm alternation between geminate and non-geminate was usually settled in favor of *-gg-* and, conversely, *-k-*, hence *leggja* 'lay', *vekja* 'waken'. When the preterite suffix *-ð-* was added to a light stem ending in *ð* or *t*, the result was a geminate stop, hence pret. *gladdi* 'gladdened', *flutti* 'conveyed', pp. *gladdr*, *fluttr* (as above), to *gleðja*, *flytja*. The suffix was devoiced after a fricative or a voiceless stop, as *krafði* [krɑfθɪ] 'demanded' (to *krefja*), *vakði* 'wakened', in the latter instance later becoming *t*, as in *vakti*. Similarly, by about 900 *-ð-* developed to *d* after a heavy stem in *l*, *n*, as in *deilði* > *deildi*, and later (13th–15th centuries) after other heavy stems containing a sonorant consonant, e.g. *dœmði* 'judged', *fylgði* 'followed', *kembði* 'combed' > *dœmdi*, *fylgdi*, *kembdi*, and after light stems in *l*, *n*, as in *talði*, later *taldi* 'counted'.

West Germanic. In the given forms the stem shows throughout the paradigm umlaut of vowels capable of undergoing umlaut, though the mutation of vowels other than *a* is not observable in OS and OHG. An exception is that there is no umlaut in OHG heavy-stemmed verbs in the pret. or in the inflected past participle. Light stems ending in a consonant other than *r* show the effect of WGmc. gemination (§6.15) in all pres. forms in which *j* had not been eliminated, i.e. all except the 2 & 3 sg. ind. and the 2 sg. imperative.[2] The *j* causing gemination was subsequently lost except in OS and in the oldest OHG texts. In light stems ending in *r* (including *r* < *z*), no gemination takes place, and *j* remains, as in OHG OS OE *nerian* 'save'.[3] Geminate voiced fricatives become stops, as with OS *an-swebbian* 'fall asleep' (cf. pp. *an-swebit*). The preterite suffix **-ð-* develops regularly to **-d-* in WGmc. (§6.16), and this is devoiced when in contact with a voiceless consonant, as with OE *pyfte* 'puffed', *wyrpte* 'recovered', *līxte* 'illuminated'. With the exceptions noted below, the general pattern in the WGmc. preterite is that **-i-* is retained after light stems but is syncopated after heavy.

In the pres. stem in OHG, when a geminate consonant has undergone the High German Consonant Shift (§6.21), the new sound is extended to forms within the paradigm that did not undergo gemination, e.g. 3 sg. ind. *scepfit* 'creates', *setzit* 'sets',

weckit, UG *wecchit* ‘wakes’. Outside of Bavarian, in verbs like *nerian* there occur stems like *nerr-* for *neri-*: see §6.21. Light stems ending in *w* develop two forms of the stem, resulting in parallel paradigms, one with umlaut but no gemination, the other with gemination but no observable umlaut, e.g. *frewen* beside *frauwen* > *frouwen* ‘gladden’.[4] In early UG there is not infrequent gemination after a long vowel or diphthong, as in *hōrren* ‘hear’ and *teillan* ‘divide’. In general, the preterite suffix is *-it-* after light stems, *-t-* after heavy, but in addition to cognates of verbs lacking any reflex of PGmc. **-i-* in the preterite in other languages (§12.37) there are some principled exceptions, whereby *-t-* is attached to light stems and there is no umlaut: such verbs include those with stems ending in *ll* or *tt* in the present (e.g. *wellen* ‘choose’, *scutten* ‘pour’, pret. *walta*, *scutta*), though to these verbs there also occur preterites in *-it-* such as *welita*, *scutita* (see Dittmer 1989).[5] Likewise, preterites in *-t-* are normal to verbs with stems that came to end in affricates in the present and (underlyingly) geminate fricatives in the preterite due to the effect of the High German Consonant Shift on voiceless geminates in the present and the corresponding non-geminate stops in the preterite, e.g. *scefta*, *sazta*, *wahta* (beside analogical *wakta*), with forms like *setzida* occurring in Franconian only (Schatz 1927: §472; cf. Braune 2004a: §362). Verbs like *frewen/frouwen* form their preterite normally (*frewita*), though analogical forms do occur (*frouwita*). In Franconian there occur some heavy stems with *-it-* in the preterite. As for the pass. part., light stems that always have *-i-* in the preterite also have it in all case forms of the part., whereas both light and heavy stems without it have *-i-* only in uninflected forms of the part., hence *gisezzit*, *gihōrit* but *gisaztēr*, *gihōrtēr*.

In OS the present suffix *-j-* is retained and spelt *i* after both heavy and light syllables, as with *quellian* ‘kill’, *lērian* ‘teach’ and *wreðian* ‘support’, which, like *nerian*, is without gemination. As in OHG, stems ending in a dental consonant lack the connecting vowel *i* in the preterite; they may or may not lack umlaut, as in *latta*, *letta* ‘prevent’ and *quadda*, *quedda* ‘greet’ to *lettian*, *queddian*; likewise *lagda*, *legda* ‘laid’ to *leggian*, but cf. analogical pp. *gilegid*. Verbs ending in a postconsonantal sonorant *l*, *n* do not lose *-i-* in the preterite, hence *twīflida* ‘doubted’, *tēknida* ‘drew’. This is probably the model for other heavy-stem preterites in *-id-*, which are not uncommon. As in OHG, *-i-* in the pass. part. of heavy stems should have been preserved only in uninflected forms, producing alternations such as *gi-lērid* : *gi-lērdes*, etc. However, in most instances, especially in the *Heliand*, the syncopated vowel has been restored. Rarely does analogy operate in converse fashion, producing uninflected forms like *gi-brand* ‘burnt’ (inf. *brennian*) and *gi-stild* ‘stilled’ (*stillian*).

In OE, to some present stems there are adjustments like those mentioned in §12.24 when syncopated inflections are added to the 2 & 3 sg. pres. indicative, e.g. *sentst*, *sent* ‘send(s)’ (inf. *sendan*), *brencð* ‘brings’ (*breng(e)an*). Stems ending in *w* or *h* could undergo some significant changes, with many analogical developments: see Hogg & Fulk 2011: §§6.97–9 for details. Where preserved, *-i-* in the preterite is lowered to *e* after the earliest texts. Stems ending in a dental consonant have syncope in the preterite regardless of whether the stem is heavy or light, as with pret. *sette* ‘set’ (for expected †*setede*). Pret. *legde* ‘laid’ (inf. *lecgan*) follows the same pattern. As in OS, the connecting vowel is not syncopated in verbs with a stem ending in a postconsonantal sonorant consonant, e.g. *timbrede* ‘built’, LWS *bȳcnedon* ‘signified.[6] In EWS and in all late OE dialects there is a tendency for originally light stems to acquire inflections of the second weak class, under somewhat obscure circumstances (see Hogg & Fulk 2011: §6.88), e.g. *wenian* ‘accustom’, pret. *wenode*, replacing *wennan*, *wenede*.

1. The connecting vowel *-i-* has not yet been syncopated in older Runic preterites, e.g. **faihido** 'I wrote' (Einang stone, 4th cent.).

2. An exception is the OHG 2 pl., which ought not to have a geminate; the stem has been made uniform in the pl. But cf. Boutkan (1995b: 343), arguing for an inflection **-ete* > *-et*, with retention of preceding *j* long enough to cause gemination.

3. The nonsyllabic status of this *j* in OE is attested by the Mercian gloss on the Vespasian Psalter, wherein spellings like *hergan* 'praise' (cf. class 2 *lufian* 'love,' with syllabic *i*) are the norm. In poetry, too, the stem *nerg-* prevails, though by the end of the OE period spellings like *nerig-* (also in OHG) are common.

4. The stem *frew-* originates in the preterite and pass. part., where there was no gemination, and the stem *frauw-* originates in geminated forms of the present, where the development of *aw* in **-awwja-* to the diphthong *au* prevented any graphic representation of umlaut.

5. It is commonly stated in the handbooks that there is no umlaut in the pret. sj. of OHG verbs of this class: so, e.g., Schatz 1927: 47, Braune 2004a: §361 Anm. 1. This is not the case: cf., e.g., in Otfrid's gospel book, 3 sg. *legiti* (IV, 35.13, 24), pl. *legitin* (III, 24.61; inf. *leggen* 'lay'). Rather, umlaut fails in the pret. sj. of verbs that lack the connector *-i-* in the preterite, e.g. *branti* 'burned', *zalti* 'counted', and this is surprising because the PGmc. inflections contained *ī*. The restoration of the unmutated vowel is usually explained as due to the need to differentiate pres. and pret. stems: see Robinson 1980 for discussion and an account of alternative views.

6. Since spellings like *timberde* are rare and late (Hogg & Fulk 2011: §6.96), *-re-* in *timbrede* probably does not reflect an etmologically nonsyllabic sonorant consonant made syllabic, but instead **-ri-*, as in OS.

12.37 Verbs without **-i-* in the preterite

All the Gmc. languages show some verbs of weak class 1 that lack any trace of original **-i-* in the preterite and pass. participle. Examples are Go. *bugjan* 'buy' and *þagkjan* 'think', prets. *baúhta*, *þāhta* < **buxta*, **þaŋxta* < **buɣ-t-*, **þaŋk-t-* (§§4.1, 4.5), the last two forms with *-t-* unshifted by Grimm's law (§6.5).[1] In Gothic the type is limited to verbs with stems ending in a velar consonant: in addition to *bugjan* and *þagkjan*, the relevant verbs are *bringan* 'bring' (strong pres., weak pret.), *brūkjan* 'use', *þugkjan* 'seem', and *waúrkjan* 'make' (prets. *brāhta*, *brūhta*, *þūhta*, *waúrhta*).[2] But not all Go. verbs ending in a velar consonant are formed this way: cf. *lagjan* 'lay', *dragkjan* 'give to drink', and many others with *-i-* in the preterite. OIcel. *sækja* 'seek', *yrkja* 'make', *þekkja* 'recognize', and *þykkja* 'seem' are of this type, with prets. *sótti*, *orti*, *þátti*, *þótti* (§6.14; cf. Runic **wor[a]hto** on the Tune Stone, ca. 400); whether there were any original light-stemmed verbs of this type in NGmc. is impossible to say, since light stems normally lack both *-i-* and umlaut in the preterite. West Germanic shows a wider variety of verbs of this type. Additions to the class include dental stems (on which see below), as well as OHG stems ending in affricates in the present but in (underlyingly geminate) fricatives in the preterite, though all these may or may not have umlaut in the pret. (§12.36). Yet WGmc. also shows this feature in some originally light stems ending in *l*, and these always lack umlaut in the preterite, so that it is not plain whether such verbs are all WGmc. additions or whether some arose earlier.[3,4] Old English (as well as OHG) has a significant number of verbs of this sort with stems ending in a velar consonant (for a list, see Hogg & Fulk 2011: §6.100) for which no evidence of formation without **-i-* is to be found in any of the few North and East Gmc. cognates, and in at least one instance such a cognate offers counterevidence: to OIcel. *rækja* 'heed', pret. *rækti* cf. OE *recc(e)an*, *rōhte*. That the OE form could be more original, however, is a possibility suggested by the agreement of OIcel. *sækja*, *sótti* with OE *sēcean*, *sōhte*, as against Go. *sōkjan*, *sōkida*.

In all the WGmc. languages are to be found a few stems ending in a dental consonant that resemble verbs lacking PGmc. *-*i*- in the pret., e.g. OS *lettian* 'hinder', pret. *latta* beside *letta* (not †*letida*), OHG *quetten* 'call', pret. *quatta*, OE *settan* 'set', pret. (Northumbrian) *gesætte* (WS *sette*). Probably analogical to OS *settian* 'set', pret. *satta* beside *setta*, due to the semantic resemblance, is *leggian* 'lay', pret. *lagda* (beside *legda*). Gallée (1993: §407) would derive such forms from PGmc., but East and North Gmc. afford no evidence of this. Still, the lack of umlaut in the pret. renders it likely that these arose in WGmc. before the onset of umlaut, though most evidence of the phenomenon has been eliminated on an analogical basis.

The securest examples of verbs lacking PGmc. *-*i*- in the preterite are plainly quite archaic verbs in which this irregularity persisted because of high frequency of use. The plainest sign of the antiquity of the type is that although the preterites are weak, they are formed with a suffix *-*þ*- (> *-*t*-) instead of *-*ð*-, since, for example, **buʒ-ðē* would produce Go. †*bugda* rather than *baúhta*. These preterites are thus formed the same way as those of the preterite-present verbs, another archaic category (§§12.51–4).

There is no scholarly consensus as to why *-*i*- should be missing from such preterites. The verifiably oldest of these are primary verbs (so, e.g., Go. *waúrkeiþ* = Avestan *vərəzyeiti* 'does, makes', and cf. Gk. *ῥέζω* 'do'), which in PIE attached the *-*i̯e/o*- suffix to the present stem only. As the most archaic of the Gmc. *ja*-verbs, then, those like *waúrkeiþ* merely reflect the oldest state of affairs (so, e.g., Fullerton 1977: 5–7). This is an attractive analysis inasmuch as the type is plainly archaic, and since the preterite was formed with *-*þ*- rather than *-*ð*-, the means of forming the preterite plainly differed from the means used with later additions to weak class 1. A disadvantage of this analysis is that it leaves unexplained why, aside from WGmc. additions to the class, it is only stems ending in a velar consonant (or a consonant, like /l/, capable of velarity) that lack *-*i*- in the preterite. The problem is of some moment because the parallel between preterite formation in these verbs and in preterite-present verbs is an important clue to the origin of the type, yet preterites in that class with a stem-final velar are a notable minority (see §12.53). Thus, an alternative analysis is that the preterite originally contained *-*i*-, which was lost on a phonological basis. For example, Prokosch (1939: §67c; cf. Brunner 1965: §407.3) argues that the final velar consonant was palatalized by the following **i*, which it absorbed, though it reverted to velar articulation early enough for breaking to have taken place in forms like OE *streahte* 'stretched' and *tealde* 'counted'. Yet perhaps it is the case that the conditioning is morphological rather than phonological. Adding PIE *t* or its reflex Gmc. *þ* as the preterite suffix to stems ending in a dental consonant (other than *s*, *n*) would have resulted in remarkable paradigm irregularities like that seen in Go. preterite-present **witan* 'know' (cf. pres. 1 pl. *witum*), with pret. *wissa*, and so it should not be surprising if original, primary weak verbs of this sort without *-*i*- in the preterite were reformed to avoid this irregularity by the addition of *-*i*-. It is less apparent why stems in labial consonants should have undergone a similar analogical reformation, but it is notable that among the preterite-present verbs the only stem of this type is to Go. **þaúrban* (cf. pres. 1 pl. *þaúrbum*, but 1 sg. *þarf*), whereas there are several verbs with stems ending in a velar consonant (OE *dugan*, *-*nugan*, *magan*, *āgan*). It is possible, then, that among the presumably small number of primary verbs in the earliest stages of PGmc. preterite-formation for weak and preterite-present verbs, the relatively high incidence of the alternation between pres. *-*ʒ*- and pret. *-*xt*- ensured its acceptability,[5] whereas the comparatively few stems in non-velars were all refashioned to conform to the pattern established by analogically reformed stems like pres. **sat-j-* : pret. **sat-ið-*.

On the issues treated here, see further Penzl 1988c.

1. The term *Rückumlaut* (i.e., retrograde mutation) is sometimes used to describe this phenomenon, but there is no umlaut in Gothic, and the term is more properly reserved for those instances, discussed below, in which syncope of *i* prior to umlaut occurred, especially in OHG. Cf. Antonsen 2002: 253.

2. Go. *káupatjan* 'buffet' has the pret. *káupasta* (but pp. *káupatiþs*), but this is plainly a phenomenon of a different order.

3. That OE stands closest to the original situation in WGmc. is the opinion, e.g., of Paul (1879–80: 7.143) and Prokosch (1939: §67c). Ringe avers that there were just five verbs lacking *-*i*- in the pret. in PGmc., all with stems ending in a velar consonant (Ringe & Taylor 2014: 71, 97–9). It is notable that the athematic verb Go. *wiljan* 'will' has the pret. *wilda* (§12.58), which is contructed in the manner of verbs of the first weak class without *-*i*- in the preterite. A cogent argument has in fact been made that 'will' was the model for the analogical spread of the pret. irregularity to other stems in *l* in WGmc. (Ringe & Taylor 2014: 73–5).

4. OE *cwellan* 'kill', *dwellan* 'mislead', *sellan* (later *syllan*) 'give', *stellan* 'position', *tellan* 'count' (prets. *cwealde*, *dwealde*, etc.); OS *sellian* 'give', *tellian* 'count' (prets. *salda*, *talda*). OHG verbs of this type may or may not have both *-*i*- and umlaut. Perversely, though umlaut is usually missing from the preterite of light stems in OIcel., the pret. of *selja* 'give' is *seldi*.

5. Note that alternation between *ȝ* and *x* was well established in other environments, under Verner's law, whereas that between *ƀ* and *f* was rarer and was presumably somewhat obscured by the change of the voiceless bilabial fricative to the latter, §6.4 n. 3.

12.38 Development of the inflections of the present stem

Under Sievers' law (§5.8), in PGmc. the stem-forming suffix in the present was *-*j*- after light syllables and *-*ij*- after heavy.[1] On stems of more than one syllable, see §2.5. Loss of *-*j*- in the sequence *-*ij-i*- (§6.11 *ad fin.*; hence, in the 2 & 3 sg. ind. and the 2 pl. ind.) produced a long (trimoric?) vowel,[2] the difference between heavy and light stems in this respect being still observable in Gothic and ON, with 3 sg. pres. Go. *-iþ* and *-eiþ*, ON *-r* and *-ir*, after light and heavy stems, respectively. As for WGmc., there is no evidence of such a long vowel in the relevant forms in OHG, but there is evidence that the distinction persisted into prehistoric OE, since a strong verb like *sēon* < **seoxan* has WS 3 sg. pres. ind. *ge-siehð* < **-sioxiþ*, with loss of the inflectional vowel before intervocalic **x* could be deleted, whereas a weak verb like *þȳwan* 'press' < **þūxijan*- has WS 3 sg. *þȳþ* < **þūxīþ*, with preservation of the inflectional vowel long enough to enable loss of **x*.[3] Plainly, the North and West Gmc. forms show loss of *j* before *i* in the light desinences *-*jiz*, *-*jiþ*, and this change is often ascribed to PGmc., demanding the assumption that Go. *-jis*, *-jiþ* are analogical re-creations, with extension of *j* from those forms in which it was preserved before a back vowel.[4] This is possible, but unless Sievers' law (§5.8) was an active constraint at the time this morphological change took place, it would seem odd that there was no comparable paradigm regularization in the heavy stems, e.g. *sōkeis*, *sōkeiþ* altered to **sōkjis*, **sōkjiþ*, since stem-final *j* similarly in this case appeared elsewhere throughout the paradigm.

In the pres. indicative, the primary PIE thematic inflections were added to the stem-suffix *-*(i)i̯*-. After the development of PGmc. *-*iji*- to *-*î*- (or *-*ī*-? see §5.4) in the 2 & 3 sg. and the 2 pl., the remaining instances of *-*ij*- in the heavy stems (i.e., the instances preceding a back vowel) were reduced to *-*j*-.[5] These changes resulted in such paradigm irregularities that it is probably best to assume morphological reanalysis, such that the remaining instances of *-*j*- were no longer treated as part of the stem but of the inflection (though Kiparsky 2000 assumes otherwise). The PGmc. inflections on heavy stems were thus these (with alternants due to Verner's law):

sg.	du.	pl.
1 *-jō	*-jau̯(i)z	*-jom(iz)[6]
2 *-îs(i), *-îz(i)	*-jaþ(i)z, *-jað(i)z[7]	*-îþ(i), *-îð(i)
3 *-îþ(i), *-îð(i)		*-janþ(i), *-jandi

The corresponding inflections on light stems would have been the same, except for 2 sg. *-*jis(i)*, *-*jiz(i)*, 3 sg. *-*jiþ(i)*, *-*jið(i)*, and 2 pl. *-*jiþ(i)*, *-*jið(i)*, with subsequent loss of *j* in all these (§6.11 *ad fin.*). The Gothic development of the inflections is regular, aside from analogical changes in the dual like those in strong verbs (§12.24) and, apparently, re-introduction of *j* in the endings just cited. The ON developments are likewise regular, except that the 2 sg. endings have been extended to the 3 sg., as in the strong verbs, and the vowel of the 2 & 3 sg. has been extended analogically to the 1 sg. in heavy stems. After heavy stems, *-*j-* was regularly lost, as in the *ja*-stem nouns. Although *j* is preserved in OS, it is lost everywhere in OE except after *r* in light stems, whereas in OFris. it is lost even after *r*; in OHG, *-ja-* turns to *-e-*. As noted above, inflections with *ī* on heavy-stemmed verbs must have replaced this with *i* at a fairly early date in OHG but not in OE: perhaps they adopted the *i* found in the corresponding desinences of strong verbs and light-stemmed weak verbs (but cf. Ringe & Taylor 2014: 70–1).

As regards the subjunctive (optative), the Go. inflections are the same as for strong verbs, except without loss of *j* in any instance, with light and heavy stems inflected identically. The situation is the same in ON, except that *j* is preserved only in the 1 sg. inflection *-ja* after light stems (*-a* after heavy), this being the only inflection containing a back vowel. In WGmc. the subjunctive is inflected just as in the strong verbs, with inflections attached to the same stem as in the infinitive.

In the imperative, aside from the 2 sg. the attested forms are entirely comparable to those of strong verbs. In the 2 sg., PIE *-*e* should have been lost consistently in PGmc., leading to nuclearization of final *-*j* (§5.2 *ad fin.*) in light stems and preservation of *-*ij* as *-*ī* in heavy. Thus, Go. *-ei* in heavy stems should originally have alternated with *-*i* in light, but analogy led to elimination of the alternation in favor of the long vowel.[8] Both forms of the inflection were lost phonologically in ON. In WGmc. the inflection was preserved after light stems but lost after heavy, and this situation is reflected in OE (cf. *sete* 'set' < **seti* : *dēm* 'judge'), but elsewhere in WGmc. the ending of light stems has been extended to the heavy (e.g. OFris. *dēle*, OS *dēli*, OHG *teili* 'divide').

The infinitive and the present participle are formed with the same suffixes as in strong verbs attached to the present stem in *-j-*. In OHG, once again, *-*ja-* turns to *-e-*, hence inf. in *-en* and pres. part. in *-enti*, whereas strong verbs more commonly have *-an* and *-anti*, though there is much mixture of the variants from an early date. The same may be said of gerunds (§12.30).

1. Since 2 sg. Go. *nasjis* 'save' must derive from PIE **nos-éi̯-esi*, Krahe & Meid (1969: II, §85) prescribe that PGmc. *-*iji-* in such forms underwent development to *-*ii-*, which then gave *-*ji-* after light stems but *-*ī-* after heavy. It is more plausible to assume that, under Sievers' law, *-*iji-* after light stems became *-*ji-* before *j* could be lost intervocalically.

2. The assumption of a trimoric vowel as the result of loss of intervocalic *j* would explain the divergent developments in Go. 1 sg. pres. *ƕarbō* 'wander' < *-*ōjō* (§6.11 *ad fin.*) and nom. sg. *giba* 'gift' < *-*ō*.

3. This evidence at first appears only circumstantial because the distinction is between strong and weak verbs rather than heavy- and light-stemmed verbs with weak presents. But there were no heavy-stemmed strong verbs with weak presents with stem-final /x/ comparable in structure to weak **þūxijan* in prehistoric OE (only an original light stem in *hlihhan* 'laugh'), and, conversely, there were no light-stemmed weak verbs

of the first class with stems ending in **x* even before WGmc. gemination applied, and so all the relevant weak verbs thus had a long vowel in the pertinent inflections. A version of this analysis was offered already in Fulk 2010a. This accounts for the otherwise bewildering observation of A. Campbell (1977: §462) that a single phonological process, syncope in the 2 & 3 sg. pres. ind., occurred earlier in OE strong verbs than in weak. This analysis poses a difficulty for the account of weak verbs of the second class proposed by Cowgill (1959): see §12.43 *infra*. Less probable seems the explanation of Hogg (1992: §7.49) that *h* in *ge-siehð* has been reintroduced analogically from pret. 1 & 3 sg. *seah*, especially as the same analogical development would have to be assumed to have occurred independently in Old Frisian.

4. So, e.g., Kortlandt 1986, Bammesberger 1988c, Ringe 2017: 155, 252.

5. For simplicity of presentation, this development is here treated as belonging to the PGmc. period. In actuality, it probably postdates that period, in view of Runic inf. **þrawijan** 'desire' (? Kalleby stone, ca. 400). This form contains a light stem, but it is probably best explained as due to the analogical influence of heavy stems (of which no relevant Runic forms are attested). Compare the variation in Runic **harja** and **harija** (§5.8).

6. See §5.5 on the development of PIE **-o-mes* to Go. *-am*, NWGmc. *-um*.

7. With analogical replacement of *i* (PIE *e*) by *a* (PIE *o*): see §12.24.

8. Since **-ī* was shortened in Gothic (§5.3), it must be assumed that Go. *-ei* is analogical to the vowel that predominates in the pres. of heavy stems; but see §7.10 for an alternative view.

12.39 Development of inflections of the preterite stem

How the preterite inflections are to be reconstructed is a question inseparable from the question of the origin of the dental preterite (§12.33), but certain facts can be established independently. The oldest Runic endings in the singular are 1 sg. **-ō** and 3 sg. **-ē** (beside hypercorrect **-ai**, §5.3), pointing to PGmc. **-ōm* and **-ēþ*. The former will also account for Go. 1 sg. *-a*, though this could also derive from **-ēm*, or it could be analogical to 3 sg. *-a* (Hirt 1931–4: II, §124). But 3 sg. *-a* is itself difficult, since a long vowel should be expected to have been preserved as such when originally protected by a final consonant, as in the parallel instance of *ō* (§5.3 & n. 3). Go. 2 sg. *-ēs* may safely be derived from PGmc. **-ēs*. Thus, the likeliest reconstruction of the preterite desinences in the singular is **-ðōm*, **-ðēs*, **-ðēþ*, bearing PIE secondary inflections, of which only the last raises unresolved difficulties. The Go. plural desinences *-dēdum*, *-dēduþ*, *-dēdun* correspond exactly to the OHG pret. pl. forms of the verb 'do', i.e. *tātum*, *tātut*, *tātun*, providing strong evidence for the composition theory (§12.33), regardless of how the OHG forms themselves are to be explained (§12.61), but the sg. forms are another matter: cf. OHG 1 & 3 sg. *teta*, 2 sg. *tāti*. Attempts to derive the sg. pret. endings from the same source as the plural (and dual, as well as all forms of the subjunctive) thus face considerable difficulties if the Gothic plural endings are considered more original than, e.g., 3 pl. OIcel. *-ðu* and OHG *-tun*, even though, conversely, it seems counterintuitive to suppose that Go. innovated plural endings so different from the sg. ones. The commonest explanation for the sg. endings is that they reflect unreduplicated aorists, e.g. PIE 3 sg. **dhēt*, but the *o*-quality of 1 sg. **dhōm* is then anomalous, as **dhēm* should be expected, instead (Bammesberger 1986a: 85–6). It is not impossible, however, that the vocalism of **-dhēm*, **-dhēs*, **-dhēt* should have been altered on the basis of the usual pattern in thematic secondary endings, **-om*, **-es*, **-et* (so Hirt *loc. cit.*).[1] It is at all events remarkable that the WGmc. simplex verb (OE *dōn*, OS *dōn*, *duon*, OHG *tuon*) appears to reflect **dhoh$_1$-*, whereas elsewhere in IE, full-grade verbs reflect **dheh$_1$-* (cf. nouns Gk. *θωμός* 'heap', Lat. *ab-dōmen* 'abdomen', i.e. 'thing hidden' (*ab-ditum*)): see §12.61 on the explanation of Hill (2010). Note also OHG 2 sg. pret. *-tōs* and (principally) Alemannic 1, 2, 3 pl. *-tōm*, *-tōt*, *-tōn* (otherwise OHG *-tum*, *-tut*, *-tun*).[2]

In the subjunctive, the inflections are identical to those of strong verbs, attached to the pret. stem, which in Go. is the pret. pl. stem.

In general, the stem of the pass. part. is identical to that of the pret. sg., with the same endings as taken by strong participles. In Go. the *d* ([ð]) of the stem is devoiced to *þ* before *s* in the nom. sg.

1. Similarly Meid (1971: 111–12), though Krahe & Meid (1969: II, §90) envisage ablaut variation in the sg.

2. Here the vowel *ō* in the 2 sg., however, is best explained as analogical to the original 1 sg. ending **-ō(m)*, and *ō* in the Alemannic pl. as analogical to the 2 sg. (Krahe & Meid 1969: II, §90). Boutkan (1995b: 362) agrees that *ō* in the Alemannic plural is analogical, but he derives *ō* in the 2 sg. from the original perfect of 'do'. Cf. Hollifield 1980: 151, Ringe & Taylor 2014: 76–7, the latter identifying *-s* as borrowed from classes 2 and 3, and perhaps the pres. sj.

B. Weak verbs of class 2

12.40 Stem formation

Verbs of this class bore in PIE the suffix **-ā- < *-eh₂-*, with or without the addition of **-i̯e/o-*. Derivatives of this type were formed in two ways. (1) The suffix was attached to adjective stems to form factitive verbs—i.e., verbs with the meaning 'cause to have the quality of the adjective'. An example is Hittite *newaḫmi* 'I make new', Lat. *re-novāre*, OE *nīwian* (cf. Gk. *νέος* 'new' < **neu̯-o-s*); perhaps also Go. *frijōn* 'love' (cf. *frija-* 'free', but also Skt. *prīṇā́ti* 'pleases'). Verbs derived from nouns by this method are generally younger formations, as exact cognates in separate IE branches are uncommon. Gmc. examples are Go. *fiskōn* 'fish' (cf. *fisks* 'fish' (noun) and Lat. *piscāri* 'fish' (verb)) and Go. *sidōn* 'practice' (cf. *sidus* 'custom'). Verbs of this type could also be formed by the addition of PIE **-i̯e/o-* to *ā*-stem nouns, e.g. Go. *karōn* 'care for' (cf. *kara* 'anxiety') and OE *eahtian* 'esteem' (cf. *eaht* 'estimation').[1] (2) The suffix was attached to verb roots, forming primary verbs, e.g. Lat. *plicāre* 'fold' (cf. *explicere* 'unfold'), *lavāre* 'wash' beside *lavere*, and *cubāre* 'recline' (cf. *recumbere* 'recline'). It is usually assumed that factitive verbs of type (1) were originally athematic, with addition of inflections directly to the stem-forming **-ā-*, as the forms of 'make new' (above) attest, whereas thematic verbs, with the addition of **-i̯e/o-* to **-ā-*, were formed to both types (1) and (2). Hirt (1931–4: II, §134) argues that the relation between verbs with and without *-ā-* under (2) parallels that between *ā*-stem and *o*-stem noun pairs like Gk. *τομή* 'stump' and *τόμος* 'slice', and thus verbs of type (2) are actually denominal. Many verbs resist this explanation, however, especially on semantic grounds, since, e.g., a noun **piskā* (Go. *fiskōn*, Lat. *piscāri*; cf. nouns Go. *fisks* (*a*-stem) and Lat. *piscis* (*i*-stem)) seems unlikely. And as he points out, verbs of this type not infrequently coöccur with verbs of weak class 1, e.g. OHG *mālōn* beside Go. *mēljan* 'write', and OE *hatian* 'hate' beside Go. *hatjan*, suggesting rather deverbal derivation. Yet the uncertainties about origins are considerable. In Gmc. a further source of verbs of this class is most likely preterites like **salƀōðēþ* 'anointed', if this is a compound of a noun in the instrumental case with a form of the verb 'do' (§12.33), allowing derivation from nouns other than Gmc. *ō*-stems.

1. Denominal verbs of this type are surveyed and classified semantically by Schäfer (1984).

12.41 Inflection

There is no distinction between the inflection of light and heavy stems in the second weak class, illustrated by the paradigms of Go. *ƕwarbōn* 'wander' and cognates:

		Go.	OIcel.	OE	OS	OHG
Pres. Ind.	**1 sg.**	ƕarbō	hvarfa	hwearfige	hwarboiu	(h)warbōm
	2 sg.	ƕarbōs	hvarfar	hwearfast	hwarbos	(h)warbōs
	3 sg.	ƕarbōþ	hvarfar	hwearfað	hwarbod	(h)warbōt
	1 du.	ƕarbōs				
	2 du.	ƕarbōts				
	1 pl.	ƕarbōm	hvǫrfum	hwearfiað	hwarboiad	(h)warbōmēs
	2 pl.	ƕarbōþ	hvarfið	hwearfiað	hwarboiad	(h)warbōt
	3 pl.	ƕarbōnd	hvarfa	hwearfiað	hwarboiad	(h)warbōnt
Pres. Sj.	**1 sg.**	ƕarbō	hvarfa	hwearfige	hwarboie	(h)warbo
	2 sg.	ƕarbōs	hvarfir	hwearfige	hwarbos	(h)warbōs
	3 sg.	ƕarbō	hvarfi	hwearfige	hwarboie	(h)warbo
	1 du.	ƕarbōwa				
	2 du.	ƕarbōts				
	1 pl.	ƕarbōma	hvarfim	hwearfigen	hwarboian	(h)warbōm
	2 pl.	ƕarbōþ	hvarfið	hwearfigen	hwarboian	(h)warbōt
	3 pl.	ƕarbōna	hvarfi	hwearfigen	hwarboian	(h)warbōn
Imp.	**2 sg.**	ƕarbō	hvarfa	hwearfa	hwarbo	(h)warbo
	3 sg.	ƕarbōdáu				
	2 du.	ƕarbōts				
	1 pl.	ƕarbōm	hvǫrfum			(h)warbōmēs
	2 pl.	ƕarbōþ	hvarfið	hwearfiað	hwarboiad	(h)warbōt
	3 pl.	ƕarbōndáu				
Pret. Ind.	**1 sg.**	ƕarbōda	hvarfaða	hwearfode	hwarboda	(h)warbōta
	2 sg.	ƕarbōdēs	hvarfaðir	hwearfodest	hwarbodes	(h)warbōtōs
	3 sg.	ƕarbōda	hvarfaði	hwearfode	hwarboda	(h)warbōta
	1 du.	ƕarbōdēdu				
	2 du.	ƕarbōdēduts				
	1 pl.	ƕarbōdēdum	hvǫrfuðum	hwearfodon	hwarbodun	(h)warbōtum
	2 pl.	ƕarbōdēduþ	hvǫrfuðuð	hwearfodon	hwarbodun	(h)warbōtut
	3 pl.	ƕarbōīdēdun	hvǫrfuðu	hwearfodon	hwarbodun	(h)warbōtun
Pret. Sj.	**1 sg.**	ƕarbōdēdjáu	hvarfaða	hwearfode	hwarbodi	(h)warbōti
	2 sg.	ƕarbōdēdeis	hvarfaðir	hwearfode	hwarbodis	(h)warbōtīs
	3 sg.	ƕarbōdēdi	hvarfaði	hwearfode	hwarbodi	(h)warbōti
	1 du.	ƕarbōdēdeiwa				
	2 du.	ƕarbōdēdeits				
	1 pl.	ƕarbōdēdeima	hvarfaðim	hwearfoden	hwarbodin	(h)warbōtīm
	2 pl.	ƕarbōdēdeiþ	hvarfaðið	hwearfoden	hwarbodin	(h)warbōtīt
	3 pl.	ƕarbōdēdeina	hvarfaði	hwearfoden	hwarbodin	(h)warbōtīn
Inf.		ƕarbōn	hvarfa	hwearfian	hwarboian	(h)warbōn
Pres. Part.		ƕwarbōnds	hvarfandi	hwearfiende	hwarboiandi	(h)warbōnti
Pass. Part.		ƕarbōþs	hvarfaðr	hwearfod	gihwarbod	gi(h)warbōt

Outside of Gothic, the plural endings are used with both plural and dual subjects. In addition, inflected infinitives occur in WGmc. (§12.30). In the pres. ind. and sj., Go. verbs may be inflected in the passive voice, with the same endings as in §12.29, e.g. 1 sg. pres. ind. *ƕarbōda*, 2 sg. *ƕarbōza*, etc.

12.42 Morphological variation

Some verbs in OIcel. show contraction, e.g. *spá* 'prophesy' < *spáa* < **spaxōjana^{n}* and *fjá* 'hate' < **fijōjana^{n}*.

In OE, *-i(g)-* in the pres. stem reflects **-ōj-*, e.g. inf. *hwearfian* < **x^{w}arƀōjana^{n}*, in which **ō* is umlauted to **ē* by the following **j*, and this **ē* is subsequently shortened and raised to *i* by the influence of the following palatal sound.[1] The commonest pattern is for the pres. suffix to appear as *-i-* before *a* (rarely *-ige-*) but *-ig-* before *e*, except in non-finite forms, though there are many exceptions, especially outside of LWS. By dissimilation, *-odon* is commonly changed to *-edon* (§5.6). The preterite suffix is normally *-od-* in standard WS (early *-ud-*) but *-ad-* in Kentish and Anglian; the former reflects **-ūd-*, the allomorph that appeared before *u* in the next syllable, which was generalized in WS, whereas *-ad-* reflects unraised **-ōd-*, generalized in the other dialects. On forms like *hwearfende* and *tō hwearfenne* (rather than *-iende*, *-ienne*) in Anglian, see Hogg & Fulk 2011: §6.112. Contracted verbs to this class also occur in OE, e.g. *smēagan* 'contemplate' < **smauxōjan-*, 3 sg. pres. ind. *smēaþ* < **smauxōþ*. Contraction could also occur without any loss of [x], as with *frīgan* 'love' < **frījej-* < NSGmc. **frij-ōj-*.

OS (with *hwar-* spelt ⟨huar⟩) shows the usual variation in the spelling of inflectional vowels (§§1.18, 5.6). In addition, *-oia-* may be spelt *-ogea-*, parallel to spellings in OE. The forms given are presumably the older ones, since they are found almost exclusively in poetry. In addition to forms in *-oia-* and *-oie(-)* there occur forms in simple *-o(-)* that are comparable to the OHG forms, thus pres. ind. pl. *hwarƀod*, sj. 1 & 3 sg. *hwarƀo*, pl. *hwarƀon*. These are normal in prose, though they occur also in poetry, where in fact they predominate, at a rate of about 5 in 6 relevant forms. Pres. ind. 1 sg. *hwarƀoiu* does not in fact occur as such, but it is rendered certain by two forms in prose, *oppraiu* and *līkiu* (Cowgill 1959: 3), as should be expected on the basis of the OE and OFris. forms, showing that the longer forms bear thematic endings (1 sg. PIE **-ō*), whereas the shorter ones bear athematic (1 sg. **-mi*, as in OS *trūon*, *tholon*), as in OHG. In poetry there also occur forms in *-ia-* (with syllabic *i*) for *-oia-*, and these forms are comparable to those encountered in Anglo-Frisian. Unlike in OHG, the stem vowel *-o-* has been shortened, as shown by its not infrequent lowering to *a*.

OHG shows the usual variation of vowels in inflections (§5.6 *ad fin.*); in addition, *-ōn* may appear for *-ōm(ēs)*. In the pres. opt. there occur in UG (but also in *Isidor*), especially in Alemannic, longer forms of the order 1 & 3 sg. *warbō(g)e*, 2 sg. *-ō(g)ēs*, 1 pl. *-ō(g)ēm*, etc., where ⟨g⟩ = [j].

1. Despite the incredulity of Fullerton (1977: 50), these developments are well attested in OE, with umlaut of a vowel or diphthong by an immediately following **j*, as in Anglian *cēgan* 'call' (EWS *cīeġan*) < **kaujan-*, weakening of unstressed long vowels, as of **ū* > *u* > *o* in the preterites of this class, and raising of weakened front vowels before palatal sounds, as in *hālig* 'holy' < **hālæj-* < **xailaʒ-*.

12.43 Historical development

Significant uncertainties attend the analysis of this class of verbs. The Go., ON, and OHG forms would appear to represent athematic conjugation, with inflections added directly to stems in PIE **ā* (or **eh$_2$*), whereas the longer stems of Anglo-Frisian and, in part, OS appear to be thematic, with the suffix **-i̯e/o-*, containing the theme vowel, inserted between **ā* and the inflections. The OHG 1 sg. pres. ind. ending *-ōm* (= OS *-on*) is certainly athematic, but Go. *-ō* and Runic **-ō** are thematic, as are the endings in

Anglo-Frisian. The earliest attempts at an explanation thus assumed the coöccurrence of thematic and athematic forms in Gmc., with mixture of the two in Ingvaeonic and generalization of the athematic elsewhere. (Compare athematic Aeolic Gk. *τῑ́μᾱμι* beside thematic Attic *τῑμάω* < **τῑμᾰ́ῐ̯ω* 'fear'.) Yet the required analogical changes are not uniformly well motivated, and the reason for the particular distribution of thematic and athematic forms in Ingvaeonic is difficult to perceive on this basis. It is especially hard to account for the pres. sj. forms in this fashion, since athematic optatives to stems in PIE **ā* (or **eh₂*) should have been formed by the addition of **-i̯(e)hₗ-* (§12.6).[1]

A revised approach by Cowgill (1959) turns conventional wisdom on its head by explaining some of the seemingly most archaic forms as innovations. Cowgill argues that PGmc. **j* was lost between any two unstressed vowels (but not if the first vowel was **i*, §6.11 *ad fin.*),[2] followed by contraction of the remaining vowels, with the result that simple *ō* in the non-Ingvaeonic forms (as opposed to Ingvaeonic **-ōja-*, **-ōji-*) is the phonologically regular result of this change, whereas the longer Ingvaeonic forms are the result of an analogical change. On this analysis, alternations in heavy-stemmed verbs of the first weak class such as inf. **dōmijan*, pres. sg. **dōmijō*, **dōmis*, *dōmiþ*, pret. sg. **dōmiðē*, led to morphological reanalysis whereby the stem in these forms was perceived to be **dōmi-* and the inflections **-jan*, **-jō*, **-s*, **-þ*, and **-ðē*, respectively. Thereupon, these inflections were extended analogically in Ingvaeonic to stems of the second weak class in **-ō-*, hence, e.g., **xʷarbō-jan*, **xʷarbō-jō*, **xʷarbō-s*, **xʷarbō-þ*, **xʷarbō-ðǣ*.[3] This accounts brilliantly for both the Ingvaeonic and the non-Ingvaeonic forms, disposing very effectively, especially, of the problem of the pres. sj. forms, assuming that the alternative, longer sj. forms of UG are an analogical innovation, formed by the addition of the normal sj. endings of strong verbs to stems in **-ō-* in order to redifferentiate ind. and sj. forms that had fallen together.[4]

Attractive as Cowgill's hypothesis is, however, it faces several difficulties that are not insignificant. Although his objections and counterproposals are on the whole unpersuasive, Fullerton (1977: 49) is right to observe that it is difficult to believe that loss of *j* and subsequent contraction in the sequence **-ōji-* would lead to a monophthong **ō* rather than a diphthong.[5] A problem that Cowgill himself raises is that if the longer forms of OS (*hwarƀoian*, *hwarƀoiad*, etc., as opposed to the shorter forms *hwarƀon*, *hwarƀod*, etc.) are actually analogical innovations and thus the younger of the two types, it is difficult to see why the longer forms occur almost exclusively in the more conservative language of verse.[6] A further problem is that reanalysis of **dōmijan* as stem **dōmi-* plus inflection in Ingvaeonic is complicated by developments in OE, since it was pointed out above (§12.38) that even though a short vowel is indicated in the 2 & 3 sg. pres. ind. of such verbs in OHG (for which Cowgill assumes shortening already in WGmc.), prehistoric OE seems to require a long vowel (**-īs*, **-īþ*) in order to explain the different effects of syncope in contracted strong and weak verbs, e.g. strong *flīehð* 'flies' < *fliuxiþ* : weak *þȳð* 'presses' < **þūxīþ*. This consideration perhaps does not disqualify Cowgill's explanation altogether, but it renders the assumed reanalysis of the heavy-stemmed inflections less straightforward. In addition, it should be said that Cowgill's assumption is that there was no athematic inflection of such verbs in PGmc., rather than coöccurring thematic and athematic inflection. He is thus obliged to assume that the OHG 1 sg. pres. in *-ōm* (and OS *-on*) is analogical to WGmc. **dōm* (OHG *tuom*, OS *dōm*, Anglian OE *dōm*) '(I) do', and though this may not be impossible, it seems dubitable that such an otherwise unproductive category of Gmc. verbs as athematic stems (§§12.55–64) should have exerted analogical influence of this sort. These

problems are perhaps not insurmountable. Yet however these difficulties are to be accounted for, Cowgill's remains the only very plausible account to date.

1. For summaries of the scholarhip, see Cowgill 1959 and Fullerton 1977: 45–54. Bammesberger (1986a: 155) highlights the problem posed by the present subjunctive and argues that in this respect the second class is analogical to the first.

2. This hypothesis about the loss of *j* between unstressed vowels had already been proposed: see Wilmanns 1893–1906: III, 86; Prokosch 1939: §54; Krahe 1948: 129, 134; see also, e.g., Krause 1968: §241. The objections of Birkhan (1974: 4–7) fail to persuade.

3. Note, however, that on this analysis no analogical change is actually required in the 2 & 3 sg. forms, which would already have had *-*ōs*, *-*ōþ* on a phonological basis.

4. To the contrary, Kirschstein (1962: 109) regards the longer sj. forms as more original, even though they are UG and thus cannot very plausibly be regarded as the result of a dialect continuum with Ingvaeonic.

5. Prokosch (1939: §54) sees this as "a process akin to the loss of the second element of long diphthongs in IE," but in Gmc. such loss is characteristic only of, perhaps, PIE $\bar{e}\underline{i}$ > PGmc. $\bar{e}_2$ and, even more tentatively, $\bar{o}\underline{u}$ > $\bar{o}$; cf. especially the development of PIE *$\bar{a}\underline{i}$ to PGmc. **ai* rather than **ō* (§3.4). Yet it should be observed that the most widely credited explanation for the PGmc. comparative suffix *-*ōz* is that it is contracted from *-*ō-iz* (though the proposer of that explanation, Brugmann (in Brugmann & Delbrück 1897–1916: II, 1.560–1) attributes the change to *-*ōz* to an analogical process, not a phonological one: see §9.10).

6. Ringe proposes that by the 9th cent., when the poetry was composed, the longer forms would have seemed more archaic, and that the shorter forms came to dominate later under OHG influence (Ringe & Taylor 2104: 161). The former explanation seems uncharacteristic of early Gmc. poets' practices with regard to archaic language, the latter, then, too coincidental to seem probable. The problem persists.

C. Weak verbs of class 3

12.44 Stem formation

Extra-Germanic cognates to verbs of this class suggest that they were formed in PIE with a stem in *-*ē-* < *-*eh$_1$-*, with or without the addition of a thematizing suffix *-*i̯e/o-*. They would thus have been entirely parallel to verbs of weak class 2, but with PIE *$\bar{e}$ instead of *$\bar{a}$. An example is Lat. *monēre* 'warn', Lith. *minė́ti* 'remember', OCS *мьнѣти* 'believe', Go. *munan* 'remember', OHG *manēn* 'warn'. As the example demonstrates, some of these are deverbal and durative, but a particular use for stems of this type in PIE was to form deadjectival stative verbs with the meaning 'have the quality of the adjective'.[1] An example is Lat. *rubēre*, OCS *рѣдѣти*, OHG *rotēn* 'be red'. There are also factitives derived from both nouns and adjectives, preserved almost exclusively in Gothic, e.g. Go. *gaþiwan* 'enslave' (cf. *þiwōs* 'servants'), *arman* 'pity' (< *'regard as poor'; cf. *arms* 'poor'). The difficulties that attend accounting for the attested Gmc. forms starting from such a reconstruction, however, are even greater than in the parallel instance of class 2, as discussed in §12.43. Especially in Ingvaeonic, a great many of these verbs are normally inflected according to weak class 1 and/or 2. There is also the problem of how it is to be explained that PIE statives and factitives came to be inflected alike in Gmc. (on which see Ringe 2017: 205, Ringe & Taylor 2014: 518).

1. Dishington (2010), rather, argues that the most basic verbs in this class are denominal.

12.45 Inflection

Although no one verb exemplifies all the difficulties encountered in trying to account for this class, the paradigm of Go. *haban* 'have' and its Gmc. cognates, a deverbal formation related to Go. *hafjan* 'raise, bear' (= Lat. *capiō*), illustrates a number of the peculiarities of the type:

		Go.	OIcel.	OE	OS	OHG
Pres. Ind.	**1 sg.**	haba	hef(i)	hæbbe	hebbiu, habbiu	habēm, -ēn
	2 sg.	habáis	hef(i)r	hæfst	haƀes, -as, -is	habēs(t)
	3 sg.	habáiþ	hef(i)r	hæfð	haƀed, -ad, -id	habēt
	1 du.	habōs				
	2 du.	habats				
	1 pl.	habam	hǫfum	habbaþ	hebbiad, habbiad	habēmēs
	2 pl.	habáiþ	hafið	habbaþ	hebbiad. habbiad	habēt
	3 pl.	haband	hafa	habbaþ	hebbiad, habbiad	habēnt
Pres. Sj.	**1 sg.**	habáu	hafa	hæbbe	hebbie, habbie	habe
	2 sg.	habáis	hafir	hæbbe	hebbias, habbias	habēs(t)
	3 sg.	habái	hafir	hæbbe	hebbie, habbie	habe
	1 du.	habáiwa				
	2 du.	habáits				
	1 pl.	habáima	hafim	hæbben	hebbian, habbian	habēm, -ēn
	2 pl.	habáiþ	hafið	hæbben	hebbian, habbian	habēt
	3 pl.	habáina	hafi	hæbben	hebbian, habbian	habēn
Imp.	**2 sg.**	habái	hafi	hafa	haƀe, -a, -i	habe
	3 sg.	habadáu				
	2 du.	habats				
	1 pl.	habam	hǫfum			habēmēs, -ēn
	2 pl.	habáiþ	hafið	habbaþ	hebbiad, habbiad	habēt
	3 pl.	habandáu				
Pret. Ind.	**1 sg.**	habáida	hafða	hæfde	habda, -e	habēta
	2 sg.	habáidēs	hafðir	hæfdest	habdes, -as	habētōs(t)
	3 sg.	habáida	hafði	hæfde	habda, -e	habēta
	1 du.	habáidēdu				
	2 du.	habáidēduts				
	1 pl.	habáidēdum	hǫfðum	hæfdon	habdun	habētum
	2 pl.	habáidēduþ	hǫfðuð	hæfdon	habdun	habētut
	3 pl.	habáidēdun	hǫfðuð	hæfdon	habdun	habētun
Pret. Sj.	**1 sg.**	habáidēdjáu	hefða	hæfde	habdi	habēti
	2 sg.	habáidēdeis	hefðir	hæfde	habdi	habētīs
	3 sg.	habáidēdi	hefði	hæfde	habdi	habēti
	1 du.	habáidēdeiwa				
	2 du.	habáidēdeits				
	1 pl.	habáidēdeima	hefðim	hæfden	habdin	habētīm
	2 pl.	habáidēdeiþ	hefðið	hæfden	habdin	habētīt
	3 pl.	habáidēdeina	hefði	hæfden	habdin	habētīn
Inf.		haban	hafa	habban	hebbian	habēn
Pres. Part.		habands	hafandi	hæbbende		habēnti
Pass. Part.		habáiþs	hafðr	hæfd	gihabd	gihabēt

Outside of Gothic, the plural endings are used with both plural and dual subjects. In addition, inflected infinitives occur in WGmc. (§12.30). In the pres. ind. and sj., Go.

verbs may be inflected in the passive voice, with the same endings as in §12.29, e.g. 1 sg. pres. ind. *habada*, 2 *habaza*, etc.

12.46 Morphological variation

The verb *hafa* is the only one of this class in OIcel. to show forms without *-i(-)* in the pres. sg. (*hef*, *hefr* beside newer *hefi*, *hefir*), aside from *segja* 'say', to which *seg*, *segr* are old and rare. Many past parts. end in *-aðr* rather than *-ðr* (*-tr* after a stop, as in *keyptr* 'bought'), e.g. *brosaðr* 'having smiled', and it is notable that *hafa* and *segja* show (rarely) an alternative form of the pass. part. only in older and/or poetic texts, *hafat* (neut.) and *sagaðr*. In OE, where just four verbs are regularly inflected according to this class (*habban* 'have', *libban* 'live', *secgan* 'say', *hycgan* 'think') there is considerable variety in stems and inflections. Thus, *secgan* and *hycgan* show umlaut in the present stem (but not 2 & 3 sg. *sægst*, *sægð*), whereas *habban* and *libban* do not (though umlaut would be undetectable in the stem *libb-*, as opposed to *leof-*); *libban* lacks syncope in the 2 & 3 sg. pres. ind. (*leofast*, *leofað*, with back mutation, §4.8), whereas the others do not (e.g. *hæfst*, *hæfð*); and to imp. sg. *hafa*, *leofa* cf. *sæge*, *hyge*. The verb *hycgan* is in fact indistinguishable from a verb of class 1, except in the preterite. The Anglian forms are different, sometimes in expected ways, e.g. pres. ind. sg. *hafo*, *hafast*, *hafað*, but also *lifg-* for *libb-*. OFris. *hebba*, *habba* 'have', *libba* 'live', and *sedza* 'say' are inflected the same way as verbs of class 2, so that only the stems attest to original membership in class 3. OS *hebbian* 'have', *libbian* 'live', and *seggian* 'say' are the only OS verbs inflected thus, and they show some of the same peculiarities as the OE verbs, including the mixture of forms with and without umlaut (e.g. inf. *hebbian* beside *habbien*; 2 & 3 sg. *sagis*, *sagad* beside 1 sg. *seggiu*, etc.), and forms alternately with *-e/a* or *-i* in the imp. singular. Although no pres. part is attested for *hebbian* or *seggian*, cf. *libbiandi* beside *libbendi*. Among other variants, OHG has in some early texts pret. *hapta* < **habda* (so also *hogta*, *hocta* 'thought'), in agreement with Ingvaeonic. The number of such verbs in OHG is notably greater than in NSGmc.: see Braune 2004a: §369 for an inventory.

12.47 Historical development

Although much ingenuity has been expended in the attempt, no purely phonological explanation has succeeded convincingly in deriving the attested inflectional patterns directly from the stems in PIE *-ē(-i̯e/o)- that the extra-Germanic cognates suggest should be the starting point.[1] The OHG forms might be accounted for in this fashion, but the great regularity of OHG stem-formation in *-ē-* can only be an analogical innovation, in view of the irregularity of the stem in the other Gmc. languages, and especially in view of early OHG preterites like *hapta* and *hogta* (beside *habēta*, *hogēta*). And seeing as the most probable explanation of the Ingvaeonic verbs of weak class 2 is that they were analogically reformed after class 1 (§12.43), it would be hazardous to make the Ingvaeonic forms of class 3 the basis for reconstructing the PGmc. situation. Probably, then, the best evidence for the most archaic patterns is to be found in East and North Germanic.

The Go. pres. paradigm shows *-ai-* in those forms in which the inflection contained PGmc. **i* < PIE **e* in other classes of verbs, otherwise *-a(-)*, and so this has the

appearance of a regular phonological development. However, athematic PIE *-*ē*- should not have produced non-final *a* in Gothic (cf. *nasidēs* : *nasida*, and *ƕammē-h* 'to everyone' : *ƕamma* 'to whom'), much less thematic *-*ēi̯e/o*-, the development of which can only be guessed. Various morphological solutions have been proposed, involving analogy and/or the coöccurrence of thematic and athematic stems within the paradigm (see the counterarguments in Jasanoff 1978b: 60–7), but in neither event is it plain what forces should have produced an alternation with the appearance of being phonologically conditioned. Accordingly, Bennett (1962; cf. Jasanoff 1973: 855) proposes that the stem-final formative was not *-*ē*- < *-*eh*$_{\text{I}}$- but the weak grade of this, hence thematic *-*h*$_{\text{I}}$-*i̯e/o*-, a structure closely paralleled in OCS verbs like 1 sg. pres. *stoją* 'stand', 3 sg. *stojitъ*, corresponding to OHG **stēm*, *stēt* (an athematic verb, §12.64), though in this verb **h*$_{\text{I}}$ (> OCS *o*) is not suffixal.[2] Though Bennett offers no extra-Germanic parallels to the weak grade of the suffix in *ē*-verbs, weak grade seems best to explain certain Balto-Slavic forms, e.g. OCS 2 pl. pres. *sēdite* 'sit', Lith. *sėdite*, as well as Gk. verbs like *μαίνεται* 'is mad' < **μανi̯εται* (cf. inf. *μανῆναι*; see Streitberg 1896: §206).[3] Assuming (as Cowgill does in regard to verbs of weak class 2, §12.43) that PGmc. **j* was lost between unstressed vowels (though not after **i* when a back vowel followed), the Go. pres. endings can be generated on a purely phonological basis:

	PIE		Go.		PIE		Go.
Sg. 1	*-(h$_{\text{I}}$i̯)-ō	>	-a	**Pl. 1**	*-(h$_{\text{I}}$i̯)-omes	>	-am
2	*-h$_{\text{I}}$(i̯)-esi	>	-áis	**2**	*-h$_{\text{I}}$(i̯)-ete	>	-áiþ
3	*-h$_{\text{I}}$(i̯)-eti	>	-áiþ	**3**	*-(h$_{\text{I}}$i̯)-onti	>	-and

Similarly, *-h$_{\text{I}}$i̯- would have been lost in all pres. forms of the subjunctive (optative) before the suffix *-oi̯-, resulting in the same endings as on strong verbs both active and passive; the pass. ind. endings likewise parallel those of strong verbs, which arose by the analogical changes detailed in §12.29. Note that this analysis requires that syllabic laryngeals not have been lost in all Gmc. unstressed syllables (see §5.5 *ad fin.*). Thus, the suffix *-h$_{\text{I}}$i̯- would have developed to *-ái-* before the dental consonant in all forms of the preterite, but *-(h$_{\text{I}}$i)-o- would have produced *-a-* in the infinitive and pres. participle. Although Bennett offers a different explanation, PIE imp. 2 sg. *-h$_{\text{I}}$i̯-*e* may be presumed to have produced Go. *-ái* regardless of whether final *-*i* < *-*e* or *-*j*- was lost first. Bennett's hypothesis thus accounts admirably for all the Gothic forms as regular phonological developments.

By Bennett's account, his analysis also explains all the inflectional forms of this class in ON, which in the present has *-e(-)* (> *-i(-)*, from *-*ai*-) everywhere Go. has *-ai-*, and *-a(-)* everywhere Go. has *-a(-)*, with the exception only of 1 sg. pres. ind. *-e* (> *-i*), which does not correspond to Go. *-a*. In the preterite, *-*e*- < *-*ai*- was syncopated in medial syllables when the inflection was of sufficient weight, and thus there is no connecting vowel in the ON preterite, in which all the inflections were heavy. The verbs *segja* 'say', *þegja* 'be silent' have their *-j-* already in the earliest records by analogy to weak class 1.[4] But matters are surely not so straightforward as this. The pres. ind. sg. forms 1 *hef* and 2 & 3 *hefr* (also *seg*, *segr*) must be old, since they are found only in archaic and poetic texts, though umlaut in such forms is difficult to explain, both because umlaut ought not to be found in light stems without preserved *i* in the next syllable and because on this analysis there seems no plausible way to derive *ǐ* in 2 sg. **xaƀǐz* > *hef(i)r*. It is probably best to assume an original paradigm in which syncopated forms alternated with unsyncopated, e.g. 1 sg. **xaƀ(aj)ō* > **haƀu* (which would have developed to **hǫf* if analogy had not intervened) : 2 sg. **xaƀīz* (whatever the derivation

of *ī*) > *hefir*, with paradigm regularization then extending umlaut throughout the sg. and leading to parallel paradigms with and without inflectional *-e(-)* > *-i(-)* in the sg., the forms with *-e(-)* coming to prevail by an early date in the literate period. Similar developments are required to explain the coöccurrence of pass. parts. in *-ð-* and *-að-* (the latter, in the verbs *hafa* and *segja*, at least, occurring only in early and/or poetic texts), which is comparable to (and has the same cause as) the alternation between *-ð-* and *-ið-* in the pass. parts. of weak class 1 (§12.36).

The Ingvaeonic forms may be accounted for in a fashion similar to the one that Cowgill (see §12.43) devised for weak class 2 (Hogg & Fulk 2011: §§6.124–5). That is, outside of the 2 & 3 sg. pres. ind., the reanalyzed endings of the heavy-stemmed verbs of weak class 1 (e.g. inf. **-jan*, 1–3 pl. **-jãþ*) were added to the present stem; but whereas the present stem in weak class 2 was perceived to end in **-ō-* (hence, e.g., NSGmc. inf. **xailaʒ-ō-jan* > OE *hālgian* 'hallow', 3 sg. **xailaʒ-ō-þ* > *halgaþ*), the stem in weak class 3 was perceived to end in a consonant, due to the original alternation between, e.g., PGmc. inf. **xaƀ(aj)an-* > **xaƀ-an-* and 3 sg. **xaƀa(j)iþ(i)* > **xaƀ-aiþ*. The result in Ingvaeonic would have been forms like the following:

	Ind.	Sj.	Imp.
Pres. sg. 1	*xaƀ-ju	*xaƀ-jai	
2	*xaƀ-ais	*xaƀ-jai	*xaƀ-ai
3	*xaƀ-aiþ	*xaƀ-jai	
pl.	*xaƀ-ja^{n}þ	*xaƀ-jain	*xaƀ-ja^{n}þ
Inf.	*xaƀ-jan		
Pres. part.	*xaƀ-jandī		

If it is assumed that WGmc. gemination was still operative at this early date in Ingvaeonic, this will account for forms like OE *habban*, OFris. *hebba*, *habba*, OS *hebbian*, *habbien*. In such a paradigm umlaut would have applied everywhere but in the 2 and 3 sg. pres. ind., and this is the situation as preserved in OE *libban* and *secgan*, though umlaut has been extended analogically throughout the paradigm of *hycgan* and leveled out of that of *habban*, in the latter case perhaps to differentiate the present paradigm from that of *hebban* 'raise'. The imperatives OE *sæge*, *hyge* show the correct development of final *-ai*, whereas *hafa* and *leofa* must be explained as having acquired the imp. sg. ending of weak class 2; cf. OS imp. sg. *haƀe* beside *haƀa*, *haƀi*, the last with the ending of weak class 1. Likewise, OE 2 & 3 sg. *leofast*, *leofað* (as well as Anglian *hafast*, *hafað*) cannot reflect **-ais*, **-aiþ* but must bear endings borrowed from class 2; and there is, again, alternation among the vowels *e*, *a*, and *i* in the corresponding inflections in OS, showing mixture of endings from classes 1–3. WS *hæfst*, *hæfð* are probably not regular developments under the conditions outlined in §12.24 but analogical creations (unsurprisingly, given the dominant role of analogy in the formation of the 2 & 3 sg. in OE), in view of the preservation of the etymologically long inflectional vowel in the corresponding forms of weak class 2; but they conform to the pattern of adding the inflections of class 1 to the bare consonantal stem that governs the morphology of this class, even if they were formed long after the Proto-Ingvaeonic period. Similarly, neither 1 sg. pres. ind. WS *hæbbe* nor Anglian *hafo* directly reflects Ingvaeonic **xaƀju*, which results correctly in OS *hebbiu*, but they show analogical developments that are already familiar from the development of these and other verbs in OE. As for the preterite, PGmc. **-ai-* should not have been syncopated before the dental suffix, but given that the present stem was analyzed as ending in a consonant, it may be assumed that in Ingvaeonic the same development affected the preterite formation as the present, and

dental suffix plus inflection were added to the consonantal present stem to form the preterite, just as in heavy-stemmed verbs of weak class 1 they were added to the present stem, which was perceived to end in *-*i*-, e.g. WGmc. **dōmi-dǣ* > OE *dēmde* 'judged'.

The OHG forms are then to be explained as showing analogical extension of the stem in *-ē-* < *-*ai*- throughout the paradigm, under the influence of the parallel stems in *-ō-* of class 2. That early preterites like *hapta*, *hogta* lack a connecting vowel suggests that the analogical change outlined above resulting in the Ingvaeonic preterite stem without a final vowel began already in early WGmc.

1. For an exhaustive survey of the extensive literature, see Flasdieck 1935, focusing particularly on OE. More concise accounts are offered by Bennett 1962 and Fullerton 1977: 58–9; see also Dishington 1976, Kortlandt 1990, Boutkan 1995b: 347–51.

2. On uncertainties about the development of syllabic laryngeals in Gmc. unstressed syllables, see §5.5 *ad fin*.

3. Yet Ringe (2017: 157–8) offers a plausible account of how *h₁* can have arisen in innovative pass. participles to these verbs and spread thence to the pres.

4. Note that the lack of gemination in *segja*, *þegja* can be explained either on the assumption that a vowel has been syncopated before *j* (so, e.g., Dishington 1978: 312, with refs.) or as due to the relatively late date at which these forms were created analogically. Kortlandt (1990: 3–4) attributes the lack of a geminate in *segja* (and *þegja* 'be silent') to the same analogical cause as in *vekja*, *rekja*, etc. (§6.14 *supra*), but that analogical process, though degeminating *k*, normally leaves *gg* geminated (e.g. *leggja* 'lay'). To the contrary, Ringe (2017: 158, 163–4) supposes that **saʒʷəja*- developed to **saʒja*- already in PGmc., on the assumption that rare *seggja* is older than *segja*, the latter formed by analogy to 2 & 3 sg. *segir* (so Noreen 1970: §279.1). The usual assumption, however, is that *seggja* is an innovation of the 12th or 13th cent. (so, e.g., Finnur Jónsson 1901: 109), seeing as *seggja* is required by the rhyme just once in skaldic verse, in a poem of no very early date (Ámundi Árnason, *Lausavísa* 3 (13th cent.)), whereas *segja* is demanded by the *hending* often in verse, some of it demonstrably archaic, e.g. Sigvatr Þórðarson's *Nesjavísur* 1 (ca. 1016). See the exhaustive discussion of relevant skaldic forms in Konráð Gíslason *et al*. 1875–89: II, 351–412.

D. Weak verbs of class 4

12.48 Stem formation

This class remains a discrete category in Gothic only. Elsewhere in Gmc. the verbs originally belonging to this group are all inflected according to one of the other weak classes, usually class 2, though in OHG, as a rule, they join class 3. The most distinctive signs of this class are stems ending in *-n-* and inchoative meaning (or 'anticausative': Scheungraber 2014: 214; or 'fientive': Ringe 2017: 200), e.g. Go. *mikilnan* 'be magnified' (cf. *mikils* 'large') and *tundnan* 'become lit' (cf. *tandjan* 'kindle'). As the examples show, these verbs may be either denominal (esp. deadjectival) or deverbal, and at least in primary verbs the root is in the weak grade, due to suffix accent in PIE. For a catalogue of relevant verbs and references to the pertinent literature, see Scheungraber 2014.

12.49 Inflection

With the stem in *-n-* throughout, in the pres. these verbs are inflected precisely the way strong verbs are, and in the pret. as verbs of weak class 2. The conjugation may be illustrated by the paradigm of Go. *fullnan* 'become full':

	Ind.	Sj.	Imp.
Pres. 1 sg.	fullna	fullnáu	
2 sg.	fullnis	fullnáis	fulln
3 sg.	fullniþ	fullnái	fullnadáu
1 du.	fullnōs	fullnáiwa	
2 du.	fullnats	fullnáits	fullnats
1 pl.	fullnam	fullnáima	fullnam
2 pl.	fullniþ	fullnáiþ	fullniþ
3 pl.	fullnand	fullnáina	fullnandáu
Pret. 1 sg.	fullnōda	fullnōdēdjáu	
2 sg.	fullnōdēs	fullnōdēdeis	
3 sg.	fullnōda	fullnōdēdi	
1 du.	fullnōdēdu	fullnōdēdeiwa	
2 du.	fullnōdēduts	fullnōdēdeits	
1 pl.	fullnōdēdum	fullnōdēdeima	
2 pl.	fullnōdēduþ	fullnōdēdeiþ	
3 pl.	fullnōdēdun	fullnōdēdeina	
Inf.	fullnan		
Pres. Part.	fullnands		
Past Part.	fullnōþs		

There are no transitive verbs in this class, due to their inceptive meaning, and so they have no passive inflection.

12.50 Historical development

These verbs are usually compared to Skt. verbs of the *pr̥ṇā́ti* 'fills' type (class 9), which have a stem ending in a laryngeal consonant preceded by a nasal infix, between the two of which there appears a full-grade vowel in the singular, though otherwise the stem is entirely in the weak grade; hence, to 3 sg. *pr̥ṇā́ti* < **pl̥-n-éh₁-ti* cf. 1 pl. *pr̥ṇīmáḥ* < **pl̥-n-h₁-mós* (with lengthening of *i* < **h₁* by analogy to the long vowel in the sg., according to Kuryłowicz 1956: 258). The usual assumption, then, is that because the Go. 1 & 3 pl. and the pres. part. contain *-na-* (which may be derived from **-nh₁-*)[1] and which makes these forms identical to the corresponding forms of strong verbs, strong endings were leveled into the entire pres. ind., and thence into the other pres. forms.[2] This seems rather a radical analogical refashioning on the basis of a slender resemblance, however, and therefore more plausible is the account of Fullerton (1971, 1977: 71–6), who points out that IE stems with what was originally infixed *-n-* may be either thematic or athematic. For example, Skt. athematic *yunákti* 'joins', *jinṓti* 'quickens', and *pr̥ṇā́ti* occur beside thematic *yuñjáti*, *jinváti*, and *pr̥ṇáti*, respectively, the last to be derived from **pl̥-n-h₁-é-ti*. The Skt. forms of this last correspond almost precisely,[3] then, to the comparable Go. forms:

	PIE	Skt.	PGmc.	Go.
1 sg.	*pl̥-n-h₁-ṓ	pr̥ṇā́mi	*fulnō	fullna
2 sg.	*pl̥-n-h₁-é-si	pr̥ṇási	*fulnis(i)	fullnis
3 sg.	*pl̥-n-h₁-é-ti	pr̥ṇáti	*fulniþ(i)	fullniþ
1 pl.	*pl̥-n-h₁-ó-mes	pr̥ṇā́maḥ	*fulnom(iz)	fullnam
2 pl.	*pl̥-n-h₁-é-t(H)e	pr̥ṇátha	*fulniþ(i)	fullniþ
3 pl.	*pl̥-n-h₁-ó-nti	pr̥ṇánti	*fulnanþ(i)	fullnand

A disadvantage of Fullerton's account is that it renders the Go. preterite more difficult to explain: whereas the pres. is to be derived from thematic stems, the pret. must be derived from athematic, e.g. athematic sg. stem *$p\underline{l}$-n-$éh_1$- or *$p\underline{l}$-n-$óh_1$- plus dental suffix and inflection, producing Go. *fullnōda*, etc. It is by no means plain why the pret. stem, before the addition of the dental suffix, should in no instance have been identical to the pres. stem, since this is unparalleled in Go. weak verbs. Fullerton posits an interesting complementary distribution, however, that lends support to the assumption of parallel thematic and athematic stems in Gmc.: in NWGmc., verbs of this sort with strong preterites have thematic present inflection, whereas those with weak preterites have, unlike Gothic, athematic presents. That is to say, a verb like OE *wæcnan* 'awake' (pret. *wōc*) has a pres. stem ending in the equivalent of PIE thematic *-*nH-o-*, whereas OE *hlinian* 'lean' (pret. *hleonode*) has a pres. stem ending in the equivalent of PIE *-*n-e/o-H-* > PGmc. *-*nō-*. The evidence is hardly solid, especially in view of forms like OE weak *wæcnian* 'awake' (pret. *wæcnode*) parallel to strong *wæcnan*, giving rise to the opportunity for much analogical refashioning. But it is an important observation that whereas intransitive-inchoative verbs in *-n-* are all weak in Gothic, and are usually so in NWGmc., a few traces of strong conjugation survive outside of Gothic, in forms with the weak grade of the root expected in primary verbs of this type, including OE *murnan* (pret. *mearn* beside weak *murnde*, the latter originally of weak class 3, like Go. *maúrnan* (only pres. sj. forms attested), OS *mornian*, OHG *mornēn*)[4] and OE *spurnan* (pret. *spearn*, also occasionally with weak pret. of class 2), OHG *spurnan* (pret. pl. *spurnum*); probably also ON *gína* 'yawn' (pret. *gein*), OE *gīnan* (pret. *gān*), beside wk. OE *ginian*, *geonian*, OS *ginon*.[5]

1. A difficulty is that in athematic verbs of this sort the 3 pl. should end in *-*nH-énti* (Szemerényi 1996: §9.2.1.2), which should not produce Go. *-nand*, as Verner's law would not apply. Since the alternant with *d* has otherwise been generalized in Gothic (§12.24 *ad fin.*), however, its appearance here may be regarded as analogical.

2. So, e.g., Prokosch 1939: §54i; Wright 1954: 160; Krause 1968: §245; Krahe & Meid 1969: II, §88.

3. Sanskrit substitutes the athematic 1 sg. inflection for the thematic. The Go. spellings with *-ll-* are possibly by analogy to *fulls* 'full'; some spellings of the Go. compound *us-fullnan* have just one *l*. There is the added difficulty that PGmc. *-*ln-* should have developed to *-ll-* in all forms (§6.8); it may be that the Go. verb is thus largely a late (or analogically reformed) creation based on the adjective, but the example otherwise illustrates well the underlying principles of stem formation and development that Fullerton outlines for this class, and which may be assumed to have applied in other verbs like this one. Boutkan (1995b: 352–3) objects to Fullerton's claim that his explanation accounts for every Go. pres. form, since the thematic vowel should have been colored as *a* in 3 sg. *-nh_2-e-ti*. It is true that the suffix extracted from nasal-infixed nouns contained h_2 (Beekes 2011: 258), but thematic *$p\underline{l}$-n-h_1-é-ti* did not (cf. Lat. *complētus*), and presumably some others. Certainly, analogy must have played a role in many verbs, but not necessarily all.

4. That the weak forms of this verb are of class 3 should be unsurprising, since the stem-final laryngeal in these PIE *n*-infixed stems could be of any sort. Note that in OHG, weak verbs of this sort most commonly conform to weak class 3, whereas elsewhere weak class 2 is the commonest sort.

5. The long vowel in the strong forms is probably by analogy to other verbs of class I; cf. the lengthening in aorist presents of class II like OE *brūcan* 'use', *lūcan* 'close', etc., and compare unlengthened aorist presents in class I like Go. *digandin* (§12.18). Scheungraber (2014: 81–4) explains the long vowel otherwise.

V. Preterite-present verbs

12.51 Stem formation

Present-tense forms of preterite-present verbs are formally and historically Gmc. preterites, i.e. PIE perfects, almost entirely identical to the preterite forms of identifiable classes of strong verbs. New, weak preterites were formed for them with a dental suffix, to which the normal preterite inflections of weak verbs were added. Thus, for example, Go. 3 sg. pres. *kann* 'knows' resembles a 3 sg. pret. of a strong verb of class III, with 3 pl. *kunnun*; the innovated 3 sg. pret. is *kunþa*.

12.52 Inflection and forms

The following paradigms of Go. *mag* 'can' and its Gmc. cognates may serve to illustrate the inflection of the pret.-pres. verbs. Given their semantics, in Go. no passives are preserved, and for the same reason many of these verbs have no infinitive. On imperatives, see below, §12.54. In the paradigms below an exceptional number of gaps have been filled in by reference to other verbs and expected strong and weak patterns.

		Go.	OIcel.	OE	OS	OHG
Pres. Ind.	**1 sg.**	mag	má	mæg	mag, mah	mag
	2 sg.	magt	mátt	meaht	maht	maht
	3 sg.	mag	má	mæg	mag, mah	mag
	1 du.	magu				
	2. du.	maguts				
	1 pl.	magum	megum	magon	mugun	magun, mugun
	2 pl.	maguþ	meguð	magon	mugun	magut, mugut
	3 pl.	magun	megu	magon	mugun	magun, mugun
Pres. Sj.	**1 sg.**	magjáu	mega	mæge	mugi	megi, mugi
	2 sg.	mageis	megir	mæge	mugis	megis, mugis
	3 sg.	magi	megi	mæge	mugi	megi, mugi
	1 du.	mageiwa				
	2 du.	mageits				
	1 pl.	mageima	megim	mægen	mugin	megin
	2 pl.	mageiþ	megið	mægen	mugin	megit
	3 pl.	mageina	megi	mægen	mugin	megin
Pret. Ind.	**1 sg.**	mahta	mátta	meahte	mahte	mahta
	2 sg.	mahtēs	máttir	meahtest	mahtes	mahtest
	3 sg.	mahta	mátti	meahte	mahte	mahta
	1 du.	mahtēdu				
	2 du.	mahtēduts				
	1 pl.	mahtēdum	máttum	meahton	mahtun	mahtun
	2 pl.	mahtēduþ	máttuð	meahton	mahtun	mahtut
	3 pl.	mahtēdun	máttu	meahton	mahtun	mahtun
Pret. Sj.	**1 sg.**	mahtēdjáu	mætta	meahte	mahti	mahti
	2 sg.	mahtēdeis	mættir	meahte	mahtis	mahtīs(t)
	3 sg.	mahtēdi	mætti	meahte	mahti	mahti
	1 du.	mahtēdeiwa				
	2 du.	mahtēdeits				

	Go.	OIcel.	OE	OS	OHG
1 pl.	mahtēdeima	mættim	meahten	mahtin	mahtīn
2 pl.	mahtēdeiþ	mættið	meahten	mahtin	mahtīt
3 pl.	mahtēdeina	mætti	meahten	mahtin	mahtīn
Inf.		mega	magan		magan
Pres. Part.	magands	megandi	magende		maganti
Pass. Part.	mahts	máttr			

Go. 2 sg. pres. ind. *magt* is an analogical spelling for **maht*. The vowel *u* of the 2 pl. pres. ind. inflection in Go., OIcel., and OHG is by analogy to the 1 and 3 plural. OIcel. *mátt(-)* is from **maht(-)* (§6.14). The stem OIcel. *meg-* derives its umlaut by analogy to sj. forms; cf. *má* < **mah* < **maʒ*, like Runic **ᚫih** 'I own' = OIcel. *á*. Early WS *meaht(-)* is already frequently *meht(-)*, due to palatal monophthongization (on which see Hogg 1992: §5.120), and in Late WS the stem is usually *miht(-)*.[1] OS OHG *mug-* is an analogical creation on the basis of other pret.-pres. verbs, e.g. OS *skal*, pl. *skulun* 'shall' and *far-man*, pl. **far-munun* 'disdain'; comparable forms are to be found in Old Norwegian, OFris., and Middle English, rarely in late OE. Of similar origin are OS OHG *moht-* beside *maht-*.

1. This *miht(-)* is perhaps due to the influence of the noun *miht* 'might', which has umlaut (so Hogg & Fulk 2011: §6.138), though perhaps likelier it originated as a low-stress variant of *meht(-)* (cf., e.g., **xailaʒ-* > **xālæʒ* > **hāleʒ* > *hālig* 'holy'). It could represent generalization of the pret. sj. stem, in which umlaut is to be expected (as in OIcel.), but there is no umlaut in Early WS pret. sj. *meahte*.

12.53 Inventory by corresponding strong class

In most instances it is unambiguous according to which strong class the present of each Gmc. pret.-pres. verb is formed, as demonstrated by the following inventory, in which the principal parts are 2 & 3 sg. pres. ind. (rather than the infinitive, since some such verbs have no infinitive), 3 pl. pres. ind., 1 & 3 sg. pret., and pass. participle. The relevant verbs are Go. *wáit* knows', *láis* 'understands', *dáug* 'avails, is good for', *gadars* 'dares', *kann* 'knows', *þarf* 'needs', *man* 'thinks' (and *ga-man* 'remembers'), *binah* 'is permitted' (and *ga-nah* 'suffices'), *skal* 'shall, is obliged', *mag* 'can', *ga-mōt* 'finds room', *ōg* 'fears', *áih* 'owns', OIcel. *ann* 'loves', *mun* 'will (probably)', *kná* 'knows (how), is able', and cognates. As usual in this book, not all of the forms listed below are actually attested; in this case a few of the more crucial unattested forms are marked as reconstructed, for clarity's sake. For the actually attested forms, see (collectively) Birkmann 1987 or (individually) Braune 2004b: §§196–203 (Gothic), Noreen 1970: §§521–5 (OIcel.); Hogg & Fulk 2011: §§6.132–9 (OE); Gallée 1993: §§415–21 (OS); and Braune 2004a: §§371–7 (OHG).

Class I	Go.	OIcel.	OE	OS	OHG
Pres. 2 sg.	wáist	veizt	wāst	wēst	weist
Pres. 3 sg.	wáit	veit	wāt	wēt	weiz
Pres. 3 pl.	witun	vitu	witon	witun	wizzun
Pret. 3 sg.	wissa	vissi	wisse	wissa	wissa
Pass. part.		vitaðr	witen	giwitan	giwizzan

In Go. there is also a verb *láis* 'I understand', to which this is the only attested form; compare the causative formation PGmc. **laiz-ij-an-* > Go. *láisjan*, OE *lǣran* (etc.) 'teach'. It is usually assumed that Go. *wáist* develops from **u̯oi̯t-th₂e* > PGmc. **wais(s)*

(§6.8), with subsequent analogical re-addition of the 2 sg. ending, though Sihler (1986) offers cogent reasons for regarding *wáist* as the regular reflex of **u̯oi̯t-th₂e*. The pass. parts. of OIcel. *veit* and cognates (weak in ON, strong in WGmc.) are all innovations; the original pp. **wissa-* < **u̯ittó-* < **u̯id-tós* is reflected only as an adj. stem meaning 'certain' (cf. Go. *un-wiss*, OIcel. *vissu-ligr*, OE *ge-wiss*, etc.). Infinitives to this verb are attested in Go. (*witan*), OIcel., OE, OS, and OHG. The verb Go. *áih* 'owns' is very commonly regarded as belonging to this class (so, e.g., Euler 2013: 165), but see below under class VII.

CLASS II	Go.	OIcel.	OE	OS	OHG
Pres. 2 sg.					
Pres. 3 sg.	dáug		dēag	dōg	toug
Pres. 3 pl.			dugon	dugun	tugun
Pret. 3 sg.			dohte		tohta
Pass. part.					

The form *dáug* is the only one attested in Gothic (2×). There is an inf. OE *dugan*.

CLASS III	Go.	OIcel.	OE	OS	OHG
Pres. 2 sg.		annt			
Pres. 3 sg.		ann	ann		an
Pres. 3 pl.		unna	unnon		unnun
Pret. 3 sg.		unni	ūðe	-onsta	onda
Pass. part.		unn(a)ðr	unnen		
Pres. 2 sg.			dearst		gi-tarst
Pres. 3 sg.	ga-dars		dear	-dar	gi-tar
Pres. 3 pl.	ga-daúrsun		durron		gi-turrun
Pret. 3 sg.	ga-daúrsta		dorste	gi-dorsta	gi-torsta
Pass. part.					
Pres. 2 sg.	kant	kannt	canst	kanst	kanst
Pres. 3 sg.	kann	kann	cann	kan	kan
Pres. 3 pl.	kunnun	kunnu	cunnon	kunnun	kunnun
Pret. 3 sg.	kunþa	kunni	cūðe	konsta	konda
Pass. part.	kunþs	kunnaðr	-cunnen		-cunnan
Pres. 2 sg.	þarft	þarft	þearft	tharft	darft
Pres. 3 sg.	þarf	þarf	þearf	tharf	darf
Pres. 3 pl.	þaúrbun	þurfu	þurfon	thurbun	durfun
Pret. 3 sg.	þaúrfta	þurfti	þorfte	thorfta	dorfta
Pass. part.	þaúrfts	þurftr			

Go. 2 sg. *kant* is once spelt *kannt* (I Corinthians 7:16). In addition to OHG *onda*, *konda* there occur *gi-onsta*, *konsta* in Otfrid. The original pass. parts. Go. *kunþs* 'known' (OIcel. *kunnr*, OE *cūð*, OS *kūđ*) and *þaúrfts* 'necessary' are used as common adjectives. There occur the infinitives OE OHG *unnan*; also Go. *ga-daúrsan*. Infinitives for *kann* occur in Go. (*kunnan*), OIcel., OE, and OHG; and for *þarf* in OIcel. (*þurfa*) and OE. WGmc. forms with 2 sg. pres. ind. *-st* for etymological **-t*, it is usually assumed, have abstracted this desinence from **waist*, **darst*, and **mōst*.[1] If this analogical replacement occurred in Proto-WGmc., it must be assumed that analogy within the paradigm prevented or eliminated the expected change **kann-st* > **kan-st* > **kā^{n}st* in NSGmc.

Class IV	Go.	OIcel.	OE	OS	OHG
Pres. 2 sg.		mant	ge-manst	-manst	
Pres. 3 sg.	man	man	ge-man	-man	
Pres. 3 pl.	munun	muna	ge-munon		
Pret. 3 sg.	munda	mundi	ge-munde	-monsta	
Pass. part.	munds	munaðr	ge-munen		
Pres. 2 sg.		munt			
Pres. 3 sg.		mun			
Pres. 3 pl.		munu			
Pret. 3 sg.		mundi			
Pass. part.					
Pres. 2 sg.					
Pres. 3 sg.	-nah		-neah		-nah
Pres. 3 pl.			-nugon		
Pret. 3 sg.			-nohte		
Pass. part.	-naúhts				
Pres. 2 sg.	skalt	skalt	scealt	skalt	scalt
Pres. 3 sg.	skal	skal	sceal	skal	scal
Pres. 3 pl.	skulun	skulu	sculon	skulun	sculun
Pret. 3 sg.	skulda	skuldi	scolde	skolda	scolta
Pass. part.	skulds	skyldr			

OIcel. *mun* 'will (probably)' is cognate with Go. *munan* 'intend, will', a weak verb of class 3. It was refashioned as a pret.-pres. verb in ON in large part because of the formal identity of some inflectional forms to those of *man*: see Birkmann 1987: 243–8. Note that it shows no ablaut alternation, betraying its origin as a weak verb. Go. pp. *skulds* has the meaning 'owing, lawful', and OIcel. *skyldr* (with umlaut!) 'obliged, due'. Infinitives for *man* occur in Go. (*ga-munan*), OIcel., and OE; and for *skal* in OIcel. (*skulu*, a pret. inf. in form, §12.30), OE, and OHG. OIcel. *mun* has the inf. *munu*.[2]

Class V	Go.	OIcel.	OE	OS	OHG
Pres. 2 sg.		knátt			
Pres. 3 sg.		kná			
Pres. 3 pl.		knegu			
Pret. 3 sg.		knátti			
Pass. part.					
Pres. 2 sg.	magt	mátt	meaht	maht	maht
Pres. 3 sg.	mag	má	mæg	mag, mah	mag
Pres. 3 pl.	magun	megu	magon	mugun	magun, mugun
Pret. 3 sg.	mahta	mátti	meahte	mahta	mahta
Pass. part.	mahts	máttr			

OIcel. *kná*, not pret.-pres. in origin and chiefly poetic, is cognate with OE *cnāwan* (see §12.22 on the *verba pura*), and its paradigm is constructed by analogy to *má*.[3] There occurs an inf. *knáttu*, pret. in form (§12.30). Although *mag* was certainly perceived to be of this class (to judge by the rise of the analogical stem *mug-* in various NWGmc. languages, §12.52), in origin it cannot have resembled strong verbs of class V: cf., e.g., Gk. *μῆχος*, Doric *μᾶχος* 'means, enablement', pointing to a PIE root **mḫ₂ĝh*, suggesting class VI or VII.[4] Infinitives to *mag* occur in OIcel. (*mega*, pres. in form), OE, and OHG (*magan*, *mugan*). On variation and development in forms of *mag* and cognates, see §12.52.

Class VI	Go.	OIcel.	OE	OS	OHG
Pres. 2 sg.	*ga-mōst		mōst	mōst	muost
Pres. 3 sg.	ga-mōt		mōt	mōt	muoz
Pres. 3 pl.	*ga-mōtun		mōton	mōtun	muozun
Pret. 3 sg.	*ga-mōsta		mōste	mōsta	muosa
Pass. part.					
Pres. 2 sg.					
Pres. 3 sg.	ōg				
Pres. 3 pl.	*ōgun				
Pret. 3 sg.	ōhta				
Pass. part.					

Go. pret. 3 sg. **ga-mōsta* may be safely assumed on the basis of pl. *mōstēdun* (Mark 2:2). No inf. occurs. To Go. *ōg* there occurs 2 sg. imp. *ōgs* (in negated *ni ōgs þus*) of disputed etymology, though it probably reflects a short-vowel sj. (or injunctive) PIE **āgh-e-s*.[5] As the present system of these verbs is preterite in origin, they have no etymological imperatives, for which subjunctives are generally used. Weak grade of the root of *ōg* appears in the negated part. *un-agands* 'fearless' (cf. pres. part. *ōgands*), probably attesting not to an old ablaut alternation but to a secondary formation: cf., e.g., *agis* 'fright' and *agjan* 'frighten', and see Jacobsohn 1913: 342 n. 1. The verb does not occur in pret.-pres. conjugation outside of Go.; cf. the weak verbs OIcel. *óask* 'be afraid', *ægja* 'frighten', OE *on-ēgan*, *on-ēgnan* 'fear'.

Class VII	Go.	OIcel.	OE	OS	OHG
Pres. 2 sg.		átt	āhst		
Pres. 3 sg.	áih	á	āh		
Pres. 3 pl.	áigun	eigu	āgon	ēgun	eigun
Pret. 3 sg.	áihta	átti	āhte	ēhta	
Pass. part.		áttr			

Although 2 sg. OE *āhst* is usual, there occurs an archaic *āht* in Northumbrian and Early WS. Infinitives occur in Go. (*faír-áihan*), OIcel., OE, and OS. The original pp. OIcel. *eigin* '(one's) own' (indeclinable; OE *āgen*, OS *ēgan*, OHG *eigan*) is entirely adjectival. This verb is often reckoned among those of class I, but since all other pret.-pres. verbs in classes I–IV show the expected ablaut alternation between pres. sg. & pl., it seems likelier that it is comparable to Go. *háitan* 'call' and thus belongs to class VII, in which no ablaut distinction is to be expected between sg. and plural. Birkmann (1987: 74–8) reviews the arguments that have been adduced and concludes that derivation from class I is more persuasive because alternations under Verner's law are not to be expected in class VII,[6] but Antonsen (1992: 97) responds that such alternations are well attested in class VII in the opposition between infs. **faŋxana*^{n} 'take', **xaŋxana*^{n} 'hang' and pass. parts. **faŋganaz*, **xaŋganaz*. There in fact appear to have been multiple patterns of variation under Verner's law in class VII (see §12.17), and so the evidence of Verner's law provides no reliable basis for determining the original class of this verb. Many expected forms of this verb in OS and OHG are unattested because instead are used forms of OS *hebbian*, OHG *habēn* 'have'.

1. David Fertig kindly advises that OS and OHG pret. forms like *konsta*, *-onsta*, *-monsta* raise doubts about this explanation, the analogical extension then being, in at least some cases, that of a stem alternation, whereby a stem-final *s* is added before a *t*-initial suffix, on the model of (OHG) *gi-tar* '(I) dare', 2 sg. *gi-tarst*, pret. *gi-torsta*.

2. The OIcel. infs. *skulu*, *munu*, and rare *megu* (usually *mega*) have *-u* (rather than *-a*) due to the homomorphy of inf. and 3 pl. pres. ind. in most verbs. This is the origin of the ending *-u* of ON pret. infinitives (§12.30).

3. So, e.g., Noreen 1970: §525 Anm. 2, Seebold 1970: 302. This is so even though *kná* appears to reflect a more original stem than *kunna* (Eichman 1973). In one sense it should be unsurprising that a new pret.-pres. verb meaning 'know (how)' should have arisen in ON, as the PIE root with this meaning had already produced the pret.-pres. verb Go. *kann* and cognates. A new verb meaning 'know (how)' arose in conjunction with the restriction of ON *kunna* in meaning to 'know' in the sense 'have knowledge of'.

4. Bammesberger (1986a: 73) supposes rather that *mag* did originally belong to class V, and that the root is to be reconstructed **mĝh*, of which the reduced grade **mĝh-* produced a PGmc. **muɣ-* reflected chiefly in OS and OHG, and *e*-grade **meĝh-* produced OIcel. pres. 3 pl. *megu* and similar OIcel. forms.

5. So, e.g., Bammesberger 1986c, with an overview of the literature; see also Euler 1992: 24. To the argument of Jasanoff (2003: 35; not 2004) that *ōgs* reflects a PIE pluperfect, cf. Ringe 2017: 292 n. 18.

6. Go. 1 & 3 sg. *áih* (7×, beside analogical *áig* 1×) does not prove the matter, since there is devoicing of final fricatives in Go. (§6.12), but OIcel. *á* is probative, as **-aih* by devoicing in **-aiɣ* produces *-é* rather than *-á*, as in *sté*, the more archaic form of the pret. of *stíga* 'step'. Cf. also Go. inf. *faír-áihan*.

12.54 Historical development

The example usually cited to illustrate how these verbs acquired present meaning is Go. *wáit* = Skt. *véda*, Gk. *οἶδε* 'knows' < PIE **u̯oi̯de*, an unreduplicated perfect to the weak-grade stem seen in Lat. *videō* 'see'. Since the perfect is probably stative in origin (§12.5), and these verbs are stative in meaning, they appear to preserve an archaic state of affairs; yet even if some are Gmc. innovations, given that the perfect designates past events which are relevant to a present state ("has dreaded"), it is plain enough how the present element of its semantics should in such instances have come to dominate ("is afraid"). In actuality, *wáit* is the only one of these verbs in which the rationale for the word's semantic development is pellucid, though it is perhaps not too difficult to see how the sense 'have thought (and still think)' should result in 'remember' (Go. *ga-man*, like Lat. *meminī*; cf. Gk. *μέμονα* 'wish' and Skt. pres. *mányatē* 'thinks'), and how 'have come under obligation' (cf. Old Lith. *skelù* 'am culpable') should result in 'shall'. These examples illustrate that the category is an ancient one, with parallel perfects in non-Germanic languages to which no present is formed, and yet the considerable majority of the Gmc. verbs have no IE parallels to pret.-pres. usage, e.g. Go. *kunnan* in comparison to Skt. *jānáti* 'knows', Gk. *γιγνώσκω*, Lat. *nōscō*. Most, accordingly, appear to be Gmc. innovations.[1] Go. *wáit* and its cognates show with particular clarity that this is an ancient category of verb, given the lack of reduplication across IE languages; but although this verb has sometimes been thought to demonstrate a more archaic perfect construction, formed before reduplication became obligatory (so, e.g., Prokosch 1939: §65), instead it seems likelier that the lack of reduplication is an innovation: see Szemerényi 1996: §9.4.3, Jasanoff 2003: 228–33.[2] One particularly interesting sign of the category's antiquity is that the pres. pl. of verbs resembling those of strong class IV has the vowel *u* that etymology suggests should have been original, whereas strong verbs have the reflex of PGmc. *ē*$_1$ in the pret. pl.: see §12.14.

As with the verbs of weak class I lacking **-i-* in the preterite (§12.37), most pret.-pres. verbs form the preterite with PGmc. **þ* < PIE **t* attached directly to the stem of the pres. (originally pret.) plural, without any connecting vowel, though in Go. *skal* and *man* the dental suffix in the preterite reflects PGmc. **ð*, the expected form under Verner's law if the dental suffix in this class of verbs originated in the PIE verbal adj.

suffix *-*tó*-, given its accentuation: see §12.33 for discussion and a possible explanation for the voiceless variant, pertaining to the development of the original pass. participles to common adjectives and their replacement in North and West Germanic. The PGmc. dental suffix *-*þ*- (or earlier *-*t*-)[3] underwent further development in the consonant clusters that arose from its affixation, as follows. The regular development of *-*tt*- (§6.8) is seen in Go. pret. *wissa* < PIE *-*u̯id-t-*. In WGmc. there also occur pret. forms in which the dental suffix has been analogically reintroduced, e.g. OE *wiste*, OHG *wista*. Similarly in regard to the verb *ga-mōt*, OHG *muosa* < NWGmc. **mōssǣ* appears to reflect the original situation in the pret. (**mōt-t-*), whereas the other languages have analogically re-added the dental suffix, e.g. Go. *mōstēdun*. After a fricative the voiceless dental suffix appeared as *t* and caused devoicing, if applicable, e.g. Go. *ga-daúrsta* and *þaúrfta* < **þurƀ-t-*. In Ingvaeonic there was loss of **n* before **þ* with compensatory lengthening (§4.11) in, e.g., OE *cūðe*, *ūðe* < **kunþ-*, *unþ-*. By contrast, ON shows assimilation in the pret. stems **kunþ-*, **unþ-* > *kunn-*, *unn-* (§6.14).

Go. 2 sg. pres. ind. *wáist* is perhaps for **wáis* < PGmc. **waiss* < **wait-t* < PIE **u̯oi̯d-th₂e*, with re-addition of the 2 sg. pret. inflection *-t* (but see §12.53 in reference to Sihler 1986). In OIcel., root-final *-t-* is re-added, as well, giving *veizt* (where *zt* = /tst/). The normal reflex of the PIE 2 sg. perfect ind. inflection **-th₂e* would be *-þ* (but see §12.25 n. 1 on this), but in fricative clusters *-t* should be expected, and in Go. and ON this *-t* has been extended analogically to stems that should have had *-þ*, hence, e.g., Go. *kant*, *skalt*, ON *annt*, *mant*. The inflection is otherwise well preserved in Go. and ON, whereas in WGmc. it is found in some pret.-pres. verbs, but not all, replaced by the present inflection *-st* (on which see §12.24).[4] This is an unsurprising development, given that 2 sg. *-t* was not used in WGmc. preterites, but rather an inflection that is dubitably aorist in origin (§12.23), and the process was no doubt aided by forms like WGmc. **waist*, **mōst*, which either are etymological (again, see §12.53) or already in PGmc. had facultative analogical readdition of **-t* to stems in **-s* < **-ss* < **-t-t*.

Since the pres. paradigm is formally preterite, and in view of the Go. endings, umlaut should be expected in the pres. sj. in North and West Gmc. It has been almost entirely removed, doubtless by analogy to strong verbs, which have no umlaut in the pres. sj., but a few relics occur, e.g. OE *dyge*, *þyrfe* (beside *duge*, *þurfe*), and *scyle* is the usual form (beside rare *scule*); and the pres. sj. stem *meg-* is preserved in OIcel. and extended to the indicative. Etymologically there should be no umlaut in the pret. of these verbs, where the dental suffix was added to the stem without any intervening **-i-*, but again by analogy to other verbs, umlaut has been induced in OIcel. preterites.

As there was no perfect imperative in PIE, these verbs have no etymological imperative. In Go., as explained above, imp. *ōgs* is probably sj. (opt.) in origin. In OIcel., new imperatives have been created, using the bare stem of the pres. pl. in the 2 sg., by analogy to other verbs (e.g., *vit*, *eig*), though the semantics of some prohibit imperative formation (*þarf*, *mun*, *má*, *kná*). In WGmc. the sj. is generally used for the imp., though occasionally imperatives of the OIcel. type are found in Northumbrian, e.g. *ge-wit* ‘know’.

Preterites like OHG *onda*, *konda* show *o* for **u* as a result of analogy to other preterites in this class such as *tohta*, *gi-torsta*, *dorfta*, *skolta*; OS preterites like *gi-onsta*, *konsta*, *for-monsta* show the same influence, and they make the analogical nature of the change especially plain, transferring not only the vowel but also the stem-final *s* from *gi-dorsta* (with support from *mōsta*; but see §12.53 n. 1).

1. This explanation is disputed by T. Tanaka (2011: 65–89), who regards Gmc. pret.-pres. verbs as uniformly archaic rather than (many of them) Gmc. innovations, with several members of the class no longer preserved in the recorded languages. Cf. R.I. Kim 2012. Tanaka provides a summary of alternative hypotheses (2011: 92–105).

2. To the contrary, Randall & Jones (2015) would derive these verbs from a separate category in PIE, one of aorist roots to which stative inflections were added, so that they never showed reduplication.

3. It seems likely that at least some of the changes described here antedate the First Consonant Shift; alternatively, PIE **t* remained unshifted in the relevant consonant clusters.

4. 2 sg. *-t* originally remained after a fricative or *-l-*, but not *-n-*. But archaic OE *āht* gave way to *āhst*, and the obscuration of the original regularity in regard to *-h-* perhaps contributed to the LWS replacement of *meaht* by *miht*.

VI. Athematic verbs

12.55 Inventory

As noted above (§12.9), athematic verbs were generally thematized in Gmc., but a small number of exceptions persist, due to frequency of use. Since the PIE inflections of thematic and athematic verbs were otherwise identical, the plainest indication of preserved athematic conjugation in Gmc. is 1 sg. pres. ind. in *-m* < PIE **-mi* (vs. thematic **-ō*)—though *-m* is not an infallible diagnostic, as it may in some instances be an innovation, e.g., perhaps in OHG verbs of weak class 2. For this reason verbs of this type are sometimes referred to (as in Greek grammar) as *mi*-verbs, but also sometimes as anomalous verbs. Despite its antiquity, Go. preserves the fewest signs of athematic inflection, and WGmc. the greatest number of relevant verbs: ‘be’ and ‘will’ show traces of athematic inflection in all the Gmc. languages; ‘do’ and ‘go’ in all the WGmc. languages; and ‘stand’ in OS and OHG.

12.56 The verb ‘be’

The present and preterite paradigms are based on unrelated PIE roots; the root **ḷ̥s* in the latter also may occur in the inf., the pres. part., and the imp., and in no instance did it form an athematic verb, but only the root **hₗs* in the present did so. In WGmc. there is a future/consuetudinal stem (with no separate preterite) based on a third root, though the distinction between present and future/consuetudinal meaning is maintained only in OE:

		Go.	OIcel.	OE	OS	OHG	PIE
Pres. Ind.	**1 sg.**	im	em	eom	bium	bim, bin	-mi
	2 sg.	is	ert	eart	bist	bist	*h₁és-si
	3 sg.	ist	es, er	is	is, ist	ist	*h₁és-ti
	1 du.	siju					
	2 du.	sijuts					
	1 pl.	sijum	erum	sind(on)	sind(un)	biru(m)	*h₁s-més
	2 pl.	sijuþ	eruð	sind(on)	sind(un)	birut	*h₁s-té
	3 pl.	sind	eru	sind(on)	sind(un)	sint	*h₁s-énti

		Go.	OIcel.	OE	OS	OHG	PIE
Fut. Ind.	**1 sg.**			bēo			
	2 sg.			bist			
	3 sg.			bið			
	1 pl.			bēoð			
	2 pl.			bēoð			
	3 pl.			bēoð			
Pres. Sj.	**1 sg.**	sijáu	sé	sie, bēo	sī	sī	*h_1s-i̯éh_1-m
	2 sg.	sijáis	sér	sie, bēo	sīs	sīs(t)	*h_1s-i̯éh_1-s
	3 sg.	sijái	sé	sie, bēo	sī	sī	*h_1s-i̯éh_1-t
	1 du.	sijáiwa					
	2 du.	sijáits					
	1 pl.	sijáima	sém	sien, bēon	sīn	sīm	*h_1s-ih$_1$-mé
	2 pl.	sijáiþ	séð	sien, bēon	sīn	sīt	*h_1s-ih$_1$-té
	3 pl.	sijáina	sé	sien, bēon	sīn	sīn	*h_1s-ih$_1$-ént
Imp.	**2 sg.**		ver	bēo, wes	wis, wes	wis	
	2 pl.		verið	bēoð, wesað	wesað	weset	
Pret. Ind.	**1 sg.**	was	var	wæs	was	was	*u̯e-u̯os-h$_2$e
	2 sg.	wast	vast	wǣre	wāri	wāri	*u̯e-u̯os-th$_2$e
	3 sg.	was	var	wæs	was	was	*u̯e-u̯os-e
	1 du.	wēsu					
	2 du.	wēsuts					
	1 pl.	wēsum	várum	wǣron	wārun	wārum	*u̯e-u̯s-mé
	2 pl.	wēsuþ	váruð	wǣron	wārun	wārut	*u̯e-u̯s-té
	3 pl.	wēsun	váru	wæron	wārun	wārun	*u̯e-u̯s-ént
Pret. Sj.	**1 sg.**	wēsjáu	væra	wǣre	wāri	wāri	
	2 sg.	wēseis	værir	wǣre	wāris	wārīs	
	3 sg.	wēsi	væri	wǣre	wāri	wāri	
	1 du.	wēseiwa					
	2 du.	wēseits					
	1 pl.	wēseima	værim	wǣren		wārīm	
	2 pl.	wēseiþ	værið	wǣren		wārīt	
	3 pl.	wēseina	væri	wǣren	wārin	wārīn	
Inf.		wisan	vera	bēon, wesan	wesan	wesan	
Pres. Part.		wisands		bēonde, wesende	wesandi	wesanti	
Pass. Part.			verið	gebēon			

OIcel. *es* is an early form, replaced starting in the 13th cent. by *er*. The handbooks assert a 2 sg. form *est* that underwent the same development as *es* > *er*, but Crawford (2012) finds that *est* does not occur in OIcel., and that it is probably not an OWN form.[1] The distinction between the pres. sj. and the future/consuetudinal sj. in OE is purely formal: no distinction in temporal or aspectual meaning is detectable; likewise for the imperative and non-finite forms. To WS *eom* correspond Mercian and Kentish *eam*, Northumbrian *am*; to WS *eart* correspond Mercian *earð* and Northumbrian *arð*; beside *sind(on)*, *sindun* occur Anglian *earon*, *arun*. OE OS *sind* is commonly *sint* as a result of final devoicing under low stress. There occurs once OS 3 sg. pres. sj. *wese*. The stem *wes-* also appears occasionally in the pres. ind. and sj. in OHG, but it more usually has the specific meaning ‘exist’ or ‘occur’.

1. OIcel. *ert* is usually explained as having *r* by analogy to *er*, but Crawford sees it as cognate with OE *eart*, with analogical replacement of the vowel by the *e* found in the remainder of the OIcel. paradigm.

12.57 Historical development of ‘be’

Many questions about the development of this verb remain unsettled. The pres. forms (excluding those in *b-*) derive from the PIE root **h_1s*, which, as normal in athematic verbs, appears in the full grade in the ind. sg. (**$h_1$és-*, hence 3 sg. **$h_1$és-ti* > Skt. *ásti*, Gk. *ἐστί*, Lat. *est*, Lith. *ēst*) and zero grade elsewhere (**h_1s-*, hence 3 pl. **h_1s-énti* > Skt. *sánti*; cf. Doric Gk. *ἐντί*, Lat. *sunt*). These forms develop regularly in the Go. 1–3 sg. and 3 pl.;[1] the 1 and 2 pl. have adopted the onset *si-* from the 3 pl. and added the normal endings of pret.-pres. verbs, so that *-j-* merely fills the intervening hiatus (so, e.g., Krahe & Meid 1969: II, §98); alternatively, *sij-* here may be borrowed from the sj. (so, e.g., Prokosch 1939: §75a), or the change may be attributed to the combined force of the 3 pl. and the sj. to suggest a stem *si(j)-*. Whatever the source of the new forms, the change was well motivated, since PIE 1 pl. *h_1s-més* > PGmc. **smes* and 2 pl. PIE *h_1s-té* > PGmc. **ste* would have seemed entirely anomalous within the paradigm; they are in fact eliminated in all the Gmc. languages, though not in uniform fashion. Go. 3 pl. *sind* is for expected **sinþ* < PIE **sénti*. It may be that the accent shifted, giving PGmc. **sinþí* > **sinðí* under Verner’s law (so Prokosch 1939: §75a), but it seems likelier that the voicing arose under the low stress that this verb usually received (so Brugmann in Brugmann & Delbrück 1897–1916: II, 3.2.635, and Bennett 1972: 109), though Brugmann also suggests the possibility of analogy to forms like Go. 3 pl. *báirand*.

PIE pres. sg. ind. **$h_1$és-mi*, **$h_1$és-si* (> **$h_1$ési*), **$h_1$és-ti* yield PGmc. **izm(i)*, **iz(i)*, **ist(i)* > **im(m)*, **iz*, **ist*, with early loss of **-i* and voicing of *s* to *z* in the 1 & 2 sg. because of low stress on the verb. Probably already in PGmc. (Ringe & Taylor 2014: 518) the vowel of the sg. was extended to the pl., and the normal inflections of pret.-pres. verbs supplied, resulting in **izum*, **izuþ*, **izunþ*.[2] In NGmc., with the development of **z* to **ʀ* and the lowering of **i* before this (§4.9), the plural develops regularly. In the sg., **i-* is replaced by **e-* in Proto-Norse, probably a paradigm regularization on the basis of the plural (so, e.g., Prokosch 1939: §75a; Heusler 1967: §335; Noreen 1970: §532 Anm. 1), and 2 & 3 sg. *es* is the usual form until ca. 1200, when it begins to be replaced by *er*, doubtless again under the influence of the plural. The analogical replacement of Proto-Norse 3 sg. **ist* (Runic **ist**, Vetteland Stone, mid-4th century) involves the elimination of **-t* because of the influence of pret.-pres. inflections, in which **-t* should be the inflection instead of the 2 singular. In the pret. pl., the stem *vǫ́ru(-)* (later and normalized *váru(-)*) changed to *vóru(-)* by combinative back mutation (§4.8), and *v-* was then lost before *ó* (§6.14), giving *óru(-)*, a form required by the alliteration in some early poetry; but *ór-* was also replaced by *vǫ́r-* (> *vár-*), with *v-* by analogy to the rest of the pret. paradigm and *ǫ́* by analogy to other verbs of the fifth class (and the fourth), and this came to be the standard form of the stem.

The OE forms present a number of mysteries. Prokosch (1939: §75a) and many others suppose that WS *eom* developed by analogy to fut. *bēo* (Anglian *bīom*), and Brunner (1965: §427) and Krahe & Meid (1969: II, §98) even assume a long diphthong in the former, hence WS *ēom*, though Middle English spellings never suggest a long vocoid, and the parallel between this supposed *ēom* and *bēo* is hardly striking (there is no WS †*bēom*); moreover, metrical evidence tells against †*ēom*.[3] The ending on 2 sg.

Mercian *earð*, Northumbrian *arð*, would be the only instance in Gmc. of the regular development of PIE **-th₂e* to the pret.(-pres.) ending **-þ* (rather than the attested *-t*: see §12.25), but it may be that it is due instead to reanalysis with an enclitic pronoun, **ar þū* (so Lühr 1984: 37, though certainly WS *eart* must bear the pret.-pres. inflection). More perplexing is the vocalism of these forms, which derives from **a*, a vowel that ought not to have appeared anywhere in the PGmc. paradigm. The commonest explanation is that the stem of this form (as well as Old Swedish *aru* 'are') reflects PIE **h₃er-*, as in Lat. *orior* 'arise', Gk. *ὄρνῡμι* 'arouse', formed as a Gmc. pret.-pres. verb of the class IV type, hence with PIE **or-* in the pres.[4] The replacement of PGmc. 3 sg. **ist* by *is* in OE (and OS) is perhaps best explained as above—that is, as due to the pervasive influence of pret.-pres. inflection on this verb, since the 3 sg. pres. in that class bears no inflection, and *-t* would no doubt have been perceived as the inflection proper to the 2 sg.—a change perhaps abetted by sandhi environments in which **ist* appeared before a word with an initial dental consonant. In the plural, as usual in Ingvaeonic, the original form of the third person has been extended throughout.[5] Here *-on* may be added to *sind* by analogy to pret.-pres. verbs (though Shields 1984 argues that *-on* is an archaism; cf. Whitehead 1990–1). Anglian *earon*, *arun* must have its vocalism from the same source as the 2 sg. (as well as 1 sg. non-WS *(e)am*). Note, however, that the 2 sg. stem agrees with the plural stem, which is characteristic of WGmc. strong preterites but not of pret.-pres. verbs.

The OE future and consuetudinal forms develop from the root seen in Skt. *bhávati* 'is, exists' (also supplying forms of 'be' in Italic, Celtic, and Balto-Slavic), which takes the form PIE **bhu̯-i̯i̯-* (a perfective present), hence **bhu̯-i̯i̯-ō* > WS *bēo* (Anglian *bīom*) = Lat. *fīō* 'shall be', OIr. *bíuu* 'am accustomed to being'.[6] Inf. *bēon* may be disyllabic in verse, probably with a heavy initial syllable;[7] hence, Anglian *bīon* (WS *bēon*) = *bī-on*. In 2 & 3 sg. WGmc. **bij-ist*,[8] **bij-iþ*, intervocalic *j* was lost, producing, under the low stress usually borne by this verb, the same result as in the 2 & 3 sg. pres. ind. of weak verbs of class 1 with an originally heavy stem (§12.38), hence **biist*, **biiþ* > **bīst*, **bīþ*, followed by shortening. Thematic WS *bēo* is no doubt a regularization of the athematic 1 sg. found elsewhere in WGmc., e.g. Anglian *bīom* < **bi̯(j)um* < PIE **bhu̯-i̯i̯-m̥*.

OS and OHG show a present paradigm mixing pres. and future/consuetudinal stems, without any distinction in meaning.[9] There is similar mixture of paradigms in OFris. and Old Low Franconian. OHG 1 sg. *bim* is best explained as the reflex of PGmc. **ezm* > **im* under low stress, with addition of the future/consuetudinal *b-*. OS 1 sg. *bium* may show the same development, assuming original OS **ium* = WS *eom*, or (perhaps more likely) *bium* = Anglian *bīom*. The OHG 1 & 2 pl. are usually assumed to be formed the same way as the 1 sg., i.e. by the addition of *b-* to assumed WGmc. 1 pl. **izum*, 2 pl. **izuþ*, comparable to the corresponding ON forms: so, e.g., Lühr 1984: 29–30. There is, however, no evidence for such forms in WGmc.[10]

The PIE optative forms given in the paradigm should have produced a PGmc. sj. sg. stem **s(j)ē-*, 1 & 2 pl. **sī-* (i.e. before a consonant), 3 pl. **si(j)-* (before a vowel). In Go. the last of these was extended throughout the paradigm and the pres. sj. inflections of strong verbs added to this. In OIcel., by contrast, the sg. forms may all be regarded as the expected developments of the PGmc. forms (assuming voicing of **-s* in the clitic 2 sg.), and this stem was then extended to the plural. OE *sie(n)*[11] is frequently disyllabic in poetry, where the meter never requires a heavy initial syllable (Fulk 1992: §115), and so it would appear that OE has generalized the stem **si-* (abstracted from the 3 pl.) and added to this the normal pres. sj. inflections 3 sg. **-ai(ð)* > *-e* and 3 pl. **-ain(ð)* > *-en*.

In that event it is probably safest to assume that the OS and OHG forms are the result of contraction of **si-* with the normal sj. inflections.

PIE **es-*, being a copula, had no imperative forms. In Go., sj. forms are used for the imperative of the verb ‘be’, whereas the other Gmc. languages have created imp. forms from the future/conditional stem **bī-* and/or the pres. stem **wes-* corresponding to pret. **was-* ~ **wēz-*.

PIE **$h_1$es-* apparently had no perfect stem; various preterites are formed to it in the individual IE languages. It forms its pret. in Gmc. from the verb **wesana*^{n}, a verb of class V, hence with pret. sg. in **-a-* (with loss of the reduplicative syllable) and **-ē$_1$-* in the dual, the plural (and the 2 sg. in WGmc.), and throughout the subjunctive. The attested forms are entirely in line with those to be expected of a class V preterite. It is striking that whereas the pret.-pres. verbs that align with class V show the *-u-* expected in the pres. (originally pret.) plural on an etymological basis, the verb ‘be’ has the reflex of PGmc. **-ē$_1$-* of mysterious origin that characterizes verbs of class V, suggesting that the Gmc. pret. of ‘be’ was not formed in the earliest stratum of PGmc., as perhaps implied also by the regularity of the pret. paradigm of a verb as common as this.

None of the non-finite forms in the paradigms given above is to the PIE root **h_1s*, and thus all are transparent Gmc. derivatives of the future/consuetudinal and class V stems. An original PIE pres. part. **h_1s-ont-*, however, is probably the basis for PGmc. **sanþ-* > OIcel. *sannr*, OE *sōð* ‘true’.[12]

1. Assume PIE **$h_1$és-mi* > PGmc. **ezm(i)* > **em(m)* and **$h_1$és-si* > **es(i)*. These are stressed forms; see below on unstressed **im(m)*, **iz*.

2. Rather, Lühr (2016: 243) supposes that **-u-* originated in the 1 pl., in a variant **-umez* < **-m̥és* (her notation; but Verner’s law!) comparable to **si̯-* beside **s̥i̯-*.

3. Since *bēon* (Anglian *bīon*) may be disyllabic in verse, with a heavy initial syllable, as remarked below, if *eom* were the result of analogy to *bēom* it should be expected likewise to scan this way, but it does not: cf., e.g., *nū ic þus fēasceaft eom* (*Genesis A* 2176b), where *ē-om* would be unmetrical.

4. So, e.g., Prokosch 1939: §75a and Bammesberger 1986a: 120–1. Lühr (2016: 245–7) mentions and dismisses the possibility of Scandinavian influence, offering instead several indecisive phonological explanations.

5. It is tempting to think that this verb played a significant role in promoting this change, given the difficulties posed by the original 1 & 2 pl. forms, as pointed out above—an idea supported as well by the replacement of the 1 & 2 pl. with forms from the original future/consuetudinal paradigm in OHG.

6. Bammesberger (1986a) assumes a similar development based on PIE **bhū-* (cf., e.g., Skt. aorist *ábhūt* to *bhávati*), hence PGmc. **bū-ī-a-* > **b(w)-ī-a-* > **bi̯ja-*. Hill (2012) posits a change **-u̯-* > **-i̯-*. Ringe (2017: 220, 293) reconstructs **bhuH-* and argues that the Gmc. forms are perfective presents.

7. Cf. *drēamleas bēon* (*Daniel* 557b), though the quantity of the first syllable of *bēon* is ambiguous: the verse could be like *sorhleas swefan* (*Beowulf* 1672a) rather than *Hrōðgar lēofa* (1483a).

8. It should be noted that *-t* in OE OS OHG *bist* is the norm already from the time of the earliest records, whereas in strong and weak verbs the earliest texts have simple *-s*. Paul (1916–20: II, 192) suggests that *bist* is apocopated from *bistu*, though it is also possible that *-t* is due to the analogical influence of pret.-pres. verbs. Rare OHG *bis* is explained by Braune (2004a: §379 Anm. 1) not as an archaism but a neologism resulting from reanalysis of *bistu* ‘you are’.

9. Lühr (2016: 244) argues that the admixture of *b*-forms originated in the 2 sg., where the addition of the pret.-pres. ending *-t* to **is* would have created a homophone of 3 sg. *ist*, requiring redifferentiation.

10. Another possibility is that OHG *biru(m)*, *birut* show the attachment of pret.-pres. inflections to the stem *bi-* of the singular, with *-r-* filling the hiatus, just as *-r-* fills the hiatus in certain OHG verbs of class VII, e.g. *-steroz* < **st-e-aut* (§12.20). But *r* in these preterites is facultative and disappears early, whereas *r* in these present forms is regular and persists until the thirteenth century.

11. Not †*sige(n)*; cf. weak verbs of class 2 in *-i(g)en* (§12.42).

12. Bammesberger (1986a: 122) proposes a further connection to Go. *sunja* 'truth' and OHG *suntea* 'sin'.

12.58 The verb 'will'

The most usual attested forms of the Gmc. verb 'will' (in the original sense 'be willing, wish') are these:

		Go.	OIcel.	OE	OS	OHG
Pres. Ind.	**1 sg.**	wiljáu	vil	wille	williu	willu
	2 sg.	wileis	vill, vilt	wilt	wili(s), wilt	wili
	3 sg.	wili	vill	wile	wil(i), will	wili
	2 du.	wileits				
	1 pl.	wileima	viljum	willaþ	williad	wellemēs
	2 pl.	wileiþ	vilið	willaþ	williad	wellet
	3 pl.	wileina	vilja	willaþ	williad	wellent
Pres. Sj.	**1 sg.**		vilja	wille	willie	welle
	2 sg.		vilir	wille	willies	wellēs(t)
	3 sg.		vili	wille	willie	welle
	1 pl.		vilim	willen	willean	wellēm
	2 pl.		vilið	willen	willean	wellēt
	3 pl.		vili	willen	willean	wellēn
Pret. Ind.	**1 sg.**	wilda	vilda	wolde	welda	wolta
	2 sg.	wildēs	vildir	woldest	weldes	woltōs
	3 sg.	wilda	vildi	wolde	welda	wolta
	1 pl.	wildēdum	vildum	woldon	weldun	woltum
	2 pl.	wildēduþ	vilduð	woldon	weldun	woltut
	3 pl.	wildēdun	vildu	woldon	weldun	woltun
Pret. Sj.	**1 sg.**	wildēdjáu	vilda	wolde	weldi	wolti
	2 sg.	wildēdeis	vildir	wolde		woltīs
	3 sg.	wildēdi	vildi	wolde	weldi	wolti
	1 pl.	wildēdeima	vildim	wolden	weldin	woltīm
	2 pl.	wildēdeiþ	vildið	wolden	weldin	woltīt
	3 pl.	wildēdeina	vildi	wolden	weldin	woltīn
Inf.		wiljan	vilja	willan	willien	wellen
Pres. Part.		wiljands	viljandi	willende	willeandi	wellenti
Pass. Part.		viljaðr				

OIcel. 1 sg. pres. ind. *vilja* (= Go. *wiljáu*) appears sometimes in poetry. As usual in OE, the 1 sg. pres. ind. may end in *-o* outside of WS. In Anglian, forms like *walde* (which may or may not coöccur with *wolde*) are the norm. OS has also the stem *well-* in the pres. and *wold-* in the pret. (rarely *wald-*), in addition to normal variation in the endings (e.g. 1 sg. pres. ind. *willeo* beside *williu*). There is a small amount of deviation from the given stems in OHG. In OE there appear some innovative imperatives, e.g. Mercian pl. *willaþ*, negated sg. *nyl*.

12.59 Historical development of 'will'

The source is the PIE root **u̯el(H)-* reflected in Lat. *volō* 'wish' (with traces of athematic inflection, e.g. *vult*), Lith. *vélmi* 'wish', OCS *veljǫ*, *velěti* 'bid, wish', Skt. *vr̥ṇītḗ*

'chooses, prefers', etc. The present of this verb in Gmc. is etymologically subjunctive (PIE optative), due to polite usage: 'would like' rather than 'want'. The Go. paradigm in particular makes it plain that the pres. inflections are of the pret. sj. (§12.27), even though the root vocalism is not that of a perfect.[1] Use of the pret. sj. inflections is explicable on the basis of the observation that the pret. sj. is associated with conditions and wishes of a particularly hypothetical nature (see, e.g., Heusler 1967: §419; Mitchell 1985: I, §§1679–81), and so it may express an especial degree of politeness; but since they are attached to a present stem, it is more probable that the sj. endings are preterite because analogical to those of pret.-pres. verbs. The Go. pret. is weak and formed like the preterite of irregular verbs of weak class I (§12.37), except that no other verb so constructed in Go. has a stem in *-l-*, as a result of which the dental suffix is always voiceless in such Go. verbs. Inf. *wiljan* shows that the verb has a *j*-present with PIE *e*- rather than *o*-grade of the root, like a strong verb (as should be expected on the basis of athematic inflection). Formation of the preterite of 'will' without a connecting vowel may be due to creation of the Gmc. preterite at an early date, though it could also be a late PGmc. development on the model of pret.-pres. verbs (so Krahe & Meid 1969: II, §101).

In OIcel. the pres. sj. forms correspond to the Go. pres. ind. ones, and a new pres. ind. paradigm has been constructed of the weak class 1 type, hence sg. 1 *vil*, 2 *vill*, 3 *vill*, entirely parallel to 1 *frem*, 2 *fremr*, 3 *fremr*, etc. (§12.35).[2] 2 & 3 sg. *vill* < **vilʀ* show assimilation under low stress (Heusler 1967: §333): cf. *telr* 'tell'. The OIcel. pret. likewise bears the same relation to Go. *wilda*, etc., that OIcel. preterites of weak class 1 bear to the corresponding Go. forms. The root vowel *-i-* in the Go. pret. is to be expected, whereas OIcel. should have pret. ind. **velda* rather than *vilda*, etc.; but OIcel. weak verbs of class 1 with *-i-* in the pres. have also *-i-* in the pret., e.g. *hirða* 'care for', pret. *hirda*. At all events, Sievers (1884: 563) may be right that the umlauted vowel has been extended from the sj.

The WGmc. verbs are somewhat less straightforwardly explained. The pres. ind. 1 sg. shows replacement of the original inflection by the normal thematic pres. **-ō*, except that WS, as usual, has *-e*, which is perhaps etymological (i.e., sj.) rather than a replacement for analogical *-o* (§12.24). Beside OHG *willu* there occurs in some early texts *wille*, with what appears to be a *present* sj. inflection (see Boutkan 1995b: 371–2 for discussion). Otherwise, the pres. ind. sg. corresponds well to the Go. sg. forms, though obviously OE OS 2 sg. *wilt* has acquired its inflection from the pret.-pres. verbs. Particularly striking are OS OHG *wili*, since the inflection is entirely anomalous on a 2 sg. form, and yet it is etymologically correct: cf. OHG *ni curi* (§12.27). In the plural, the OE OS stem *will-* is not etymological, but in WGmc. verbs with *j*-presents the 1 sg. and the 1–3 pl. agree in having a stem with gemination (e.g. OE 1 sg. *fremme*, pl. *fremmað*), and so the pl. here is refashioned on that ind. pattern. A common assumption is that in addition to the PIE *e*-grade stem reflected in the pres. ind., there must be assumed a weak grade PIE **u̯l̥-* > PGmc. **wul-* to account for WGmc. **wul-ð-* in OE *wolde*, OHG *wolta* (with lowering of **u* before a non-high vowel of the following syllable, §4.3), as well as an *o*-grade PIE **u̯ol-* to account for various WGmc. forms, including OHG *well-* < **wal-j-*. Thus, for example, Bammesberger (1986a: 119) reconstructs, in addition to the root aorist mentioned in n. 1, a perfect showing the alternation sg. **(we-)wolə-* ~ **(we)wl̥ə-* (his notation), providing a source for PGmc. **wal-* ~ **wul-*. Yet if it raises doubts to recognize that no other weak pret. in PGmc. added the dental suffix to a stem other than the pres. stem, it seems even more peculiar that a weak pret. should have been formed to this verb at all if there already existed perfect forms that could serve as a

pret., since the purpose of weak suffixation was to provide preterites to verbs that otherwise had none. And yet without the assumption of a perfect, the seeming ablaut alternations are difficult to explain. But perhaps it is unnecessary to assume either PGmc. **wal-* or **wul-*. Bammesberger supposes that the former is demanded by Anglian *walde*, but this is the result of a regular Anglian phonological development between a labial consonant and covered *l* or *r*, as in Anglian *warhte* 'created', *margen* 'morning' (Hogg 1992: §5.34). Sievers (1884: 563–4) argues that Early WS negated *nelle ic* 'I do not want' (beside more usual *nylle ic*) demands the reconstruction **niwaljai* (beside **niwiljai* > *nylle*), but there is no parallel to such a development, and 2 sg. *nelt* cannot be explained this way. Rather, since **y* > OE *e* in unstressed syllables, it is safer to assume that *nelle* is a normal variant of *nylle* under the low stress that such auxiliaries commonly received: cf. *y* > *e* in *gædeling* 'companion' < **gædyling-* < **ʒaðuling-*. Neither is it necessary to derive the OHG pres. pl. stem *well-* from **walj-* (so, e.g., Krahe & Meid 1969: II §101, Euler 2013: 177), since lowering of **will-* (as in OE OS) to *well-* in OHG may have originated in the sj. before *-ē-* of the inflection, parallel to the situation in weak classes 2 & 3, e.g. *lebēn* 'live' (cf. OE *libban*, Anglian *lifgan*, and OS pret. sj. *lebdin* beside *liƀdi*).[3] As for OE *wolde*, OHG *wolta*, these do not necessarily demand derivation from PGmc. **wul-ð-*, since they may be the result of rhyming attraction to OE *scolde*, OHG *skolta* (and cf. the transfer of *o* from the pret. of other pret.-pres. verbs, replacing **u* in OHG *onda*, *konda*, OS *gi-onsta*, *konsta*, *for-monsta*, §12.54 *ad fin.*). OS has usually pret. *welda*, with the stem to be expected from dental suffixation of the present stem **wel-*, since the pret. stem did not have the **-i/j-* of the pres. For thorough discussion of the development of this verb, see Flasdieck 1937b; see also Birkmann 1987: 116–18, 157–61, etc., Ringe & Taylor 2014: 73–5; and for a discussion of related issues that support the account suggested here, see Fertig 1999.

1. Bammesberger (1986a: 117–18) thus explains the present forms as derived from a PIE root aorist. Striking is the correspondence between Go. *wileis*, *wili*, etc., and Lat. *velīs*, *velit*.

2. The alternative 2 sg. *vilt*, with a pret.-pres. inflection, is actually a later form. Although this was a perfectly regular paradigm comparable to that of *fremja* at the time of the change, the modal use of *vilja* may be assumed to have continued to invite the influence of pret.-pres. inflection on the verb.

3. It is noteworthy that Northumbrian shows a pres. sj. stem *well-*, *wæll-*, beside ind. *will-*, which Sievers thinks demands **wal-j-*, though this seems just one of several possibilities, including a development like that seen in OHG. One possible source of a stem **well-* in WGmc. is confusion with the semantically similar verb PGmc. **waljana*^{n} 'choose' (> OHG *wellen*). Such mixture of the two verbs could explain why 'choose' is not preserved in Ingvaeonic.

12.60 The verb 'do'

The verb 'place, cause, do' is found as such only in WGmc.:

		OE	OFris.	OS	OLF	OHG
Pres. Ind.	**1 sg.**	dō	dwē	dōm, duom		tōm, tuam
	2 sg.	dēst	dēst	dōs, duos		tōs, tuos(t)
	3 sg.	dēð	dēt(h)	dōd, duod	duot	tōt, tuat
	1 pl.	dōð	dwāt(h), dwā	dōd, duod, duad		tōmes, tuamēs
	2 pl.	dōð	dwāt(h), dwā	dōd, duod, duad		tōt, tuat
	3 pl.	dōð	dwāt(h), dwā	dōd, duod, duad		tōnt, tuant

		OE	OFris.	OS	OLF	OHG
Pres. Sj.	**1 sg.**	dō	dwē, dwā	dōe, duo, dua, -e		tō, tue
	2 sg.	dō	dwē, dwā	duoas	duos	tōs, tuēs
	3 sg.	dō	dwē, dwā	dōe, duo, dua, -e	duo	tō, tue
	1 pl.	dōn	dwē, dwā	dōen, duon, -an	duon	tûên, tuoên
	2 pl.	dōn	dwē, dwā	dōen, duon, -an		tōt, tuēt
	3 pl.	dōn	dwē, dwā	dōen, duon, -an		tōn, tuēn
Imp.	**2 sg.**	dō		dō, duo	duo	tō, tua
	2 pl.	dōð	dwāt(h)	dōd, duod, duad	duot	tōt, tuat
Pret. Ind.	**1 sg.**	dyde	dēde	deda, -e		teta
	2 sg.	dydest	dēde	dādi, dĕdos		tāti
	3 sg.	dyde	dēde	deda, -e	deda	teta
	1 pl.	dydon	dēden	dādun, dĕdun		tātum, -un
	2 pl.	dydon	dēden	dādun, dĕdun		tātut
	3 pl.	dydon	dēden	dādun, dĕdun		tātun
Pret. Sj.	**1 sg.**	dyde	dēde	dādi, dĕdi		tāti
	2 sg.	dyde	dēde			tātīs(t)
	3 sg.	dyde	dēde	dādi, dĕdi		tāti
	1 pl.	dyden	dēden	dādin, dĕdin		tātīm
	2 pl.	dyden	dēden	dādin, dĕdin		tātīt
	3 pl.	dyden	dēden	dādin, dĕdin		tātīn
Inf.		dōn	dwā(n)	dōn, duon, duan	duon, duen	tōn, tuan
Pres. Part.		dōnde	dwān(d)e		duonda	tōnti, tuanti
Pass. Part.		gedōn	(e)dēn, dīen	gidōn, -duan, -dān	gedan	gitān

The OE forms given are WS. In Anglian there occur pret. pl. forms with the stem ⟨ded⟩ (on which see below), and in poetry a pp. *-dēn*, which can only show umlaut (see Hogg & Fulk 2011: §6.155), and thus it reflects the pp. suffix **-in-* (§12.30). In OS the forms with *ō* and *uo* are phonological variants (§4.15), whereas the other forms require explanation. There is the usual variation in inflections, e.g. final *-t* beside *-d*. The OHG forms are exceptionally various, with the phonological variants *ō* and *ua*, but also *uo*, *ue*, and *ui*, at least some of which must be regarded as disyllabic. See Braune 2004a: §380 for a conspectus of forms.

12.61 Historical development of ‘do’

Although IE cognates to this verb are not in short supply (cf., e.g., Gk. *τίθημι* ‘place’, Lith. *dėti*, OCS *děti*), outside of Germanic it is only in nominal forms that *ō*-vocalism occurs, e.g. Gk. *θωμός* ‘heap’, Lat. *ab-dōmen*. The normal PIE vocalism of verbal forms is **ē*, which in Gmc. is reflected only in pp. OS *gidān*, OHG *gitān* (and probably OE *gedōn*: see Hogg & Fulk 2011: §6.155), and probably in the OS and OHG pret. stems *dād-*, *tāt-*. Hill (2004: 281–6, *idem* 2010: 446–8) offers an ingenious explanation: *ō* originates in Pre-Gmc. aorist sj. forms (reanalyzed as pres. ind.) with back vowels in the inflection, subsequently undergoing contraction. Thus, for example, PIE 1 pl. **dhéh$_1$omes* > **dhéomes* > Pre-PGmc. **dhṓmes*, as opposed to 3 sg. **dhéh$_1$eti* > **dhéeti* > Pre-PGmc. **dhḗti*. The assumption that *ē* and *ō* alternated in the PGmc. pres. paradigm furnishes a possible solution to certain problems pertaining to how the Gmc.

weak preterite is to be explained (§12.33).[1] Ringe rejects Hill's account,[2] arguing instead that Gmc. 'do' does, after all, reflect a PIE stem *$dhóh_1$-: cf. Hittite 3 sg. *dāi* 'put' < *$dhóh_1$-i-* (so Jasanoff 1979: 88–9).

Among the peculiarities of the development of this verb in Gmc., perhaps the oddest is its metrical treatment in verse. In OE poetry the inf. and pres. forms are frequently treated in the meter as disyllabic, but never with a heavy initial syllable.[3] It must be concluded that in the conservative language of OE poetry, *dōn* is equivalent to *dŏan*.[4] A similar scansion is demanded for *gān* 'go' (§12.63), the anaphoric pronoun *hie* (§8.7), and the verb *sie* 'be' (§12.57). This metrical evidence is reinforced by the four-stress meter of Otfrid's *Evangelienbuch* (863–71; on the meter, see Somers 2009: 72–82), in which *duan* is usually equivalent to a single stressed position, but at other times to a trochee.[5] OS *dōn*, *duan*, *duon*, *doen*, *duoan* does not conform to the pattern of spellings of other words containing the reflex of PGmc *ō* (Gallée 1993: §86 Anm. 3). Forms like the last two may show analogical re-addition of the inf. ending,[6] but *duan* is anomalous, and the supposition that it is to be explained as due to Frisian influence (Holthausen 1921: §95) is unpersuasive. Rather, *duan* may result from the disyllabic form demanded in OE and OHG poetry (though there does not appear to be any evidence for disyllabicity in OS poetry). These observations are suggestive as regards the analysis of the OE pret. (see below), and they forbid the supposition that the OE pres. directly reflects an athematic paradigm 1 sg. **dōmi*, 2 **dōsi*, etc. (so, e.g., Ringe & Taylor 2014: 369), which, in any event, would raise the expectation of umlaut throughout the present.[7] Rather, it has been proposed (Fulk 1993) that at some point in time (in the Ingvaeonic period?) after the PGmc. thematization of most athematic verbs in PGmc., there was shortening of antevocalic long vowels. Certainly, when antevocalic long vowels arose later in OS, they were shortened (see §4.15). Thematization and antevocalic shortening thus explain both the metrical peculiarities of the present of 'do' and the restriction of umlaut in the pres. ind. to the 2 and 3 sg.: cf. thematized Pre-OE 1 sg. **do-u*, 2 **do-is*, 3 **do-iþ*, 3 pl. **do-a^nþ*. This appears to be the only explanation offered to date for the disyllabic scansion of 'do' in OE poetry with a light initial syllable. The problem no doubt bears further study.

The anomalous OE pret. *dyde*, so unlike the other WGmc. preterites, has provoked a variety of fairly desperate explanations.[8] If, however, the Pre-OE pres. had a shortened stem in **dŏ-* to which thematic inflections were added, it may be supposed that before the time of umlaut this stem was extended to the pret., since the pres. and pret. stems (before the addition of **-id-* to the pret.) were usually identical in weak verbs. The usual preterite suffix plus inflections of weak class 1 were added to this, producing, e.g., 3 sg. **do-id-ǣ*. If this happened at a sufficiently early date, **do-* should be expected to have been realized as **du-*, since as late as the time of umlaut there was no *o* before *i* or *j* in native words except by analogy (A. Campbell 1977: §196). Reconstructed **du-id-ǣ* might be expected to have produced a heavy stem, though poetic meter shows *dyde* to have a light initial syllable; but **-ui-* produces a light syllable also in the form *dryas* 'wizards' < Old Irish *drui-*, as shown by poetic meter.[9] In Anglian the pret. stem is usually *dyd-*, but in the plural there is a minority stem *dēd-*, as well, comparable to the plural forms employed elsewhere in WGmc.[10] These WGmc. pl. stems (OFris. *dēd-*, OS *dād-*, OHG *tāt-*) appear to reflect PGmc. **dēð-*, with the vowel ($\bar{e}_1$) of the pp. OS *gidān*, OHG *gitān* and the IE cognates, Lith. *dėti*, etc. In the 1 & 3 sg. pret. ind., however, OS and OHG have a short vowel, and OE poetry (almost all of Anglian origin) agrees with this pattern, inasmuch as the pret. sg. never scans with a heavy first syllable, whereas pl. *dydon* (substituted for Anglian *dēdon* by WS scribes) frequently

scans so (Sievers 1885b: 498–9). Given the close correspondence between the OS and OHG preterites and the pret. inflections of weak verbs in Gothic (§12.33), these forms must be old, and yet it is difficult to perceive in them any pattern inherited from PIE without much analogical disruption. The short vowel in the 1 & 3 sg. ind. is most commonly explained on the assumption that these forms represent reduplicated perfects, PIE 1 **dhe-dhoh$_1$-a*, 3 **dhe-dhoh$_1$-e*: so, e.g., Bammesberger 1991c. Flasdieck (1937a: 52) and Prokosch (1939: §75b) object that these should have produced a final trimoric vowel that would have been reflected as a long vowel in OHG.[11] The alternative is to assume an augmentless imperfect (= injunctive, thus with secondary endings) 1 sg. **dhe-dhē-m*, 3 **dhe-dhēt* (so Wilmanns 1893–1906: 3.61; Bammesberger 1986a: 112–13; Ringe 2006b: 179–96), which would correctly result in OHG *teta*, OS *deda*, though there is no secure evidence for any reflex of a PIE imperfect in Gmc.[12] The vocalism of the pret. stem OS *dād-*, OHG *tāt-* is even more difficult to account for convincingly. Prokosch (1939: §75b), Ringe (2017: 182–6), Euler (2013: 172), and Lühr (2016: 255) regard it as analogical to corresponding pret. stems in strong class V, e.g. OS 2 sg. *gāƀi*, pl. *gāƀun* (cf. 1, 3 sg. *gaf*) ‘gave’. Bammesberger (1986a: 113–14) instead derives the long vowel in this stem from a root aorist **dhē-m*, **dhē-s*, etc., existing beside the injunctive and the perfect paradigms already assumed, though it is not plain why the vowel of the root aorist should have been extended to the perfect, and why not to the 1 & 3 singular. Flasdieck (1937a: 50–3, with a brief conspectus of the relevant proposals) explains the long vowel in the OS and OHG pret. as due to rhythmic lengthening, comparable to that seen in Skt. 3 pl. perfect *vā-vr̥t-úḥ* ‘turn’ (: 3 sg. *va-várt-a*), avoiding a sequence of three light syllables. None of the analyses offered to date is unassailable.[13]

1. Cf. the explanation of Ringe (2017: 173), self-described as phonologically improbable, whereby *ō* originates in 1 sg. imperfect **dedę̄* (i.e. *dedē*^{m}), with lowering, backing, and rounding of the final vowel.

2. See Ringe & Taylor 2014: 112–13. Ringe finds the development **-eh$_2$o-* > **-ō-* and the analogical replacement of **-ē-* by **-ō-* within the paradigm unlikely. His other objection is more telling: if the pres. ind. reflects an aorist subjunctive, it is difficult to explain how it acquired the ending on 1 sg. **dōmi*. But note that Hill is dealing with changes in the Pre-PGmc. period, when a greater number of verbs in **-mi* would have been preserved.

3. Examples from *Beowulf*: *swā sceal man dōn* (1172b, scanned like *Wæs sēo hwīl micel* 146b), but never †*dōn mihte* (which would require a scansion like *lange þrāge* 1257b), rather only *gedōn wolde* (2090b, like *ond dracan fellum* 2088b); cf. also *swā hē nū gīt dēð* (1058b, like *ac wit on niht sculon* 683b). See Fulk 1993a.

4. Spellings like ⟨doan⟩ are in fact common in texts of non-WS origin, but it is impossible in any given instance to be certain that such spellings do not represent analogical re-addition of inflections to the contracted stem *dō-*. A few uncontracted spellings occur in Early WS, however, and these almost certainly are archaic rather than innovative: see Hogg & Fulk 2011: §6.154 for discussion; but cf. Flasdieck (1937a: 48), who attributes them to Anglian influence.

5. For example, the word is equivalent to a single stressed position in *óba ih dúan so sámalíh* (III, 16.48) but to two positions in *nub ér es dúan scólti énti* (V, 9.36) and *thaz drúhtin ínan dúan híaz* (II, 5.16).

6. By comparison, in Notker (ca. 1000) there are OHG forms that plainly show a long vowel or diphthong plus analogically re-added inflection, e.g. 2 sg. pres. sj. *tûêst*, *tuoêst*.

7. To explain athematic Anglian *dōm*, without umlaut, it might be assumed that, as with ‘be’, final **-i* was lost because of low stress on the verb: see Flasdieck 1937a: 46–8. In that event, however, there should be no umlaut in the pres. paradigm.

8. Prokosch (1939: §75b) supposes that *dyde* has *y* by analogy to pret.-pres. subjunctives like *dyge*, *scyle*, though that pres. subjunctives should have induced such a change in pret. forms (ind. & sj.) is dubitable. Bammesberger (1986a: 113) derives ind. *dyde* from a pret. sj. **du-d-ǐ̯*, with **du-* as an analogical replacement for **da-* < **də-*. Prokosch objects to similar derivations on the ground that forms comparable to OE *dyde*

might be expected outside of OE if *dyde* were not a late analogical creation. He would thus no doubt have rejected the argument of R.I. Kim (2009) that there was already in PGmc. substitution of *u* (from the 3 pl. inflection) for *e*, regarded as a reduplicative vowel, comparable to the substitution in Skt. perf. *bu-bhód-a* 'awaken'. There is no parallel to the development of unstressed *e* to *y* posited by Hill (2004: 280–1); the usual development is the reverse of this, as in PGmc. **ʒaðuling-* > **gædyling-* > *gædeling* 'companion'.

9. So *sægde hȳ dryas wǣron* (*Juliana* 301b), to be scanned like *þāra ðe cwice hwyrfaþ*.

10. On the evidence for the length of the vowel in Anglian *dēd-*, see Hogg & Fulk 2011: §6.155.

11. Alternatively, since the stem might be either **dō-* or **do-*, the paradigm could have arisen on an analogical basis using the stem **dedo-* after the loss of the endings **-a*, **-e*, hence with zero inflection in the 1 & 3 sg. There are too many uncertainties involved to establish any firm probabilities.

12. This is supposed to explain as well archaic OS 2 sg. pret. ind. *dedos* (beside *dādi*, both in poetry), though if it is to be derived from **dhe-dhēs* it must have its vowel by analogy, perhaps to the present, or to an assumed perfect (so Bammesberger).

13. The account of Hill (2010) concerning the rise of the weak preterite (see §12.33) deals with a number of issues pertaining to the development of 'do', and it has much to recommend it, though it does not specifically address the issue of how the alternation **ded-* ~ **dēd-* arose in the pret. ind. of 'do'. Hill's is surely the strongest case yet for crediting a Pre-PGmc. imperfect as a source. See also Lühr 2016: 250–60.

12.62 The athematic verb 'go'

All the older Gmc. languages attest to a PGmc. verb **ʒaŋgana*^{n} 'go' (Go. *gaggan*, OIcel. *ganga*, OE *gangan*, etc.), a strong verb of class VII (but with a weak pret. in Go.), its PIE root probably reflected also in reduplicated Gk. *κίχημι* 'reach' < **ĝhi-ĝheh*$_{1}$*-mi*. Primarily in WGmc. there are found, beside this, reflexes of a non-derived athematic paradigm to a PIE root that some regard as the same:[1]

		OE	OHG
Pres. Ind.	**1 sg.**	gā	gām, gān, gēm, gēn
	2 sg.	gǣst	gās(t), gēs(t)
	3 sg.	gǣð	gāt, gēt
	1 pl.	gāð	gāmēs, gān, gēmēs, gēn
	2 pl.	gāð	gāt, gēt
	3 pl.	gāð	gānt, gēnt
Pres. Sj.	**1 sg.**	gā	gē
	2 sg.	gā	gēs(t)
	3 sg.	gā	gē
	1 pl.	gān	gēn
	2 pl.	gān	gēt
	3 pl.	gān	gēn
Imp.	**2 sg.**	gā	
	2 pl.	gāð	gāt, gēt
Inf.		gān	gān, gēn
Pres. Part.		gānde	gānti, gēnti
Pass. Part.		gegān	

OFris. has the forms 3 sg. pres. ind. *gēt(h)*, *g(h)eet*, pl. *gāt*, *gaet*, pp. *(e)gēn*. In OS the only forms attested are 3 sg. pres. ind. *be-gēd*, inf. *(-)gān*, and inflected inf. *te gānde*; otherwise all forms are to *gangan*. Similarly, in OLF there is only inf. *gān*, beside forms of *gangan*. Although this stem is not attested in Wulfilan Gothic, Crimean Gothic attests to *geen*; and Old East Norse *gā* produces Swedish and Danish *gå*. As with OE *dōn*,

Anglian forms frequently show analogical re-addition of the endings to the stem, e.g. 1 sg. ind. *gaa*, 2 sg. *gaæs* (listed by Flasdieck 1937a: 59). There is no inherited preterite to this stem: the strong pret. to *gangan* is used (e.g. OHG *giang*), except in OE, where there is a suppletive weak pret. *ēode*, which is usually thought to be cognate with Go. *iddja*, the usual weak pret. (beside *gaggida* 1×) to *gaggan*. Go. *iddja* is unusual in that it is the only verb to which the weak preterite inflections are added directly to the stem, without a stem-final dental consonant, hence 3 sg. *iddja*, 3 pl. *iddjēdum*, etc.

1. If the two are related, they are only distantly so: to PGmc. **ʒēna*^{n} < PIE **ĝheh$_{1}$-* cf. PGmc. **ʒaŋgana*^{n} < PIE **ĝhongh-*; cf. Lith. *žengiù*, *žeñgti* ‘stride’. The similarity nonetheless led to mixed paradigms in Gmc.

12.63 Historical development of ‘go’

Forms like OE inf. *gān* appear to present a problem, inasmuch as WGmc. **ʒǣn* (< PGmc. **ʒēn*) should have produced OE and OFris. **gōn* (§4.12). Accordingly, there is usually reconstructed a stem **ʒai-* beside WGmc. **ʒǣ-* to account for OE *gān*, OFris. **gān*; so, e.g. Mottausch 1997, 1998a, with references; Ringe 2017: 295. Yet there is no very plausible parallel to this **ʒai-* outside of Anglo-Frisian.[1] The non-pret. inflection of ‘go’ obviously closely parallels that of ‘do’, and just as with ‘do’, in OE poetry the stem is disyllabic, with, apparently, a light initial syllable (Fulk 1992: §§107–11).[2] Accordingly, the prehistoric OE pres. ind. may be reconstructed as thematized sg. 1 **ʒa-ǣ*, 2 **ʒa-is*, 3 **ʒa-iþ*, pl. **ʒa-āþ*. After Anglo-Frisian fronting of **a*, umlaut, and contraction, 3 sg. **ʒa-iþ* (for example) might be expected to have developed to **gēð* rather than the attested *gǣð*; but it may be assumed that just as in class VI, fronted **æ* was replaced by **a* for the sake of paradigm regularity before umlaut applied,[3] the result then being **ʒa-iþ* > **ʒæ-iþ* > *gǣð*. The assumption of a short root vowel also affords the opportunity to account for the coöccurrence of the stems *gā-* and *gē-* in OHG: *gā-* arose in forms like inf. **ʒa-an*, and *gē-* in forms like 3 sg. **ʒa-it*, umlauted to **ʒe-it* and then contracted to *gēt*, with levelling of the two variants throughout the ind. to create parallel paradigms (Hogg & Fulk 2011: §6.157 & n. 2).[4]

OE pret. *ēode* appears to be cognate with Go. *iddja*, as remarked above, both of them weak preterites, and in the relevant literature the two are most commonly associated with the PIE root **h$_{1}$ei̯-* seen in Skt. *éti*, Gk. *εἶσι* (Doric *εἴτι*), Lat. *eō* < **ei̯-ō*. The etymology is complicated by the observation of Sievers (1900: 52) that the verb is never **īode* or **īade* in Northumbrian but *ēode* or *ēade*, with about equal frequency in the gloss on the Lindisfarne Gospels,[5] suggesting either a stem *ē-* plus preterite inflections of weak class 2 or (more likely) **ēo-* plus preterite inflections of weak class 3.[6] A plausible explanation was devised by Cowgill (1960), arguing that although no perfect was formed to the root **h$_{1}$ei̯-* in PIE, perfects were created in the post-PIE period (Skt. *iy-á́y-a*, Lat. *iī*), and in Pre-PGmc. there arose a perfect with the expected alternation between sg. **e-oi̯-* and pl. **e-ii̯-*. A form like 3 pl. **e-ii̯-n̥t* then yielded PGmc. **ijjun*, which would have developed to Go. **iddjun*, but instead weak inflections were substituted for the perfect ones. What makes this explanation particularly attractive is that it plausibly explains why *iddja* is the only Go. verb to bear weak inflections without a stem-final dental consonant: the implication is that the stem was already perceived to be preterite, without the addition of the dental suffix, and that is explicable only if the verb represents a remodeling of an earlier preterite of a different sort. As for OE *ēode*, this may be derived from the Pre-PGmc. sg. stem **e-oi̯-* on the assumption that PGmc. **-j-* (from

*-i̯-) once again would have been lost between the unstressed vowels, resulting in a stem *e-o- > OE ēo-, to which preterite endings like those of weak class 3 were added.[7] Why the present forms of this verb should have died out and been replaced by forms of *ʒēna^{n} and *ʒaŋgana^{n} is explained by Mottausch (1994) as the result of a tendency to replace excessively short words, those with much grammatical information compacted in unanalyzable forms, with longer ones, as happened to Lat. *eō* when some forms were replaced by those of *vādō* in late Latin, and in French, with the substitution of forms derived from Lat. *ambulāre* (*allons*, *allez*).[8] Alternative analyses rely on the reconstruction of unlikely forms in PIE and/or unlikely phonological developments, e.g. the equation of Go. *iddja* and the Skt. augmented aorist *áyām* to the root *yā-* (as first argued by Möller 1879: 432 n. 1 and Kluge 1879: 124–7) and the reconstruction of an augmented, zero-grade aorist *h_{1}e-u̯dh-n̥t to the root seen in Lat. *vādō* 'go', with the result that Go. *iddja* and OE *ēode* must not be regarded as close cognates (Holthausen 1903: 342): for critiques of these and other views, see Flasdieck 1937a, Cowgill 1960, and Mottausch 1994, the last with some proposed refinements to Cowgill's analysis. A subsequent study is Schumacher 1998, proposing that to the PGmc. stem *ej-* 'go' was formed a pret. *ēj-* by analogy to *ēt-* 'ate', and to this stem OE added endings of weak class 2 (but cf. n. 5 *infra*). See also Eichner 2005.

1. This posited *ʒai- is assumed to have originated in the athematic pres. sj. (opt.), PIE *ǵhl̥$_{1}$-i̯éh_{1}- and spread to the ind. and inf.: so, e.g., Euler 2013: 174.

2. Kortlandt (1990: 8–9) earlier proposed that the OE monosyllables can best be explained as derived from disyllables, though he did not assume a light initial syllable.

3. Hence, e.g., 3 sg. *færð* 'goes' beside etymological and less usual *ferð*: so A. Campbell (1977: §§160, 194). The cause of this variation is actually disputed (see Hogg 1992: §5.80.2, with references), but the variation itself is undeniable and thus may be expected in forms of *gān* under this explanation.

4. Note that thematization of the originally athematic verb is required by this explanation, as OE *gǣð*, for example, cannot be derived directly from PIE *(ǵhe-)ǵheh$_{1}$-ti, which would produce OE *gēð*. The failure of any 1 sg. form in *-m* to be preserved in Anglian (in contrast to *dōm* 'do') is perhaps attributable to the observation that PGmc. *ʒē-mi would have produced Anglian 1 sg. *gǣm or (with early loss of *-i* under low stress) *gōm*, a notable paradigm irregularity.

5. Kolbe (1912: 104) gives the proportion as *ēa* 117× : *ēo* 116×.

6. The reason that *ē-* + *-ode* is less likely than *ēo-* + *de* is that *-ade* shows the usual vowel of the suffix in Northumbrian, next to which *-ode* is rare. By contrast, in the Northumbrian dialect of the gloss on the Lindisfarne Gospels, where *ēode* and *ēade* are about equally frequent, *ēo* very commonly develops to *ēa* except before *w* or before *o* or *u* in the next syllable, whereas in the dialect of the Northumbrian portion of the gloss on the Rushworth Gospels, where the proportion of *ēod-* to *ēad-* is 98 : 9 (Lindelöf 1901: 150), the development of *ēo* to *ēa* is relatively infrequent.

7. Cowgill is at great pains to argue that Pre-Gmc. *e-o- would not have contracted to *ē or *ō, and although many of his points are incompatible with the analysis of NWGmc. preterites of class VII offered above (§12.20), that analysis renders it plausible enough that *-e-o- would not have contracted at an early date, and that the uncontracted PGmc. *e-a- implicit in his account would have resulted in OE *ēo*. The discussion in the preceding note, however, shows that contraction must have taken place by the time of OE itself, as the analysis of class VII would lead one to expect.

8. See also the remark above (§8.7 n. 1) on *Einlautigkeit*.

12.64 The athematic verb 'stand'

PGmc. *standana^{n} 'stand', a nasal-infixed present (cf. Lat. *stāre*), has reflexes in all the older Gmc. languages, but in a few of them there is reflected an athematic stem entirely comparable in its inflection to OHG *gān*, *gēn* and its cognates (§12.62). The verb is best

attested in OHG (inf. *stān*, *stēn*, 1 sg. ind. *stām*, *stēm*, etc.), though forms are also infrequently attested in OFris. (3 sg. pres. ind. *stēt*, pl. *stāt*, pp. *stēn*), OS (inf. *stān*, 2 sg. pres. ind. *stēs*, 3 sg. *stēd*, *stād*, *steid*, pl. *stād*), OLF (inf. *stān*, 2 sg. imp. *up-stā*) and Old East Norse (cf. Danish, Swedish *stå*), with other forms supplied by **standana*^{n}. The historical development of this verb may be assumed to parallel exactly that of PGmc. **ʒē(-a)na*^{n} (§12.63). For references to relevant literature, see Braune 2004a: §382 Anm. 1.

References

For the purpose of alphabetization, diacritics on the Roman alphabet are ignored. Inessential subtitles of books have been omitted. Journal titles have been abbreviated as follows:

AbäG *Amsterdamer Beiträge zur älteren Germanistik*
AfdA *Anzeiger für deutsches Altertum*
AJGLL *American Journal of Germanic Linguis\tics and Literatures*
APS *Acta Philologica Scandinavica*
Arkiv *Arkiv för nordisk filologi*
BB *Beiträge zur Kunde der indergermanischen Sprachen* (Bezzenbergers Beiträge)
BSL *Bulletin de la Société de Linguistique de Paris*
ELL *English Language and Linguistics*
FL *Folia Linguistica*
FLH *Folia Linguistica Historica*
GL *General Linguistics*
HS *Historische Sprachforschung / Historical Linguistics*
IF *Indogermanische Forschungen*
IJGLSA *Interdisciplinary Journal for Germanic Linguistics and Semiotic Analysis*
IncLing *Incontri linguistici*
JEGP *Journal of English and Germanic Philology*
JGL *Journal of Germanic Linguistics*. (Continues *AJGLL*.)
JIES *Journal of Indo-European Studies*
JL *Journal of Linguistics*
KZ *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der indogermanischen Sprachen* (1877–1967: 'Kuhns Zeitschrift'). Earlier titles include *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete des Deutschen, Griechischen und Lateinischen* (1852–74), *Beiträge zur vergleichenden Sprachforschung auf dem Gebiete der arischen, celtischen und slawischen Sprachen* (1858–76), and *Zeitschrift für vergleichende Sprachforschung* (1968–87). The journal is continued by *HS*.
LB *Leuvense Bijdragen*
MGS *Michigan Germanic Studies*
MSS *Münchener Studien zur Sprachwissenschaft*
NOWELE *North-Western European Language Evolution*
NTS *Norsk Tidsskrift for Sprogvidenskap*
PBB *Beiträge zur Geschichte der deutschen Sprache und Literatur* ('Pauls und Braunes Beiträge'). From 1955 to 1979 two journals with the same title were published in Halle (*PBB(H)*) and Tübingen (*PBB(T)*), the latter continuing to the present.
RASK *RASK: International Journal of Language and Communication*
SAP *Studia Anglica Posnaniensia*
SL *Studies in Linguistics*
SN *Studia Neophilologica*
TPS *Transactions of the Philological Society*. The earlier volumes are numbered by year rather than volume.
ZDP *Zeitschrift für deutsche Philologie*
ZfdA *Zeitschrift für deutsches Altertum und deutsche Literatur*

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